

THIRD MEETING ON THE CONDUCT OF MONETARY POLICY

HEARINGS
BEFORE THE
COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE
NINETY-FIFTH CONGRESS
SECOND SESSION
ON
OVERSIGHT ON THE CONDUCT OF MONETARY POLICY
PURSUANT TO PUBLIC LAW 95-188

NOVEMBER 15 AND 16, 1978

Printed for the use of the Committee on Banking,
Housing, and Urban Affairs



U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1978

36-066 O

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THIRD MEETING ON THE CONDUCT OF MONETARY POLICY

WEDNESDAY, NOVEMBER 15, 1978

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, D.C.

The committee met at 10 a.m. in room 5302, Dirksen Senate Office Building, Senator William Proxmire, chairman of the committee, presiding.

Present: Senators Proxmire, Garn, Lugar, and Schmitt.

OPENING STATEMENT OF CHAIRMAN PROXMIRE

The CHAIRMAN. The committee will come to order.

Today we begin 2 days of hearings on the conduct of monetary policy. These hearings come at a very difficult time for our economy. Many economists are now forecasting that we will have a recession in 1979. At the same time, inflation is our No. 1 economic problem.

Tomorrow we have the Chairman of the Federal Reserve Board testifying. We wanted to get outstanding independent experts—you gentlemen represent that—to give us your views so that we would have a framework for questioning the Chairman of the Federal Reserve Board on what his policies are.

Monetary policy has become increasingly tighter as the year has progressed, with interest rates now at levels 40 percent or more above what they were at the beginning of the year.

On November 1 the Federal Reserve increased the discount rate from 8½ to 9½ percent, a dramatic and unprecedented rise. Mortgage rates have risen to levels that press legal ceilings in an increasing number of States. The prime rate has been raised to 11 percent at some large banks. High interest rates and slower economic growth in 1979 may lead to difficult times for the housing market and increased unemployment.

Now in recent days the actions of the Federal Reserve Board have seemed more mixed. This morning's papers, for instance, report that the Federal Reserve Board pumped some reserves into the banking system yesterday, heightening speculation that the monetary authorities are not pushing interest rates quite as high as many thought earlier this month. The action kept the Federal funds rate below 10 percent and certainly if we have learned anything in the years we have been observing this we have learned that a 1-day action doesn't indicate a long-range policy. Nevertheless, yesterday's actions may be significant and they do indicate that Fed policies are not as single-minded or decisive or clear-cut in attacking inflation as some had expected.

We certainly want to get into what our monetary policies are and what they ought to be this morning. But also we ought to consider how we can best evaluate those policies. M_1 has a different status now than it had a short time ago. Also, in a breakthrough in congressional oversight of monetary policies we persuaded the Fed a couple of years ago to report to us quarterly on their monetary performance. That's the reason we're here this morning. We anchored much of that report to the Fed's goals for M_1 —the narrowly defined money supply.

Because M_1 consists of currency and demand deposits and because demand deposits are likely to decline perhaps very sharply owing to the new permission to commercial banks to transfer funds automatically from savings accounts to checking accounts M_1 has a different context now and it's hard to evaluate what a decline in M_1 may mean if we get that decline as we did a couple weeks ago.

In addition, we have another serious problem, this relating to the potency of monetary policy. In the past we have been aware that monetary policy worked principally through a prompt and decisive reaction by the bellwether housing industry to a credit crunch. In 1967, for instance, a Fed study showed that 70 percent of the economic restraint following the credit crunch was suffered by the housing industry. Without the housing reaction the restraint would have been very limited indeed.

But now we have protected savings institutions from an abrupt loss of deposit inflows that are needed for mortgage credit and the result is that the industry may be able to continue at a relatively high rate of housing production in spite of credit restraint and a high level of interest rates and the restraint necessary to slow the rest of the economy may be much more severe and interest rates far higher.

We would be very interested in any comments you may have on this new situation, what it means for our monetary authorities, and what it means for congressional economic and housing policy generally.

We are fortunate to have with us today a group of distinguished economists with widely varied backgrounds: Prof. Phillip Cagan of Columbia University and the National Bureau of Economic Research; Mr. Leif Olsen, chairman, economic policy committee of Citibank; Dr. George Perry of the Brookings Institution; and Mr. Albert Sommers, senior vice president and chief economist of the Conference Board.

You gentlemen are eminent economists. We are honored by your presence. As I'm sure you appreciate, this is an interim recess period for the Senate. Elections were just held a week ago and most Senators are out of town. Senator Schmitt I understand is going to be here a little later this morning, but we are delighted to have you and the record that you make is going to be extremely important in our questioning of Mr. Miller and in our understanding of monetary policy and, of course, in the influence that we can have on the Fed's monetary policy.

So with that, Professor Cagan, why don't you begin and then we will go right down the line in order before we begin the questioning. I would appreciate it if you could confine your remarks to about 10 minutes if that's possible and your full statement will be printed in the record.

**STATEMENT OF PHILLIP CAGAN, PROFESSOR OF ECONOMICS,
COLUMBIA UNIVERSITY**

Mr. CAGAN. I welcome the opportunity this morning to discuss with this committee the effect of new financial developments on the conduct of monetary policy.

[Complete statement follows:]

THE EROSION OF MONETARY CONTROLS AND THE CONDUCT OF MONETARY POLICY

INTRODUCTION

Monetary policy is used to stabilize aggregate output and the price level. It is the most flexible policy instrument we have for this purpose, and stabilization is its main function. There is general agreement that we are highly dependent upon its effective use for the achievement of our major macroeconomic goals. Monetary policy involves the control of the money supply and is primarily the responsibility of the Federal Reserve. There have always been difficulties and problems in pursuing an effective monetary policy, both in terms of determining policy targets and of implementing them. In the past several years the means of implementation have been affected by financial developments which are providing a growing quantity of transactions balances not subject to direct control by the Federal Reserve, and it has become essential that we prevent this erosion of monetary policy. The monetary controls of the Federal Reserve have not been substantially changed since its founding in 1913. It is not surprising that after 65 years certain changes are needed.

My remarks will first discuss the monetary controls we have and the justification for them, and second the changes that I see as necessary to prevent their erosion and to improve their operation. At a time when the nation is struggling to control and subdue a persistent inflation, it is imperative that we maintain our major means of controlling aggregate spending in top working condition. My recommendations, summarized in the concluding section, are in line with Senate bill 3485 introduced earlier this year by Senator Proxmire. I propose that we go further, however, in reforming reserve requirements. Current proposals to stem the loss of membership in the Federal Reserve System are much too limited to deal adequately with the erosion of monetary controls that is presently underway.

THE JUSTIFICATION FOR MONETARY CONTROLS

As participants in the national economy, all of us benefit when aggregate spending and the flow of payments follow a steady path consistent with the potential full-employment growth of aggregate output. Major variations in aggregate spending are disruptive to a full and efficient use of our resources and to the restoration and preservation of price stability. The main objective of monetary policy, in cooperation with government fiscal policies, is to achieve the level of aggregate spending consistent with national goals and to keep the economy moving steadily along the desired growth path. This requires the capability of controlling the supply of the means of payment, traditionally designated the money supply but also referred to here as currency plus transactions balances and close substitutes.

As individuals we all want to have the maximum flexibility to determine the goods and services we purchase and to vary our total expenditures over time. For this purpose we want, as the occasion arises, to borrow and lend and to allow our holdings of money balances to absorb changes in our rate of payments which do not match our incoming receipts. This desired flexibility on an individual level can be in conflict with stability of the national economy. While aggregate stability can be maintained so long as considerable variations over time in spending by individual units offset one another, business cycles and increased inflationary pressures can be an indication that the preponderance of changes in individual spending decisions are bunching together and not offsetting. We accept the need for monetary actions to counteract major deviations in aggregate spending from a stable growth path, despite the resulting pressures on us to alter our individual spending and borrowing decisions.

When institutional developments in the financial system undermine our monetary controls, it is well accepted that the controls can and should be changed to maintain their effectiveness. In the monetary area the pursuit of the public interest has always been recognized as justifying some limitation, insofar as it is judged beneficial, on the private interests of individual financial institutions. We have now reached a time when such changes are needed.

THE TOOLS OF MONETARY STABILIZATION POLICIES

In our free economy we do not control individual spending decisions directly. To do so would require controls on individuals of a kind that are undesirable and probably unworkable. Monetary controls are an accepted indirect means of influencing aggregate spending. Through variations in the rate of growth of the money supply, monetary policy is able to influence the volume of borrowing in financial markets and the decisions of individual businesses and households on how much to spend or save.

A desired increase in aggregate expenditures in the private economy is financed by increased borrowing and a willingness to reduce holdings of money balances in relation to the volume of transactions. The increased demand for credit tends to raise the cost of borrowing (interest rates) if monetary growth does not increase, and raises interest rates even more if the Federal Reserve reduces monetary growth. Although higher interest rates discourage some originally planned increases in borrowing, they also draw forth an increased volume of lending. Insofar as the increased lending is supplied through greater household saving and reduced consumption, there is a shift in the composition of spending in the economy but no increase in the total. Insofar as the increased lending occurs through funds supplied by money creation or a willingness of lenders to reduce their money balances, however, aggregate spending increases. Thus increases in aggregate spending can be traced ultimately to corresponding increases in monetary growth and to a willingness to reduce holdings of money balances. The willingness to reduce holdings of money balances does not mean that the total quantity of money outstanding is reduced; rather, the existing quantity is redistributed from the initial holders who reduce their balances to those who want to spend more and from them to the recipients of the increased spending who, because their sales and incomes are thus higher, also spend more. The process is sometimes referred to as an increase in the "velocity of circulation of money", whereby a given quantity of money is used to transact a higher volume of expenditures. The same is true, in reverse, for decreases in aggregate spending.

Well-timed changes in monetary growth produced by monetary policy can in principle offset changes in aggregate spending which reflect the public's willingness to increase or reduce its holdings of money balances. In practice, however, such offsets are virtually impossible to time well, because of lags in the effect of monetary policy actions and of the difficulty of forecasting accurately and setting the correct policy in motion ahead of time. This has long been recognized; despite appreciable improvements in forecasting capabilities, the Federal Reserve is a long way from being able to act effectively to prevent fluctuations in aggregate spending. Further improvements in monetary policy are possible. In addition, it is important to help monetary policy with institutional reforms which work to contain the short-run, difficult-to-offset effects on aggregate spending of the public's willingness to vary its holdings of money balances.

There is, of course, no way to prevent people from increasing or reducing their money holdings, with consequent changes in aggregate spending. But most of the large fluctuations in aggregate spending are associated with changes in the aggregate volume of borrowing and corresponding changes in interest rates. Changes in interest rates induce changes in the volume of bank lending (in part through changes in the quantity of money) and changes in lending by households and businesses largely via banks and other financial intermediaries as a result of changes in the public's willingness to vary its holdings of money balances. The magnitude of this response depends upon how readily the financial system can supply assets which the public can substitute conveniently for part of its money balances. The more inconvenient or difficult the substitution, the less readily will attempted changes in aggregate borrowing and spending be financed.

An unmet increase in the demand to borrow funds raises interest rates and elicits an increase in the supply of funds. But the increase in interest rates indicates that the supply is not forthcoming to the extent demanded and the higher rates price the least insistent borrowers out of the market. In this way a bunching

of desired increases in borrowing at the same time is counteracted, and the desired spending increase is spread out over a longer period, thus smoothing the fluctuations in aggregate spending and utilization of resources.

The role of changes in interest rates in monetary policy is sometimes mistakenly deplored. Barring changes in the demand for credit and aggregate spending which the economy cannot satisfy at current levels of prices and incomes, policy can pursue a path of steady monetary growth, and interest rates will remain fairly steady. But when aggregate borrowing and spending fluctuate widely and exert pressures on interest rates, the rate should be allowed to rise (to hold down an excess) or to fall (to reduce a deficiency) in the demand for credit. For monetary policy to attempt to hold interest rates constant in the face of fluctuations in aggregate demand requires changes in the supply of money which would reinforce the fluctuations in spending. The changes in interest rates transmit a signal through financial markets that the demand for credit is out of line with the initial supply. Adjustments are needed to equalize demand and supply consistent with as little fluctuation in aggregate spending as is possible. Of course, interest rates might tend to change for other reasons which are inconsistent with economic stability; it is the task of monetary policy to assess the underlying situation and act accordingly to keep aggregate spending on a stable growth path.

Changes in interest rates are therefore often a reflection, and seldom the cause, of instability in the economy. However disruptive changes in interest rates may be to financial markets and certain sectors of the economy, attempts to stabilize the rates will only intensify instability in the rest of the economy. Nevertheless, if monetary policy is effective in promoting stable economic growth, it can remove the underlying causes for many of the large fluctuations in interest rates.

It is unfortunately the case that, even with large changes in interest rates, monetary policy is unable to offset completely the short-run destabilizing changes in bank credit and in the public's willingness to hold money balance. New developments in the financial system will make the task of monetary policy considerably more difficult.

FINANCIAL DEVELOPMENTS AND THE EFFECTIVENESS OF MONETARY CONTROLS

What are these developments and why do they make monetary policy more difficult? A variety of balances which can be used to conduct transactions or otherwise serve as very good substitutes for demand deposits have been developed and are growing in quantity and importance. These comprise savings deposits at banks and thrift institutions which holders can transfer directly to third parties, and accounts at these institutions as well as money market mutual funds which can be transferred into checking accounts by telephone, automatic overdrafts, and repurchase agreements. Savings deposits of commercial banks can be automatically transferred into checking accounts as needed beginning November 1st, according to a new ruling of the Federal Reserve. The coming use of an electronic transfer system will enhance these developments though not fundamentally change them.

The advantage to the public of these substitute arrangements is that they pay interest and can be held in lieu of demand deposits for handling transactions, because they can be transferred to third parties by check or can be indirectly transferred by first briefly passing through a demand deposit on which checks are written. The advantage to issuers is their attractiveness to the public and the lower or zero reserve requirements. So far repurchase agreements appear to be the most important in quantity of these new developments, but all have the potentiality of considerable growth. We are at the threshold of a radical transformation of the payments system.

It is important to emphasize that it is not so much the permanent substitution of these financial innovations for demand deposits that creates a problem for monetary policy. Indeed, so long as the total quantity of these balances maintains a reasonably predictable relationship to the volume of spending that can be undertaken with them, monetary policy can proceed to stabilize aggregate spending as usual by producing variations in the demand deposit component of the total. The Federal Reserve could control the total of such balances by operating to control demand deposits as it does now. This assumes, however, that changes in demand deposits will not be completely offset by shifts by the public between them and other transactions balances. While the Federal Reserve could in principle change demand deposits by sufficient magnitude to produce the targeted change in the

total of transactions balances and allow for any substitutions that occurred as a result of the operation, the magnitude of offsetting operations would, given increases in substitutability, have to be commensurately larger. This can create problems, and is discussed further below.

The more serious problem for policy is that the supply of these new transactions balances and substitutes is highly elastic to the demand for them and can expand and contract readily to reinforce fluctuations in aggregate spending. Shifts between demand deposits and other transactions balances will increase the magnitude of short-run cyclical changes in aggregate spending. In addition, such shifts will be very difficult for monetary policy to monitor and offset, because the extent to which these new transactions balances are used for transactions and thus influence aggregate expenditures differs from that of the demand deposits they substitute for and will vary over time as competitive pressures evolve. We must remember that these balances are now held for a variety of purposes. (My proposal below is designed to reduce the behavioral differences between demand deposits and other transactions balances.) Even if we had current measures of the total quantity of such balances (which at present we do not), the information would not tell us what the influence on aggregate expenditures is or will be and therefore what is the effective size of countermeasures that policy should undertake to offset them.

Consider what happens, for example, when the demand for credit begins to rise to finance a bunching of desired increases in spending in the economy. Interest rates will begin to rise also. Households and businesses induced to lend more at the higher rates and those wanting to spend more will find it convenient to do so by exchanging their demand deposits for interest-bearing transactions balances or by spending their demand deposits and relying on other transactions balances they already hold to handle their transactions needs. The financial institutions which supply the transactions balances in exchange for demand deposits will be able to lend the demand deposits to others. In this way the existing quantity of demand deposits can finance an increased volume of lending and spending. The quantity of the new transactions balances and substitutes can expand to satisfy the public's desire to hold more, because they require little or no backing in the form of currency or reserve balances controlled by the Federal Reserve. Even though the Federal Reserve can control the quantity of demand deposits through the quantity of reserves, it has no comparable control over the quantity of the new transactions balances and substitutes.

One should not make the mistake of supposing that the issuers of these new transactions balances can expand the quantity entirely at their own initiative, any more than an individual commercial bank can expand its demand deposits. An institution which lends transactions balances to borrowers finds that the loan is quickly spent by the borrowers, and the withdrawal of the balances must be covered with federal funds through the clearing mechanism. Since without excess reserves the withdrawal cannot be covered, the institution is dependent upon access to federal funds or a deposit of funds to supply a transactions balance. Institutions can and do take the initiative, of course, in attracting such deposits. The deposited funds are then lent, because little or no reserve is held behind the new account. The public thus sets in motion variations in the supply of transactions balances and substitutes through shifts between them and demand deposits which intensify the instability of aggregate spending.

Two decades ago in the 1950's economists became concerned over the possible erosion of monetary controls resulting from growth in financial intermediaries which issued highly liquid, low-risk substitutes for bank deposits. The major substitutes then were savings shares of savings and loan associations and commercial paper issued by corporations. In a study of those developments published in 1975, Anna J. Schwartz and I concluded that, while such substitutes had led to a secular decline in holdings of demand deposits relative to aggregate expenditures, the short-run variations in holdings had not increased and had not impaired the conduct of monetary policy. ("Has the Growth of Money Substitutes Hindered Monetary Policy?", *Journal of Money, Credit, and Banking*, May 1975.) Those developments did not involve the growth of assets that could be directly transferred to third parties. Recent developments do, and for that reason I believe that they are, unlike previous developments, a serious impairment of monetary policy. There is already evidence that desired holdings of demand deposits have been appreciably reduced by the availability of these new transactions balances. Because of their capability of effecting third-party payments, they are a supply of money that, if uncontrolled, can seriously impair the short-run conduct of monetary policy.

NEEDED CONTROL OF NEW TRANSACTIONS BALANCES AND SUBSTITUTES

The reason why the public is induced to shift from demand deposits to substitute financial assets when interest rates rise is that interest is prohibited on demand deposits and the differential return varies. If banks could pay interest on demand deposits and varied the payment in line with changes in interest paid on competitive financial instruments, inducements for the public to shift between demand deposits and other assets owing to changes in interest rates would disappear. For this reason repeal of the prohibition of interest on demand deposits is widely recommended. Part of the financial developments which are eroding monetary effectiveness can be traced to the gradual response of the financial system to the competitive pressures to circumvent this prohibition. Those developments have accelerated as interest rates have risen to higher and higher average levels.

Although it is desirable to rescind this prohibition and thus to remove the financial innovations to circumvent it, it is important to recognize that it would mitigate but not solve the problem of the declining effectiveness of monetary policy in the short and long run. In the short run, it is unlikely that banks would vary the interest paid on demand deposits as rapidly as interest rates varied on many competitive assets, particularly money market mutual funds and repurchase agreements. Consequently, incentives to shift between demand deposits and substitutes would continue to fluctuate over time. Even over the long run, interest on demand deposits could never match interest paid on other transactions balances that have lower or no reserve requirements. Given this difference in noninterest-earning reserves, demand deposits are more expensive to provide than other transactions balances. Banks could vary the interest on demand deposits by only a fraction of any changes in interest rates on financial assets. For this reason, payment of interest by the Federal Reserve on bank reserves might be desirable for equity, but the problem is not solved unless the interest paid equals the market rate. (The proposals made here do not require interest on reserves.) Moreover, given their competitive disadvantage, demand deposits would continue to decline relative to the total quantity of transactions balances. As the fraction of demand deposits in the total became small, stabilization of the growth of the total would require monetary policy to produce large percentage changes in demand deposits to offset small percentage changes in the other components. The ability of commercial banks to respond quickly to Federal Reserve policy actions to expand or contract total demand deposits by a large percentage would be limited. It is not clear what the consequences of operating monetary policy under such conditions would be, but it is certain to be less advantageous and probably quite difficult.

The obvious and necessary solution to this problem is to subject all transactions balances and substitutes to the same requirement of reserve balances at the Federal Reserve. The result would be to tie the outstanding quantity of those assets which most closely influence the aggregate volume of spending to the quantity of reserve balances over which the Federal Reserve has immediate control. This would apply to the large and growing quantity of nonmember bank demand deposits which do not require reserves in the form of balances at Federal Reserve Banks. Nonmember reserve requirements are generally lower than those for member banks and are held in other forms over which the Federal Reserve has much less control. With universal reserve requirements, shifts between one kind of transactions balance and another would not affect the total outstanding. This would tighten the relationship between aggregate expenditures and the outstanding quantity of total transactions balances. Monetary policy will always be a far from perfect means of stabilizing the economy. But the more nearly the total quantity of transactions balances and substitutes were controlled by monetary policy, certainly the more effective that policy could be and the less likely would it be for wide deviations to occur in the volume of expenditures from policy targets.

A requirement of ten percent on all transactions balances and close substitutes would be reasonable and equitable among all issuing institutions and would maintain the effectiveness of monetary policy. Transitional disruptions due to any change in total required reserves can be smoothed by open market operations. Changes in the percentage over time are not needed for policy purposes.

Although it is necessary to apply reserve requirements to all assets which are largely used as transactions balances or closely substitute for them, broader

coverage would be undesirable. For example, bonds or the cash surrender value of life insurance are not used as transactions balances. If they were nonetheless subject to reserve requirements, they would absorb reserves, and changes in the quantity of these assets for a given supply of reserves would affect the total quantity of transactions balances that could be supplied. Such a change would thus influence aggregate expenditures in a way that was inconsistent with the stabilization objectives of monetary policy. Reserve requirements should therefore apply uniformly but exclusively to those assets that can be used to make payments to third parties or can be transferred into transactions accounts, automatically or by telephonic orders with several days or a business week for purposes of covering check clearings. This would include all time and savings deposits in the economy subject to such transfers, repurchase agreements, overdrafts to the limits allowed and instant credit lines, brokerage balances and money market mutual funds invested in short-term securities which are subject to practically no variation in dollar value and which are transferable by phone orders within a business week, and certificates of deposit with an initial maturity of a business week or less. Eurodollars of domestic parent banks, which have maturities of a business week or less at inception, should also be included, though they present legal and reciprocity obstacles. These various assets, though traditionally not called money, are provided the services of a means of payment and are, in effect, money.

Reserve requirements under this provision would not be applied to assets which, even though they can be sold and the funds made available for transfer within a business week, do not maintain a virtually fixed market dollar value, such as most financial market credit instruments. Treasury bills might meet the definition but, being an issue of the government, need not be subject to monetary control. Reserves would therefore be required for all financial institutions in proportion to the money balances they provide to the public in one form or another, where money is understood to be a transactions balance or a close substitute for it.

Passbook savings accounts of individuals pose a special problem, because they are traditionally withdrawable on demand and this privilege has been consecrated by historical practice. Yet individuals have not usually used passbook savings as significant substitutes for transactions balances. Therefore, it seems to me that we could waive the reserve requirement for them and still allow individual savings accounts to be withdrawn on demand upon presentation of the passbook at banking offices, not however by written or telephonic orders or at remote terminals. Delay of withdrawal would have to apply to all other time and savings deposits, else they could be effectively utilized as transactions accounts.

It is true that many other balances that meet the above definition of a transactions balance are not at present used primarily for transactions purposes. Many savings deposits which have privileges of third-party payment are still held largely as investments and not to make payments, and therefore do not reduce the holders' use of demand deposits for transactions purposes. But the use of savings deposits and other new transactions balances to conduct transactions will undoubtedly develop further, and until fully developed will exert and uncertain and confusing influence on aggregate expenditures to the detriment of an effective conduct of monetary policy. The important advantage of subjecting all such assets to reserve requirements, and of creating a sharp distinction between them and all other assets so far as speed of transfer is concerned, is that this will tend to homogenize the attractiveness of assets so designated as transactions balances and equalize their use for that purpose. Reserve requirements reduce the amount of interest and services that issuing institutions can afford to provide on such balances; consequently, the holders have an incentive to use them largely for transactions or, if they are not needed for that purpose, to shift into other assets which have no transactions advantages but pay a higher rate of interest. To maximize the difference between transactions balances and other assets, no reserves requirements should be imposed on the others. Given the wide access to the federal funds market, there is no longer any important reason to impose reserve requirements for safety on any deposits other than those that we want to control as transactions balances.

Sharpening the distinction between a more homogenous amount of transactions balances (a revitalized M_1) and other assets should tighten the link between the quantity of transactions balances and aggregate expenditures, and thus contribute significantly to the attainment of long-run policy goals and short-run monetary stability. A sharp distinction between money and other assets, one with reserve requirements and the other without any, should help make a uniform requirement acceptable to financial institutions.

It was once thought that reserve requirements might beneficially vary with the turnover of each deposit category with the purpose of stabilizing the aggregate velocity of circulation of deposits in the face of shifts among different categories. But this was subsequently found to be an impractical objective. There is no firm knowledge on which to base such differences in reserve requirements. While differences in reserve requirements among transactions accounts may unfortunately result for political reasons, they cannot be justified on economic welfare grounds and tend to defeat the purpose or reserve requirements of stabilizing the total supply against shifts in the components.

Reserve requirements may well drive some of the items on which they are imposed out of the transactions business but that would only occur for those which are less efficient or less attractive to the public for handling transactions. Money market mutual funds would lose much of their attractiveness if they were subject to reserve requirements. To avoid being covered they would have to delay the transfer of customers' funds for a designated time period, say a business week. This could be accomplished by a requirement that a definite order to transfer funds to a customer's transactions balance be held in a special unusable account without interest for a full business week. The definition of transactions balances and substitutes subject to reserve requirements must be specified in terms of the time and cost of transfer, rather than in terms of the characteristics of existing assets, because the cost of maintaining reserves will induce issuers to devise new kind of accounts to circumvent the legal requirements.

Such a requirement may at first sight appear to be an arbitrary hindrance to the efficient operation of financial institutions. But the "efficiency" which reserve requirements interfere with only involves the issue of transactions services—essentially what we have always meant by money—the total quantity of which is a legitimate governmental responsibility. If a private institution wants to issue money, it should be free to do so, but only under the same reserve requirements and safety standards imposed on all other issuers. Commercial banks, which were originally delegated to share a monopoly of money issue with the government, have the most to gain from restrictions on the issue of competitive transactions services.

The beneficial developments in the efficiency of our financial institutions and markets will not be hindered by these restrictions on transactions balances and substitutes. The innovations in electronic transfers, management of funds, and new financial instruments can continue to bring benefits to the public and will not be obstructed by the provision that those which provide transactions services will be subject to the same limitations and costs of reserve requirements as are demand deposits and all other such assets.

CONCLUSION

Monetary policy is an accepted and necessary means of controlling aggregate spending. The effectiveness of monetary policy depends upon its capability of controlling the quantity of transactions balances. The number of assets used as transactions balances or close substitutes is growing, and this reduces the capability of monetary policy to offset variations in expenditures over time. When a large part of the public wants to change its expenditures in the same direction at the same time, the social welfare is reduced by the resulting instability of aggregate expenditures. Reserve requirements on transactions balances and close substitutes for them will increase the capability of monetary policy to control fluctuations in aggregate expenditures. In order to keep aggregate expenditures linked as closely as possible to the available quantity of transactions balances, we should reduce the extent to which assets not subject to reserve requirements can be used as convenient substitutes for transactions balances.

The proposal here is that all transactions balances and close substitutes be subject to a uniform requirement that 10 percent of the balances be matched by a deposit with Federal Reserve Banks on a current basis. Transactions balances and close substitutes are defined as a financial account that is largely fixed in dollar amount and can be transferred to third parties or into such a transferable balance within a business week by written or phone orders. Reserve requirements on all other deposits should be zero. Economic stability will be greatly improved by sharpening the distinction between transactions balances and all other assets. An important reason for enacting reform legislation now is to prevent developments which will be more costly to undo later.

The CHAIRMAN. Thank you very much, Mr. Cagan.

**STATEMENT OF LEIF OLSEN, CHAIRMAN, ECONOMIC POLICY
COMMITTEE, CITIBANK**

Mr. OLSEN. Thank you, Mr. Chairman. I'm going to present some excerpts from my longer statement which I understand will be introduced in its entirety.

The CHAIRMAN. Very good. Without objection, your statement will be printed in full in the record. We appreciate your abbreviating it. [Complete statement follows:]

TESTIMONY OF LEIF H. OLSEN, CHAIRMAN, ECONOMIC POLICY COMMITTEE, CITIBANK

One of the critical assumptions which seemed to guide economic policies as 1978 began was that the economy still contained sufficient slack so that stimulative monetary and fiscal policies could be applied without great risk that inflation would accelerate. This assumption was incorrect. The Council of Economic Advisors, for example, in their report released earlier this year estimated the GNP gap—the difference between the actual level of the economy and its potential—to be about \$74 billion.

Since that report was put together nearly a year ago, there has, of course, been reason to revise that estimate. It appears now that early this year the economy reached its potential—that point at which it can grow only as fast as permitted by new entrants into the labor force and new output capacity added to our capital stock. This potential rate of physical growth of the economy, excluding inflation is currently estimated to be about 3 percent to 3½ percent per annum over time. Historical evidence demonstrates that once the economy has reached the physical limit of its potential, inflation will equal the difference between the nation's nominal income growth and 3 percent to 3½ percent. Since nominal national income, which is determined by the rate of growth of money plus velocity, this year seems to be growing at about a 10-11 percent annual rate—as it did both in 1976 and 1977—the warranted rate of inflation should be about 8 percent and that appears to be the case.

Unfortunately, we have failed to reduce the rate of growth of nominal GNP early enough to avoid an increase in inflation. The market has experienced a sufficient number of such episodes that it no longer believes the implicit assurance that accelerating inflation will be avoided by a timely reduction in the rate of growth of nominal national income before the economy reaches its potential. That is why business and labor do not slow down price-wage increases as much as might seem warranted when the economy is coming out of a recession with substantial excess capacity and high unemployment.

The pure logic of the arithmetic leads people to anticipate the ultimate effects of running the economy at a 10 to 11 percent rate of increase when it can grow in physical terms at only 3 to 3½ percent once all the slack has been removed. Asking business and labor to limit price and wage increases is futile when monetary and fiscal policies have overstimulated the economy and when nominal national income is rising at an annual rate of 10 to 11 percent. It will only lead to distortions and inequities.

To reduce inflation requires a reduction in the rate of growth of money and, thus, in the rate of growth of nominal national income. Such a policy now clearly carries the risk of recession. The alternative would be at best to maintain inflation at a 7 to 9 percent rate or at worst to see it rise higher as inflationary expectations increase. Ultimately a recession would occur.

Monetary policy has not yet become restrictive. Monetary policy is restrictive when the Federal Reserve acts to slow the growth of the monetary base—bank reserves and currency—and, in turn, broadly defined money supply. More to the point, a restrictive monetary policy is one which produces a reduction in the rate of growth of nominal national income. Since nominal national income is well on its way toward an 11 percent increase this year, monetary policy cannot be said to have been restrictive relative to 1977 and 1976.

The monetary base has been growing at an annual rate of approximately 9½ percent throughout this year as against rates of 8.5 percent in 1976 and 8.9 percent in 1977. Slowing the growth of the monetary base to, say, 6 or 7 percent would also cause a sharp slowdown in the growth of the money stock—

currency and commercial bank time and demand deposits held by the public. A sharp slowdown in the growth of money supply has been characteristic in the Federal Reserve's past battles with inflation—for example in 1960, in 1969–70, and again in 1973–74. In all these cases, the inflation was the result of overly expansionary monetary policies which continued to stimulate the economy beyond its potential growth rate after that limit had been reached. The severity of the monetary restraint which was needed caused the rate of increase in the nation's income and output to slow down so markedly as to precipitate a recession.

Restraint comparable to these past efforts to curb inflation has not taken place yet this year. The increase in interest rates is not the result of a restrictive monetary policy with its attendant squeeze on the availability of credit. Instead it reflects the strengthening in the demand for credit in an economy which is now significantly more inflationary than it was a year ago and in which real growth has continued at about a 4 percent annual rate.

Levels of interest rate reflect inflation. A glance around the world reveals that countries with high inflation have high interest rates. Those with low inflation have low interest rates. The reason is that market rates of interest comprise two components—the real rate and the inflation premium which compensates lenders for the loss of purchasing power over the term of the loan.

Short-term market rates, such as the 90-day commercial paper rate, in the United States are recovering from the deep recession of 1974–75. They are moving toward a normal level at which they should approximately equal the sum of the inflation over the past year plus a real rate of about 2½ percent. With an 8 percent rate of inflation, a 10½ percent 90-day commercial paper rate would not be extraordinary. It would have been extraordinary had short-term market rates continued to run below the rate of inflation in an economy now effectively at full employment.

Long-term interest rates are also heading toward a higher level because of the acceleration in inflation this year. Long-term bond rates—in this case I am using the Aa-corporate utility bond rate as a benchmark—normally equal approximately the sum of the actual average inflation over the past 4 years with some weighting for the most recent year plus a 3½ percent real rate. Inflation average about 7.2 percent in the last 4 years and by the end of next year, if our forecast proves correct, the average will be 8.4 percent. Thus a Aa-corporate bond rate of 10 percent or more would not be out of line by that time. Except for intermittent rallies such as occurred this summer, interest rates will not decline significantly unless the economy contracts in a recession or some near-miracle produces a substantial reduction in the rate of inflation.

Now back to monetary policy. Changes in targets for the Federal funds rate get a lot of attention in the financial press. But its significance is not generally understood as attested by accounts of the tightening monetary policy each time the funds target is raised. Rises in the federal funds rate—the rate that banks pay when they borrow excess reserves, principally though not exclusively from other banks—do not occur because the Federal Reserve has slowed the growth of the monetary base. Rather, the funds rate rises because of strong loan demand which presses banks to become more aggressive bidders for available federal funds.

The Federal funds rate target is simply the point at which the Federal Reserve decides to intervene, to either supply reserves to the banking system or to withdraw them. If the actual rate threatens to move above the Federal Reserve's target because the banks, faced with strong loan demand, continue to bid aggressively for the excess reserves of other banks, the Fed will supply reserves. This bidding steadily and continuously pushes the Federal funds rate higher than expected by the central bank authorities. As a result the Federal Reserve puts more and more reserves into the banking system. Subsequently, when it is evident from the excessive infusion of reserves into the system that the Federal funds target is too low, the monetary authorities move it higher. Then it tests the higher level for a time to see if at this level the supply of reserves will be neither too much nor too little. Thus, through a kind of trial and error, the monetary authorities move the funds rate target higher and higher, but the underlying demand for credit has been stronger than expected. The very fact the Federal Open Market Committee, which determines monetary policy, has steadily moved the Federal funds target higher is evidence that it, too, believes the nation's money supply has been growing faster than it would prefer.

So far those members of the Federal Open Market Committee who favor a more restrictive monetary policy have in part at least been mollified by the

upward ratcheting of the Federal funds rate in the search for that point at which it begins to arrest the rate of increase in the monetary base and the stock of money.

And those members of the FOMC group who favor a cautious approach, one that seeks to avoid a credit crunch and a recession, may take comfort since policy has so far avoided just that.

So, as long as the search for the right Federal funds target continued and as long as the monetary base continued to rise at an unabated rate, differences over monetary policy have not been very pronounced.

But, obviously, this cannot continue. At some point the Federal funds target will begin to slow the growth of bank reserves. And at some point the monetary authorities must decide (a) to become so restrictive as to risk a recession, or (b) to continue indefinitely to finance 7-9 percent inflation and 3-4 percent real growth.

Now, it may be that the Federal Reserve's target has only recently begun to reach the point where it has overtaken the strength of the demand for credit and Federal funds particularly with the moves taken two weeks ago in defense of the dollar—the increase in the Federal funds target, the discount rate and reserve requirements.

An interesting dilemma now exists. On the one hand the market—particularly the foreign exchange market—reads the Federal Reserve action as the promise of monetary restraint. The kind of restraint that the market expects would cause a recession. On the other hand officials insist a recession is out of the question. Will policymakers seek to avoid the recession? If monetary and fiscal policies stay that stimulative then inflationary expectations will accelerate, and the dollar will nosedive again in foreign exchange markets.

Now the general perception in the credit markets is that reserves are ample and that, except for higher interest rates, credit is as generally available as it was a year ago. It is a perception that cuts across both domestic and international markets. And it is a perception that it fostered in a highly deceptive environment.

In the second quarter of 1975—just at the beginning of the upturn—the external borrowing of nonfinancial corporations as a percent of total borrowing was 19 percent. In the first half of this year it ran at about 40 percent. Short and intermediate borrowing by these corporations increased 4.5 percent in 1976, 15 percent in 1977 and in the first half of this year by 20 percent at an annual rate. Business borrowing from commercial banks in the first nine months of this year has increased at an annual rate of 15.1 percent. The rate in the first half was 17.3 percent. While it slowed down in the third quarter, there is no reason to believe it will not continue at around a 15 percent annual rate as long as the economy continues to grow at a 10-11 percent annual rate in nominal terms.

In addition, borrowing by households in relation to personal income has fully recovered from the recession of 1974-75 and is now at a record high. And the U.S. Treasury borrowing as a percent of total funds raised by all borrowers is running at an unusually high level with the economy as fully employed and as inflationary as it now is.

The liquid "feel" of the credit markets is due to the rapid and unabated growth of the monetary base—bank reserves and currency. If the growth rate of the base should slow down significantly as it has in past periods of severe monetary restraint, the money markets could congeal very quickly.

In this context, the task of the monetary authorities is unusually difficult as compared with earlier battles against surging inflation largely because their policy actions have become so much more visible and better understood. While the Federal Reserve has long published the minutes of the Open Market Committee, it now releases them 30 days after the meeting, rather than after 90 days as previously, and there is currently a court test that could require the Federal Reserve to publish the minutes immediately after the conclusion of the Open Market Committee meetings. Furthermore, the minutes of the Open Market Committee are now followed more closely by more economists and financial market participants than ever before. Analyzing monetary policy has, in fact, become a major preoccupation of the country's financial markets and the financial press.

The Chairman of the Federal Reserve Board must now report four times a year to Congress on the conduct of monetary policy. This was not the case prior to 1975. (Beginning January 1, 1979, he will report twice a year.) In addition to the accumulating record of the chairman's testimony, the greater interest of Congress in the influence of monetary policy was pointed up in a study prepared in 1976 by Robert Weintraug, staff director of a House Banking Sub-

committee that was chaired by Stephen L. Neal, Congressman from North Carolina. It concluded that the money supply and velocity—the turnover of money—play important parts in recessions and recoveries. Specifically it pointed out that:

Slowing money growth sharply for any prolonged period weakens the economy and increases the risk of recession. For a time, however, velocity increases sustain expansions even after money growth slows. But inevitably, if money growth is retarded sharply for very long, confidence is undermined, the trend in velocity turns down, and recession follows. Once underway, recessions are aggravated by continuing to retard money growth.

The Neal Committee study also opined that “monetary policy remains a mystery to most Americans.” This is much less true now than it was in 1976. Widespread attention is now focused on monetary policy and its effects on the economy. Today there is open talk by economists, both in and out of government, about the power of monetary policy to precipitate a recession as it becomes restrictive in fighting inflation. Such comments were seldom heard prior to the 1974–75 recession. In fact, that recession was noteworthy for having progressed for nearly a year before it was even recognized. But while inflation is now the number one economic problem, the idea of pushing anti-inflation policies to the point of incurring a recession—even though that is now difficult to avoid—is not likely to have universal support.

Last month J. Dewey Daane, former member of the Federal Reserve Board of Governors, speaking as a professor of Banking at Vanderbilt University, said:

My . . . general exhortation to the monetary authorities would be to go ahead and use monetary policy in the inflation fight, avoid the limitation imposed by fear of provoking recession by being too aggressive, and accept the limitation that monetary policy alone cannot prevent an inflation that could trigger even more serious recession or depression.

What former Governor Daane said is likely to be the center of policy debate now unfolding. There will be those who will agree with him that if policy is timorous in slowing the growth of reserves, inflation is likely to accelerate and the ultimate recession could be much deeper than one which could occur earlier as a result of more timely restraint. In the past, monetary policy was anything but timid when inflation became a serious problem. Witness the severe monetary crunch that occurred in 1969 and another in 1974.

Opposing the advocates of timely monetary restraint are those who argue that precipitating a recession does not cure inflation. This point of view is espoused by the administration. It holds that a recession exacts the high social cost of unemployment and lost output while achieving an insufficient and brief cooling of inflation. This argument is not new. It has emerged intermittently since at least as far back as the 1930s. But it is now more pervasive and intense as a result of the experiences in the last two recessions.

What everybody knows is that the credit crunch of 1969 and the consequent recession of 1970 were followed rather quickly by inflation that accelerated so markedly in 1971 as to induce President Nixon’s administration to impose price-wage controls.

The next downturn, to some, seems to have provided less relief from inflation. The recession of 1974–75 was the most severe since the late 1930s. It pushed the unemployment rate to over 9 percent and idled a substantial proportion of our industrial capacity. And while inflation did cool, it never fell much below 5 percent for an appreciable time—a rate which is still regarded as exceptionally high by historical standards. The irony is that 5 percent—the lowest rate achieved in this cycle—was the rate prevailing in the summer of 1971 when controls were imposed.

The inability to achieve a greater subsidence of inflation through the idling of both capacity and workers is not due to some diabolically monopolistic plot by labor and business, but rather reflects the learning experience of these two groups as well as investors and others who have lived through recessions and recoveries. They do not necessarily have to understand the technical workings of monetary and fiscal policies. What they know from experience is that once the economy plunges into recession, something happens to reverse the downturn, to revive aggregate demand and—once that is achieved—to accelerate inflation. Consequently, there are no inducements to labor or business to alter their wage and price expectations. They assume, in short, that inflation will continue into an indefinite future. The economic slack that prevails in the early stages of cyclical recoveries is acknowledged by everyone, particularly the government, to be transitory.

Putting it more crudely, business and labor—implicitly and explicitly—expect that government policies will revive inflation before it dies from lack of fiscal and monetary nourishment. Consequently, labor will not reduce wage demands so that employers can afford to employ idled workers. And employers will not reduce prices sufficiently to increase the demand for output and re-employ idled factory capacity. Instead, government is expected to make such adjustments unnecessary with stimulative monetary and fiscal policies, and so far it has not disappointed those expectations. In fact, “getting the economy moving again” has become a trite political slogan for getting out the vote by assuring business and labor that monetary and fiscal stimulus will be forthcoming.

Government action to stimulate the economy has been given widespread publicity, but responsibility for pushing the economy into a recession has generally been obscured. This is now changing as the link between monetary policy and economic conditions has become more widely understood. This public acknowledgement of the power of policy to induce a recession also makes the monetary authorities more subject to intimidation. Policymakers may be urged to reject effective monetary restraint and to avoid a credit squeeze. It is argued that a recession will not only cause the pain of unemployment but will also require higher government benefit payments to the unemployed, cause a sharp dropoff in revenues and a ballooning Federal deficit, probably in excess of \$100 billion. And if there is a recession, monetary policy, in classic countercyclical fashion, will become highly expansionary so as to speed economic recovery, and in achieving that goal it will set the stage for still higher inflation.

But if the monetary authorities relax their resistance to inflation and try to avoid a recession by continuing an accommodative policy, they will be embarking on a policy course markedly different from the past. At best, inflation will remain high and it might well accelerate. And inflation expectations will not diminish even for the short run as they do during recessions. More than likely policymakers will find it impossible to avoid that ultimate confrontation with rising inflation expectations that eventually results in a recession.

The longer policy leans with the wind instead of “against it,” as former Federal Reserve Chairman William McChesney Martin used to say, inflation and interest rates will stay high or go higher, and the dollar will remain weak or grow weaker in the foreign exchange markets.

So the choices open to the Federal Reserve authorities are anything but heartening. And their task will not be made any easier by the introduction of stiffer price-wage guidelines or “voluntary” controls. The experience with price-wage controls during President Nixon’s administration suggests that such direct intervention undertaken to influence wage-price decisions only confuses matters for the monetary authorities. Should they avoid a reduction in nominal GNP pending the outcome of voluntary controls? That would simply result in higher inflation and controls would distort the effects of inflation. Should they tighten concurrently with the imposition of controls? Then a recession will occur and why would controls be needed.

Although it may do little good to say so, the time to have avoided the present predicament was probably 2 years ago. Greater moderation, greater patience than would have averted today’s painful choices. But there will be a lot of hindsight advice that will be most constructive during recovery from the next recession. And the words of the Council of Economic Advisors in the Ford Administration’s Economic Report (January 1976) can serve as a blueprint for that future recovery:

There is a lesson to be drawn from past policy mistakes. The history of monetary and fiscal policies demonstrates that we have a great deal to learn about implementing discretionary policy changes . . . We should set policies broadly consistent with sustainable long-term noninflationary growth and try to limit the size and duration of any policy deviations that promise short-term benefits but risk interfering with our long-run goals. If we do not commit ourselves to a gradual recovery over a period of years, we may increase economic instability and lose our chance for sustainable growth, which we believe offers the safest and surest route to full employment in future years.

This advice should have been put to a test at least in 1976 and 1977. Instead policies have been dedicated to stimulating the economy in pursuit of full employment as quickly as possible. As a result, inflation accelerated this year to rates far above the expectations of nearly everyone. And now, once again, we have lost “our chance for sustainable growth.”

Monetary authorities are in a bind. No matter what they do, they face sharp public criticism. Their discomfiture is echoed in the plaintive cry that “monetary

policy alone cannot prevent . . . inflation." If monetary policy needs help, what can be done?

The proposition that inflation is a monetary phenomenon is an oversimplification insofar as it presumes the absolute independence of the Federal Reserve in setting monetary policy. Yet this has never been true. The Federal Reserve is a creature of Congress and subject to the will of Congress.

Nevertheless, the extent to which the Federal Reserve is responsible to Congress in the conduct of policy and the extent to which it is expected to be free from governmental influence have always been shrouded by ambiguity. A cynic might conclude that this is the most comfortable arrangement since no one in government is explicitly responsible. The Federal Reserve blames excessive federal spending for inflation and it, in turn, is blamed for tight money and high interest rates.

Ideally, in the kind of check-and-balance process that is inherent to our overall structure of government, the Federal Reserve is supposed to introduce an element of discipline into the policy dialogue as well as the government actions that influence the economy. But the Federal Reserve is also expected to be accommodative, to provide monetary stimulus, especially in efforts to achieve prompt recovery from recessions.

Yet when the going gets rough, when inflation surges ahead, the Federal Reserve is expected to assert its independence, and clamp down on the growth of money and credit. In the past the ensuing recessions were seldom pinned on monetary policy. As recently as 1973-74, there were relatively few economists who focused on the relationship between changes in the money supply and changes in economic growth. Today such analyses are the foundations on which most economic forecasts rest.

In recent years (a) the rise in government spending, (b) the huge borrowing undertaken by the Treasury on behalf of favored segments of the private sector, (c) the vast and costly intrusion of federal and state regulations into the private sector, (d) the large and growing role of government in allocating income and (e) the escalation of inflation expectations with each recovery from recession, have made the accommodation of the Federal Reserve authorities more and more inflationary as it increased the nation's money supply to try to finance the cost effects of all these activities.

And now, as another wave of inflation engulfs the nation, the Federal Reserve is once again expected to restrict the rate of growth of money and credit and risk a recession. But this time, in sharp contrast to the past, the role of monetary policy in precipitating the recession is not obscure. It is not likely this time to be sheltered from criticism. The private sector is being warned that if inflation does not cool off—if the President's voluntary price-wage guidelines do not work—there will have to be a tight monetary policy and an induced recession.

It may appear that this is no more than a fair warning. But once the economy is in recession, will Congress and the administration take a benign view of the Federal Reserve?

The improved understanding of monetary policy will be a blessing in the long run as the public learns that in the final analysis inflation is a monetary phenomenon—the result of excessive money growth. It may then insist that the Federal Reserve no longer accommodate imprudent government policies. It may also demand greater restraint on federal spending and it may demand that the Federal Reserve be given greater freedom from political influence and consequently greater responsibility for keeping inflation low. It should be clear from the experience of the past decade that the more the Federal Reserve tries to satisfy political demands for financing the government's programs and its interventions into private markets, the more remote is the likelihood of achieving its other goals, "maximum employment, stable prices, and moderate long-term interest rates" as directed by the Federal Reserve Reform Act of 1977.

If that becomes the case then the monetary authorities will have public support for adopting another goal of the Federal Reserve Reform Act of 1977 to "maintain long-run growth of the monetary aggregates commensurate with the economy's long-run potential to increase production . . ." This should rule out large increases in the monetary aggregates (including the effect of velocity) when the economy is recovering from recessions. We should have learned by now that such major compensatory swings in the monetary aggregates are not compatible with longer run price stability, maximum employment and moderate interest rates.

This means running the economy following the next recession at less than full employment until expectations no longer prevail that monetary and fiscal policies will continue to finance higher and rising inflation. Exhortations alone cannot accomplish this. The marketplace has been disappointed too many times.

The CHAIRMAN. Thank you, Mr. Olsen.

STATEMENT OF GEORGE PERRY, SENIOR FELLOW, THE BROOKINGS INSTITUTION

Mr. PERRY. My written statement is very brief and I can cover it in the time you have asked us to.

[Complete statement follows:]

STATEMENT BY GEORGE L. PERRY,¹ SENIOR FELLOW, BROOKINGS INSTITUTION

It is hard to conduct monetary policy today. And it is hard to evaluate it fairly. In recent weeks, a speculative slide in the foreign exchange value of the dollar became a prime concern of policymakers. To help stop that slide, the Federal Reserve, in a move endorsed by the President, moved interest rates abruptly higher on November 1. That rise of 100 basis points in the discount rate dramatically signaled a change in policy: it is now widely believed that maintaining the domestic expansion is no longer the top priority of policy. What I would add is that the expansion was in trouble before November 1.

Monetary policy has been under conflicting pressures all year both to sustain the economic expansion and to slow inflation. These conflicting pressures arise from our legitimate national interest in both price stability and low unemployment. We have not devised a way to combine the two, or in recent years, even to come acceptably close. Confronted with that inability, policy has oscillated between fighting inflation and fighting unemployment. We have already had two recessions in the 1970's when concern over inflation got top priority; and I believe we were headed for a third even before this month's dramatic jump in interest rates.

I projected a 1979 recession in my own forecast of October 1, which is summarized in table 1. That forecast was based on the expectation that monetary policy, which had raised interest rates substantially during the summer, would raise them substantially further during the fall and winter. That expectation, in turn, was based on the evidence that monetary policy would not accommodate the prevailing rate of inflation. The interest rate increases since October 1 came sooner than I had expected they would, and increased further the probability of a recession next year. I expect the unemployment rate will peak at around 7 percent in late-1979 if the downturn in the economy is kept mild and brief as in the forecast of table 1. In that view of the outlook, 1980 is a recovery year. If fiscal and monetary policies get much tighter and stay tight in the face of a weak economy, the recession could become much worse. That is a risk, but it is not my present forecast.

How do we end up creating a recession that nobody wants? Inflation is deeply entrenched in our economy. It responds only very gradually to weak demand and economic slack. Consequently, slowing aggregate demand results mainly in slowing the growth of real output and employment. To put the matter directly in terms of monetary policy, if policy slows the growth of the monetary aggregates, the first and principal effect is to raise interest rates and slow the real economy. Weaker demand and increased slack in labor and product markets then gradually slow the inflation rate, but the effect is disappointingly small. Statistical estimates indicate that we give up perhaps three million jobs to take one percentage point off the inflation rate by that route.

TABLE 1.—PERCENT CHANGES AT ANNUAL RATES FOR SELECTED ECONOMIC INDICATORS, 1978-79

	Quarterly percent changes at annual rates						
	1Q78	2Q78	3Q78	4Q78	1Q79	2Q79	3Q79
	to 2Q78	to 3Q78	to 4Q78	to 1Q79	to 2Q79	to 3Q79	to 4Q76
GNP.....	20.6	11.3	9.2	9.1	6.3	4.1	5.2
Real GNP.....	8.6	3.6	2.6	1.9	-4	-1.4	-2
GNP price deflator.....	11.0	7.3	6.4	7.1	6.7	5.6	5.5
Industrial production.....	13.2	7.4	4.2	2.5	-2.5	-8.2	-2.5

¹ The views expressed are my own and are not necessarily those of the officers, trustees, or other staff members of The Brookings Institution.

The same real restraint occurs if policy maintains a prevailing growth rate in the aggregates while prices rise more than before. Average prices this year have accelerated for a number of reasons. Lower unemployment rates stepped up the base rate of wage inflation by perhaps $\frac{1}{2}$ point. Legislated increases in payroll taxes and minimum wages added nearly another point. Exceptional price increases in food, energy and housing, which are largely unrelated to wage costs, are adding 2 points more. And the decline in the exchange value of the dollar (over and above the decline that would be expected from differential rates of price increase here and abroad) added several tenths more. Altogether, prices have been rising at near a ten percent rate this year, an acceleration of several percentage points. Unless the Federal Reserve was prepared to accommodate with a corresponding acceleration of the monetary aggregates, monetary policy was automatically going to tighten.

Tighter money will not repeal the rise in the payroll tax on minimum wage, it will not improve the weather for growing vegetables or put more cattle into feed lots, and it will add to the CPI through higher interest rates before it has any effect on the CPI through weakening demand. Nonetheless, because price increases from whatever source speed up the whole wage-price spiral, a tight monetary policy now may be the best of a bad lot of choices. But we should recognize its costs. And we should try to have better choices available in the future.

I have expressed the issues for demand management in terms of monetary policy because that is the immediate subject of this hearing. But the same points apply to fiscal policy. Cutting expenditures in an attempt to reduce the deficit will reduce aggregate demand. Beyond this, deficits have no special or additional consequences for inflation. And as for the effects of demand on inflation, the same disappointing trade-off of losses in jobs and output in exchange for gains in price moderation applies whether the slowdown is accomplished through fiscal restraint or monetary restraint or both. The additional point to remember about attempts to reduce the deficit is that if they lead to recession, they will swell the deficit instead.

If we want to fight inflation with remedies that are less painful and more effective than putting people out of work, we have to look beyond restrictive fiscal and monetary policies. The government is responsible for a great number of laws, regulations and procedures that add to costs and prices; by repealing, reversing and desisting it can reduce them. The benefits of social and economic regulations, import quotas, price supports, payroll taxes and higher energy prices should all be weighed against their inflationary costs. In addition to reducing costs and prices imposed on the private sector, the government can try to influence the price- and wage-setting process in the private economy. The administration's new guidelines program attempts to do this. The real wage insurance that it has proposed is a major innovation in anti-inflation policy. I believe that proposal, or some variant of it, deserves support.

By their actions in the areas I have just described, the Administration and the Congress have the power to influence importantly the rate of price increase in 1979. The appropriate goals for monetary policy depend on how much the government does in these areas, as well as on how severe an economic slowdown the government is prepared to accept. It seems proper to leave that decision to elected officials rather than to the Federal Reserve Board.

The CHAIRMAN. Thank you, sir.

**STATEMENT OF ALBERT T. SOMMERS, SENIOR VICE PRESIDENT
AND CHIEF ECONOMIST, THE CONFERENCE BOARD**

Mr. SOMMERS. Thank you, Mr. Chairman. I submitted a very short paper which I will summarize. My summary may be somewhat longer than the paper.

The CHAIRMAN. We will have the paper printed in full.
[Complete statement follows:]

OPENING REMARKS
of
ALBERT T. SOMMERS
Senior Vice President and Chief Economist
THE CONFERENCE BOARD

I'm grateful for this opportunity to offer the committee some judgments on monetary conditions in the United States and their bearing on the economic outlook, and with particular reference to the management of inflation. The conclusions I have to offer you are uncomfortably large. They are stated here generally; I would be happy to pursue them with you further in discussion. Submitted with these remarks are copies of two articles that have a bearing on our general economic situation and the pressures on monetary policy, and a set of a few charts describing monetary performance in recent years.

The American economic experience of the past dozen years has been strikingly cyclical; peaks in business conditions, accompanied by peaks in interest rates, the inflation rate, and real growth have occurred at a more or less regular four-year interval, in 1966, 1969-1970, 1973-1974, and now, probably, in early 1979. Each of these peaks has been followed by declines in economic activity, notably in housing, consumer demand for durable goods, and business demand for fixed investment and inventory, and they have, of course, been accompanied by declines in employment and rises in unemployment. These experiences with the business cycle have been progressively more intense, in general producing higher peaks in interest rates and inflation, followed by progressively more serious recession. The unstable behavior of the economic system over the past dozen years -- about three times more unstable than in the comparable preceding period -- has carried substantial cost; human cost, of course, and also periodic interruptions of the growth of investment, with an associated long-term loss in productivity and growth of living standards.

The record of the past decade doubtless reflects a large number of destabilizing influences from outside the system -- the Viet Nam War, the

crop failures of 1973, the extremely advanced state of the business cycle throughout the West in 1973, the explosion of oil prices. There would probably also be much agreement on the proposition that economic policy has contributed to the instability, through alternating waves of fiscal stimulus, followed by monetary restraint. If we were to leave the diagnosis here, we would be left simply with the prescription that we avoid accidents, and avoid mistakes in fiscal and monetary policy. Unfortunately, the causes of the instability of the past decade are more systematic and more deeply rooted, particularly with respect to the inflation that has been such a prominent feature of recent history. The United States -- and in fact all Western economies -- have for much more than a decade been caught in a dilemma of ends and means for which nobody -- not the Congress, not the Administration, and not the Federal Reserve -- is ultimately responsible. If the problem of our instability were to be capsuled in a single sentence, it would be that we have been experiencing rapid and cumulating changes in our economic institutions, in the goals we seek as a nation, and in our technological structure; while we have experienced little or no change in the policy equipment available to government for the management of the system. The social costs entering into each unit of our output have risen dramatically; we have struggled to provide security guarantees for an increasing proportion of the population; we have encouraged widespread indexation of incomes to protect parts of the system against inflation; institutional changes, technological changes and marketing changes have reduced the intensity of price competition on both the wage and price side of markets. The resulting elevation in the level and durability of inflation has been experienced all over the West; in the United States, the rate of change has been strikingly rapid in the last fifteen years, and it has been associated with a strikingly rapid increase in the domestic inflation rate, both in terms of U.S. history itself, and

relatively to the inflation rate in the rest of the West.

It is now fairly widely accepted that the inflation confronting the United States in recent years is a new kind of inflation, incorporating an "underlying" institutional inflation on which cyclical inflation is superimposed. In the presence of modern economic institutions, the suppression of prices to any given level of general inflation now requires a much higher degree of unemployed resources of capital and labor than was true two decades ago; the U.S. Phillips curve has been drifting up and to the right. This is not just a short-term cyclical condition. In West Germany, the prolonged effort to suppress inflation has been associated with prolonged high unemployment, slow growth and a deep suppression of new investment.

The record of the Federal Reserve System in these turbulent years, as it has struggled with an environment acquiring an increasing inflation bias, should be viewed sympathetically. The powers of the Federal Reserve are limited almost exclusively to the supply side of the credit market. Apart from its variable control over securities margin credit, (which it has not altered for five years) and its Regulation Q controls over certain interest rates (which were partly vacated by the new savings certificates) it has little or nothing to say about the direction of credit. Its powers on the supply side resemble a nuclear deterrent that can pay scant attention to the priorities and values established by legislation. It cannot distinguish between non-productive and consumption uses of credit, on the one hand, and credit to support business investment, or meet the requirements of government, on the other hand. Its nuclear deterrent does not lend itself to gradualist application even at the aggregate level; the effects of gradualism are deferred or dissipated by floating rates, offshore accumulations of dollars, inflationary expectations, the ingenuity of the banks themselves, a wide and unpredictable

cycle in velocity, and such inventions as the savings certificates.

With its present equipment, the Federal Reserve is incapable of focusing its response on inflation itself; in the end, when it brings to bear its ultimate, blunt power to make credit not only expensive but scarce, it strikes at the real world of employment, output, living standards and real investment, as well as the nominal world of prices and inflation. In fact, the evidence of the past dozen years suggests that its effects on the real world are vastly greater than its effects on the inflation itself.

The accumulation of evidence on this point has not escaped the attention of the Federal Reserve itself. More than six years ago, a conservative chairman of the Federal Reserve, after a series of speeches making many of the points suggested here, came finally to a recommendation of a mandatory incomes policy, as an ally for monetary policy in the struggle against modern inflation.

On the basis of this description of a decade of highly cyclical and inflationary experience, I would offer the following observations.

1. There are no easily identified "bad guys" in the record. I don't see any evidence that the Federal Reserve, given the character of its powers, and given its responsibilities toward the real world as well as toward inflation, could have behaved sufficiently differently to produce a very different historical record. The argument that inflation has forced the Federal Reserve to provide funds at a rate that consistently exceeds its own targets is as good as the argument that it has been the provision of the funds that has caused the inflation in the first place. In 1978, the real money supply (M_1 , divided by a general price index) is no higher than it was almost a decade ago. In almost all the intervening years, money growth among other Western countries was almost consistently faster than it has been in the United

States. This is by no means the same as saying that money doesn't matter; but I find no gross negligence on the part of the Federal Reserve in the application of its limited powers to the trade-off between growth and inflation.

2. Given the very serious nature of the inflation we confront, consideration should be given to enlarging the powers of the Federal Reserve on the demand side of the credit market (as well as to providing a more effective alliance between the Federal Reserve and other arms of policy; see below). Sensible credit restraint powers, far short of absolute direction of credit, would help to moderate the business cycle, preserve a steadier course for private investment, permit more effective response on the part of the Federal Reserve's supply-side powers, and produce interest rates both less volatile and, on average, lower. The United States banking system is the most aggressive in the world; it competes violently for consumer credit in all forms, and produces far and away the highest use of credit for consumption purposes.

3. Virtually all modern mixed economies run federal budget deficits most of the time; their spending seeks to achieve social objectives and maintenance of infrastructure (and in our case, a large defense effort) while revenues are constrained by the need to preserve incentives in the private sector. Big budget deficits are inflationary if they must be financed by monetary authorities, less inflationary to the extent that they are financed by real saving. The personal saving rate is strikingly low in the United States, partly because of the uninhibited use of credit in consumption. I am not very confident that the U.S. budget will be balanced in the near future; credit restraint in the private sector (particularly in consumption) can help to reduce the inflationary implications of whatever budget deficit we encounter.

4. In times such as these, an incomes policy, if it were to be

effective, is a natural temporary ally of monetary policy, in that it promises to slow the destruction of liquidity by inflation. No one would suggest that an incomes policy is an alternative to monetary policy (or fiscal policy); but it can provide an environment of slow inflation, and falling inflationary expectations, during which the growth of money can be slowed to a sustainable, relatively non-inflationary rate.

5. For many of these proposals, it is already late this time around in our repetitive four-year cycle, and in any event the special urgencies of our international financial situation are compelling a drastic response of monetary policy. I don't think there is any real alternative now, but the experience in 1979 will be better, or less worse, to the extent that the President's incomes policy receives national support, to the extent that the Congress refrains from adding independently to the burdens on the Federal Reserve, and to the extent that moderation can be achieved in the use of credit for consumption.

A collision of ethics and economics

Democracy is egalitarian, seeking a more equal distribution of income. Capitalism is organized on dominance and leadership, and depends on an unequal distribution for saving, investment and growth. The two are by now very uncomfortable bedfellows.

by Albert T. Sommers
CB Office of the Chief Economist

The term "mixed economy" has achieved general acceptance as a description of the institutional conditions that now prevail without exception among the developed economic systems of the West. As a grudging acknowledgment of the fact that the old economic order no longer prevails in the West, the term marks some progress in understanding, though really not much. All it suggests is that free-market economic systems now coexist with large, planned government sectors; it leaves open and even encourages the comfortable possibility that the "mixture" is a stable sociological compound; that the society is in deliberate and conscious control of the proportions of public and private entering into the mix; and that the full implications of its appearance and growth are revealed by the percentage share of the gross national product taken by government. The system buys a little compassion—perhaps at the expense of a little efficiency—and that's about it.

This is, indeed, the way it all looked only two decades ago, when economists in the United States, as well as in Europe, were congratulating themselves on the apparently successful grafting of social programs onto essen-

tially free-market systems. But we are learning—the lesson has been driven home by the persistent failures of Western systems, particularly in the past decade—that the mixture is by no means benign and stable. The changed composition of the GNP between private and public demand now appears to be only the surface manifestation of a profound social tide, driven by a powerful dynamic that is reshaping Western economic history. The mixed economy is not inert; instead, it is a witches' brew of intensely interactive principles of social organization.

What is at work in Western "mixed economies" is a genuine collision of ethics and economics—of ethical principles and market principles.* This is not the first such collision. Long ago, the victory of a religious ethic over the mechanics of self-interest produced an "age of faith," in which a transcendental ethic dominated much of economic activity for a thousand years, even into American Colonial times. In turn, the religious ethic was ultimately challenged and unseated by the immense energies of the early Industrial Revolution. In *Religion and*

*It should be clear that the term "ethical principles" does not mean that such principles are necessarily valid, nor does it imply that market principles are "unethical." The distinction runs to source, not validity or respectability.

✦

the Rise of Capitalism, Tawney provided a magnificent description of the inexorable victory of capitalism over religion, and its eventual capture of the religious citadel itself. Out of the victory of self-interest came Adam Smith, and economic man.

A new ethic, born in democracy and nurtured by an uncertain and equivocal revolution in the social and life sciences, is now taking on Adam Smith. Economics without reference to the forces of democracy—without consideration of the awesome ethical front that has been advancing on the free market for decades—simply cannot comprehend a modern socioeconomic structure. In particular, conventional economics cannot understand or prescribe for the central failures of Western economic systems—their inability to control inflation and to provide a level of new private investment compatible with their ethically imposed employment and distributive objectives. Not the least evidence of the struggle and the failures is the remarkable current growth of the literature, mainly by economists, on the impact of social and political forces on economic systems. The Brookings Institution has recently funded a large study in this area; even Milton Friedman, whose dedication to formal economics is not in dispute, has conceded that a full understanding of the Phillips curve of a modern society will require the entry of social and political variables.

It seems incontestable now that democracy and the free market are no longer in the simple, cooperative relationship that prevailed in earlier days, when they represented mutually supportive reactions to the power of religion, monarchy and historically entrenched class. Democracy and the free market are now very uncomfortable bedfellows; the marriage has been, and doubtless will continue to be, a stormy one. Stormy marriages are said to have their compensations, and this one certainly has; it is difficult to imagine a more monumental achievement than the reconciliation of the enormous energies of the free market with the striving for compassion, for equal opportunity and for social justice that is associated with democracy. But nobody should expect it to be easy.

For the democratic ethic turns out to be basically distributive, egalitarian, oriented to consumption, unimpressed with incentive, and concerned with the "average man" and eager to believe in his perfectibility. The free market, on the other hand, is basically cumulative, organized on dominance and leadership, a machine driven by incentive and reward, anti-egalitarian, and darkly suspicious of altruism. Capitalism fuses risk and reward in a rigid gel of market logic; democracy treats them as partly independent variables. Democracy seeks a more equal distribution of income; capitalism depends on an unequal distribution for saving, investment and

growth. Democracy legislates values, arrays priorities, praises and condemns. The free market offers no priorities, no values, no end, no purpose; it makes do with man as it found him. In refusing to bend to purpose, the free market protects us from the purposes of others, and it liberates the enormous energies contained within self-interest. Democracy struggles to direct the energies toward its own purposes; in so doing, it often treads on the incentives that are responsible for the energy in the first place.

Democracy treats "economic man" and "scarcity" as cultural artifacts; capitalism treats them as ultimate truths. Democracy is a dynamic, progressive, teleological process in search of a just world. The free market is an austere beautiful intellectual structure; its Euclidian geometry of self-interest is repelently fleshless to all but the strongest minds.

Democracy expects and evokes changes in economic institutions; the only change the free market seeks is the return of an errant world to its eternal principles—a defensive posture similar to the posture of religion when it was driven from the field by the free market in the last encounter between an ethic and a social tide. Democracy enlists government as its ally and uses it freely, even brutally, in its pursuit of equality. The free market understands perfectly well that government, which was its ally in its last encounter with an ethic, is its mortal enemy in this one.

The description suggests, properly, an unequal struggle. All over the West, the free market has been on the defensive and in retreat. Democracy has invaded the marketplace, altering its institutions, breaking down its natural defenses against inflation, and forcing outcomes that are all but unrecognizable by conventional economic reasoning.

It should be added that the democratic ethic working its way through domestic economies does not stop at the water's edge. However ambiguous in terms of its origin and ultimate rationale, the instantaneous ethical "ought" of its moral imperatives is not constrained by geography or national boundaries. Its distributive justice is at work in the North-South issue (and even in the oil issue), imposing inflationary outcomes for the prices of materials produced in the developing world, as it produces inflationary outcomes at home.

In the complex, circular relationship in which history abounds, the democratic ethic has been associated with a humanistic tide in the social sciences (other than economics) and in the proliferating life sciences—anthropology, biology, genetics, zoology, ethology and the evolutionary sciences. At least one of the motivations driving today's immense research effort into the nature of man and his biological heritage is a search for values—for an ethical system that is immanent in nature, requiring no

appeal to religious authority; an ethic that is not a temporary cultural fashion or an accommodation to free-market materialism, but rooted in man himself. The life scientists, especially aware of the ecological risks of unrestrained competition, seek a natural base for the cooperation they consider essential to the future of man. *The Ethical Animal* is the title of a book by a distinguished Scottish zoologist; "evolutionary ethics" is now a standard library classification. Virtually all popular works on evolution conclude with an uneasy but determinedly liberal chapter on its ethical implications. The chapters are not flattering to the free market; it is cooperative behavior—a natural base for altruism—rather than self-interest that draws the attention of the evolutionists, because it is in cooperation that an ethic suitable for an advanced, complex, interdependent social system is likely to be found.

What the economist sees as a "mixed economy" is, from the point of view of the life sciences, a heightened cultural form of a conflict traceable all through evolutionary history: the struggle of a social species to reconcile the individuality of the member with the society-wide need for species survival—that is, with altruistic behavior. With the guidance of natural selection, the natural world evolved effective balances of individual aggression and social responsibility that represent behavioral mixed

economies—partly free and aggressively competitive, partly socially imposed and cooperative. But in the human paradigm, the tension between a free market and a social ethic has been compounded by the furious pace of technology. The contradictions of the mixed economy are traceable, in the end, to a profound and widely accepted anthropological fact. Cumulative cultural transmission has exploded into a technological revolution requiring for its support a high degree of cooperation, specialization and interdependency, and into a democratic distribution of political power that has no counterpart in nature; while evolution, proceeding at the deliberate, noncumulative pace of natural selection, has provided an incompletely socialized, still competitive and aggressive animal to operate the culture.

If inequality is the critical issue of democracy, and altruism of the life sciences, "externalities" and "dependencies" are the critical issues raised by technology. The gravest threat to the free market, and the greatest voltage available to ethics, is the enormous social implication of technology. Increasing complexity and specialization deepen the dependence of the individual on the aggregate as they increase his productivity. They reduce his influence on his own future, expose him to risks (and rarely, rewards) over which he has no control, and therefore press him to seek protection and redress from those

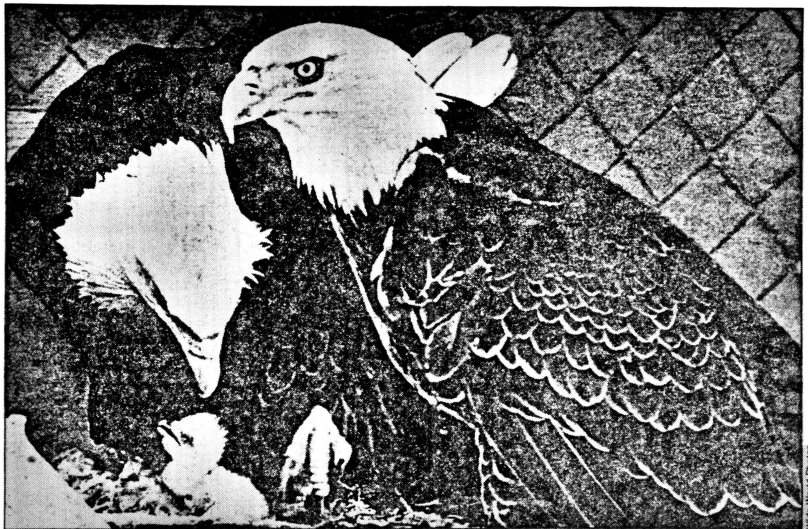


Photo: World Photos

who presume to control the system—that is, from government. The humanistic trend of the social sciences has provided the ethical mandate for his effort, and a democratic political system has provided the vehicle. The growth of the economic role of governments in the West is a profound and probably irreversible consequence of democracy, humanism and technology.

Viewed this way, the "mixed economy" is not a mixture, but a process, inimical to its free-market component, in which ethical principles advance on and absorb parts of the institutional structure. The recognizable tendency of government bureaucracies to grow, to divide, and to proliferate, the tendency of legal interventions into markets to progress to further interventions, are commonly observed illustrations of ethical displacements of market phenomena; they reflect the laws of motion of modern social systems. The process is visible enough in the spread of command-type (as distinguished from incentive-type) regulation, particularly in such newly legislated areas as occupational safety, fair employment practices and environmental controls, as well as in the now traditional areas of antitrust and regulatory matters. But more general and important evidence of the ethical impact reaches into the conventional major areas of macroeconomic policy, and their bearing on stabilization and control of inflation.

Ethical interventions into the marketplace have released a torrent of general inflation throughout the democratic West. By their reformation of the relationship of the government to the private sector, and by the alterations they have induced in private-sector institutions—by the radical alteration and "humanization" of conditions in labor markets, the imposition of politically validated full-employment commitments on top of "labor markets" that no longer at all resemble markets, by the spread of indexation (not simply in wage contracts but, by implication, for all wages, and increasingly for purchase-sale contracts in the private sector, and most particularly with respect to sales to government), and by the enormous growth of distributive social costs entering into each unit of output—the social developments of the past two decades have greatly increased the level and durability of inflation.

In turn, this inflation, upstream from the economic system itself, has outflanked, neutralized, and then subverted the traditional restraints on inflation provided by fiscal and monetary policy. All throughout the West, conservative central bankers are tolerating, albeit irritably, a rate of growth in monetary aggregates that flatly defies their own orthodoxy; failure to create the nominal liquidity, in the presence of a source of inflation independent of money itself, would result in shrinking real liquidity, rising interest rates, recession, and violation of social commitments to high employment.

And similarly with budgetary outcomes. In the last half of this decade the United States will evidently run an accumulated Federal deficit of nearly \$300 billion. A substantial portion of these deficits reflects the rising tide of transfer payments, which now dominate Federal outlays, as a reflection of governmental efforts to fulfill the distributive ethic of democracy. The phenomenon is available for study cross-sectionally, as well as over time in the United States; virtually every member country of Organization for Economic Cooperation and Development is running a budgetary deficit (relative to its GNP) equal to ours. The bureaucratic instincts that lead to such deficits are essentially conciliatory. The rise in social spending accommodates the egalitarian ethic, while the shortfall in revenues avoids the still higher progressivity of the tax structure that would be required to balance the budget, and thereby restrains or defers the impact on

“What we might hope for is . . . a structure that will provide a suitable home for the complex, partly competitive, partly cooperative, enormously diverse animal that is man.”

private incentives. In effect, the budget deficit helps to keep the social peace at the troubled border between democracy and capitalism. In the same way, the rapid creation of money finances social spending (that is, it finances the budget deficit) and suppresses the financial consequences in the private sector.

In modern societies, fiscal and monetary policies may be enabling conditions of inflation, but they do not "cause" inflation, and they cannot stop inflation. In fact, it is truer now to say that inflation causes budget deficits and rapid money growth than to put it the other, conventional, way. All three phenomena—inflation, budget deficits and rapid money growth—are coordinate reflections of the ethical invasion of free markets.

In these circumstances, virtually every Western economy (and for somewhat different reasons all developing economies as well) have resorted to incomes policies intended to slow the destruction of liquidity by inflation. Incomes policies and their inherent resort to numerical calculations of "fair" (or "equitable" or "just") prices, wages and profits, are an ethical response to an ethically induced inflation; they invoke the "public interest" against private market determination, particularly where (as in wages) ethically oriented institutional change has



left a heavy deposit of inflationary market power.

Besides incomes policies, two other additions to the equipment of macroeconomic policy have been applied in most other Western economies and are certainly possible developments in the United States within a few years. The democratic ethic, in the course of its effort to achieve a more equal distribution of income, tends to enhance consumption at the expense of investment, and hence at the expense of growth, and hence, ultimately, at the expense of employment. Its egalitarian goal thus ultimately collides with its employment goal. In European countries whose cultural and political conditions permit it, this confrontation has led to direct public investment in productive facilities. In the United States, where public ownership of investment assets still appears to be ruled out by public attitudes, the urgent practical need to maintain investment has resulted in a proliferation of off-budget agencies whose funding, in effect, extends to private activities the privileged status of the Treasury in capital markets. Thus far such activities have been largely but not exclusively limited to the housing market; it would hardly be surprising to find a growth of such agencies channeling credit under quasi-public terms to other investment-type activities (and, perhaps imminently, to the financial requirements of state and local governments). Supplementary to such devices are investment-oriented tax credits, such as the investment tax credit or accelerated amortization on new facilities; these devices retain a market orientation, but of course they involve revenue losses that will be reflected in future budget deficits, whose management may well require still more progressive (or, in the case of payroll taxes, less regressive) general taxation. Despite credible arguments that the fungibility of money limits their usefulness, most Western economies have equipped their central banks with a battery of selective credit controls, frequently on installment credit, to constrain the consumption consequences of their income-distribution efforts and to preserve resources for public and private investment.

Finally, it does not seem likely that the humanization of the workplace has yet reached its maturity—even in Europe, where it is more advanced than in the United States. On both sides of the Atlantic, labor is in a long transition from a variable cost to an overhead cost. No one would question the past and impending loss of crude efficiency in this translation, but it appears to be inevitable, and in the end it may have impressive benefits as well as costs.

To look beyond these near-term and medium-term possibilities into the longer future course of American economic institutions as they respond to the internal frictions of the mixed economy is, obviously, hazardous in the extreme; all that can be offered are some

humble speculations.

There is not much reason to think that the process described here has reached an end; its historical roots are deep, well watered by the intellectual support of the social and life sciences. But it is at least a reasonable guess, on the evidence in Europe and the United States, that beyond the near term the pace of change may slow to a more settled, more manageable and perhaps less inflationary rate.

A considerable portion of the energy of the democratic ethic has been used up in the massive institutional transformation of the past 40 years, and particularly the accelerated rate of change of the past decade or two. The rhetoric of the attack on the free market and its cruelties has assuredly been blunted by rapid growth of nonmarket distributive and social efforts. The further pursuit of ethical ends seems to carry a clearly rising marginal cost, in efficiency and perhaps also in public irritation. It is far more widely recognized today than it was five years ago that, barring fundamental changes in the legal status of property (and surveys suggest no desire for such changes in the United States), much of any incremental ethical effort will be dissipated by inflation, and that there is no truly effective way of controlling inflation other than simply slowing the rate at which we do inflationary things. In the great trade-off between ethically imposed institutions and market institutions, as in all the other more conventional trade-offs in economics, there is no free lunch; indeed, the price of the lunch is rising. While they have properly and importantly directed the attention of economists to the ethical implications of democracy and technology, the social and life sciences have thus far failed to dislodge self-interest as a fact of life, and a principal motivation to efficient activity; the evidence accumulates that this useful, dependable, and candid, if not inspiring, motivation has been profoundly weakened by the costs of ethical goals. And there remain large opportunities to improve the material well-being of all, especially those in lower levels of the income distribution, by preserving efficiency, incentives, investment and growth.

It is not too much to hope that democratic systems—grown more aware of the challenge they face, recognizing the dangers in asking more of man than he is yet able to deliver, and confronted with the evidence (so obvious outside the West) that predominantly socialized, nonmarket economies have their own desperate problems—will settle into a long-term compromise, at least as to rate of change. What we might hope for is an institutional structure that will preserve a vigorous competitive arena at the same time that it accommodates technology and seeks social justice—a structure that will provide a suitable home for the complex, partly competitive, partly cooperative, enormously diverse animal that is man. ■

February, 1978

Information Bulletin No. 36

THE BALANCED FEDERAL BUDGET: AN ORTHODOXY IN TROUBLE

By Albert T. Sommers

Introduction

The American people, and their elected representatives in Washington, have always subscribed to the principle that governments should operate with balanced budgets. The principle has simple but deep moral roots in our history and cultural traditions. A government, no less than an individual, should live prudently within its means; the habit of debt incurrence is an indication of profligate living. Moreover, a balanced budget accords with American views of the proper limits of government; it imposes constraints on government spending, and hence on its size and power. To permit government to incur grow-

ing debts impairs its responsiveness to the people, since it detaches spending, in some degree, from the willingness of the electorate to provide the funds for government through taxation.

These essentially moralistic views of appropriate budgetary outcomes have survived for decades in the presence of an increasing recognition that the role of government has grown to a point where its operations have an important influence on general economic activity, and thus might require broader and more flexible criteria, external to the budget itself, by which its performance is to be judged.

In the past ten years, the United States and virtually all developed western economies have experienced abnormally high rates of inflation and money growth, as well as continuing large budget deficits, all in the presence of relatively severe business-cycle fluctuations, and slower long-term growth. Conventional forecasting has not been effective in warning against these outcomes, and conventional mathematical simulations of the past do not reproduce them very well. Moreover, the conventional reasoning on which economic policy rests does not seem to prescribe a clear course out of "stagflation" and back to more vigorous and less inflationary performance.

After a decade of such puzzling and uncomfortable experience, it no longer seems presumptuous to suggest that some of the conventional propositions of economics be reviewed to assure that our ways of looking at precisely such variables as inflation rates, budget outcomes and rates of money growth are still relevant to an economic system that has undergone substantial institutional change. There seems to be a growing conviction among practicing economists that such a reappraisal is now in order.

This article on federal budgetary concepts is the first of a series by Albert T. Sommers, the Board's chief economist, on economic policies and their consequences in a modern mixed economy. The material is frankly exploratory—intended to pose issues and stimulate discussion, rather than to advance formal conclusions. Ensuing articles will deal with monetary policy, the sources of inflation in modern economies, and some proposals for new approaches to the problems of inflation, budgetary deficits, and monetary growth.

KENNETH A. RANDALL
President

Respect for a balanced budget has persisted even among Keynesian economists; and the monetarists' counterpoint to Keynes, which elevates the growth of money to the principal determinant of activity and prices, has seemed to demand prudent fiscal behavior as a precondition to prudent management of monetary conditions.

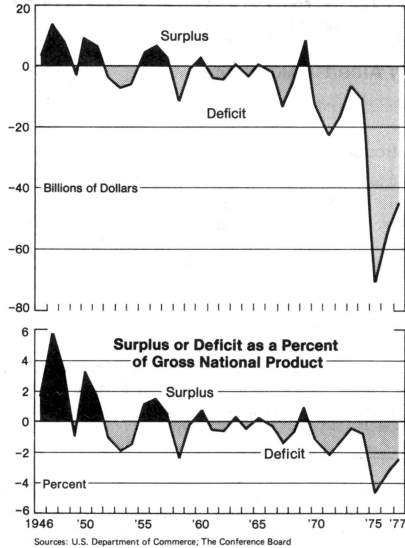
In the light of this apparent near-unanimity among the general public and the professionals, both American political parties have traditionally incorporated a balanced budget in their platforms, election after election, through decades of growing government and changing social and technological conditions. And in the past 20 years they have maintained this position in the face of very nearly continuous budget deficits, run pragmatically by administration after administration that took office with a balanced budget among its specified economic goals.

As long as the deficits were small, or clearly related to war, or clearly a temporary accompaniment of general recession, the gap between the normative rule and the actual performance of the budget provided nothing more than minor occasions for political skirmishing. But the budgetary outcomes of the past few years, and the prospective outcomes of the next few years, are something else again. In the two and one-quarter years comprising fiscal 1975, fiscal 1976, and the so-called transition quarter (the third quarter of calendar 1976) the cumulative budget deficit totaled about \$125 billion. The deficit of fiscal 1977 has evidently brought the accumulated total to about \$170 billion. Both Congress and the Administration expect a deficit of about \$60 billion in fiscal 1978, even in the absence of tax reduction; a reduction of \$20 billion (the proposed amount has evidently drifted up to or above this figure), if it were to be effective in the fall of calendar 1978, would add perhaps \$5 billion to the fiscal 1978 deficit, and it would seem to assure a deficit of about \$60 billion in fiscal 1979, even assuming a relatively strong recovery of business in that year.¹ In the five calendar years from 1975 to 1979, the aggregate deficit is thus likely to be about \$280 billion, give or take a dozen billion. The public debt outstanding at the end of fiscal 1979 is likely to be about double its level in 1971. Such deficits can hardly be described as small; they are certainly not related to defense outlay, much less to war (spending for defense has been very nearly

¹The estimates for 1978 and 1979 do not reflect changes in social security taxes, or the net budgetary impact of proposed energy taxes and rebates.

stable, even in dollars, in recent years); and they are not clearly related to short-term cyclical recession (the fiscal 1979 deficit would lie fully four years beyond the end of the last recession).

Chart 1 Federal Budget Surplus or Deficit



We are not, of course, alone in this bewildering fiscal experience. The deficit of recent years has amounted to about 3 percent of our gross national product; similar relative deficits are being run all over the West, among nations whose traditions with respect to the role of government are, at least in some cases, as conservative as our own.

Such spectacular departures from intended budgetary outcomes certainly invite a careful appraisal of the circumstances that have produced them, and of their real meaning in modern economies. What conditions have brought us to a situation in which pragmatic management produces such stunningly unorthodox outcomes? Are we mismanaging ourselves? Have Western economies suffered a runaway loss of prudence? Or has the budget orthodoxy grown less and less realistic in the real world? Have our views of Federal budgets, and

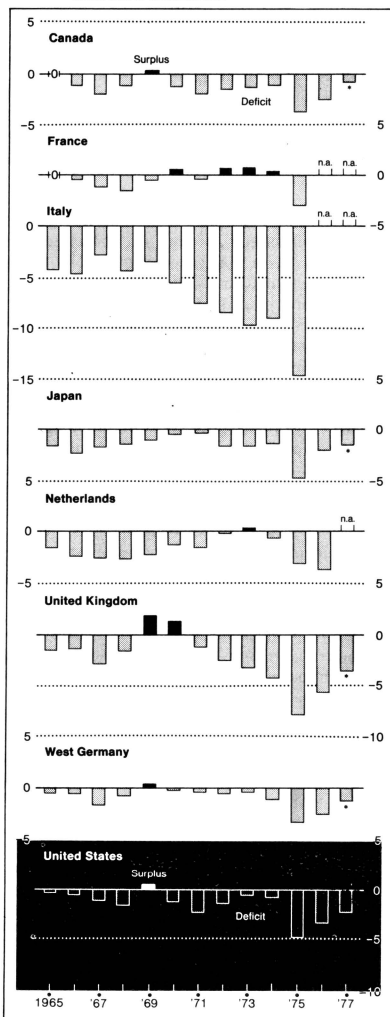
perhaps even the accounting conventions by which we measure the outcome, grown anachronistic during decades of rapid change in the social and economic conditions of the system, and of the role of government in the system? Budget deficits of their recent size mean *something*; if they did not, there would be reason neither to fear them nor to seek them. Effective economic policy (measured by criteria which relate to the performance of the entire system, not just the budget outcome) would seem to require a practical consideration of the causes and consequences of large and continuing deficits.

The Budget as an Instrument of Policy

Budgetary reasoning, and budgetary policy, might well start with a recognition that a budgetary outcome is an instrument of policy, not an end in itself. Illustrations of ends in themselves are high employment, vigorous growth in total output and living standards, a low and stable rate of inflation, equality of economic opportunity. These might be called the general or macroeconomic ends of the system. The distinguishing characteristic of these ends is that they are at the surface of the economic system, not inside its complicated, compensating machinery. Their justification is not economic, but social and ethical, connected with considerations of the good life, personal freedom, justice. They are goals that might be common to economic systems whose internal structures are widely different. We would not be concerned particularly if a budget deficit persisted over the long term in the presence of very satisfactory achievement with respect to these general ends. But we would be disappointed, and properly so, if we achieved a continuing budget balance in the presence of persistent unemployment and slow growth in living standards. In an array of policy targets by order of real importance, the budget outcome is ultimately and inevitably subordinated to the other goals—the true ends.

In practice, of course, we instinctively grasp this difference. Because of the obvious risk to the real ends, nobody proposes to close next year's prospective \$60-billion deficit by reducing spending and/or raising taxes. But in a longer-term context, the goal of a balanced budget seems to retain its high priority in the minds of the public as well as of the legislators and administrators who establish the budget outcomes. The high priority reflects moralizing on a point that is not at the interface of economics and morals, but deep within the technical structure of the economic system.

Chart 2 Budget Surplus or Deficit as a Percent of Gross National Product, Selected Countries



* First half of 1977 N.A. Not available
Sources: International Monetary Fund; The Conference Board

One reason why moralistic considerations are applied to this essentially amoral, technical concern is that the terminology of federal budgeting is, by and large, drawn from the accounting terminology used in the private sector, and this permits and encourages moral analogies to private behavior. For a family, a balanced budget is better than an unbalanced budget; a family should "live within its income," and therefore so should a government; "surplus" does not carry the moral stigma of "deficit"; and with respect to "debt" "less" is better than "more" for businesses and families alike.

These analogies, resting on the common vocabulary of governmental and private accounting, are highly imperfect; and they may be expensively misleading. A sovereign government is not a family owing its debt to other families or businesses; its expenditures are not in its own interest, but presumably in the interests of the nation as a whole; its receipts are not an income from sales to others, but a levy on itself for common purposes. The debt of a sovereign nation, equipped with its own central bank capable of creating the funds necessary to meet the debt, is very different from the debt of a family or a business not so equipped.² The public debt is embodied in risk-free financial instruments which appear as assets on the balance sheets of holders. For the nation as a whole, the public debt is largely equivalent to public holdings of these risk-free financial assets. The extinguishing of public debt by repayment extinguishes the asset as well.

Attitudes toward federal debt and the deficits that result in the debt are thus colored by accounting terminology and the analogies to which it leads. There are other, more substantive objections to an unbalanced budget, of course. Conservatives respond favorably to a commitment to a budget balance, partly because they believe it to be a constraint on government spending, and hence a protection of the relative size of the private sector; and also because they think of a budget deficit (that is, a departure from a zero balance) as being inherently and inevitably inflationary, in direct and linear proportion to the size of the deficit (the departure from zero balance). Even liberals, studying prospects for private capital formation over the longer term, have argued for a balanced budget (or even a surplus) at full employment, because they consider the financing

of the deficit to be an invasion of a fixed supply of long-term capital available for investment and growth. These propositions are by no means foolish analogies; there are doubtless deficits of a size (and composed of a structure of spending and taxing) that might well be inflationary, and might well impair prospects for private capital formation. But it is not at all clear *a priori* that a zero position in the budget—that is, a close approximation to a perfect balance—is inevitably and under all conditions the proper or most desirable point in the spectrum of budget outcomes for purposes of either price stability or private capital formation. Nor is it at all clear, given the present structure of the U.S. economy, that a zero balance would be associated with the very important goal of sustained high employment and minimal unemployment. This does not mean that a balanced budget (or a surplus) is *inherently undesirable*, or that a deficit is *inherently desirable*. It simply means that "desirability" can be measured only by economic consequences, in the long run, as well as in the short run.

In all respects but one, a zero budget deficit (that is, a zero position in the surplus-deficit scale) resembles zero on a Fahrenheit scale. It is simply a point in a continuum, halfway between a \$1 billion surplus and a \$1 billion deficit in much the same way that a \$3-billion surplus is halfway between a \$4-billion surplus and a \$2-billion surplus. The one respect in which it is distinguishable from other budget outcomes (and in which it may be thought to resemble zero on the Celsius scale) is that it connotes a zero change in public debt. The question of whether a balanced budget is desirable in the long run can thus be translated, without any loss of meaning or significance, into the question of whether zero change in the federal debt is a desirable or stable condition for the system. (For some purposes, it may even be useful to treat the level of the public debt as the primary statistic, and the budget outcome as the derived, first-difference result.) This question is examined in a later section. It is raised here because it may help to dispel some of the strictly doctrinaire appeal of a "balanced budget."

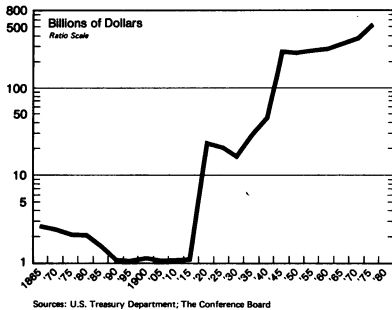
We do not ask of a business that it never increase its debt as it grows—nor do we ask of a growing family that it fix its debt in absolute terms, despite an increase in its income and living standards. Apart from public debt, we are accustomed to looking at debt relatively—relatively, that is, to the income flow or asset base from which it is serviced. A family or business may well be experiencing rising debt, and yet

²This is true even of federal debt held by foreign individuals and banks, and international institutions, so long as the debt is denominated in the national currency.

be “living within its means”—even if it is not “living within its income.”

The history of economic reasoning about the budget position has been moving for decades toward this more general but less familiar view. For most of our history, public policy sought simply to collect the revenues to meet expenditures; on the eve of World War I, the public debt was little changed from what it had been 20 years earlier, and was actually lower than the level that prevailed at the end of the Civil War. Apart from the elevations of federal debt associated with war, surpluses appear to have been the rule rather than the exception. Prior to the Depression of the 1930's, the Federal Government was small (federal expenditures, exclusive of statutory retirements of debt, amounted to only 3 percent of GNP in 1929) and severely limited in its domestic functions and responsibilities.

Chart ④ Total Gross Public Debt



The Great Depression enormously enlarged the role of government, and the wide acceptance of Keynesian macroeconomics allocated to government a major responsibility for the level of employment.³ After an ensuing further growth of government intervention and of the size of the federal debt during World War II, the nation emerged into the postwar era prepared to commit itself, through the Full Employment Act of 1946, to an aggressive macroeconomic role. While we remained committed in principle to a balanced budget, we gradually ac-

cepted the realities of cyclical behavior of the budget. In the presence of the so-called “automatic stabilizers” (and together with the very high dependence of the Federal Government on income taxes whose base fluctuates with economic activity) the system tended to run deficits in years of recession. Throughout the 1950's, it became acceptable budgetary practice to run a deficit in poor business years, presumably to be at least partly offset by surpluses in better years. This stage of evolution in budgetary thinking might be called “cyclical budgeting.”

In the course of the 1950's, the extraordinarily liquid condition of the system—generated by a combination of massive federal budget deficits and restraints on the price level during World War II—was gradually neutralized; what could properly be called a “postwar boom” appears to have ended around 1957. In the years from 1957 to 1962, the growth rate of the system subsided seriously. A deep recession struck in 1958, followed surprisingly quickly by renewed recession in 1960. Even in 1962, only a year after the onset of recovery, the growth rate appeared to be faltering again.

The response of budgetary thinking to this emerging stagnation of the system took the form of “full-employment budgeting,” a principle that had not been unknown even before World War II, but suddenly appeared to be an appropriate application of Keynesian reasoning to align budgeting practice with the substantial macroeconomic role of government. The “new economics” of the Kennedy years established full-employment budgeting—in which budgets are calculated to balance at the receipts constructively available at full-employment, and to generate stimulative deficits in proportion to the shortfall from full employment—as the accepted wisdom among the great majority of practicing and academic economists. Since then, the full-employment income of the Federal Government has provided a guide to the presumably noninflationary limits of federal spending. While full-employment budgeting represents a substantial departure from earlier practice (or at least a new rationale for the pragmatism that had characterized federal fiscal policy even in the 1950's), it retained a balanced budget as a significant event. (Full-employment budgeting tacitly accepts long-term growth of the federal debt, since it does not specifically argue for *surpluses* at full employment to offset deficits in years of less-than-full employment.) Its general propositions are still widely accepted, although two minor

³The “compensatory” economic policies advocated by Marriner Eccles during those years supported the applications of Keynesianism in the United States.

elaborations have recently appeared, in response to conditions and problems in the performance of the system as a whole.

The first of these would tolerate a departure from full-employment budgeting—in the direction of a full-employment deficit—as a temporary device under severely depressed economic conditions, in order to accelerate recovery. At a later point in the recovery, fiscal policy would presumably make a kind of midcourse correction to restore the full-employment balance. This reasoning arose in response to the severe recession of 1974-1975. In the same years—from about 1973 to the present—another variation of the general principle has arisen in connection with a threatened inadequacy of private capital formation. This variation proposes that the budget achieve a surplus of at least moderate dimensions at full employment, to provide a margin of federal saving to contribute to a presumed very high (but perhaps temporary) need for private investment. Such a budget surplus would, it is argued, provide a flow of real saving into the capital market for the use of private investment.

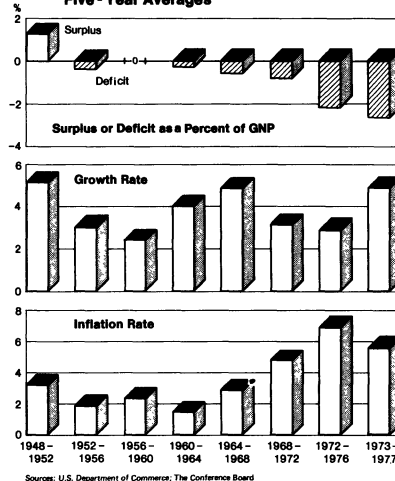
This woefully oversimplified history of the evolution of views on budgetary targets may be enough to indicate that the changes in views have arisen not so much from elaborations of theory but, rather, from responses to demonstrated needs, as exposed by actual performance of the whole system with respect to its true ends. Indeed, all of the changes in theoretical formulation were preceded by entirely pragmatic adaptation to necessities, dictated by the evolution of the system, and particularly of the role of government.

The experience of the past three years, in which the actual budget deficit has been far larger than any projections at the start of the period would have envisioned—and more persistent than the currently accepted formulation of budgeting objectives would have approved—raises the question whether even the evolved views of budgetary objectives now meet the needs of the system (including the private sector of the system) and whether they offer budgetary criteria that are coherently related to the other objectives—the true ends—of economic policy.

Budgetary Outcomes: The Postwar Record

At the end of World War II, the American economy was altogether abnormally liquid. For five years, public holdings of public debt had grown enormously, while price controls and controls over output

Chart 3 The Budget Position, Growth and Inflation, Five-Year Averages

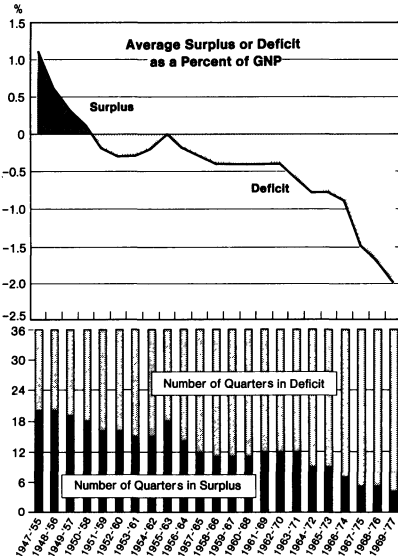


of civilian goods had restrained the price level and accumulated record volumes both of savings and of unsatisfied real demands. The “real” liquidity of the system—that is, nominal asset holdings in relation to the price level—was dramatically high. Abnormally liquid, and hungry for output, the private sector of the U.S. economy emerged from the Depression and World War II with violent energy in its balance sheet—enough in even the very earliest postwar years, while reconversion to civilian production was still in progress, to drive the budget position into a modest surplus in 1946, and then a surplus amounting almost to 6 percent of GNP in 1947.⁴ Excepting, significantly, only the recession year of 1949, the budget was in surplus in every year until 1951. Modest deficits were run in 1952 and 1953, as Korean War expenditures reached their peak, and a second cyclical deficit appeared in the recession year 1954. In the years 1955 to 1957, in what might be described as the final flowering of a true postwar boom, modest surpluses appeared in each year. Small deficits then

⁴Budget data in this section are on a national-income-accounts (NIA) basis, which offers quarterly data at seasonally adjusted annual rates, and calendar-year totals. The NIA data differ from budget data in timing and coverage, but the typical aggregate differences are small.

predominated from 1958 to 1962, as the energies of the postwar boom subsided, and were gradually replaced by the stimulative policies of "the new economics." From 1963 to 1965, the budget was close to balance. Deficits were experienced in 1966 to 1968, as expenditures for the Vietnam War rose to a peak; and the budget position returned briefly to a moderate surplus in 1969, thanks both to vigorous economic experience and a short-lived surtax. Starting in 1970, the budget has been in continuous deficit, reduced nearly to a balance by the boom in 1973, and then vastly augmented by recession in 1975 and 1976.

Chart 5 The Budget Position, Nine-Year Moving Averages



Sources: U.S. Department of Commerce; The Conference Board

If this long postwar experience is summarized in five-year period averages, beginning with the period 1948-1952 and ending with the period 1973-1977, at least some of the cyclical and war-induced influences on the budget are smoothed. Such period averages disclose a gradual subsidence of the budgetary out-

come, from an average surplus of 1.3 percent of GNP in the earliest period to an average deficit of 2.6 percent of GNP in the latest period. (In the later periods shown in the chart, the deepening deficit is associated, not necessarily causally, with a falling real-growth rate, and a rising rate of inflation.) If nine-year averages are used (beginning with the period 1947-1955 and ending with the period 1969-1977), the number of quarters in which the budget was in surplus likewise declines almost without interruption from twenty (out of thirty-six) in the earliest period to four in the latest period; and the average surplus or deficit also subsides almost perfectly smoothly from a 1.1 percent surplus in the earliest period to a 2.0 percent deficit in the latest period. The evidence is suggestive of a secular trend toward deficit throughout the postwar years, briefly interrupted in the first half of the 1960's by the innovations of the "new economics."

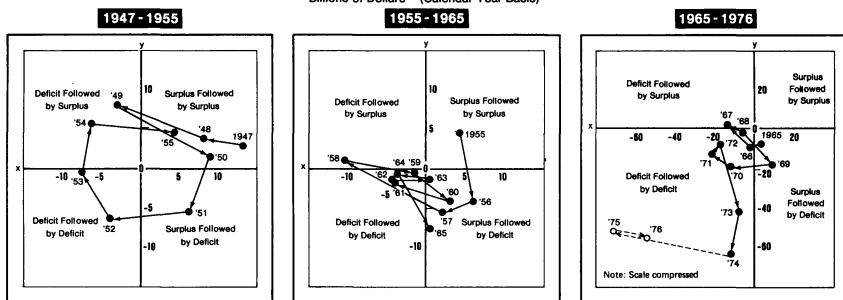
It is part of accepted reasoning about the budget position that deficits are a form of public investment, and hence stimulative to the private sector and to the private income flows that form the tax base—and, hence, at least partly self-liquidating in time. Conversely, budget surpluses are thought to be a restraint on the private sector, and are considered anti-inflationary and, perhaps, deflationary.

The postwar history of the budget position suggests that budget deficits have grown somewhat less stimulative to the private sector over time, and, as a corollary, that budget surpluses (or even close approaches to surplus, as in 1973) have grown more restrictive, and more likely to produce recession. In the early postwar years ending in 1955, the two cyclical deficits (in 1949 and 1954) were followed by surpluses in the two following years (1950-1951, and 1955-1956). In the 11 years, from 1955 to 1965, the cyclical recovery of deficits is still visible, but somewhat less so; and in the period from 1965 to 1976 (in which only two surplus years occurred) the cyclical recovery of the deficit gradually disappears: deficits have been followed by deficits.

The cyclical deficit of 1949 was followed by two years of surpluses; the cyclical deficit of 1954 was followed by three years of surpluses; the cyclical deficit of 1958 was followed by only a gradual recovery that did not reach a surplus until the second year. The fiscal deficit of 1971 was followed by continuing deficits; and the near approach to budgetary balance during the boom of 1973 has been followed by the deepest peacetime deficits on record. Judging from the present expectations for 1977 and 1978, the

Chart 6 The Deteriorating Tendency of Budget Deficits to be Self-Correcting

Billions of Dollars (Calendar Year Basis)



Sources: U.S. Department of Commerce; The Conference Board

x = Actual Budget Surplus or Deficit y = Average Surplus or Deficit over the Next Two Years

huge deficits of 1975 and 1976 have not themselves produced any visible potential for a recovery to budgetary balance. In the first of the three periods under discussion here (1947-1955), there were four years in which a surplus was followed by an average surplus in the ensuing two years. In the second of the two periods (1955-1965), there was only one such observation; in the final period (1965-1976), there are no such observations; virtually all of the years fall in the quadrant indicating deficit followed by deficit, and the circular pattern of self-correction so visible for 1947-1955 has disintegrated into continuous deficit. (See Chart 6.)

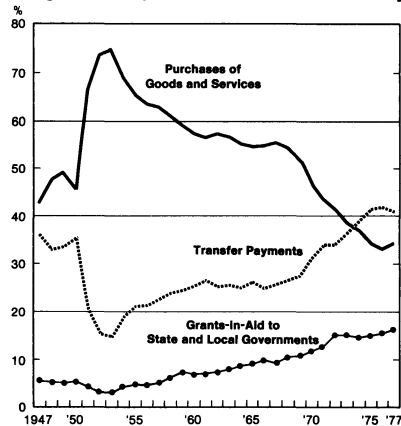
The Changed Nature of Federal Outlays

The internal evidence simply within the time series for budgetary outcomes in the postwar years carries the suggestion of a secular decline in the budgetary position, and a reduced response of the tax base to the stimulative effects of increased federal outlay, or of tax reduction. A number of trends visible in the postwar record of the U.S. economy could account for this result. It may be the effect of offsetting anticyclical and/or anti-inflationary monetary policy; it may be a consequence of the rising rate of inflation itself (which reduces the real significance of nominal liquidity, including the federal-debt component of liquidity); it may be the result of a declining autonomous growth potential in the non-federal sector, and particularly a decline in the energy of private investment. Or it may be the result of international developments affecting the behavior of the domestic economy. Some of these possibilities are explored in

ensuing sections. Here, it is appropriate to note an internal feature of budgetary behavior that may well explain a significant portion of the subsidence of the deficit position. This feature is the change in the nature of federal outlays.

A first obvious trend within federal outlays is the pronounced decline of direct purchases of goods and services as a percentage of total outlay, and the rise in

Chart 7 The Composition of Total Federal Outlay



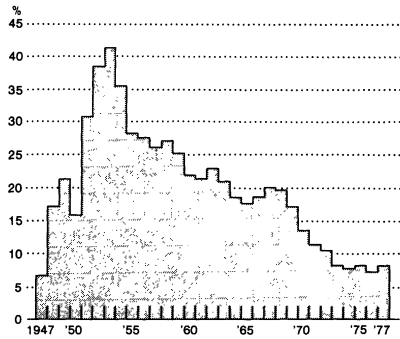
Note: Excludes "Net Interest Paid"; "Subsidies less Current Surplus of Government Enterprises," and "Wage Accruals less Disbursements"

Sources: U.S. Department of Commerce; The Conference Board

the share of transfers to individuals and to state and local governments. In the early postwar years, transfers temporarily constituted an abnormally high share of total outlays (in the years 1947 to 1950 they averaged about 34.5 percent). This high share was a reflection of the post-World War II veterans' readjustment programs. Thereafter, the share of purchases of goods and services rose from about 43 percent in 1947 to over 74 percent in 1953 (the last year of the Korean War). From 1953 on, transfer payments have persistently taken a larger share of total outlay, and goods and services purchases a smaller share. In 1974, the relationships crossed over; transfer payments to persons exceeded purchases of goods and services. In 1977, transfer payments accounted for almost 41 percent of all spending, and purchases of goods and services only 34 percent. Grants-in-aid to state and local governments, expressed as a share of total federal outlay, hit a trough of 3.7 percent in the early 1950's, and have since risen almost without interruption; they now account for more than 15 percent of total federal outlay. In 1977, the combined total of transfer payments to persons and grants-in-aid to state and local governments was 65 percent greater than outlays for goods and services, and comprised 57 percent of total federal outlay.

Even within the total of purchases of goods and

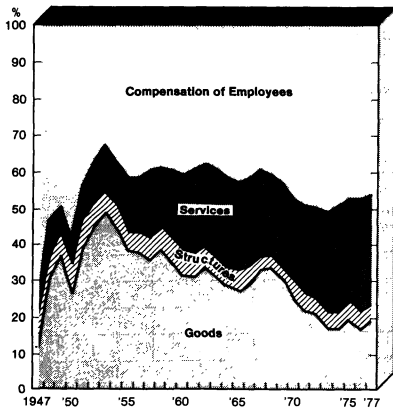
Chart 9 The Share of Goods and Structures in Total Federal Outlay



Sources: U.S. Department of Commerce; The Conference Board

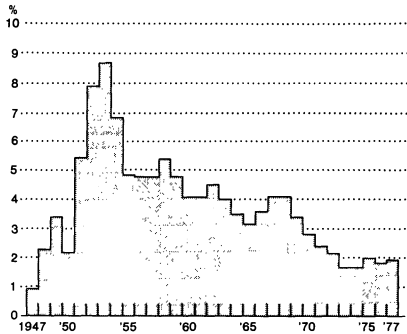
services, significant trends in the composition of spending appear. In 1955, purchases of goods constituted 38 percent of total purchases of goods and services; in 1965, they accounted for 27 percent, and, in 1977, for 20 percent. Purchases of structures by the Federal Government were 5.4 percent of total purchases in 1965, and 4.3 percent in 1977. Purchases of goods and structures, taken together, have fallen more or less steadily from over 43 percent of all purchases in 1955 to 33 percent in 1965, and 24.0 percent

Chart 8 The Distribution of Federal Purchases of Goods and Services



Sources: U.S. Department of Commerce; The Conference Board

Chart 10 Federal Purchases of Goods and Structures as a Percent of Gross National Product



Sources: U.S. Department of Commerce; The Conference Board

in 1977. In the same 20-year period, purchases of services have risen from about 15 percent of all purchases to 30 percent, and compensation of employees from about 41 percent to about 46 percent. In terms of total federal spending, purchases of goods and structures have fallen from about 28 percent of all spending in 1955 to about 19 percent in 1966, and to about 8 percent in 1977.

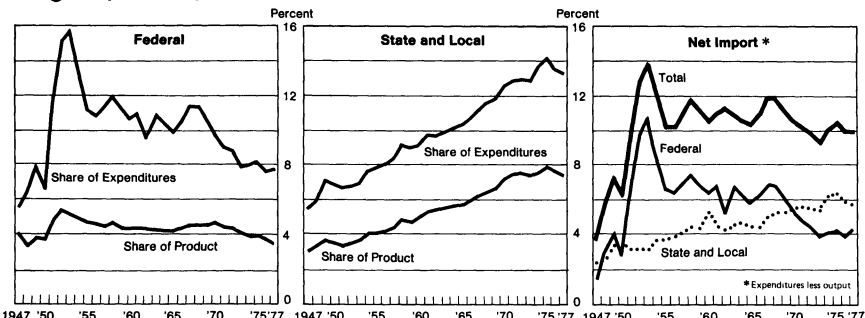
This is an altogether dramatic inversion of spending patterns within aggregate federal outlays. It is difficult to believe that it has no significance for the budgetary outcome. In terms of total federal spending, the compensation of federal employees, together with transfer payments to persons and transfers to state and local government, now account for over 80 percent of all federal outlay. The general impression that the Federal Government is a stimulative, and perhaps an oppressive, inflationary presence in the real markets for the output of American industry is unwarranted. On the contrary, this component has been shrinking dramatically as a component of federal outlay, and just as dramatically as a percentage of total national output. Payroll and transfers are now the overwhelming costs of the Federal Government. In 1975, the combined purchases of goods (including defense goods, of course) and construction by the Federal Government amounted to 2 percent of gross national product.

Another insight into the changing relationship of the Federal Government to the rest of the system is provided by the national-accounts measure of the "output" of the Federal Government, and its contrast with the much more familiar measure of the purchases of the Federal Government. As a share of

the nation's total gross product, federal purchase of goods and services in the years 1947 to 1977 ranged from about 5.5 percent (in 1947) to a peak of 15.7 percent (in 1953, the last year of the Korean War). The "output" of goods and services by the Federal Government in the same years has ranged from a low of 3.4 percent (in 1948) to a high of 5.4 percent (in 1952). Without exception in every postwar year, the expenditures of the Federal Government have exceeded its own output; it is thus characteristically a net importer of goods and services from the other sectors of the economy, the significance of the net importation being measured by the difference between its output and its purchases. This net importation gap reached a peak of 10.6 percent of GNP in 1953; it declined irregularly thereafter, rose briefly in the years of the Vietnam War, and since then has subsided strikingly, to 4.2 percent of the GNP in 1977. (The output of the Federal Government is predominantly service, including, of course, the services of its own employees.) The Federal Government's net demand on the rest of the system—that is, the excess of its purchases over its own output—is now lower than at any time since 1948, about one-third lower than in the early 1960's, and half its relative importance in the early 1950's. State and local governments, on the other hand, have grown as a net importing sector, from about 3.5 percent of GNP in the middle 1950's to 4.5 percent in the middle 1960's, and to about 6 percent currently. What might be called the net buying function of government in the United States has been gradually shifting from the federal to the state-local level.

As a final note on this subject, it is difficult to

Chart 11 Output and Expenditures of the Government Sector



Sources: U.S. Department of Commerce; The Conference Board

believe that the rapid growth of grants-in-aid to state and local governments has no bearing on budgetary outcomes. The share of grants-in-aid in total federal outlays reached a trough of 4.2 percent in 1954; the share has risen, almost without interruption, to 16.0 percent in 1977. Since 1970, grants-in-aid have increased at about 16 percent per annum. If such outlays were excluded from federal budget expenditures, the budgetary outcome would have been a surplus in every year since 1968, with the exception of 1975. The accumulated deficits of the years 1974 to 1977 amounted to over \$185 billion; excluding grants-in-aid, the aggregate outcome for these four years would have been a surplus of about \$40 billion.¹ The transfers of federal funds to state and local governments represent, in a sense, the monetization of a portion of the financial requirements of these governments, which lack the convenience of their own Federal Reserve system.

These points themselves say nothing about the virtues of transfers or grants-in-aid, nor do they argue for or against a restructuring of the spending patterns of the Federal Government. But if it were to be accepted that direct purchases of goods and structures from the business sector exert a larger multiplier on private economic activity (and hence on the tax base) than compensation of employees and transfers, then it should be concluded that aggregate federal outlays are no longer as stimulative as they were one or two decades ago, and, as a corollary, that budget deficits themselves are no longer as stimulative, and hence no longer as self-correcting, as they were. Unless the composition of federal outlay is substantially altered from its present composition, there is a case for arguing that the effort to seek a balanced budget will be more deflationary than it was 10 or 20 years ago. There is a suggestion in these arguments that under present accounting, and given the present composition of outlay, a sustained deficit (considerably lower, one can hope, than the \$60-billion average of fiscal 1976-1978) may be required to avoid recession and maintain economic growth. At the least, they emphatically suggest that the treatment of a zero balance as intrinsically appropriate may be a serious constraint on the freedom of fiscal policy to seek the

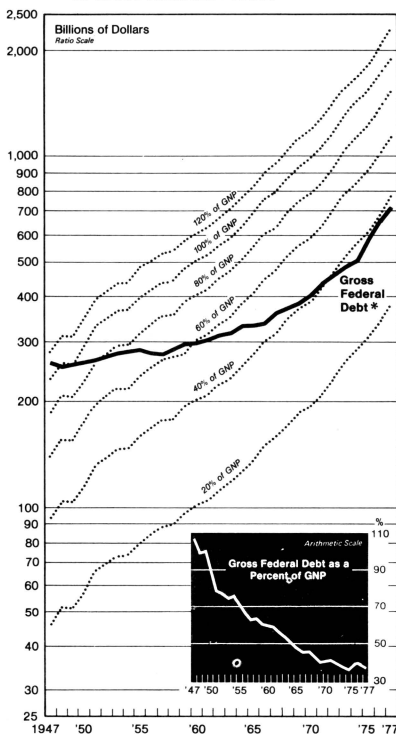
¹This is, of course, an oversimplification. The expenditure of the grants (together with matching funds) by state and local governments doubtless enlarged the federal tax base; without them, federal revenues would have been less than they were. Alternatively, efforts of state and local governments to raise the equivalent tax revenues themselves would have depressed the federal tax base.

goals of growth and stability under the present distribution of government outlay. The road to a balanced budget seems to run partly through some very difficult social terrain, where transfer programs originate.

The Federal Debt in Perspective

Total federal debt outstanding can be thought of as the accumulated total of past surpluses and deficits. There are several different statistical concepts of the federal debt, and the year-to-year change

Chart 12 **Gross Federal Debt and Its Relationship to Gross National Product**



* Excludes Federally sponsored credit agencies.
Sources: U.S. Treasury Department; U.S. Department of Commerce; The Conference Board

in any of them will not be identical with the budget measures of surplus or deficit owing to differences in concept and timing, changes in Treasury cash balances, inclusion or exclusion of the debts of certain agencies and of nonmarketable debt, and inclusion or exclusion of holdings of federal debt instruments by federal agencies. In general, however, we can expect that a balanced budget produces little change in the outstanding debt; significant surpluses will reduce the outstanding debt; and significant deficits will increase it.

In the past history of the deficit, spectacular deficits have been inevitably associated with war. From 1861 to 1865, the total public debt rose from under \$100 million to about \$2.7 billion. (See Chart 3.) In the 1880's and the early 1890's, the deficit was reduced by continuous surpluses, to a point below \$1 billion; and it remained in a low \$1-billion range, with alternations of surpluses and deficits, until the beginning of World War I. By 1919, the debt exceeded \$25 billion. Thereafter, throughout the boom of the 1920's, the debt fell, reaching \$16 billion in fiscal 1930. (During the 1920's, debt reduction was required by statute.) Starting in 1932, countercyclical deficits of \$2 billion to \$4 billion elevated the public debt to about \$40 billion in 1939.

At the end of World War II, the gross debt was about \$270 billion. Offsetting surpluses and deficits in the first postwar decade left the debt virtually unchanged in 1957. Thereafter, deficits have far outrun the occasional small surpluses; by 1965 the debt had reached \$325 billion, and by 1970 about \$400 billion. At the end of 1977, the gross federal debt was estimated at \$715 billion; in 1977, interest charges on the debt were higher than the outstanding debt in 1939.

In the 30 years following the Civil War, the debt was reduced by almost two-thirds. In the 10 years following the end of World War I, the debt was reduced by about one-third; in the decade following the end of World War II, the debt was not reduced at all, and in the three decades following the end of World War II it had increased roughly two and one-half times.

The public perception of this record of debt growth in the postwar years takes it to be an indication of improvident government, in violation of the most elementary rules of prudent stewardship, a principal cause of the inflation of the price of everything, and, ultimately, a threat to national solvency. The enormous deficits of recent years (and the large prospective deficits of this and next year)

doubtless reflect political and social decisions that gave a great deal of weight to considerations other than their budgetary impact, and these decisions can be fairly questioned—indeed, they should be.⁶ But the record of the growth of public debt over the longer term in the United States does not itself provide grounds for intense moral criticism or fear, which rest on an excessively simple reading of the word “debt” in its application to federal credit instruments.

Unlike debt instruments of the private sector, or even of state and local governments, federal debt obligations are backed by the full faith and credit of a sovereign nation entirely capable of creating the funds required to meet its obligations. While holding them involves an intervening inflation risk, as does the holding of all credit instruments and even the holding of cash itself, federal obligations carry no solvency risk. (Depending on their maturity, their current value may fluctuate less or more widely, of course, as prevailing current interest rates may determine.) The interest rate applicable to such securities is a function of the rates available on alternative investments, and the risk preferences of investors. Viewed this way, the credit instruments that are the mirror image of the federal debt are a part (distinguishable, of course, from other parts) of the liquidity of the economic system as a whole. A system can be “too liquid,” in the sense that the liquidity imparts an inflationary thrust to the system; and it can also be “too illiquid,” with resulting deflationary pressures. The growth of the holdings of federal debt instruments may be related to inflation or deflation, but not to bankruptcy.

Viewed against this background of the behavior of the economic system as a whole, and the trend in the real and nominal size of the flows through its operating statement (as summarized by the GNP), the elevation of federal debt in the postwar years is hardly conclusive evidence of overt mismanagement and growing “risk”; on the contrary, the growth of private debt has been vastly more rapid (and perhaps more “risky”), in actual terms as well as relatively to other appropriate dimensions of the economy.⁷

Between 1947 and 1974, the relationship of the federal debt to national output declined persistently,

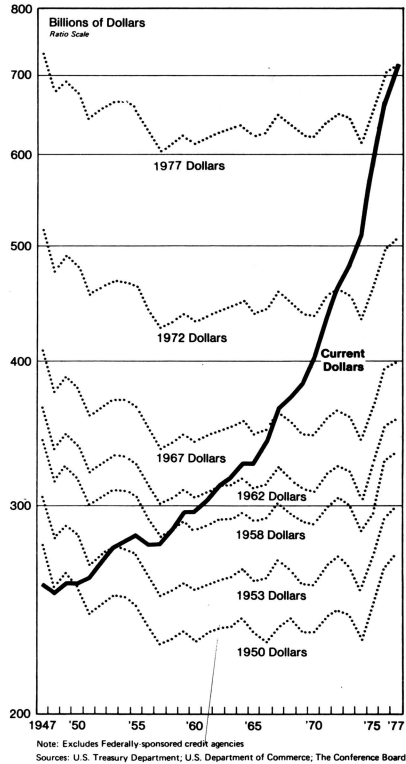
⁶One such set of decisions—the combined “guns and butter” programs of the Vietnam War years—has been the subject of appropriate criticism.

⁷The growth of corporate debt in particular may reflect, in part, an insufficiently favorable environment for net new equity issuance.

except in the presence of extraordinary cyclical conditions or military demands. Cyclical interruption occurred in 1949; the decline leveled off during the Korean War; it was reversed briefly during the recession of 1958; it was reversed again in one year of the Vietnam War. The decline leveled off in the 1970-1971 recession, and resumed in the expansion from 1972 to 1974. The relative debt has since risen sharply, under the recession conditions of 1975-1976. Viewed against a backdrop of percentages of GNP, the debt fell from slightly over 100 percent of GNP in 1947 to about 40 percent in the late 1960's. In the early 1970's, it fell below 40 percent, and has been restored to 40 percent by the very large deficits of 1975-1977. These figures carry the suggestion that, given the present structure of federal spending and the autonomous strength and debt-carrying capacity of the non-federal sector, a level of public debt significantly below 40 percent of gross national product *may* be deflationary and unsustainable—that is, it *may* so constrain activity and the tax base as to produce recession and a decline of the tax base, and hence a new contracyclical expansion of federal debt. This observation should, of course, be treated as highly tentative, because its implications are so large. Given the present level of federal debt, growth of the debt in proportion to the recent growth of nominal GNP would connote annual budget deficits of perhaps \$70 billion; that is, at a 10 percent growth rate of nominal GNP (which would imply about the 6 percent inflation rate of recent years) a \$70 billion increase in federal debt would leave the relationship of the debt to GNP unchanged. Formulated in this admittedly unfamiliar but revealing way, the relationship suggests that a reduction in the rate of inflation would be associated with an improvement in the budgetary outcome—a reversal of the conventional causality.

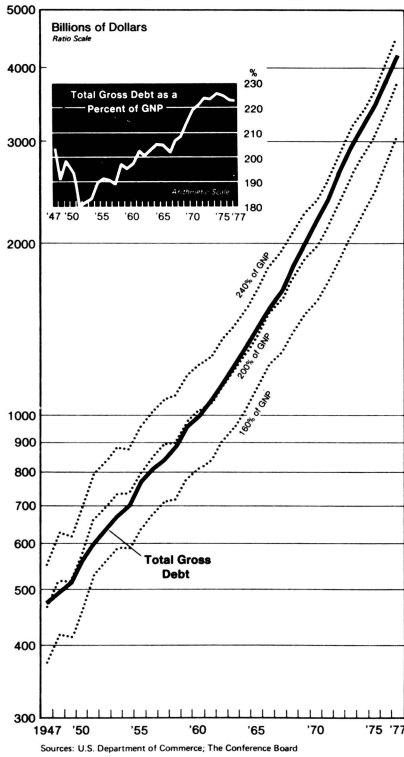
Another accompanying chart calculates the public debt in real terms—a statistical process that leaves something to be desired in the way of conceptual clarity, but nevertheless appears to be revealing. The real value of the debt (shown in the chart at several different price levels) declined until 1957, and was about unchanged from 1957 to 1965. It rose and subsided with the Vietnam War in the late 1960's, and again in the recession and recovery of the early 1970's. As late as 1974, the real equivalent of the debt was about as low as at any time in the postwar years, and substantially below its levels of the early postwar years. In 1975-1977, the real debt rose sharply (that is, the debt rose at a faster percentage rate than the

Chart 16 **Gross Federal Debt in Current and Constant Dollars**



ongoing rate of inflation). The elevation of the actual debt, shown on the same chart in current dollars, is in considerable measure a reflection of the same postwar inflation that characterizes virtually all other value series. The growth of the public debt appears to be intricately related to the behavior of the system as a whole, particularly its price behavior. Much of the abnormal rise in the debt relationships to GNP and to prices since 1975 reveals the impact of severely abnormal domestic and international conditions on a budget structure that had acquired vastly augmented social functions and responsibilities, and necessarily

Chart 14 Total Gross Debt and Its Relationship to Gross National Product



responded to the same rise in costs and prices that affected the private sector. In this sense, it would be as unreasonable to expect public debt to remain constant in the presence of inflation as it would be to expect the debt of a growing corporation to remain constant under such conditions.

Unlike the federal debt, both state-local debt and private debt have risen much faster than total national output in the postwar years, with the result that the total debt (federal, state-local and private) has risen from about 190 percent of GNP in the middle 1950's to about 205 percent in the middle 1960's, and to 225 percent in recent years. The relative rise of

state and local debt appears to have slowed around the middle 1960's; since then, the rise has been roughly equivalent to the advance of national output. (This outcome is doubtless influenced by the rapid growth of federal transfers to state and local governments.) Not so with private debt, which rose from about 80 percent of GNP in the early postwar years to 100 percent by 1953, 120 percent by 1959, 140 percent by 1964, 160 percent by 1970, and 170 percent by 1974. Significantly, the percentages fell in 1975 through 1977. Corporate debt, relative to national output, rose above 100 percent of GNP in the early 1970's and fell in 1975-1977; personal debt leveled off at about 65 percent of GNP in 1972. The servicing burden of private debt (that is, the corporate interest payments relative to corporate earnings, and personal interest payments relative to personal income) reached postwar peaks around 1973; the ascent of the corporate interest burden in the late 1960's and early 1970's—the go-go years of debt leverage—was spectacular.

Continuous growth of aggregate debt (including public and private) in correspondence with (in fact

Chart 15 State and Local Debt and Its Relationship to Gross National Product

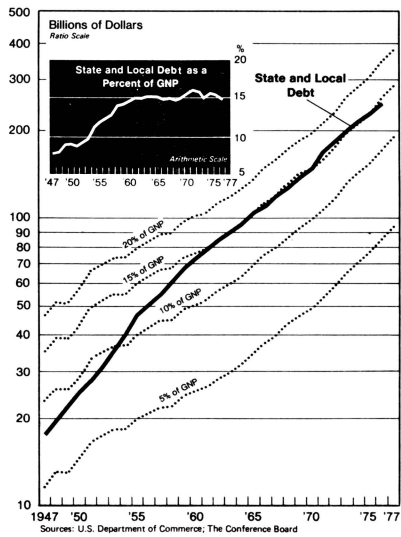
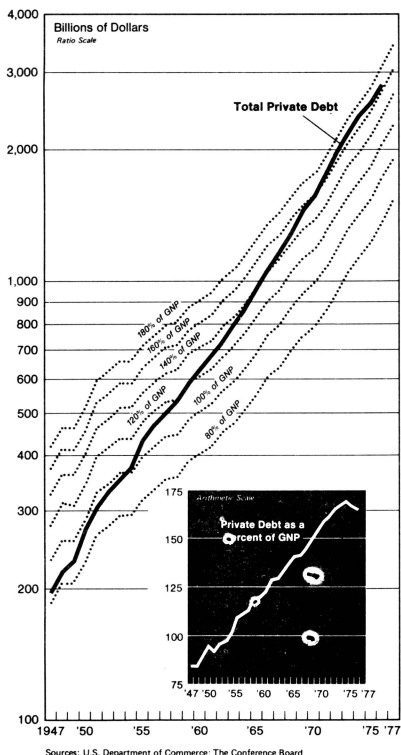


Chart 16 Total Private Debt and Its Relationship to Gross National Product



slightly faster than) the growth of the nominal value of output appears to be a fundamental condition of the system if it is to remain near full employment. Taking the two components of federal debt and non-federal debt (including state-local as well as private debt), the record suggests that the system produces systematic offsetting changes in the two debt components. In periods of rapid formation of private debt, the federal debt is relatively restrained; when private debt is restrained, the system falls away from full employment, and the resulting budgetary deficits maintain the growth rate of aggregate debt. In the 1920's, private debt rose very rapidly, while federal

debt was being liquidated; in most of the 1930's, private debt fell even in absolute amount, through default, repossession and bankruptcy, while the public debt rose sharply in a countercyclical response. The pronounced decline of the federal debt in the first postwar decade, relative to gross national product, was associated with extremely rapid growth, both absolutely and relatively, in non-federal debt. Viewed this way, the recent very sharp acceleration of public debt is partly a response to the lessened propensities to incur debt in the private sector, and an actual decline of relative debt of state-local governments. In the presence of a now nearly explicit com-

Chart 17 Corporate Debt and Its Relationship to Gross National Product

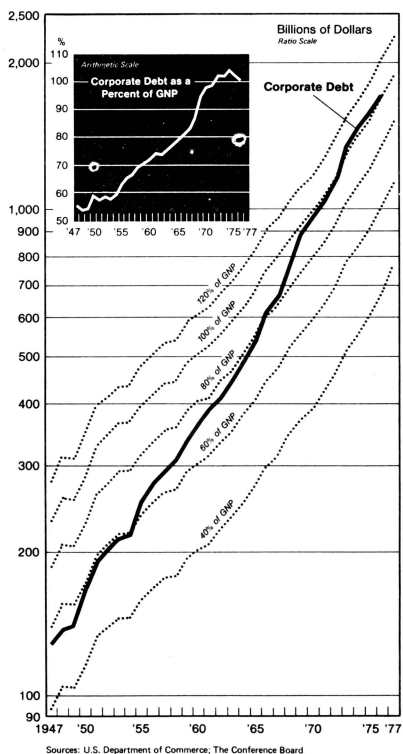
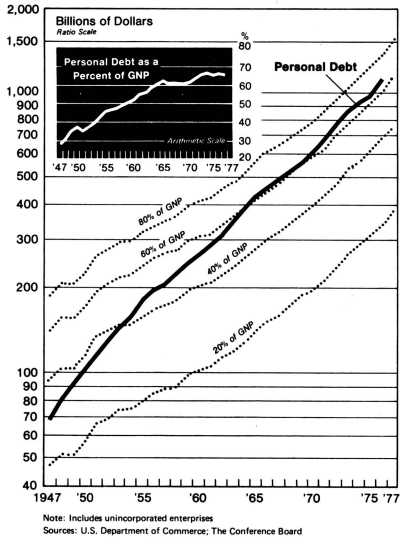


Chart 18 Personal Debt and Its Relationship to Gross National Product



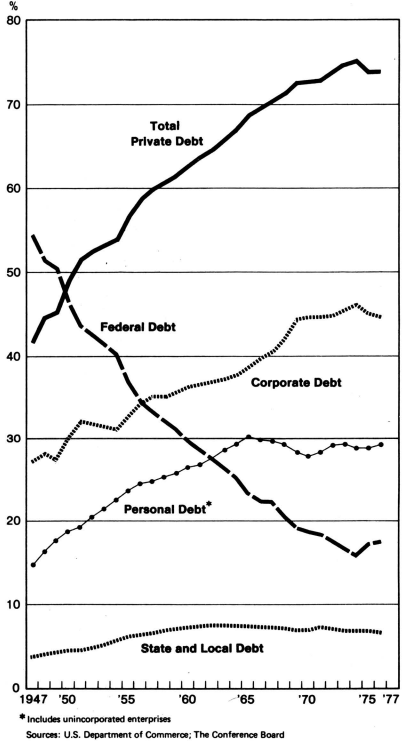
mitment to high employment, the falling away of the propensity to enlarge debt in the non-federal sector has become a causal element in the rapid growth of debt in the federal sector. In terms of the distribution of total (public and private) debt, federal debt fell from 55 percent of the total in 1947 to 16 percent in 1974; it had recovered to 18 percent of the total by 1976.

This perspective on federal debt leaves open an important question. Since federal obligations are the nearest equivalent to cash, it can be argued that budget deficits and the resulting growth of the public debt are inherently inflationary; and that the inflation appears in the value of national output, which accounts for the declining or stable relationship of the debt to national output. Viewed this way, the stability of the real (deflated) debt would seem to result from the fact that the inflation caused by the rise of the debt elevates the very price index used to deflate it. Does the federal debt cause inflation, or (in the presence of a high-employment commitment) does inflation periodically demand a rise in the federal debt? (There is a monetary parallel to this fiscal uncertainty. Does

excessive money growth produce inflation, or, in the presence of a high-employment commitment, does inflation periodically demand rapid growth in money?) Is the conventional view of the causal relation between deficits and inflation still effective?

These questions are crucial to the setting of fiscal and monetary policies for a mixed economy; they are crucial to a determination of whether an economy constructed the way this one is can stay at high employment without growth in aggregate debt (and in money supply) proportionate to the growth of nominal output. If nominal output is being elevated by an inflation originating outside these variables,

Chart 19 The Percentage Distribution of Total Debt



then both fiscal and monetary policy are under irresistible pressure to incorporate it. If they resist, recession will compel them to do it anyway. In this process, they give the impression of collaborating with inflation, and even of causing it. If labor costs rise rapidly, producing unemployment and then increased federal spending (or tax reduction) and hence a budget deficit, it is hard to argue that the deficit has caused the inflation. In the presence of institutional cost-push and a high-employment commitment, budget deficits (and their associated money growth) would seem to be more properly described as enabling conditions of the inflation, rather than its cause.⁸

Budget Outcomes and Full-Employment Budget Projections

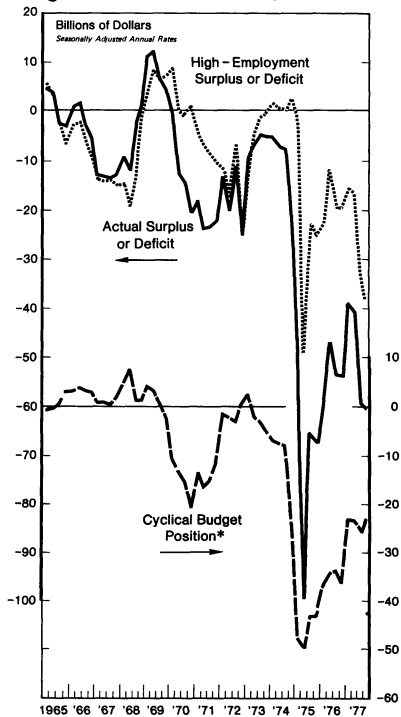
In the hectic years of the Korean War, the Council of Economic Advisers, alerted to the inflationary consequences of war by the violent behavior of the price level only a few years earlier, invented a calculation for measuring the inflationary potential of the future called the "inflationary gap." The calculation measured prospective demand, including the demands of the growing war effort, and compared it with a measure of the probable supply, both measures being computed at then prevailing prices. In those innocent and vigorous days, made more vigorous by a renewed surge of wartime spending, the prospective demand of course exceeded the prospective supply; the extent of the excess measured the probable inflation pressure, and provided an indication of the tax increases necessary to remove the excess.

This procedure was a special case of what is now called "full-employment" budget analysis. The case was special in the sense that an actual condition of full employment could safely be assumed. Interestingly, the present practice, for which the concepts were developed in the early 1960's, is directed not to the inflation potential, but rather to the budgetary outcome on the specific assumption of a condition of full employment. The calculations produce a continuous set of retrospective measures of full-employment budget receipts, expenditures and surplus or deficit, which can be compared with the

actual receipts, expenditures and surplus or deficit. The two sets of series together produce a third set. The difference in the two receipts figures represents the shortfall of government revenue attributable to the system's operation below full employment. The difference in the two spending series is the excess spending (mainly unemployment benefits) resulting from the excess of unemployment. And subtraction of the full-employment surplus or deficit from the actual produces a measure of the deficit resulting from a condition of less-than-full employment. (See Chart 20.)

The calculations served a strikingly useful purpose in the early 1960's: They revealed that the system was

Chart 20 Three Views of the Budget Position



⁸The high-employment commitment is only one of a host of social commitments of modern governments that affect their policies and their budget outcomes. Certainly, the effort to mitigate income inequality, by elevating transfers, has elevated spending, and the consequent deficits.

* Actual less High-Employment Surplus or Deficit
Sources: U.S. Department of Commerce; St. Louis Federal Reserve; The Conference Board

experiencing a very large structural budget surplus, a consequence of the persistence of wartime tax rates, even though the economic thrust provided by war had long since subsided. At prevailing tax rates, the Federal Government would have run a massive surplus; the development of the surplus constituted a "fiscal drag" on the private sector so severe as to forestall the very rise to full employment on which the receipts estimate was based. The tax rates that called for such a surplus were thus inappropriate and self-defeating; they condemned the system to underemployment, and perhaps a budget deficit as well.

After a brief interlude of guilt at the thought of legislating tax reduction in the presence of a budget deficit, the nation treated itself to a whole sinful feast of tax reduction—personal rate reductions, a corporate reduction, an improvement in depreciation allowances, and an investment tax credit, all within the years 1962 to 1964. The results roundly confirmed the analysis. The system rose rapidly to full employment, and the federal budget, benefiting from the surge of taxable private revenues, reached balance at the lower statutory rates.

The proposals for tax reduction that set this process in motion implied an immediate enlargement of the budget deficit, deliberately induced; they depended upon the response of private markets to drive the system back to full employment, and hence to higher taxable revenues, and hence to a budget balance. The fact that they worked demonstrated that a condition of their working was satisfied. The private markets were indeed responsive; that is, they were characterized by considerable autonomous strength—enough, at any rate, to produce full employment without the help of any budget deficit at all.

The dependence of the process on this condition was more or less obscured in the general celebration of the middle-1960's, and for a long time thereafter full-employment budgeting lost sight of the condition. But it is nevertheless inherent in the customary goals of full-employment accounting. Full employment itself can perhaps be achieved without reference to the condition (by an overwhelmingly stimulative deficit); and a balanced budget can perhaps be achieved without reference to the condition (by highly restrictive spending and tax policies). But the simultaneous achievement of both objectives, starting from a position in which neither full employment nor a balanced budget prevails, must depend upon some degree of autonomous strength in the

non-federal sector, which must be vigorous enough to drive the system toward full employment while absorbing the "fiscal drag" inherent in a falling budget deficit.

In the 1970's, economic advisers to federal administrations and, in the past few years, the Congressional Budget Office that advises the Congress, have projected the future of the budget and of the economy several years into the future, making use of the techniques of full-employment analysis. In effect, the revenue side of the budget is projected by assuming (1) an economic growth path leading to full employment; (2) the course of the general price level; and (3) the existing tax rates, which are applied to the taxable income flows to reach the constructive revenue total. The expenditure side of the budget is then projected on the basis of "current services"—that is, assuming no new federal programs beyond those mandated by present law. The procedure requires an assumption with respect to the inflation rate affecting both sides of the budget, since inflation interacts with the progressive personal tax structure. (It interacts differentially with the real accounts in other ways as well, in amounts and timing, but these other interactions are usually ignored.) Both parties in the 1976 election developed full-employment budget projections for the next five years, and both showed a budget surplus developing by 1980, and reaching altogether boggling proportions in the early years of the 1980's.

Such exercises incorporate several logical flaws that vitiate their meaning, and make it risky to use them as guides to prospective actual outcomes. The projections simply assume away the uncertainty with regard to the autonomous strength of the system; that is, they assume the strength is there sufficiently to produce both full employment and a balanced budget—indeed, even full employment and a large surplus. The favorable results of the projections also hang on the progressive nature of the personal tax structure. In the absence of reductions in the statutory personal rate schedule, the growth in employment assumed in the rise to full employment, combined with the inflation assumption, tends to elevate personal tax receipts faster than GNP, and faster than personal income; the implicit effective personal tax rate thus rises dramatically. In the most widely publicized of these exercises, the effective federal rate advances from about 11 percent of before-tax incomes in 1976 to about 15 percent in 1981. This is, of course, far higher than the level ever reached by the effective personal rate. Moreover, the

price assumption is not related to any of the other assumptions used in the process. It is derived from nowhere as an exogenous element, independent of the real world of the future, and not affected by whatever decisions may be made with respect to the spending and taxing outcomes.

The logic of such full-employment projections treats the theoretical outcomes several years from now as a potential real outcome, and assumes that adjustment to alter the outcome is feasible and meaningful. The rise in the effective personal tax rate means that the statutory rates can be reduced to reduce the constructive surplus, and the remainder of the surplus can be used to fund additional federal programs. The outcome is thus refitted to assure the full employment that was assumed at the outset, while reducing the constructive budget surplus to a budget balance. (All of this, incidentally, without altering the price outcome.)

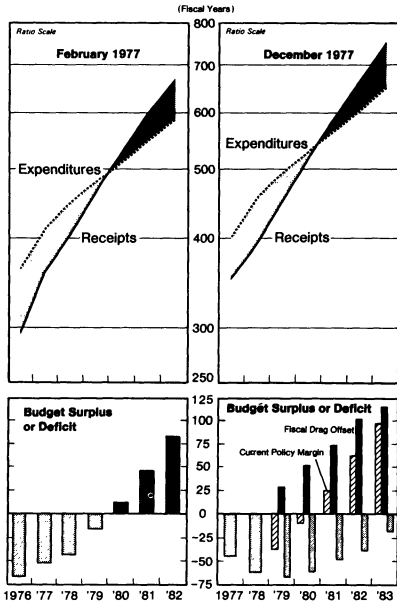
In fact, the constructive full-employment economy found by this process is not a part of a spectrum of possible outcomes, and adjustment of its parts crosses a logical divide that separates the impossible from the possible. It is simply inconceivable that the real economy, in the real world, would reach full employment while generating an enormous federal surplus; it is having trouble enough maintaining itself at 7 percent unemployment while generating a \$50-billion deficit. It is likewise inconceivable that the assumed inflation rate under conditions of an \$80-billion surplus would not be a lot higher if the surplus were deliberately reduced by tax reduction and incremental government outlay.

The projection of the full-employment series into the future may well be a useful exercise, and any budget officer would be inclined to engage in it. But its inherent structure of assumptions, some of them not revealed in the process itself, drives the system inevitably into mysteriously favorable outcomes—mysteriously, because they almost never eventuate. They must inevitably hold out the promise of both full employment and a balanced budget several years out; but the promise simply amounts to assuming favorable outcomes to the disagreeable conditions that are now maintaining the system very far from full employment, and very far from a balanced budget.

The good news provided by the projections is thus largely an artifact of the methodology. What might be deduced from the fact that the methodology appeared to work in the 1960's is not that the technique is infallible, by any means, but rather that certain

conditions entirely outside the scope of the full-employment projections permitted the simultaneous achievement of the two goals of full employment and a balanced budget. These conditions included a full-employment surplus that could be liquidated; a near balance in the actual budget; a low rate of inflation, in the presence of reasonably effective wage and price guidelines; a net export surplus; a still-high relationship of purchases to transfers in the mix of federal spending; and a considerably lower relationship of private debt to GNP, and a higher relationship of public debt to GNP, than prevails today. Taken together, these conditions were such as to encourage a vigorous response of private activity to the tax reductions of the early 1960's; that is, they permitted and encouraged a vigorous state of autonomous strength in the private sector, and hence a vigorous response to the tax reductions. Moreover, there was very little fiscal drag to be overcome in the early

Chart 21 Projections of the Federal Budget
Billions of Dollars
(Fiscal Years)



Sources: Congressional Budget Office, The Conference Board

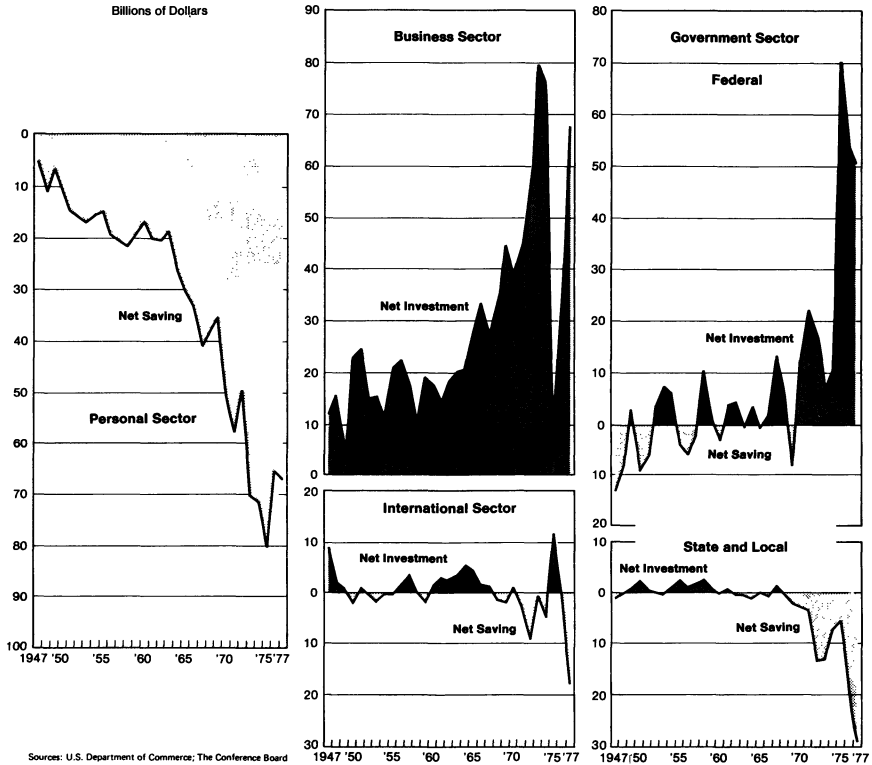
1960's; the actual budget deficit fell only about \$5 billion from fiscal 1962 to fiscal 1965, when it was virtually in balance. To achieve an actual balance now would involve a fiscal drag of as much as \$60 billion. With respect to the autonomous strength of the non-federal sector, it might be noted that in 1962 the system was able to maintain itself at 5.5 percent unemployment, with a \$7-billion deficit; it is now at 6.5 percent unemployment, with a \$60-billion deficit. Under present conditions, it may well turn out to be necessary to forego the expectations raised by the

full-employment projections, and to choose between (or optimize) the goals of high employment and a balanced budget.

Revelations of the Saving-Investment Balance

The uncertainties surrounding the happy outcomes of full-employment projections are exposed more systematically in the accounting of investment and saving. In national accounting, aggregate saving is the same quantity as aggregate investment, in any accounting period, regardless of the level of activity, of

Chart 22 The Saving-Investment Balance



inflation, or of interest rates. At the start of an accounting period, the *ex ante* intentions of savers and investors may differ widely; at the end of the period, the *ex post* identity will be found to have prevailed.

The translation of the *ex ante* differences into the *ex post* identity is associated with a business-cycle movement of the aggregate; if investment intentions exceed saving intentions, expansion of employment and income will proceed until the saving generated equals the investment intentions. Conversely, if saving intentions exceed investment intentions, the contraction of activity and incomes will proceed until the identity is restored.⁹

The identity of saving and investment that prevails for the aggregate economy does not prevail in all the sectors. The personal sector is typically a very large net saver; the business sector is typically a very large net investor; the international sector may be an area of net investment (if it is running a surplus in its current account) or of net saving (if it is running a deficit in its current account); and the government is a net investor when running a deficit and a net saver when running a surplus. The terminology of saving-investment accounting is awkward for the government and international sectors; it strains ordinary language a little to speak of a government deficit as an investment, and an international deficit as a form of saving. But the accounting nevertheless works, and provides a useful test of the feasibility and consequences of projected changes in budget position.¹⁰

In the context of the saving-investment balance, a reduction of a budget deficit is a shift of the government sector from investment toward saving. The closing of a deficit gap of, let us say, the approximate \$60-billion rate that is a reasonable expectation for

⁹While business-cycle movements are consequences of differences in the *ex ante* intentions, the identity of actual saving and investment prevails at all times. High investment intentions in the presence of low saving intentions are associated initially with temporary unintended inventory liquidation (unintended disinvestment), as well as unexpectedly high profits and corporate saving. An extreme example of this process is provided by the reaction of inventory and profits during the two scare-buying periods of very low saving intentions following the start of the Korean War in the last half of 1950.

¹⁰A possibly helpful clarification: when government spends less than its receipts, it is saving; when it spends more than its receipts, it is engaged in dis-saving, or net investing. When a nation in its international transactions, is exporting more than it is importing, it is investing; when it is importing more than it is exporting, it is dis-investing, or saving. A government deficit is stimulative, like an investment; a trade deficit is suppressive, like saving. A government deficit raises the relationship of income to supply in the other sectors; a trade deficit reduces the relationship, since the income generation involved in imports occurs overseas.

early 1978, would, by virtue of the saving-investment analysis, require a simultaneous shift of \$60 billion toward investment, on balance, among the other three sectors.

The opportunities for such a shift toward investment in the non-federal sector include a reduction of the net personal saving rate, an increase in net business investment, and/or a shift toward balance in the current-account international deficit. The net personal saving rate is already quite low; a rise would appear to be more likely than a decline. The international deficit is enormous, of course, but an important improvement in it is difficult to forecast, since it hangs heavily on the management of the energy deficit, and future changes in the price of oil. In fact, the very high volume of net saving in the international current account since the unprecedented surge in oil imports and oil prices obviously explains part of the high investment deficit in the federal sector.

Under these conditions, the hope for a substantial upward thrust in aggregate investment for the non-federal sector lies largely in a pronounced rise in net business investment—that is, a much sharper rise in investment than in retained earnings and depreciation in the business sector. Barring improbably favorable trends in the U.S. export position, the autonomous thrust of the private sector required to offset the fiscal drag of the federal sector's movement toward saving depends upon business outlays for plant, equipment and inventory. The cheerful full-employment projections inevitably incorporate this hope. They are, in fact, nothing more than a mathematical expression of the hope. The projection now in use by the Council of Economic Advisers, and by the Congressional Budget Office, calls for an improbable (but not impossible) expansion of business investment.¹¹

Progress toward high employment and reduced deficits will, at the least, require accommodative monetary policy to restrain the rise in the cost of capital, and improvement in the incentives (including tax incentives) for private investment. But the considerable secular changes in the system since the 1960's, as described elsewhere in this paper, suggest that it is unlikely to reach full employment in the near foreseeable future in the absence of a continuing budget deficit, and, hence, that policies directed

¹¹The Congressional Budget Office has recently published a much less optimistic set of budgetary outcomes for the next five years, in which it in effect subordinates the budget outcome to a target for real growth, and adds a rapidly rising contribution of incremental outlay and tax reduction to offset fiscal drag.

specifically to reduction of the deficit will require broad, pragmatic review to assure that they do not militate against the achievement of real growth and rising employment.¹²

Conclusion

Federal budget outcomes, it appears, incorporate and reflect social and economic conditions far wider than those contemplated in the conventional budget orthodoxy. Like any other part of so integrated a system, they are not truly controllable within the federal budgeting arena in which they arise; they rest on the non-federal economy and the inherent strength of its parts.

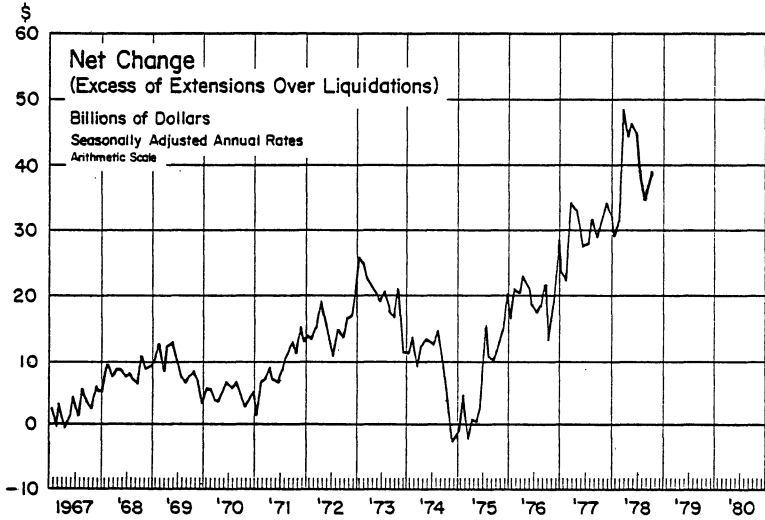
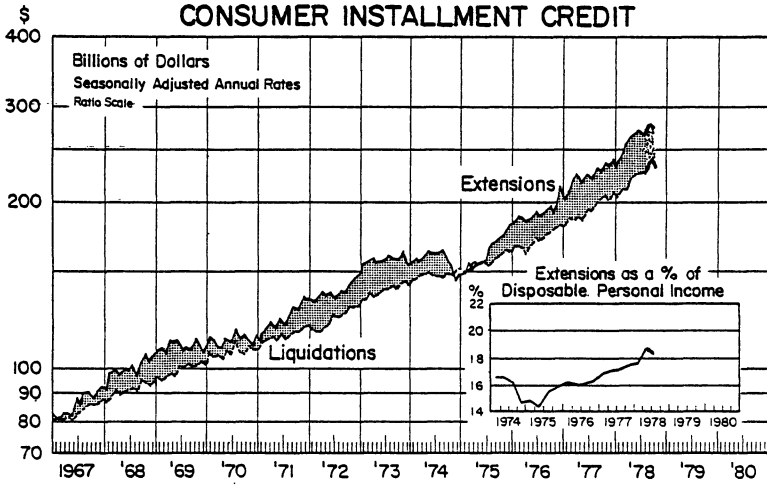
In a real sense, the budget deficits run throughout the West in recent years are a social as much as they are an economic phenomenon. They reflect the distinguishing socio-economic condition of the 1970's; the friction between democratic prin-

¹²Some of the ways of relating the federal deficit and the federal debt offered here have a bearing on the "crowding-out" thesis, in which it is argued that the financing of a budget deficit preempts a portion of a fixed supply of capital funds, and thus displaces private borrowing. While there may be times when "crowding-out" may look like a real danger, it is revealing that the phenomenon itself did not develop even under the conditions of 1975, when it was widely expected. In fact, it is not likely ever to be an inevitable and unavoidable development, or more than a transient aspect of conditions in capital markets. The "investment" represented by the deficit is inevitably mirrored by saving in the non-federal sector; in 1975, the actual liquidity of the non-federal sector was enormously increased by the federal deficit. The cyclical component of the federal deficit develops because of slack markets (and often inventory liquidation) and hence depressed incentives to borrow and invest in the private sector. At least this portion of the deficit is mainly a reflection of weak credit demand in the private sector. As private credit demand begins to grow, the associated rise in private business activity begins to elevate the tax base, and reduce Treasury borrowing requirements. This still leaves open the possibility of a transitional period in which private demand for money accelerates in the presence of still large federal demand; under such conditions, the Federal Reserve is under considerable pressure to tolerate the implied relatively rapid growth rate of money and credit. Such conditions may well prevail in 1978.

ciples, on the one hand, and free markets and their incentive needs on the other. The rapid rise of government spending on social programs accommodates ethical principles; the suppression of revenues below what would be required to balance the budget avoids the still greater pressure of taxes on the markets and incentives on which the private sector depends. Deficits are run pragmatically, in defiance of orthodoxy, because they help to keep the social peace at the troubled border between democracy and capitalism. In the 1960's, there was just less trouble at the border.

Much the same thing could be said about the violation of monetary orthodoxy. The rapid creation of money finances the social spending of government, and suppresses (or diffuses) the financial consequences to the private sector. In so reacting, pragmatic fiscal and monetary policies provide liquidity faster than output can grow, and hence are associated with inflation. But all three phenomena—budget deficits, rapid growth of money, and inflation itself—are inseparable reflections of the friction between ethical principles and market principles being experienced throughout the democratic West.

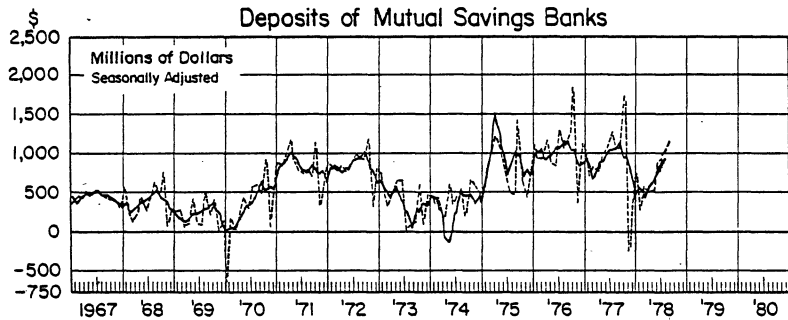
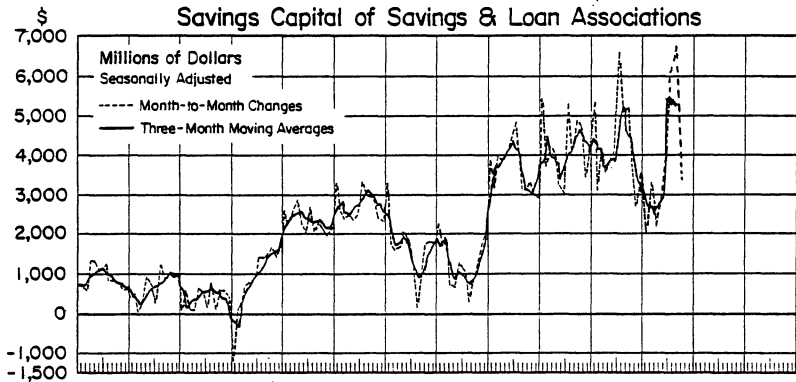
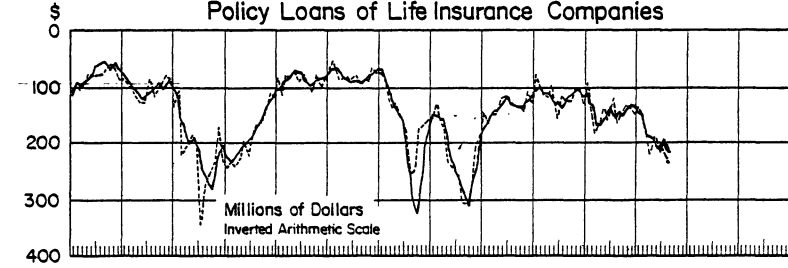
If these propositions are correct, then the achievement of the true ends of economic policy—reduced unemployment; more stable, less cyclical economic performance; a lower and more stable rate of inflation; vigorous long-term economic growth associated with a high rate of private investment—all of these worthy objectives depend upon pragmatic, rather than doctrinaire, management of fiscal and monetary policy, innovation in the equipment and powers available to fiscal and monetary institutions, and then innovative approaches to the social and structural causes of inflation. The important thing our budget experience is telling us is not that deficits are good, or that they are inevitable, but rather that we are in need of a new concordance between ends and means.



Sources: Federal Reserve Board; The Conference Board

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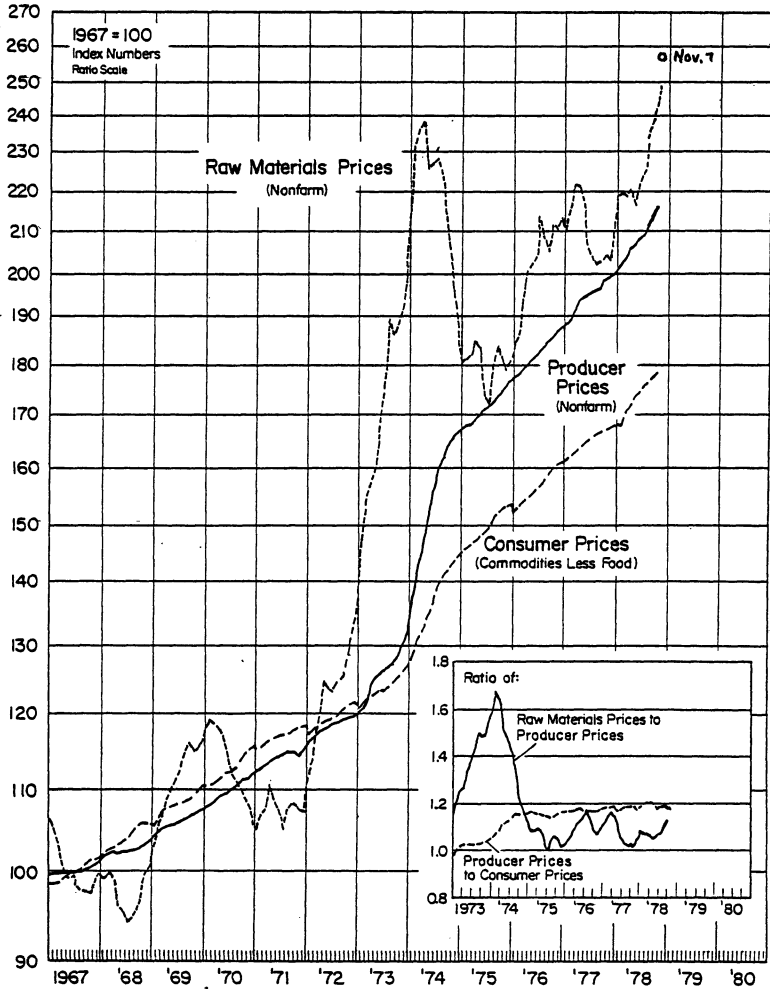
INFLOWS INTO THRIFT INSTITUTIONS Policy Loans of Life Insurance Companies



Sources: American Council of Life Insurance; Federal Home Loan Bank Board;
National Association of Mutual Savings Banks; The Conference Board

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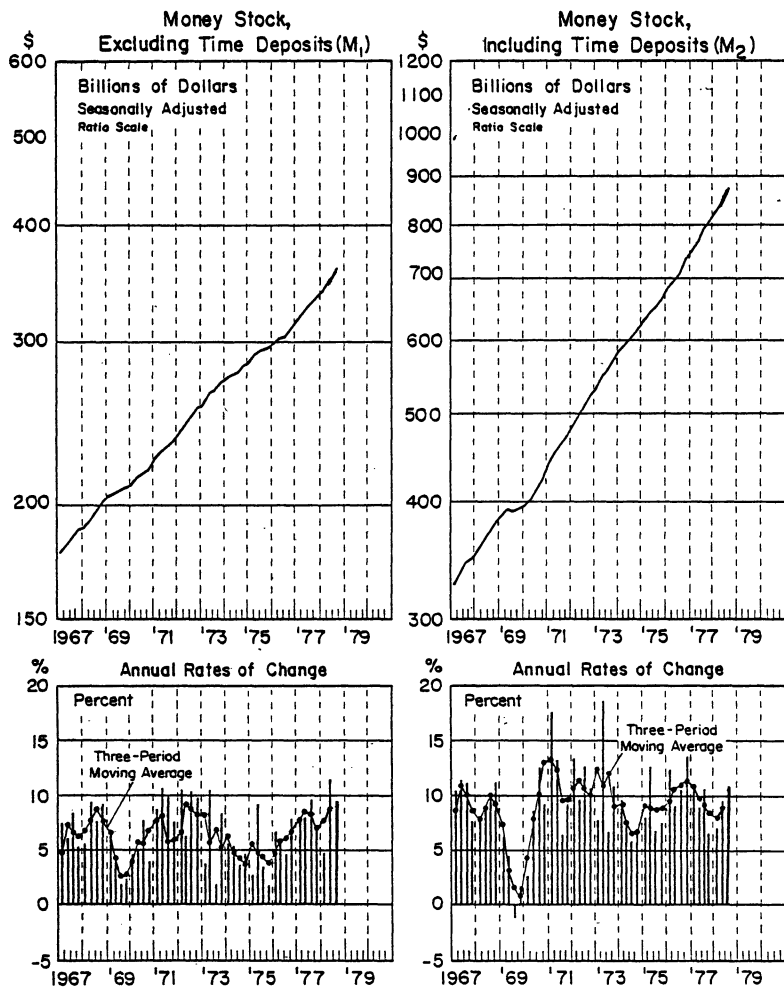
THREE LEVELS OF GOODS PRICES



Sources: U.S. Department of Labor; The Conference Board

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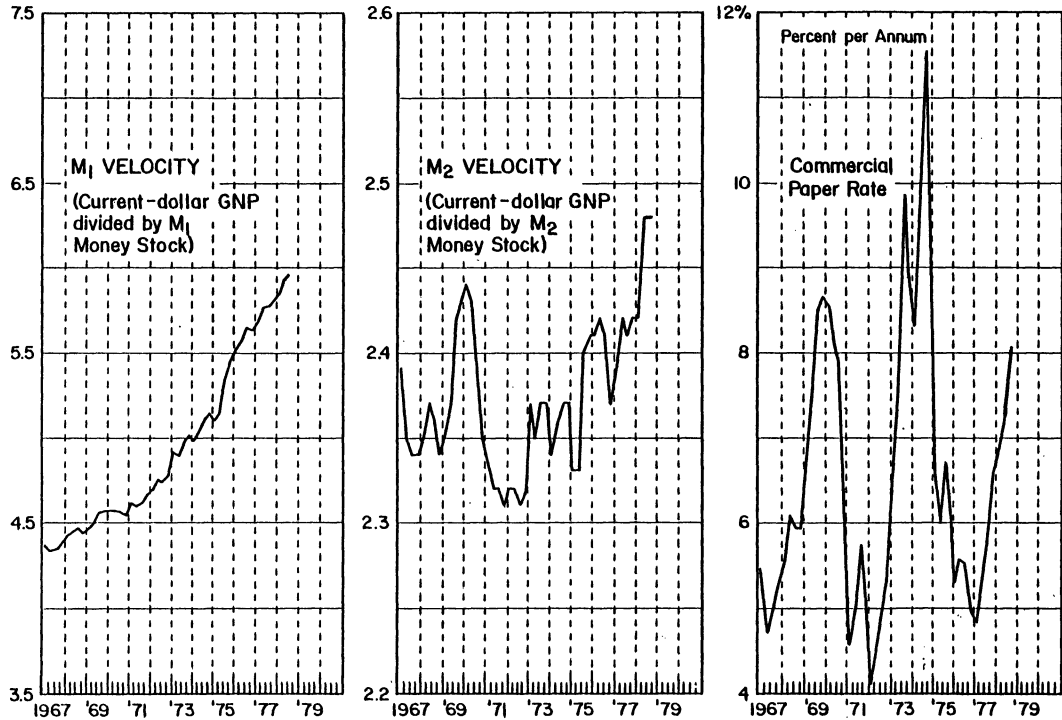
THE MONEY SUPPLY



Sources: Federal Reserve Board; The Conference Board

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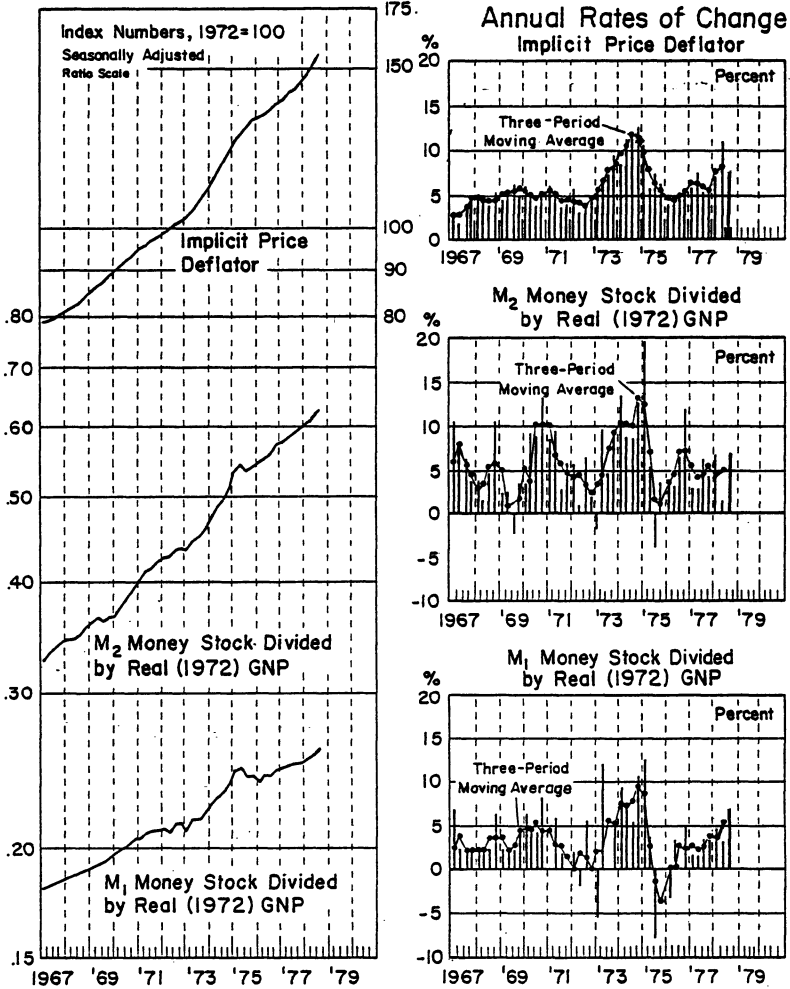
EXPENDITURE VELOCITY AND THE COMMERCIAL PAPER RATE



Sources: Federal Reserve Board; U.S. Department of Commerce; Standard & Poor's Corp.; The Conference Board

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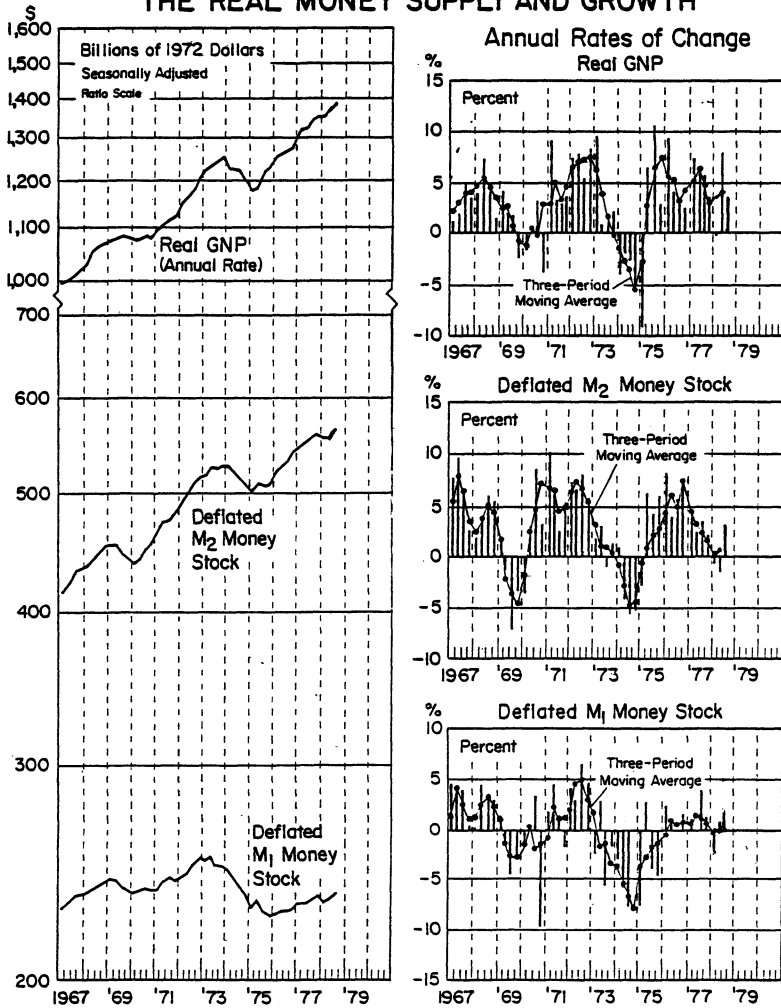
UNIT MONEY SUPPLY



Sources: Federal Reserve Board; U.S. Department of Commerce; The Conference Board

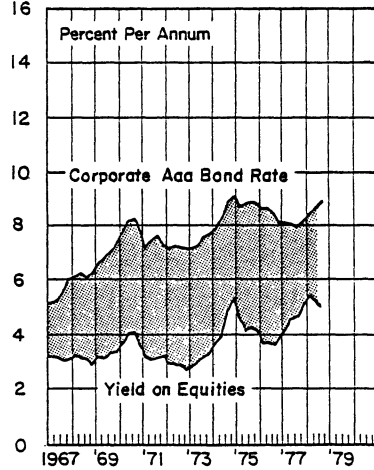
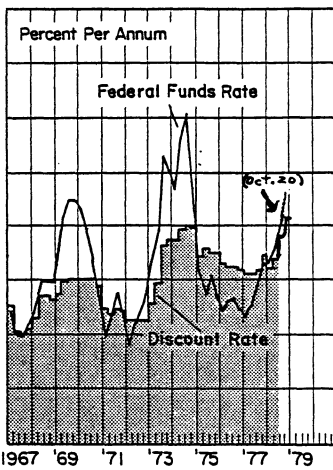
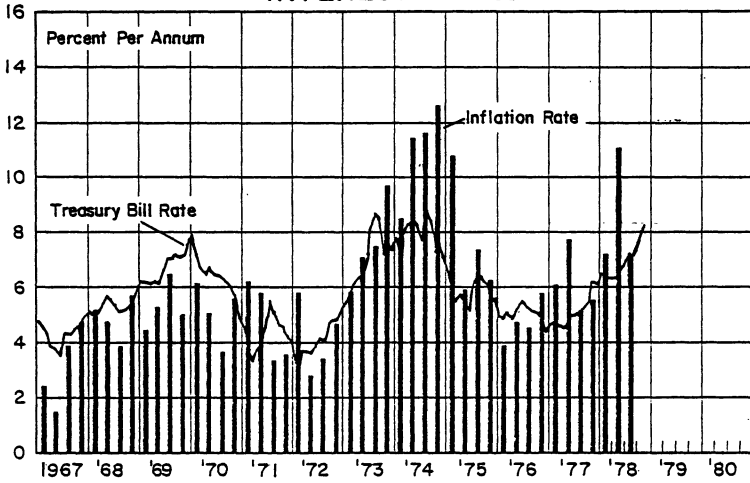
FRASER 1/81

THE REAL MONEY SUPPLY AND GROWTH



Sources: U.S. Department of Commerce; Federal Reserve Board; The Conference Board

INTEREST RATES



Sources: U.S. Department of Commerce; Department of the Treasury; Federal Reserve; Moody's; Standard & Poor's Corporation; The Conference Board

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The CHAIRMAN. Well, thank you, Mr. Sommers.

I would like to have each of you gentlemen comment on Mr. Sommers' rather shocking and unusual statement that there's no recourse left but full use of the powers of the Fed, No. 1; and No. 2, there's no escape from recession in 1979; it's just a matter of how deep it will be and how long it will be.

Mr. PERRY. Well, I share the forecast that we are headed for recession in 1979. I don't think anything is ever certain, but the odds are getting good.

The CHAIRMAN. You said good or bad?

Mr. PERRY. Well, that's a statistical term, not a value term, sir.

The CHAIRMAN. OK.

Mr. PERRY. As to no recourse. I'd stop a little short of that. I think that realistically we are not going to do anything that will give us an alternative, though I still believe that if we were to directly attack the inflation problem in ways besides slowing demands, we could muddle through. We might begin to decelerate the rate of inflation and avoid an actual downturn.

The CHAIRMAN. So your advice for the Fed is that we tell the Fed that we think that they should follow as tough and stiff an anti-inflation policy as possible, including continuing to tighten up on the availability of credit?

Mr. PERRY. I'm sorry. Did I say that?

The CHAIRMAN. I'm asking you whether you're saying that or not. You say that there may be no alternative—there may be an alternative, but we're unlikely to use the alternative. To be realistic about it, if we're going to really mean business on inflation, we have to follow the tough prescription that I understood that Mr. Sommers gave us.

Mr. PERRY. I think it's appropriate for a congressional committee to—

The CHAIRMAN. This is a banking committee. We have primary responsibility in the economic area and monetary area, not so much in the spending or taxing area which other committees are responsible for.

Mr. PERRY. I think it is a responsibility of the Congress to instruct the Fed to restrict credit to whatever extent it deems necessary to slow the present rate of inflation, realizing the implication of a very restrictive course is probably to create a recession next year. It that responsive to your question?

The CHAIRMAN. Yes; it is.

Mr. PERRY. I just want to emphasize that to criticize the Fed at this time next year for having brought about a recession when it is in effect following the mandate that's being given by the Congress would be unfair to the Fed. If that is the implication of what they are doing, the mandate ought to be clear on that point.

The CHAIRMAN. All right. Mr. Cagan.

Mr. CAGAN. If we look ahead to a time when the inflation rate would be much lower than it is, the rate of monetary growth simply has to be lower than it is now. We can't permanently have a lower inflation rate and not reduce the rate of monetary growth. I believe the proper proposal is for the Federal Reserve to slowly and consistently, year by year, reduce the rate of growth of the money supply until it's consistent with a very low rate of inflation that we would be willing to

live with. Somehow we have to get from where we are to that distant goal. I don't see why now is not as good a time to start as any.

I would have preferred that they had started a couple years ago. They let the present situation get out of hand by accommodating the late expansion phase of a business cycle; monetary growth should have been gradually coming down earlier.

The CHAIRMAN. Do you agree with the forecast of Mr. Sommers that we are going to have a recession in 1979?

Mr. CAGAN. I don't know whether we will have a recession or not. I would say there's a good chance of it, given the fact that economic activity is strong. If you now begin to restrain activity, the chance of a mild recession exists. Yet, it's conceivable that, if policy moves gradually, we could have a period of leveling off without what's called a recession.

The CHAIRMAN. At best, a stagnation, if not stagflation period?

Mr. OLSEN. Well, I'd say, first, directly, that we are forecasting a recession in 1979 but policies which would precipitate that recession are not yet visible in the pipeline. It is our assumption that monetary policy will become sufficiently restrictive so as to cause a recession.

Now, having said that, let me add very quickly that I don't want to convey the impression that the monetary authorities are conducting policy with the specific goal of producing a recession next year. The outcome of the economy will in large part be due to the difficulties that the Federal Reserve has in fine-tuning monetary policy, the relative crudeness of the tools they are employing, and the methodology in which they execute policies, some of which both I and Professor Cagan have touched on.

What we expect will happen next year is that if policy does not lean sufficiently in the direction of tightness to cool off inflation, then I find the prospect more frightening than a recession next year because we will be embarking on uncharted waters.

The CHAIRMAN. So really what you're saying, if we're lucky, we will have a recession next year?

Mr. OLSEN. Yes; I would say that because if policy remains excessively expansive we would have a worse recession very probably after worse inflation at some later date.

The CHAIRMAN. Of course, as was pointed out by one of you gentlemen—I think Mr. Sommers—we have the freest economy in the world and that's one of the commitments of a free economy. You don't always expand. It's never a straight line upwards. We always have periods where we don't grow and where we recede a little bit. We're lucky it's only a brief recession and not a depression. I don't think anybody has said we can expect to have a system that's going to go on forever expanding. Isn't that right?

Mr. OLSEN. Except I would hasten to add that the magnitudes of the swings we are experiencing, particularly on the inflationary side, are much greater than they were 15 or 20 years ago and the inflation that precedes the recessions now is of considerable magnitude and that creates very severe distortions in the economy and certainly a redistribution of income at the very least.

The CHAIRMAN. Let me ask you another question.

Mr. PERRY. I would like to say that the easy acceptance of downturns in this economy is not my view of where our freedom leads us. This

is not an exceptionally long expansion and it need not inevitably end because of any excesses in the private sector. If it ends it will end because we take policy steps to slow down economic growth and that slowdown becomes a recession. I don't think that the fact that we have a very free market economy implies a downturn next year or even in 1980.

The CHAIRMAN. Now you're an economic historian. Can you give us any period in the last 90 years or so when we didn't have a recession within a 10-year period? We had, the longest expansion we ever had, was from 1961 to 1969.

Mr. PERRY. That's correct, but we are now discussing recession within a 3- or 4-year period.

The CHAIRMAN. That would be almost the second longest period of expansions, one of the longest.

Mr. PERRY. We ought to get better and better at this.

The CHAIRMAN. Well, you're an optimist.

Mr. PERRY. I don't think the 1960's were an accident and I think that it is possible to sustain expansion. We don't really have excesses in the private sector at the present time. Indeed we have a lot of unfinished business.

The CHAIRMAN. We don't have excesses in the private sector with the settlement with the coal miners and with the coming Teamster settlement, with all the other elements that you gentlemen have indicated contribute to inflation? Don't you think we have excesses?

Mr. PERRY. We have an inflationary problem. The excesses are there in the way the system is working to set wages and prices in this economy. I don't think we have excesses in the real system in the sense we have overstrained our capacity, or in the sense that we have made labor or materials scarce. Those are the excesses that we usually think of as inevitably leading to a real downturn.

The CHAIRMAN. Tomorrow Chairman Miller will announce the Open Market Committee's monetary growth rate target for the year 1978 third quarter to 1979 third quarter when he appears before our committee. How meaningful are those targets for M_1 , M_2 , and M_3 ? Let's start with Mr. Olsen. In view of what you have warned us about, we are prepared to expect it's a little different now than it was.

Mr. OLSEN. The Federal Reserve, as it well knows itself, has not had outstanding success in hitting the targets that it's established, so the targets when they announce them suffer from some lack of credibility. I know that in our own view, and we follow monetary policy very closely, when we hear those targets we lay them alongside what's actually happened over the last 6 or 12 months. Then we judgmentally try to arrive at a probability that they will be able to achieve them, and we are not helped by the lack of credibility in the ability of policymakers hitting the targets.

The CHAIRMAN. I'm glad you make that point because, after all, the Federal Reserve people don't run for office. I don't understand why they can't set a range. At first what we tried to get initially when we put this into effect a few years ago was a specific number. I pointed to the Bundesbank which at that point had an 8-percent goal, a very high goal. They figure 8 percent, not a range of 5 to 9 percent. Now the Federal Reserve gives us this range where the lower end is ridiculous. Nobody expects them to be at 4 percent growth in the M_1 , but

they give that as the range, and they give a top range which, as you say, they miss completely and lose their credibility on. I think we ought to hit them very hard on that. I can't understand how they can possibly justify having missed the upper range of a very, very wide spectrum they have given themselves.

It's a political thing, I suppose. I suppose when they give the upper range they are afraid to make it too high and realistic because if they do I think they may be telling people they are in for monetary policy which is inflationary.

Mr. OLSEN. Well, that may well be. Certainly when they exceed the upper end of the target they do tend to raise inflationary expectations.

The CHAIRMAN. My time is up, but if the other members will permit I would appreciate it if you could answer that question, each of you answer it.

Mr. CAGAN. As my remarks indicated, we are experiencing changes in the meaning of the monetary aggregates, and therefore we are going through a period when it's becoming increasingly difficult to interpret them. My best guess would be that M_1 is going to grow less rapidly than it has in the past, whereas the true money supply will grow more rapidly than the recorded M_1 . Some cross between M_1 and M_2 will have to serve as our indicator for the time being.

The CHAIRMAN. What do you mean by the true money supply?

Mr. CAGAN. Total balances in the economy that are used for transactions purposes. The problem is that, while we have figures on NOW accounts, not all those accounts are being used by the holders as transactions balances. We are in a period of change which makes it very difficult to know what the proper figure should be. If we could have the reforms I was talking about, I believe we could then define and measure a concept of money that would be the appropriate one for Federal Reserve policy. Then I would hope that they would set a target for about a year ahead. I believe anything shorter than a year is difficult for them to hit. They might then announce that policy will be directed toward reducing the rate of change of this quantity by, say, 1 percentage point from year to year. I believe such an announcement would be very salutary for the foreign exchange markets and the domestic economy. It would be an announcement that people could use to guide private economic plans. I would expect, then, that on the average inflation would decelerate 1 percentage point a year. Wage rates and other plans could be based on this guide. I think this would bring down expectations in a way that would help to ameliorate some of the effects on output that the gentlemen at this table have been very concerned about.

Mr. PERRY. I don't believe there's a monetary aggregate available to us that has a sufficiently close relationship to our economic targets that we can use it to define policy and feel comfortable with it. I think at a time like this and at any time really, the Federal Reserve must concern itself with many things—with what's happening to the economy, what's happening to the interest rates over which it does have a direct control, and what's happening to monetary aggregates. If it were to take the position that interest rates were as high as it wants them for now, at least until it gets some fresh evidence on the economy, then it would put more of the responsibility for both inflation and

recession next year on the Government and on the policies that the Government conducts.

I just don't think you can turn that question around and make it entirely the responsibility of the Fed or how fast M—something grows.

The CHAIRMAN. How meaningful are these targets for M_1 , M_2 and M_3 ?

Mr. SOMMERS. I think they are reasonably meaningful given the qualifications that you've heard. There may well be longer term ways of resolving through gradualism the problems relating to the ongoing rate of inflation, but we're not living through a long term and I think Mr. Miller will very likely tell you that tomorrow. We are living in a very critical short term in which the rate of inflation almost predictably is in an uptrend from a level that's already seriously high. The behavior of raw materials prices and of markets themselves have actually strengthened such an expectation. In those circumstances, and given the international responsibilities confronting the Federal Reserve, I think the Federal Reserve likely may well conclude that a negative M_1 real growth rate is now urgently needed and it's compatible with both its domestic and its international responsibilities.

So I would expect, without knowing of course, that the growth rate of the M_1 aggregate which as everybody knows is going to be a little difficult to measure closely any longer, is going to have to be below the rate of inflation. Anything less than that, I'm afraid will begin to liquidate what progress has been made on the dollar overseas and I think the Federal Reserve will take that view.

Now there's further opportunity here for at least informal credit restraint on the part of the Federal Reserve and its relations with individual major banks that would not set a precedent by any means. The effects would be supplementary to the gradual withdrawal of the rate of growth of reserves and I think would help to smooth and accommodate our progress into 1979.

I know this committee is fully aware that the techniques of economic forecasting still lack total perfection. The forecast of recession I gave you is I think a very high probability, but it—even if it occurs, it's not the end of the world. We will survive a recession. We will come out and grow again. It would be a shame to go through the next one, the fourth one of these mountains and valleys, and not learn from it that the structure we're dealing with is capable of and inclined to produce these very serious waves in interest rates, economic activity, housing, in the automobile market, capital investment perhaps most importantly of all. I think we are at a point where we should use the time available in the future, whether in recession or not, to make progress in reducing the amplitude of that cycle.

The CHAIRMAN. Thank you very much.

Senator LUGAR.

Mr. Chairman, in Mr. Olsen's testimony he recounts on page 11 of the text that the downturns have become progressively more severe or, to say it another way, that the level of inflation has remained higher after each cycle. The oscillation is more volatile, and he suggests that one reason for this is that labor and business have a learning curve. He says what they know from experience is that once the economy plunges into recession, something happens to reverse the downturn, to revive aggregate demand and once that is achieved, to

accelerate inflation. Consequently, there are no inducements to labor or business to alter their wage and price expectations. They assume, that inflation will continue indefinitely. The economic slack that prevails in the early stages of cyclical recoveries is acknowledged by everyone, particularly the Government, to be transitory.

Then he says,

Putting it more crudely, business and labor—implicitly and explicitly—expect that Government policies will revive inflation before it dies from lack of fiscal and monetary nourishment. Consequently, labor will not reduce wage demands so that employers can afford to employ idled workers. And employers will not reduce prices sufficiently to increase the demand for output and re-employ idled factory capacity. Instead, Government is expected to make such adjustments unnecessary with stimulative monetary and fiscal policies, and so far it has not disappointed those expectations.

Now I want to supplement that with a comment in Mr. Perry's testimony, in which he says,

If you want to fight inflation with remedies that are less painful and more effective than putting people out of work, we have to look beyond restrictive fiscal and monetary policies. The Government is responsible for a great number of laws, regulations and procedures that add to costs and prices; by repealing, reversing and desisting it can reduce them.

What I would suggest at the outset, and what I want your comments on, gentlemen, is that—quite apart from anything the Federal Reserve Board might do or Chairman Miller might announce tomorrow—what is being suggested here—and I believe to be true—is that there is an expectation on the part of business and labor that regardless of what happens with regard to a recession, the Federal Government will come to the rescue. Therefore, if one can have a temporary holding policy on both the levels of wages and prices, essentially all this means is that the next level or round of inflation will be at a higher point.

There are no very good reasons, either tactically or strategically, to change course in terms of policies. These is no reason, to lower wages rates, lower prices, or in essence to become any more flexible.

Furthermore, although the President has suggested that regulators begin thinking about dismantling a good number of regulations, already we see resistance to this. The thought is that this would violate a good number of pledges with regard to social goals. It will be very difficult to eliminate very much of anything. Many regulations will remain in place.

Given all of that, an interesting dilemma exists. On the one hand, the market—particularly the foreign exchange market—reads the Federal Reserve action as the promise of monetary restraint. The kind of restraint the market expects would cause a recession. On the other hand, officials insist a recession is out of the question. Will policy-makers seek to avoid the recession? If monetary and fiscal policies remain stimulative, then inflationary expectations will accelerate and the dollar will nosedive again in foreign exchange markets.

The expectation of foreign observers is that we are serious about restrictive policies. The President means business and apparently the Federal Reserve Board, working hand-in-glove, means business also. On the other hand, the Secretary of the Treasury is suggesting there will not be a recession. You on this panel today think that there probably will be a recession. But it is an intriguing thought that business will continue as usual.

For example, we already find many suggestions that even at high mortgage rates, homeowners are still buying houses and taking the higher rate; and that many businesses—the Wall Street Journal had an article on this yesterday—are saying that although the rate is very high, only most marginal building projects might be set aside. In essence, money may be borrowed right now at a zero cost if inflation is 10 percent and the interest rate is 10 percent. We may in fact not have a recession simply because people have decided once again to stay in goods as opposed to money, to bet against the dollar at home as well as abroad. If so, this is a more scary scenario than a mild recession in a conventional sense.

Have we built into our economy such structures and expectations with regard to inflation, that whatever targets are announced, they may not have much effect, simply because people take a look at their experiences, recalculate what their self-interest appears to be, and proceed?

Mr. Olsen, would you comment on that to begin with?

Mr. OLSEN. Yes, I would be happy to. One of the reasons why policies have become sufficiently restrictive in the past to induce a recession when we have had a great deal of inflation is because of the strong demands that something be done to reduce the inflationary expectations and because the Federal Reserve feels keenly at that particular time their responsibility to not continue to finance higher and higher inflation.

Now there's another element present and powerfully present at this particular time, and that is that policy is to a certain degree a captive of the market. I believe next year it will become even more a captive of the market. The action which was undertaken by the Federal Reserve 2 weeks ago, for example, in raising the discount rate and the reserve requirements was not an action which was contemplated with great care some weeks or months prior to its undertaking. It was dictated by conditions in the marketplace which had become so extreme that the authorities had literally no other choice. If they lean on the other side toward expansiveness in an effort to avoid a recession, for example, as we move through 1979, the consequences of such a policy are difficult to predict, but in the very least they would tend to feed greater inflationary expectations, recognizing it's going to be a year, very probably, of turbulent labor negotiations.

So as we move through the year, policy is very likely to become increasingly a captive of the market where the choices open to them are just clear that they have to lean against the wind and become more restrictive.

Senator LUGAR. Following up on that briefly, when you say "captive of the market," are you speaking of an international market of expectations?

Mr. OLSEN. In this case, in the case of 2 weeks ago, it was the international markets, but also with some ramifications as far as domestic markets are concerned, but I think this will also become true of the domestic market as inflation continues to run high and particularly when it accelerates above the expected trend. I think that is a very important point to emphasize. You can read all the literature as last year ended and 1978 opened, including testimony given before this committee earlier this year, and the inflationary expectations were significantly lower than the actual inflation which we have incurred. And while inflation forecasts are being made for next year may prove to be no better and inflation could be worse and when you have infla-

tion running higher than expected, it has a major effect on decision-making, on people's behavior in the marketplace, and it also of course affects and surprises policymakers as well.

Senator LUGAR. Is it not a fact that the recent administration action followed reports of significant exchanges of dollars for foreign currencies abroad? In other words, was there not some feeling there might be a run on a bank? If this is the case, how are we going to continue to talk about business as usual in this economy and no recession without feeding the same fires that almost caused the panic? The \$30 billion and the other measures were required to stave that off for the present.

Mr. OLSEN. I don't quite understand your question in the sense you think if there's talk about recession that this will feed pessimism in the foreign exchange.

Senator LUGAR. No; it probably would feed optimism.

Mr. OLSEN. That's probably true. I think it's noteworthy following the President's announcement on the wage-price guidelines the exchange rates on the dollar continued to decline and the stock market continued to decline, but after the announcement that implied a more restrictive monetary policy we had a strong rebound in the dollar and exchange markets and also in the stock market; but in addition to that, even bond prices moved up and bond rates moved down in the hopes that now we were going to get a bona fide anti-inflation monetary policy.

Senator LUGAR. Mr. Chairman, my time is up but maybe one of the other panelists may have a comment.

Mr. CAGAN. I would also like to emphasize the role of expectations in the inflationary process. I think they are crucial. But I would also like to point out that expectations are not based only on whether we are going to have a recession or not. It's clear from past experience that we can go through a recession with some temporary decline in the rate of inflation and, then, after it speeds up again, come out on the other side of the recession without any reduction of the long-run inflation rate. Financial markets are looking further down the line and will be very much influenced by whether, in the long run, there will be a commitment to slowing down the inflationary process. That requires some statement or stance on the part of the monetary authorities that there will be a continuing policy of gradually slowing the inflation rate.

Now expectations are very difficult to get a grip on. The only way I see of influencing expectations is to tell the market that gradually the rate of monetary growth is going to be reduced. This means avoiding past policies in which we let the expansion get out of hand, react to it and produce a recession, then in the recession expand monetary growth to get out of the recession, and finally, as we enter the later stages of recovery, continue to overexpand monetary growth because we are afraid of the next recession. I'm not opposed to a monetary policy which varies over the business cycle appropriately, but policy should still adopt an overall trend in which it is clear to the market and to foreigners that gradually the rate of monetary growth is coming down. Then you will see the dollar recover.

Mr. PERRY. I agree with the other people on this panel that the inflation problem is very serious. I think I'm emphasizing a different aspect of that. Once we all agree it's very serious, we then stop to ask what can we do about it? I don't believe that it's either an effective cure or

a convincing cure to tighten money and go into a recession. We did that before and it didn't stop inflation. Now if we're saying we're going to do much more of that—we're not going just to take recession; we are prepared to take something more, we'll call it depression, or we're prepared to take a severe recession every 2 years—if we are prepared to somehow go through this process long enough, then I believe we probably would, through that means, cure the inflation problem that we have. I think that any realistic estimate of what it would take going that route, its consequences to the economy, would horrify most people.

Therefore, I am suggesting that we get on with the very long overdue business of trying to deal directly with the price-wage problem by influencing the way the price and wage setting mechanisms in this country work and by doing something about things the Government does that add to prices and costs.

I think the urgency of the inflation problem is something we all share. I'm just very dubious of the cost-benefit ratio for the old-fashioned medicine, and the record I think is on my side.

Mr. SOMMERS. Senator, I think you're addressing yourself to a very real question of the role of psychology in perpetuating business expansion. My own impression is that policymakers live in an environment which as it has proceeded along the course of the last year has gradually reduced its degrees of freedom. I'm not sure there's much degree of freedom left. This is why I gave you such a high probability on recession. The psychological state that is required for continued economic growth is beginning clearly to deteriorate in the United States. The decline in the stock market I think is often underestimated. You know, there's \$100 billion of lost liquidity—it's not in M_1 or any of the Ms but from the point of view of the whole, it's a significant element of this liquidity. That deterioration is the beginning of the deterioration of the automobile market, no matter what the Federal Reserve does any longer. The commitments to construction activity are gradually being eroded away now.

There are rates which, regardless of what the real interest rate may be—that is, the rate less the rate of inflation—induce a withdrawal of activity in the production of long-lived assets, particularly as the fear of recession arises. There's a strong possibility that what you borrow the money to build may not be filled or self-liquidating or generating the income you expected.

So we are already, in a sense, in the gravitational field of a recession now. Now the issue is really how to keep it moderate.

Mr. Perry just said some things that I'd like to agree with too. We haven't said much about the President's wage-price program. I don't imagine any of us here thinks of the wage-price program as a thing of beauty by any means, nor would we want to live with it over the long term, but as a way of alleviating the erosions of liquidity that lie ahead I think we should hope that it would get very widespread support. That would help too. But the psychological structure you were speaking of and inquiring about, whether it was sustainable through 1979, I don't think it is.

The CHAIRMAN. Senator Schmitt.

Senator SCHMITT. Thank you, Mr. Chairman.

Gentlemen, I have been listening now for over an hour. Gradually, I think each of you in your own way, and sometimes using the specific

word "gradualism" or "gradually," have indicated that had we been over the last 2 or 3 years gradually taking steps other than the ones we really are discussing today, and will discuss tomorrow, we probably would have the inflationary problem together. Thus we would not be on the verge or having had to take precipitous steps such as an increase in the discount rate, that may push us into a recession, however mild or deep it may be.

Would you generally agree with that; that we missed an opportunity over the last 2 or 3 years to institute gradual deflationary forces?

Mr. PERRY. No.

Senator SCHMITT. I think we had three heads shake yes and one no.

Mr. PERRY. I do not.

Senator SCHMITT. Would you explain why you do not think we could have done that?

Mr. PERRY. I think the expansion has been gradual. Policy has been gradual.

Senator SCHMITT. But what I'm referring to is policies that would have been deflationary in nature, gradual deflationary policies, and I can list those for you.

Mr. PERRY. The problem, sir, is I don't think we have those in our collection of tools unless by "gradual" you mean had we not permitted any recovery from the 1975 recession for instance. But I don't think by normal standards of how rapid that recovery was or how policy was conducted during that time, we pursued anything but a gradual course.

What we failed to do during this time is grapple with the wage-price spiral directly.

Senator SCHMITT. Let me suggest, taking I believe from your own testimony, some gradual techniques that might have been applied. I would also submit they should still be applied if we are ever going to get out of this thing. One is a gradual decrease in the Federal deficit. The first decrease we have seen, at least on paper, was during the 95th Congress, \$22 billion. The reality of that will come when we see the supplementals and how they are handled for fiscal 1979, but a gradual, \$10, \$15, \$20 billion decrease in the Federal deficit. Wouldn't that create a deflationary force?

Mr. PERRY. The decrease in the deficit that's occurred has been along the lines you have described. Indeed, it's progressed a little better than that, if we measure it from its peak of about \$100 billion, to its present level. But I don't think that would have made much difference, had we altered the rate at which we varied that deficit. It would not have left us with a different problem today than we have.

Senator SCHMITT. It would have left us with a decreased demand for increased money supply, if that had been combined with a real gradual decrease in the money supply by the Federal Reserve System, which we have not had—if those two things are moving simultaneously, wouldn't that have been a deflationary force?

Mr. PERRY. As I have been able to analyze the inflation problem, Senator, unless we were prepared to make the real economy grow a good deal slower, unless we were prepared to have much smaller gains in employment than we in fact achieved over this period, it would not have mattered for where we are today in terms of the inflation problem. Nor would it have mattered if we had gotten to today's economy

with a slightly different deficit or a somewhat different growth in the money supply.

Senator SCHMITT. Well, let me indicate some other things that, again taken simultaneously, my information from the private sector and certainly from my constituents would have maintained an expansion even in a time of decreasing deficit and hopefully also a decreasing share of the GNP spent by the Federal Government. Decreased regulatory cost, the private sector has continually said over the last few years that if we had decreased the cost of regulations that they would have been expanding. Decreased payroll cost. They say exactly the same thing. And those are two things we have had control over if we were willing to exercise it. A decrease in energy cost through domestic production rather than imports of higher cost foreign supply. And maybe as important as any of these, the increase in the availability of new goods and services by this time with increased investments and new technologies and innovations that would come from those technologies.

Now I have listed four other areas. Now taken simultaneously with good fiscal policy and a compatible monetary policy, I don't see how anybody can argue they would not have been major deflationary forces in our society.

Mr. PERRY. I agree entirely with that list of items you mentioned, Senator. But I do want to distinguish those from the deficit itself which is a different matter altogether. I think the regulatory area directly affects cost and prices. Payroll prices directly affect costs and prices.

Senator SCHMITT. But the deficit directly affects the money supply. That is the basic forcing function for increases in the money supply.

Mr. PERRY. No.

Mr. SOMMERS. May I offer you a variation?

Senator SCHMITT. You may differ or offer a variation.

Mr. SOMMERS. That isn't entirely clear to me any longer. There are deficits of a size that are overpoweringly inflationary and should be ruled out, but the dimensions of the deficit that we are now experiencing may not quite be the Achilles heel of the whole system that it's commonly supposed to be.

Almost every Western country is running a budget deficit. It turns out to be something very close to the nature of a mixed economy that it will run a budget deficit. The German deficit is considerably bigger than ours and widening. The Japanese budget deficit is widening at the response of the requests of businessmen to maintain a higher level of activity and support it with increased government spending.

I think a point Mr. Perry was on the edge of making—and I would agree with him if he were to make it—is that we should distinguish between the size and power of government, which everybody agrees needs to be kept under control in the United States, measured in terms of its relative size, which is its share of GNP, and its power to achieve the objectives of the system. This is the power of the Federal Reserve, the powers of the Congress and the administration to control and legislate.

In this latter sense, the United States is a relatively weak government. Its central bank is weaker than most other central banks. The division of power between the executive branch and the legislative

branch, which is unfamiliar to most of our trading partners, produces terribly dilatory consequences when action is needed. Denmark raised their value added tax about 3 or 4 weeks ago. There was no mention in the paper before the night on which the President and his equivalent of our Congress decided to do that. Here it takes a year at least; often by the time we get the legislation it's inappropriate.

I think what Mr. Perry is saying is we don't have much of a toolbox here to manage the kinds of problems that we have encountered and I do think we are reaching a point in time when we should seriously turn to the examination of the toolbox.

Senator SCHMITT. But I thought we agreed that—I went through a list of fairly reasonable tools that are certainly within the toolbox of the Congress.

Mr. SOMMERS. Well, by tools, you mean reduction of social security tax?

Senator SCHMITT. Payroll costs in general, that being one of the major ones. Regulatory costs, the energy costs, increased investments in new technologies either through tax policy or through Federal investment itself. Those are deflationary tools and they are particularly deflationary if you're doing something disciplined with respect to the total money supply.

Mr. SOMMERS. I can't disagree with that formulation but I would stay with my description of the tie that we face and most of the rest of the developed world now faces that is generally responsible for the shape of our inflation experience over the past 10 years. I really don't think, unless we substantially alter the kinds of commitments that we have undertaken—noneconomic ethical types of efforts to reshape the character of the system—that individual efforts of the type you have described would have greatly altered the experience we have had.

Senator SCHMITT. Gentlemen, would you care to comment?

Mr. CAGAN. As I see the problem, it's important to control the rate of change of policy measures and to look further down the road. When a recession first comes, Congress will want to put some stimulative policies in place, and that will be appropriate given the degree of unemployment and excess capacity which occurs at that time. But shortly thereafter, as the economy begins to recover, it is time to begin thinking of reversing those policies, not waiting until we have reached full employment to do so. Gradually, as we approach full employment, we should slow the economy down. In our experience so far, the economy, instead of stopping at the stop sign, goes right through it. It's like docking a boat. You have to slow down as you approach or you're going to go right through the dock. And this requires gradually reducing the rate of monetary growth and the deficit as well.

The problem with the deficit is not so much the size of the deficit itself. I imagine the economy can adjust to any size deficit if it becomes permanent although I would hate to see a deficit become permanent. Many people are very concerned about the rise in interest rates that occurs as the economy recovers. When a deficit increases because of an inability to balance the budget, that contributes to rising interest rates. The Federal Reserve, in an effort to hold down the rise in interest rates but not knowing exactly how much and always being cautious, allows the overexpansion that we have had in the last

several business cycles. The rate of growth of the money supply expands as we come out of the recession rather than declining and that's the problem we seem to have every time.

Senator SCHMITT. Exactly. But that is controllable if we have the discipline and patience to control it.

Mr. CAGAN. It certainly is technically controllable if we would turn our sights away from the next 2 months and look further down the road.

Senator SCHMITT. I agree.

Mr. OLSEN. The bulk of my prepared remarks really answered your question. I made the point that we should have begun slowing down earlier. There was even talk about this, of course, in the midst of the recovery period, that we should be much more cautious. That has been our problem in the past because the time to be cautious is the time the unemployment rate still seems to be unacceptably high and recovery doesn't seem to be full. So again, the consensus required to get that slowdown is sometimes very difficult to achieve. A brief review last year of the literature on the forecasts for this year, the strategy of the administration, and so forth—you can see that it simply miscalculated on the amount of slack and decided we could go ahead with the same kind of policies we had in 1976 and 1977 and it's been disastrous from the standpoint of inflation.

The other final point I would make is it's somewhat ironic that now you hear talk about gradualism for the next year in trying to avoid recession—

Senator SCHMITT. We have had quite a bit of talk about that in this committee, including statements by the Chairman of the Federal Reserve Board.

Mr. OLSEN, a final question. Do you think that the specific short-term effects of the increase in the discount rate is inflationary because of an increased cost in money and increased competitiveness of foreign goods?

Mr. OLSEN. The discount rate increase itself does not have as significant effect on the other interest rates. It's taken more as a symbolic measure. The proportion of borrowing by member banks, for example, from the Federal Reserve is relatively small so that the interest rate effect on the cost of borrowing by the member bank isn't that great and, in addition to that, it's still below market rates. It's not a penalty rate for banks which borrow from the Federal Reserve. So it doesn't have any effect in raising interest rates.

Senator SCHMITT. But the interest rates are going up.

Mr. OLSEN. The interest rates have gone up.

Senator SCHMITT. Directly or indirectly because of it.

Mr. OLSEN. The interest rates have gone up and, as I mentioned in my text, primarily because of strong demand for credit in a highly inflationary economy. The way to get interest rates down is to decrease the demand for credit and you do that through a restrictive monetary policy.

Senator SCHMITT. Thank you.

The CHAIRMAN. I want to follow up on what Senator Schmitt was talking about with respect to the deficit and spending and its relationship to monetary policy and inflation. Either the whole country is wrong or you gentlemen are wrong because if we ever got a message

clearly in an election it was that the electorate felt very strongly that Government spending was a big issue and was a fundamental reason for our inflation. Maybe everybody is wrong, everybody is out of step; but that is the view. I submit if they are wrong, the psychological benefit of balancing the budget next year, for example, would be enormously helpful in achieving an atmosphere in which we could make the President's guidelines work, make it possible to have a monetary policy that would both reduce the increase in the money supply and do so with moderated interest rates and I'm rather shocked that you realistic, able, intelligent economists seem to feel that—in response to Senator Schmitt—perhaps I misunderstood you—that reducing the deficit and perhaps eliminating the deficit would not be of No. 1 importance in getting a grip on inflation, No. 1; and No. 2, on making the President's policies work more effectively and is a very, very important element in making it possible to have a monetary policy which can function.

I think perhaps Mr. Olsen would tend to agree with that view, perhaps not. I noticed, for instance, Mr. Kauffman, whom we all respect as a brilliant economist as well as a respected banker in New York has argued very strongly that this is one of the fundamental reasons for our inflation and until we recognize that we're going to be in very deep trouble. He testified before the Joint Economic Committee this year to that effect and I'm sure he feels that very strongly.

Mr. OLSEN. I think cutting the budget deficit down is important and reducing Government spending is important, but I would point out that that alone will not guarantee that you will reduce the rate of inflation unless the rate of growth of the money supply also diminishes along with it.

The CHAIRMAN. Yes, I would agree with that. What I'm saying, if you're going to reduce the rate of growth in money you need as a partner in that and a full partner a really austere fiscal policy and one much more austere than the administration has called for—not a \$30 billion deficit next year, but a whale of a lot less than that—a balanced budget.

Mr. OLSEN. There's no question about it. But to some degree the size of the deficit—and I might add to that—the proportion of borrowing by the Treasury as a proportion of the Federal funds in the credit market at this stage in recovery has been extraordinarily high and the size of deficit and the size of the financing required by the Treasury is intimidating to the monetary authorities.

The CHAIRMAN. Isn't the Federal Government into the credit markets for \$30 billion and could that make a great difference if that could be eliminated?

Mr. OLSEN. It would certainly help the monetary authorities in their task. I wouldn't want to overstate that if we got the budget down lower that that alone would cure the inflation problem.

The CHAIRMAN. I agree with you wholeheartedly on that. Certainly no one of these things will do it.

Mr. CAGAN. I think the emphasis should be on the change in the budget. At the same time that you slightly reduce monetary growth which tends to put an upward pressure on interest rates, if the Government's demand for credit were reduced, then the private sector would be able to borrow more or less the same amount it had before,

and the effects of disintermediation on the housing industry and small business would not occur, even though monetary policy were tightening and had the effect in the long run of reducing the inflation rate. We wouldn't have to go through this very painful period of having interest rates rise very high because of the first impact of changing the rate of monetary growth. So there the budget is paying a very crucial role.

However, this wild inflationary world that we live in may make it very difficult for the Congress to exert the kind of control over the budget that would allow them to balance it. Expenditures and taxes are much more difficult to predict in this inflationary environment and much more difficult to bring into balance. When you set your sights a year ahead, you may not be quite sure how it's going to come out, and you may end up with a deficit that perhaps no one really wanted.

Mr. OLSEN. I just want to make one quick point that Mr. Sommers mentioned before, that Germany has a relatively larger domestic deficit than the United States has, yet they have significantly less inflation. That should tell us something about the effect of fiscal policy alone on inflation.

The CHAIRMAN. Mr. Perry.

Mr. PERRY. Senator, the public opinion polls may say a lot of things and if the one you read tells you what you just said, and I'm sure it does, it's wrong. I think it's wrong on all counts.

In the first place, there is no connection between the size of the deficit and the money supply. Those are two unrelated matters. They are unrelated in principle.

The CHAIRMAN. I don't claim there's any connection between the size of deficit and the money supply, but there's a connection between the size of the deficit and the demand for money and therefore the price of money and therefore the level of interest which is the price of money.

Mr. PERRY. I couldn't agree with that. I would not agree with that argument.

The CHAIRMAN. Let's make it extreme. Supposing we had a \$100 billion deficit and the Federal Government is borrowing \$100 billion in the market. You don't think that would have an effect in driving up interest rates?

Mr. PERRY. No. The reason is the following: let's imagine that we chose to eliminate this deficit by raising taxes by \$100 billion. Then to keep the same level of activity in the economy—

The CHAIRMAN. That's a big "if."

Mr. PERRY. The private sector would have to borrow the \$100 billion instead of the Government. You're not changing that basic proposition simply by making me borrow instead of you. That's the reason that there is no connection with interest rates.

The CHAIRMAN. I don't understand. Did you say you could meet that by having a \$100 billion increase in taxes? Maybe you could, but my statement is keeping everything the same. If you increase spending to a point where you have a \$100 billion deficit, that has a tendency to increase the interest rates if you have the same monetary policy.

Mr. PERRY. Well, I don't know how that is keeping everything the same, Senator. You just increased spending on me.

Mr. CHAIRMAN. You keep everything the same except spending.

Mr. PERRY. I was keeping everything the same. I was just trying to make it simpler by keeping everything the same except taxes, since it was easier to visualize the fact that if you raised your taxes you would have to borrow more in order to conduct your affairs at their previous level. But the same is true with spending except one has to realize that the recipient of that spending now has to borrow since the Government is not borrowing. That's the reason there is no necessary connection. The Government's deficit corresponds to a surplus somewhere else. So long as you keep the level of GNP what it is, it's just a question of who has the deficit. If the Government has less, the private sector will have more.

Consequently, there's no effect on the demand on credit markets.

The CHAIRMAN. You're making assumptions that are unrealistic. I think if you're going to have a \$100 billion deficit you don't keep the same level of GNP.

Mr. PERRY. Then I think we agree, if we're talking about a different level of activity.

The CHAIRMAN. Well, you have a different level of activity if you're going to increase Federal spending by 25 percent in 1 year. You're going to have a different level of activity.

Mr. PERRY. My impression was that the public opinion poll you referred to was not asking if we caused a major recession would we have less inflation; but rather, given the present level of employment that we have in this economy, would it make a difference if we had a smaller or larger deficit. We are holding a fixed level of activity.

The CHAIRMAN. The public perception is that the present level of spending and the present level of the deficit is one of the elements contributing to inflation, and I think that's a very broadly supported view. As I say, it may be wrong, and you apparently think it is, but I think it's a very broadly supported view.

Mr. PERRY. I was trying to tell you why. I was also trying to address the question of the correlation between monetary growth and deficits which, in principle, could be anything and historically is, in fact, a negative correlation. The reason again is because we get large deficits when we slow down the economy and that also corresponds with periods when we slow down the money supply. So I'm afraid that a lot of these various slogans don't really help us on that.

Mr. OLSEN. I didn't want to leave the impression that I suggested there's any correlation or any quantitative measurement between rates of change of money supply and size of deficit. It's something more qualitative. In past years—we don't hear it so often now, but in past years we used to hear the reference of "even keeling" on the part of Federal Reserve policy by which the Federal Reserve would seek to maintain stable conditions in the credit markets during Treasury financing operations and it did so often by putting reserves in and didn't take as much out so there was some expansionary bias there.

It might also be reflected in the kind of statements that former Federal Reserve Chairman William MacChesney Martin made back in the 1960's when he said for the Federal Reserve to pass judgment on congressional appropriations and spending decisions and therefore withhold the financing bills if it came to that would be preposterous. He said the Federal Reserve must act in concert with the Treasury's

requirements and so on. It's an attitude on the part of the Federal Reserve. It's something that's qualitative.

I would agree there's no quantitative between the two. It's something that intimidates the monetary authorities.

The CHAIRMAN. Let me see if I can formulate the question a little different because I follow up on Senator Schmitt and I would agree with the view here that there's no connection between the deficit and the money supply. I think there is a definite connection between the amount of Federal spending, the deficit, and both interest rates and inflation. I'd like to get your view on whether or not a sharp reduction in the increase in spending would have a favorable effect in permitting the President's anti-inflation program to work and in making it possible for monetary policy to proceed with a small gradual reduction in the increase in the money supply without seeing adverse effects on interest rates.

Mr. SOMMERS. You're getting the general opinion from this group that the relationship is much looser than is widely held by the public, both with respect to the deficit and the money supply, the deficit and the rates of interest, and the deficit and the rate of inflation. May I make just a couple of points in connection with that?

First of all, the deficit is falling strikingly rapidly now and it will probably continue to do so. On a seasonally adjusted basis that the national accounts provide us with, the Federal deficit was down to \$25 billion by the second quarter of 1978. It doubtless fell further in the third quarter and will probably fall further in the fourth quarter. So we are ending 1978 with an ongoing deficit—from the NIA accounting system which is not so different from the budget which we customarily deal with—probably below the \$20 billion rate. The State and local surplus is probably that big, at least until all the Proposition 13's work their way through. The government sector in the United States is very nearly in balance. And when you look around, the demand for credit is rising extremely rapidly, pressing very heavily on the supply, and hence on the interest rates. It's the explosion in private credit much more than in public credit that accounts for most of the post-war experience. I offered you a publication that I did about a year ago at the Conference Board that bears on the relative importance of public and private debt. The crowding out argument that we hear frequently has simply never been observed in the real world. I doubt very much that it ever will.

Now this does not mean that budget deficits are good or bad. We run a budget deficit, as everybody else does, for very simple reasons related to the historical positions of all of these systems. We are all pursuing a new range of objectives for the economy. Some like them, some don't. But that's what we have done. That's elevated spending at the same time we cherish, particularly in the United States, a private market economy. There are tax rates that would simply foreclose the private market economy, so the tax rates are set in the hopes of preserving the kind of incentive that a private economy needs.

These are independent calculations and it shouldn't be surprising that they don't balance. We have the 10 highest tax structure among 13 Western developed nations. We have taken better care of the pri-

vate sector than most other economies, but it has left us with a considerable gap.

The real question is whether the last dollar of Federal spending at the margin is something that we would prefer to alternative spending elsewhere. That's a very difficult weighing effort to do. At the extreme it's easy enough. There's not much sense in having private cars out there if you don't have public roads to run them on, and you could make the reverse comparison. It's much more nearly that fundamental question of what it is that we want out of this system and how much insistence, and properly so, on protecting the private sector that explains the general deficit.

Now apart from fluctuations in economic activity, one other point that bears on this deficit and that helps explain the difference in the German experience and the Japanese experience from our own, is the propensity to save in the consumer sector. The German saving rate is more than three times as high as the U.S. saving rate. The Japanese personal saving rate is four times as high. The Germans are financing a budget deficit with real saving in the personal sector and we are not. One of the reasons we are not is that our monetary system markets money to consumers for consumption purposes the way we market toothpaste. It's an intensive, aggressive continuing effort with no restraints on it. There's a difficulty here. One of the principal ones is the ease with which we make it possible for the personal sector to take on immense volumes of credit and therefore experience a low saving rate and add to the demand for funds on top of the Federal Government.

Just as a last point, right now the growth of installment credit outstanding is far more rapid than the growth of the Federal debt—at this point in time, 50 percent more rapid and on a smaller base. On a percentage the growth rate in installment credit is probably double what it is in Federal debt.

The CHAIRMAN. My time is up. I've got some more questions.

Senator LUGAR. Go ahead.

The CHAIRMAN. I find myself in pretty sharp disagreement with you with gentlemen and I'm not persuaded, but I will certainly review your remarks and see if I can correct some misimpressions on my part; but you do seem to come down pretty hard on the notion that if the monetary policy isn't the only game in town, it's about the only game we can use right now and use very effectively. Now I come to the point that I raised in my opening statement but I haven't asked questions about it and nobody has discussed it and I'm interested that there hasn't been any concern about it.

Monetary policy in the past has worked, if not entirely, very largely through the housing sector. An analysis by Sherman Maisell of the Federal Reserve, as you recall, in 1967 showed a 1967 credit crunch that, although the housing industry constituted about 3.5 percent of the GNP it suffered 70 percent of the effect of that crunch. We all know how supersensitive the housing market is to changes in interest rates.

Now we have a different ballgame. Now we have a situation in which the housing industry is somewhat insulated. It's possible for savings and loans to raise money by paying above the Treasury bill rate, something they couldn't do before; and therefore they have money avail-

able and it looks as if housing is going to be able to move along fairly well. There's going to be some reduction but it may not be anything like the reduction that took place in previous credit crunches.

My question therefore is, what does this do to monetary policy? Are we dealing with something that's becoming a paper tiger? Does it mean that the credit crunch will have to have an effect throughout industry and what level of interest rates do we have to get to before you have a bite in the business sector that you had before in the housing sector on the assumption that housing isn't going to suffer the kind of decline it has in the past? Would you like to kick that off, Mr. Olsen?

Mr. OLSEN. Yes. I think that the insulation that you speak of isn't going to be sufficient, that we will have a housing decline. The reason why is because when you have a rapidly accelerating inflation it alters the way in which the marketplace allocates credit. This is a mirror image of what's happening in the economy.

As inflation accelerates, those who demand and require credit for short-term purposes—and one illustration I could use is someone who's rolling over inventory several times a year, for example—his ability and need to bid for short-term credit is very strong so that he will bid and push short-term rates up. If the inflation is rising rapidly enough he will push those rates up above the long-term rates. The long-term bidder for funds who's discounting a long-term stream of income doesn't have nearly as high inflationary expectations and is not likely to outbid the short-term bidder for funds.

The CHAIRMAN. An argument you hear over and over again is that home buyers anticipate as much as a 20-percent increase in the value of their home. They feel that's one investment they can make that's likely to ride with inflation.

Mr. OLSEN. That's as long as they expect that policies will continue to pursue those inflationary policies.

The CHAIRMAN. They have seen it happen. All of us have had that experience. We know our neighbors that have bought houses for \$50,000 that are now worth \$100,000.

Mr. OLSEN. We're already beginning to see, that savings banks are not able to continue to bid for funds even where they have freedom to do so at rates above 10 percent and offer those funds out at mortgage rates somewhat higher than that. So it's already beginning to bite.

Let me add that it's something of an illusion to say that the transmission of a restrictive monetary policy moves through the housing market only. The housing market is very visible and very conspicuous, though there are other sectors of the economy also that pull back from bidding for long-term funds, including the State municipal area and corporations; they all pull back from bidding for long-term funds when inflation strengthens the bidding for short-term credit.

The CHAIRMAN. No question. You're right about that. My point was, they pull back in aggregate overall in the economy at a somewhat higher rate than they have in the past.

Mr. OLSEN. That may be, but additionally what happens is that as monetary policy reduces the Nation's nominal income, it squeezes real income. The dramatic event of 1973-74, for example, was the fact that real consumption spending and real retail sales began to decline as early as March 1973 and continued to proceed all through 1974. Because total consumer spending is not something that is as vocally

represented in Washington, and you don't have organized representation for this area, nobody pays that much attention to it. But housing, which is so conspicuous, receives more attention. But the recession of 1974-75 began in the total consumption sector.

Mr. CAGAN. In a boom, when demands for credit are becoming excessively high, various sectors of the economy are trying to borrow more resources than we actually have. Someone has to cut back. Previously it was the housing industry, for one.

Which industries should cut back under those circumstances are those that can easily cut back and then recover very quickly. Housing, as a matter of fact, has been able to do this in the past.

The CHAIRMAN. I can tell you, because this is the Banking, Housing, and Urban Affairs Committee, they are unhappy about it. They feel it's the most inefficient, cruel, ruthless operation. They say again and again marginal firms have failed. They can't operate efficiently because they have to operate at peak capacity and then drop to very low capacity. The labor people are very unhappy with it. You have a high level of unemployment. One of the reasons you have construction wages which are inflationary is because they say they work not the 2,000 hours a year that people ordinarily work but about 1,400 hours a year, and therefore they have got to have higher hourly pay. It has a very disruptive effect. If we could stabilize housing, as they have in other countries, it would be a better situation.

Mr. CAGAN. I was on the staff of the Council of Economic Advisers in 1969, and those complaints were coming into the Council when we had a period of rising interest rates and considerably more disintermediation than we have had recently. They complained quit loudly, and I'm sure most of their complaints should be taken quite seriously.

On the other hand, they said at that time that the housing industry was never going to recover from the effects of what was happening in 1969. Yet, if you remember, very quickly housing came back during the recession and reached new levels of building that we hadn't seen before.

I agree that one industry should not have to bear the brunt of monetary restraint. As you pointed out, through the borrowing of the savings and loans and other institutions, the effect on this industry is less, which means the effect is going to be transferred to other industries, to some extent to small business, which is unfortunately not in a position to bear it.

One thing that could be done, as was said before, is for the Government to step out of the market at the time that this happens. If Government demands for credit were not so insistent, more credit could go to the private sector. But some demands for credit have to be cut back. The more evenly cutbacks fall across the economy, in general, the better.

The CHAIRMAN. That's one of the reasons why I feel it would be helpful if we could reduce the deficit, so the Government demand for funds would not be so great.

Mr. OLSEN. I just wanted to add this point. The time for the housing industry to express its concern is not this year when interest rates are rising as they are, but it should have been in 1976 and 1977 when policies were overly expansionary and were heading for the kind of

inflation we are encountering this year. I have told people in the housing industry this repeatedly. Their problems are born in excessively expansionary monetary policies and not in periods of restrictive monetary policies.

The CHAIRMAN. It's hard to expect them to do that when in no year do they come close to the goals we set in 1968 on the basis of studies in Government and business who felt we should have 26 million housing starts. So 2.4 million was the peak year and we have been well below that. In 1976-77, we were well below that. It averaged about 2 million. So in their view we were not up to what the economy seemed to need.

Mr. OLSEN. But it would be better to seek those goals in a more stable growth for housing.

The CHAIRMAN. They thought they were still on the up rather than at a peak and about to fall.

Dr. Perry?

Mr. PERRY. I have nothing to add.

The CHAIRMAN. Mr. Sommers?

Mr. SOMMERS. I think the protection is wearing thin. It will be interesting to see how many banks will now be eager to offer them. They are a terrible drain on the thrift institutions. Moreover, the life insurance companies don't carry this protection, and there's been a gradual deterioration in the position of life insurance companies in this respect. I would expect it to get a lot worse over the next 4 or 5 months. There will be, I think, a considerable decline in the housing market.

The CHAIRMAN. Let me ask you gentlemen, as experts, to see if you can help us on what other indications of monetary policy should we look at in view of the prospect that over the next few months, perhaps over the next few years, M_1 will not be as satisfactory as it has in the past because of the changes in the transaction accounts.

What other indications should we look at? Monetary base? Non-borrowed reserves? Total credit demands? What do you think would be the best indication we could work out with the Federal Reserve for observing monetary policy more precisely?

Mr. SOMMERS. I only have a brief comment. We will begin to get a statistical base on the new arrangements, and at least we will be able to do some more measurement. For the time being, the monetary base is one recourse that we can take in this interim, but there may be other more professional opinions down the way here.

The CHAIRMAN. Any disagreement with that?

Mr. CAGAN. I would like to point out the monetary base alone is not going to be sufficient, because the ratio between transactions balances and the monetary base is undergoing change during this period. I would encourage the Federal Reserve and their expert staff to devote resources to this problem. I know they have been doing some internal work, but I don't have the impression they are giving this top priority as I think they should. A lot of estimates and new data could be collected to shed further light on the extent to which the public is using these new transactions balances and to which shifts are occurring from demand deposits to these new transactions balances. With their resources they can gain insights into this question. I think we are

going to need a lot of help over the coming years until we have some such reforms of the kind I suggested.

The CHAIRMAN. I agree with that but do you see any specific statistic we could use as a guide from quarter to quarter to determine the conduct of monetary policy? We'd like to get to a situation where M_1 may decline but that decline may be a deception. It may not be a real decline because people aren't using demand deposits as much as they were. They were keeping their money in the time deposits.

Mr. CAGAN. I would continue to look at M_1 and try to supplement that with information on major shifts that are occurring. Some data are available on repurchase agreements which are a large quantity. If any new development comes along that implies that corporations or other large holders are shifting from demand deposits into savings deposits, there should be supplemental data acquired on that. I would urge you not to stick with what you have. I don't think the present aggregates are sufficient for this purpose.

The CHAIRMAN. Mr. Perry.

Mr. PERRY. Professor Cagan's suggestions in his formal testimony are very useful ones and might be pursued further. Within the aggregates we look at, it's my impression that M_2 has a closer relationship to economic activity than M_1 even on a historical basis, and consequently we shouldn't be terribly distressed if we can no longer read M_1 at all.

More importantly, I would hope that the Fed would look both at what's going on in the financial markets and what's happening to interest rates as well as what's happening to some of its aggregates. This is something that requires a lot of judgment, a lot of careful examination of the economy, not a simple rule.

The CHAIRMAN. Now in the rush in the last Congress we passed the Humphrey-Hawkins bill and a lot of people have mixed feeling about that, but the Humphrey-Hawkins bill did provide for new responsibilities for the Fed in reporting to the Congress and reporting to the country and also it provided for an attempt on our part to try to coordinate monetary policy and other economic policy generally, including fiscal policy. What we need as a base for that is some sort of forecasting of what the expectations are for the economic growth, unemployment, inflation, or so forth.

I'd like to ask you, because it would contribute very much to our evaluation of the wisdom or lack of it of the Federal Reserve Board's targets for monetary policy, if you could give us your estimates on the outlook. You did indicate the likelihood of a recession, particularly Mr. Sommers, and most of you seem to agree that that's likely. The administration is forecasting no recession for next year, real economic growth of between 3 and 3.5 percent. Chairman Miller is forecasting no recession and economic growth around 2.5 percent, I understand. They may be right.

Those don't square with the forecasts we are now getting, not only from you but from the private sector generally. Where do you see the differences in the economic outlook coming from? What are the major problem areas? Where do you see the recession likely to develop? You have indicated that inflation is the fundamental cause, but looking at the consumption, investments, exports and so forth, can you just give us a quick notion of where you think the administration is off?

Mr. OLSEN. Well, recession normally follows a sequence of events moving through various industries. Consumer spending particularly for durable goods, which also includes the housing area, would be one of the early areas in which a downturn would manifest itself and it would emanate from lower increase in nominal national income in which inflation would not yield immediately and you would have decline in real income and with it a decline in consumption spending.

The capital investment area tends to lag and is the last segment of the economy hit and that is very briefly the kind of sequence of events we have seen happen in past recessions and I would expect it would happen in the year ahead.

Also, on the restrictive monetary policy, may I make a comment on the earlier question you had on monetary aggregates because the monetary base which we do follow isn't entirely a reliable guide at all times. In fact, the base did not decline in the prerecession period of 1974-75 and again it's a point that Professor Cagan made that you can have marked changes in the multiplier of the base to money and the Federal Reserve clearly needs to do more analyses on this and does indeed need to make some improvements in its definitions and its targets. I would also urge that the Federal Reserve should review once again the 2-week lag in the reserve adjustment as well, which may also be a problem in the execution of policy.

The CHAIRMAN. My question is, where do you see the administration's forecast and the Federal Reserve's forecast going wrong? Maybe they haven't been sufficiently detailed indicating precisely where they expect the economy to grow, but do you have any thoughts on that?

Mr. SOMMERS. I think you will probably find the whole panel agreeing on this. Our own projections call for an absolute decline in units of consumer spending for durable goods, as much as 10 percent or more in automobiles, and less than that outside of automobiles.

The CHAIRMAN. Less than that for housing, for instance?

Mr. SOMMERS. No. More than that, about an 18-percent decline in units, which would produce 7 or 8 percent decline in actual dollars since there's a considerable inflation rate we expect to be maintained there.

We think the growth rate of plant and equipment spending will still be positive but just barely so, as distinguished from a 5- or 6-percent real rise this year.

The CHAIRMAN. Just barely positive in real terms?

Mr. SOMMERS. In real terms, yes. About 10 percent in dollar terms with most of the loss being the kind of off-the-shelf quick order capital goods. Trucks and buses would be part of that.

Finally, we think inventory is accumulating right now at an increasing rate. The fourth quarter inventory accumulation rate will be very high and we expect that to fall very, very sharply so there will be a loss of inventory demand. These would be offset by what may be a considerable improvement in exports and an increase in both the defense and nondefense spending of the Federal Government.

The CHAIRMAN. Mr. Olsen, you indicated that you expected there may be a recession next year but you also indicated—and I think others did too—that there's been a continuous big demand for credit.

Why isn't this rather severe action taken by the Federal Reserve Board begun to have a bite? Where is the slippage?

Mr. OLSEN. Because I don't think they have actually reduced the rate of increase first in the monetary base and—

The CHAIRMAN. Why hasn't the sharp increase in interest rates begun to have an effect?

Mr. OLSEN. Because the real rate has only recently increased. Again, the point that Senator Lugar made, that when you have inflation running at 8 or 9 percent and you have interest rates running at about 8 or 9 percent, the real rate is virtually zero and it's only been in the last 6 months that the real rate has increased, and our estimate is when the economy is fully employed an equilibrium rate for short rates would be the inflation over the past year with about 2.5 percent real rate over the top of that. With the real inflation rate running at 8, a 10.5-percent interest rate would be what we regard as equilibrium.

The CHAIRMAN. There have been some rumor that business demands are high because businesses are borrowing on credit lines high because of credit controls this spring. Have you seen any evidence of that?

Mr. OLSEN. Some.

The CHAIRMAN. That would be artificial and it would be likely to show up later on.

Mr. OLSEN. But what's happening is you're getting increasing commitments requested from the banks, not so much drawdown. The sharp increase in short and intermediate borrowing is typical at this stage in recovery where you have reached potential GNP with inflation accelerating.

The CHAIRMAN. Dr. Perry, historically the economy has never experienced, as I understand it, a soft landing where economic growth is slowed by tight money but no recession takes place. Given the lags in monetary policy effects in the economy, the difficulty in forecasting turning points in the economy, and the Federal Reserve's reluctance in the past to shift gears quickly and forcefully, what are the chances it will be different this time and we will have continuing growth?

Mr. PERRY. Well, my testimony did include my most recent forecast and I'm on the side of those who expect a recession, as you can see there. We did have a soft landing once before and that was 1967. The special circumstances then were very strong demands, predictably strong demands, from some sectors other than housing. So although you killed the housing industry during 1966 and into 1967, you had these very strong demands holding up the overall economy. We don't have a repeat of that this time and that's why I expect we will see a recession next year. There isn't any clear strength to offset the predictable weaknesses.

By the way, I think that the present level of interest rates will be perceived to be very high by the private sector within several months, because I think the rate of price inflation that we have been experiencing very recently exaggerates the basic rate of inflation that we're going to be living with in a few months. In view of the moderation in those inflation numbers that I expect, it's going to turn out that we're looking at a very high real interest rate.

The CHAIRMAN. Dr. Perry, do you think that the program to support the dollar has been successful so far and do you think that there's indications that it will continue to be successful? Do you think it's basically sound?

Mr. PERRY. Yes. Certainly so far I believe it has been successful. Intervention is generally a game that's very hard for us to play properly. Traditionally governments have intervened in currencies unsuccessfully. Nonetheless, that doesn't say that you shouldn't try to when you believe you've reached excesses. All of our trading partners think the speculation has been excessive. They all joined in wanting to support the dollar and I think that's an indication.

What bothers me is that we may find ourselves pursuing policies that we would not want to pursue in terms of domestic objectives simply because we're responding to speculation by foreigners in the foreign exchange markets. I don't think we ever want to be in a position of having the "gnomes of Zurich" dictate our social priorities at home. We can come close to that if we gear our policies too much toward what's happening to the dollar abroad.

The CHAIRMAN. Mr. Olsen do you agree with that, that the support of the dollar program that the President announced has been successful and is likely to continue to be?

Mr. OLSEN. Well, I think it's been successful in the 2 weeks that it's been out, in the sense that the dollar improved in the exchange markets and it's holding relatively well. But whether the program succeeds over the longer run remains to be seen. I don't think the program as it stands will be sufficient.

The CHAIRMAN. What do you need in addition to that?

Mr. OLSEN. You have to adopt a less expansive monetary policy. You have to demonstrate that you're absolutely intent on reducing the rate of inflation, particularly the rate of inflation relative to other countries, and convince the marketplace that the intent will be carried out.

The CHAIRMAN. Well, gentlemen, I want to thank you very much. I think you have given us a very, very helpful analysis of our economic problems and what we can do about those economic problems from a monetary policy standpoint. You have given us a good basis for questioning the Chairman of the Federal Reserve Board tomorrow.

One more question because it's one that's concerned us a lot, the staff and I in talking about this, and we'd like to get your views as outsiders who are more objective perhaps. We would like to get the other members of the Federal Reserve Board and the presidents of the Federal Reserve Banks who also serve on the Open Market Committee to testify before this committee from time to time on monetary policy. We think it would be helpful to get their views, although we recognize only the Chairman can and should speak for the Board as a whole. We think there's a lot of talent there and a lot of ability and a lack of understanding on the part of the Congress and the public of our monetary policy. We would like to get the broadest and most interesting kind of debate so we can get a better understanding on the part of

Congress and this committee and the public generally. We think that would be constructive.

There are problems involved, however, in getting more than one voice speaking for the Federal Reserve Board and I'd like to get your views on whether you think it would be proper policy for us to invite to testify not only the Chairman of the Federal Reserve but the six other members and perhaps some of the Federal Reserve presidents who also have the same vote he has in determining what the course of monetary policy should be.

Let's start off with Mr. Sommers.

Mr. SOMMERS. I guess we all recognize some difficulties in that. The members of the Board of Governors, many of them, carry specialization and I might suggest one way of achieving this and yet preserving the sense of one overall voice on the part of the Chairman would be to invite them to address themselves to their specialization. Invite Henry Wallich to speak on the international views of the Federal Reserve, and so on down the line. I think it might be somewhat awkward if the procedure were to appear to be being used to uncover differences of opinion within the Board. I think that might be awkward, but specialization may be a route in which you could get most of what you want done.

The CHAIRMAN. Dr. Perry.

Mr. PERRY. I really haven't given this any thought. Board members should not be muzzled. They should be free to express views when they differ from the Chairman. But there's some risk in making the whole process of formulating monetary policy appear even more divisive than it is from time to time by causing disagreements to be aired very publicly rather than resolved within the Board itself. I can see some problems in going very far in inviting everyone to air his particular disagreements, but I really haven't given it enough thought to have a view on where to strike a balance.

The CHAIRMAN. You see, right now we have a situation where monetary policy does seem to be so important and somewhat complicated by all the factors we have discussed this morning. It would be especially helpful to get all the insight we could get and there's a lot of talent there, a lot of very able people, and by and large, in the past the people think of the Federal Reserve Board as the chairman and that's all. It's not that. It's not the way it functions and it seems unfortunate that the other members aren't heard and I think it would enlighten us occasionally. Of course, there might be a little difference that might be embarrassing for a short time, but I can't see any objection to it. But I'd like to get your views. Dr. Cagan.

Mr. CAGAN. My first response to it, not having thought about it much before, is that it would be unfortunate if it produced any posturing on the part of the different members. We can only have one monetary policy at a time; that group has somehow to compromise and be able to talk to one another. If they get hardened into a position because of public exposure, that, of course, would be unfortunate.

On the other hand, they do occasionally in the FOMC reports disagree, and I suppose it would be possible for them to come here and explain what their position is if it's already been made public.

The CHAIRMAN. Just a couple months ago we had the Chairman voting the minority along with Charles Partee at one point, so it's not as if he does speak with one voice.

Mr. OLSEN. My initial response would be that I would not do it. I think the reason why is because the members of the Open Market Committee—I have in mind particularly the district presidents conduct extensive discussions and I think that if you have many voices being represented, particularly before Congress here, that will alter possibly the roles played in the committee function itself. It certainly would create a great deal of difficulty for the chairman to represent that committee.

Additionally, the members of the Open Market Committee now do at times publicly make their opinions known.

My initial reaction is I would be very cautious about it. I'd look at it very hard before moving ahead on such a proposal.

The CHAIRMAN. Well, I appreciate that caution. I'm hopeful that we can develop something, yet I want to do it in a way that wouldn't injure the effectiveness of the Federal Reserve Board and our monetary policy.

Gentlemen, thank you very much. You have been most helpful.

The committee will stand adjourned until tomorrow morning.

[Whereupon, at 12:30 p.m., the hearing was recessed, to be reconvened at 10 a.m., Thursday, November 16, 1978.]

THIRD MEETING ON THE CONDUCT OF MONETARY POLICY

THURSDAY, NOVEMBER 16, 1978

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, D.C.

The committee met at 10 a.m. in room 5302, Dirksen Senate Office Building, Senator William Proxmire (chairman of the committee) presiding.

Present: Senators Proxmire, Sarbanes, Tower, Garn, and Schmitt.

STATEMENT OF CHAIRMAN PROXMIRE

The CHAIRMAN. The committee will come to order.

This is the second day of our hearings on the conduct of monetary policy. We are honored to have with us today Chairman Miller of the Federal Reserve Board.

This is the final hearing on monetary policy that have followed from H. Con. Res. 133 which the committee approved and was passed in 1975. The next hearing on the conduct of monetary policy will be held under the requirements of the Humphrey-Hawkins bill, which is now law—it passed the Congress a month or so ago—and, of course, that will be next February. Those requirements will expand the dialog between the Federal Reserve and the Congress because the Federal Reserve will be required to state in more precise terms the relationship between their monetary policy plans and objectives and the numerical goals for employment, unemployment, production, and prices established by the President in his Economic Report.

This change is particularly important coming at this time because of the serious inflation problem and the possibility of recession. Moreover, the monetary aggregates as an indicator of monetary policy have become somewhat less useful than they were before and the meaning of changes in M_1 may be seriously distorted because of the establishment of automatic transfer accounts. Right now everyone would agree that M_1 , the conventional money supply measurement, is growing too rapidly, but by this time next year M_1 may be declining because of shifts of funds from consumer checking accounts into savings accounts, not because of tighter monetary policy or changes in real economic activity. M_2 may become a more appropriate measure for policy purposes or it may be that more attention will need to be focused on bank reserves and interest rates because none of the monetary aggregates will provide the information necessary to relate monetary policy to production and employment.

Three of our four witnesses yesterday predicted a recession next year, in part because rates have risen more than most people would have expected. The housing sector, although partly insulated from rising interest rates, is likely to come under increasing pressure as will consumption and thus inventory growth.

The Fed faces a very tough challenge in designing a policy that will reduce inflation without precipitating a recession. You obviously need all the help you can get. Last April when you appeared before this committee, Chairman Miller, you said the Congress should look at reducing spending and you would be personally satisfied with a deficit of \$50 billion by 1979. We have done better than that by a big margin, but the economy is continuing to grow more strongly than expected and interest rates are far higher than anybody would have guessed last spring. A sharp cut in the increase in Federal spending would help. In my judgment, a balanced budget in 1980 is within our grasp and would greatly help the Federal Reserve to hold down interest rates.

We would like to know how the Federal Reserve plans to pursue recovery without either recession or higher inflation. We'd like to hear you explain the Federal Reserve's plans relative to that dilemma.

Senator Tower.

Senator TOWER. I have no statement right now, Mr. Chairman. I may make a comment after the Chairman gives his testimony.

The CHAIRMAN. Senator Garn.

Senator GARN. I have no opening statement, Mr. Chairman.

The CHAIRMAN. Senator Schmitt.

STATEMENT OF SENATOR SCHMITT

Senator SCHMITT. Mr. Chairman, these hearings on monetary policy, as everybody knows, come at a very critical time. It seems that we make that statement every time we have this particular set of hearings, but in this case inflation has risen to over 10 percent on an annual basis, doubling since the beginning of the 95th Congress. The dollar has fallen to postwar lows, and individuals and institutions here and abroad have bid the price of gold and other currencies to alltime highs apparently in search of a safe haven for inflated U.S. currency.

Since the recent Fed actions which everybody is familiar with investors and economists seem all of a sudden convinced that a recession is pending. We have heard a variety of charges of why all this havoc exists. Labor blames business; business blames Government; Government blames business and labor. Everybody is passing the buck and, unfortunately, and most conspicuously, the White House is passing the buck. The Carter administration has, unfortunately, laid the blame for our economic crisis on previous administrations and more unfortunately on the public and business at large, while ignoring the discomfoting fact that inflation was only 4.8 percent when the present administration took over the reins of Government.

Having allowed our economic health to deteriorate to a dangerous point, the administration took what they would have us call bold action, but as Shakespeare said, "Delay has dangerous ends." The fears and uncertainties induced by the continuing inflationary spiral will not be as easily dispersed as they were created, and if we look at those indicators of what inflation will be doing over the majority of next

year, when we look at prices of raw materials and so forth, it's awful hard to see this 10-percent inflation decreasing under present policy.

The rapid tightening of credit will certainly have serious long-term effects and many economists are predicting a recession in the coming year. The only question seems to be in their minds how deep that recession will be.

Now, I'm not personally convinced that we have to have a recession, but that certainly seems to be the prevailing opinion that we heard yesterday and are hearing from other quarters. All of this could have been avoided. I believe, had the Carter administration exercised some caution in the first 18 months of its tenure and done what the chairman, Chairman Miller of the Federal Reserve Board, and others asked to be done, and that is establish certain gradual trends in economic policy that would be basically deflationary in their nature. There might still be time to avoid a recession if we undertook an attack at the root causes of inflation rather than its symptoms. At the very least, if we undertook such an attack we would establish confidence I think within the business community, labor community, and the public at large that would have a deflationary effect in its own right.

There's little consolation to me that the President now recognizes what many of us in the electorate have been telling him for the last 2 years, that at the peak of the business cycle, a peak of recovery, the Federal deficit and Federal spending in general must be brought under control. It is the deficit that creates pressure for increases in money supply to finance the borrowing that that deficit requires.

Let us hope that the President also recognizes that excessive regulatory costs, excessive payroll costs, excessive energy imports of expensive energy, and inadequate investment in new research and technology are also major inflationary forces and these excesses must be changed if we are going to begin to deflate the economy.

Now we find the economic indiscretions of the past 1½ years have come home to roost, and strong action to halt the economy's decline was clearly necessary. Hopefully, the President will follow through on his pledge to hold the line on the budget and give more careful scrutiny to regulatory programs and hopefully to realize that there are some very positive actions that the Government can take of a deflationary character. He will certainly have this Senator's support for all well-conceived initiatives along those lines.

Unless he does follow through, however, in these and other areas, the underlying causes of inflation will continue to exist. The recent program which he announced will only be a prelude to more stringent program of wage and price controls, and possibly even tighter credit if the indicators that come from the administration are to be believed. In each of these cases—that is, wage and price controls and tighter credit—the people who will suffer are the victims of inflation and, unfortunately, very few of the root causes of inflation will come into play.

Now, in these hearings we will have a chance to probe into some of the implications of the actions recently announced by the President; but along with examining the content of that policy, I hope we will also address the manner in which that policy was formulated and announced. And having the President make the announcement of this nature at the White House, the strong impression has been given to

the American public that it was in fact the President and not the Federal Reserve Board that had made these important decisions affecting the monetary policy of our Nation.

Now, the Chairman and I have talked about this, and I am reassured by his attitude. However, this impression is still prevalent out among the public. The impression is so pervasive that even Henry Reuss, the chairman of the House Banking Committee, put out a statement to the press praising the President for raising the discount rate. Well, everybody knows that that is the job of the Federal Reserve Board, not the job of the President. It doesn't mean there cannot be discussions, but it is not the President's prerogative.

If the President and the Fed have misled the chairman of the House Banking Committee who has dealt with monetary policy for years, you can be certain that the public has also been confused. The apparent subordination of the Board's rule in the conduct of monetary policy to that of the President, particularly at a time so near the election, raised serious questions about the basic independence of the Federal Reserve Board.

During Chairman Miller's confirmation hearings before the Senate Banking Committee, as you may recall, I personally, as others, made strenuous efforts to maintain the focus of the hearings on two fundamental issues: Mr. Miller's philosophy in the conduct of monetary policy and the sincerity of his commitment to maintain the independence of the Federal Reserve Board from the dictates of the executive branch.

In the first few months of his service, to a great extent he put to rest any doubts with regard to the first of these issues; namely, his belief in the proper conduct of monetary policy and the importance of money supply with respect to inflation.

The second concern, however, the independence of the Fed, has grown to be a matter of even greater concern in recent weeks and months. During the confirmation hearings in February, the Banking Committee heard repeated assurances of Chairman Miller's commitment to the independence of the Board. Recent weeks have opened these assurances to question, and I hope that we will improve our feelings today as a result of his testimony. The continued independence of the Federal Reserve Board is of vital importance to the economic stability of the United States and the confidence that others have in that economic stability.

Monetary policy must be conducted in an atmosphere that is not clouded with political partisanship, and I'm encouraged by private conversations, as I said, with the chairman since the President's recent announcement, and I hope the White House also has been informed by him of his view of his position, his roles, and, more importantly, his independence.

I'm also very hopeful and I feel sure that other members of the Banking Committees of the House and Senate will agree, that in the future the Federal Reserve Board will make announcements of this nature in a manner that enhances rather than reduces the independence of the Federal Reserve System in the eyes of the public.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Schmitt.

Mr. Chairman, go right ahead.

**STATEMENT OF G. WILLIAM MILLER, CHAIRMAN, BOARD OF
GOVERNORS, FEDERAL RESERVE SYSTEM**

Mr. MILLER. Thank you very much, Mr. Chairman. I hope to address some of these issues you have raised as we go through our discussions today.

As you know, Mr. Chairman, I have, with the assistance of Federal Reserve staff, prepared a statement which reflects our usual report on the state of the economy and on the establishment of ranges for growth of the monetary aggregates during the coming four quarters. This statement is available and, with your permission, I would like to have it included in the record. Perhaps I will depart from the prepared text and briefly review the charts on the economy and the outlook for the monetary policy which I have made available to you.

The CHAIRMAN. Without objection, the statement will be printed in full in the record.

[Complete statement follows:]

SEMI-ANNUAL REPORT ON MONETARY POLICY

Statement by

G. William Miller

Chairman, Board of Governors of the Federal Reserve System

Mr. Chairman, members of this distinguished Committee, events in recent months have presented a formidable challenge to our nation. While sustained economic expansion has led to higher levels of output and employment, continuing domestic inflation and a sharp decline in the value of the dollar on foreign exchange markets have posed growing threats to the vitality of the U.S. and world economies. Monetary policy is being directed forcefully toward helping to resolve these urgent problems.

The objective of the Federal Reserve has, for some time now, been to foster monetary and financial conditions that would lead to a reduction of inflationary pressures, while encouraging continued moderate economic growth. Real gross national product rose at a 4 per cent annual rate, on average, during the first three quarters of this year, as compared with 5-1/2 per cent over the course of 1977. This slower pace in the expansion has been sufficient to achieve substantial further gains in employment, but at the same time it has avoided a significant overshoot of general levels of resource utilization that would have intensified inflationary demand pressures in labor and product markets.

Even so, there has been a marked pick-up in the rate of inflation. For example, consumer prices have climbed at an annual rate of 9-1/2 per cent so far this year. A number of factors have contributed to this development. Reduced supplies of some agricultural commodities--

especially meats--have caused sharply higher food prices. Legislated increases in the Federal minimum wage and in employer contributions for social security and unemployment compensation have boosted labor costs. Wage gains have been somewhat larger this year than last, on average, while our productivity performance has been lagging. And the depreciation of the dollar in international exchange has raised the prices of imports and weakened competitive restraints on the prices of domestically produced goods.

With a heavy calendar of collective bargaining in prospect for 1979, and with wage demands likely to be intensified by recent price advances, the threat of a further escalation of labor costs is very real. Furthermore, scheduled increases next year in the minimum wage and social security taxes will again provide a significant inflationary impulse to costs.

President Carter has announced a major program to break the self-destructive cycle of wages chasing prices and prices chasing wages. The program includes quantitative guidelines that establish standards for constructive behavior on the parts of labor and management. In addition, the President has indicated that he will seek to eliminate needlessly costly and anti-competitive regulation. He has also committed his Administration to the containment of Federal spending and greater fiscal restraint.

On November 1, the Administration's anti-inflation program was fortified by the joint actions of the Federal Reserve and Treasury

to strengthen the dollar in exchange markets. The Federal Reserve discount rate was raised by one percentage point, and reserve requirements on large denomination time deposits were increased. In addition, \$30 billion in key foreign currencies were mobilized for exchange market intervention. The speculative assault on the dollar in international currency markets had depressed its exchange value well below what could be justified on the basis of fundamental economic considerations. The psychological momentum of the markets, if not broken, threatened to worsen our inflation problem and to undermine confidence at home and abroad. The clear willingness of the United States to intervene actively in exchange markets and the monetary actions of the Federal Reserve have led to a rebound in the exchange value of the dollar and a more stable market environment. This should be beneficial for domestic price performance in the period ahead and bolster confidence in the nation's economic policies.

If the cooperation of business and labor that is so essential to the success of the Administration's anti-inflation program is to be obtained and if we are to gain the fullest benefit of the recent dollar-support initiatives, it is absolutely essential that monetary and fiscal policies demonstrate prudent restraint. If inflation is to be gradually slowed, aggregate demand must not be permitted to expand to the point where it presses excessively on available supplies of labor and industrial resources. This means that real GNP at this juncture probably should not grow at an annualized rate much above 3 per cent, in line with the

prospective growth of potential output. Nor, of course, do we want to see a protracted shortfall from that pace that would bring on recession and underutilization of labor and productive capacity.

Recent trends in the economy and in financial markets suggest that expansion likely will be sustained, but at a more moderate pace over the next year or so. One noteworthy development has been the less robust pattern of spending by households following exceptional strength earlier in the cyclical recovery. Personal consumption expenditures rose at an estimated annual rate of less than 3 per cent in real terms during the first three quarters of this year, after having advanced at an average rate of 5-1/2 per cent in the preceding 2-3/4 years. Rising costs of foods and other necessities have put substantial pressure on the budgets of many families, and the proportion of disposable income spent has been unusually high. Record levels of borrowing have played an important role in supporting consumer outlays, and the heavy repayment burdens households face are likely to be an increasing constraint on spending in the forthcoming year. As a consequence, personal consumption expenditures probably will no more than keep pace with increases in personal income.

In addition, financial factors should induce some tapering off in homebuilding in 1979. To date housing starts have remained on a high plateau, but the effects of recent increases in interest rates will soon begin to show through. The new 6-month certificates, introduced in June, have enabled thrift institutions to avoid the disinter-

mediation that has curtailed mortgage credit availability in the past, but they have not sheltered the housing market from the effects of higher interest rates. Builders already are experiencing steeper rates on construction loans, for which charges tend to move in step with the bank prime business loan rate, and the stock of loan commitments for permanent mortgage financing made earlier at lower rates is being depleted. The combined effects of higher mortgage rates and inflated house prices on the cost of home ownership is likely to bring about some decline in building--although nothing approaching the disastrous drops we've seen in the past seems in store.

Business investment meanwhile should remain supportive of economic expansion. Inventories by and large are quite lean in relation to current sales levels, and even with a continuation of cautious inventory policies, businessmen likely will wish to expand their stocks in line with rising sales. As for spending on plant and equipment, a recent private survey of investment intentions suggests only a modest increase next year in real terms. On the other hand, contracts and orders for new plant and equipment have been running well ahead of year-earlier levels--even after adjustment for inflation. In general, the willingness of businessmen to commit funds for major investment projects will hinge in large part on the success of efforts to control inflation, and thereby provide the basis for greater confidence in the future health of the economy.

The foreign trade sector represents an element of strength in the economic outlook. The U.S. trade deficit should continue to shrink as a result of the stronger growth in prospect for some of our major trading partners and as a result of the effects of past exchange rate changes on our competitive position.

In all, it is my expectation that real GNP will increase by roughly 2-1/2 to 3 per cent in the year ending with the third quarter of 1979. With labor force growth unlikely to be so rapid as in the past couple of years, this rise in activity should be enough to keep the unemployment rate in the 5-3/4 to 6-1/4 per cent area.

In this projection I have assumed that inflation will slow into the 6-3/4 to 7-1/2 per cent range. There are as always many uncertainties on the price front--the effects of weather on crop harvests and the decisions of the OPEC cartel, for example, are factors beyond the sphere of economic analysis. What is clear is that the cost increases already in train will be placing continued pressure on the price structure, so that it will be difficult to break the momentum of inflation. However, if there is general compliance with the Administration's guidelines, the advance of prices next year could be held to around the low end of the range I've projected. This would represent a substantial deceleration from the 8-1/4 per cent increase in the GNP deflator expected for this year, and would be a good start in the difficult process of restoring price stability.

The recent credit-restraining actions of the Federal Reserve have aroused fears in some quarters that an overly restrictive monetary policy might precipitate an economic downturn. There is no doubt that domestic credit markets are tauter than they were 6 months ago. Nonetheless, current financial conditions appear consistent with the moderate economic expansion that is desirable at this juncture.

The Federal Reserve has been moving its policies in a progressively less accommodative direction this year in an effort to prevent excessively rapid growth in money and credit. In an environment of inflation and heightened inflationary expectations, borrowers have become willing to pay higher rates of interest in order to obtain credit to finance acquisition of assets whose values they anticipate will be rising more rapidly. This phenomenon is most clearly seen in the real estate market, but the behavior is common in other sectors as well. To hold down nominal rates of interest in such a circumstance is to invite a credit-financed surge in aggregate demand that would add further to inflationary pressures. Consequently, the Federal Reserve has pursued policies that have permitted market rates to rise appreciably this year. Yields on Federal funds and other short-term instruments have increased more than 3 percentage points since the beginning of 1978, while interest rates on long-term bonds and mortgages have risen about one percentage point.

These are sizable movements, to be sure, but the fact is that, even at current levels, real rates of interest--that is, actual rates

adjusted for inflationary expectations--are not very high and credit remains in adequate supply to finance a volume of spending that is appropriate in light of the availability of real resources in the economy. Usury ceilings, which are unrealistic in relation to present market interest rates in many states, are cutting into credit availability in some local markets, and it would be desirable if these obstacles to the efficient operation of our financial system were eliminated. But there has been nothing like a general "credit crunch," and we do not foresee one.

It is the intention of the Federal Reserve to work toward a gradual deceleration of monetary and credit expansion to a pace consistent with price stability. The speed with which we can move in that direction without severely disrupting economic activity is limited by the degree to which inflation has become embedded in our economy. But some progress has been made in the past year. While M-1 growth over the past four quarters--at 8 per cent--was about the same as in the previous year, growth in M-2 and M-3 decelerated to rates of 8-1/4 and 9-1/4 per cent, respectively. Growth in these broader aggregates was 3 to 3-1/2 percentage points slower than in the previous year. The actual growth in M-1 over the past four quarters was well above the 4 to 6-1/2 per cent range set for this aggregate, but growth in the broader aggregates was within their ranges. To have achieved significantly lower growth rates for the monetary aggregates than actually developed would have required substantially higher market rates of

interest and a sharper curtailment in credit supply, which in our judgment would have run an unacceptably high risk of wrenching financial markets so severely as to lead to an economic recession.

Growth in the monetary aggregates has to be evaluated in relation to basic economic and financial forces affecting the public's preferences for money in its various forms. During the past four quarters growth in nominal GNP remained very rapid as moderate expansion in real output was accompanied by an accelerated rate of price increase, generating a substantial demand for money--particularly M-1--to finance transactions. Federal Reserve policy did not fully accommodate these strong demands, and, in fact, the rate of growth in real money balances actually slowed.

The pattern of growth in the broader aggregates has been strongly influenced by the introduction at banks and thrift institutions in June of this year of the 6-month money market certificate whose ceiling varies weekly with changes in the auction yield on 6-month Treasury bills. Growth in savings and small-denomination time deposits subject to Federally regulated interest-rate ceilings had slowed markedly in the fall of 1977 and in the first half of this year as higher yields on market securities increasingly attracted funds that would otherwise have been held in accounts at banks or thrift institutions. In order to enable these institutions to compete more effectively for

lendable funds, the Federal Reserve and other regulatory agencies created two new deposit categories--an 8 per cent, 8 year certificate and the money market certificate.

The money market certificates have proven especially successful. They have been widely offered, most frequently at the ceiling rates, and have resulted in a marked pick-up in consumer-type deposit growth. Growth in deposits at savings and loan associations and mutual savings banks, which averaged 6-3/4 per cent at an annual rate in the first 5 months of 1978, has averaged 13 per cent since the introduction of the new accounts. This growth has permitted thrift institutions to increase their commitments for mortgage loans while reducing their dependence on borrowed funds and stemming the decline in their liquidity positions. At commercial banks, which are at a quarter percentage point rate disadvantage relative to the thrift institutions, there has been a less marked, but still noticeable gain in growth of the combined total of savings and small time deposits--from 3-3/4 per cent through May, to 6-1/2 per cent in the past 5 months. Nonetheless, with bank credit demands remaining strong, banks continued to liquidate Treasury securities and to increase short-term borrowings through such instruments as large CD's and Federal funds in financing these demands.

At its October meeting, the FOMC updated its longer-term ranges for the monetary aggregates. Its task was complicated by new uncertainties associated with the introduction on November 1 of automatic transfer services (ATS) which permit consumers to authorize their

banks to shift funds from savings to demand deposit accounts as needed to cover checks written. The major impact of this innovation should be on M-1, as consumers take advantage of the opportunity to reduce their holdings of non-earning demand deposits, but the size of this effect cannot be projected with any real precision. M-2 and M-3 will be less affected because shifts of funds from thrift institutions to banks, and also from market instruments to deposits, are likely to be comparatively modest.

Against that background, the continuity in the FOMC's objectives with respect to the monetary aggregates for the one-year period from QIII:1978 to QIII:1979 is more clearly indicated by the broader aggregates M-2 and M-3. The Committee re-established the ranges for these two aggregates at 6-1/2 to 9 per cent and 7-1/2 to 10 per cent, respectively. It is expected that growth in these aggregates will be well within these ranges as monetary policy pursues a course of responsible restraint to complement the Administration's program to combat inflation through fiscal discipline, wage and price moderation, and regulatory reform. The Committee anticipates growth in bank credit at an 8-1/2 to 11-1/2 per cent rate to be associated with the ranges adopted for the monetary aggregates. With regard to M-1, the FOMC expects growth within a range of 2 to 6 per cent over the QIII:1978 to QIII:1979 period. The existing 4 to 6-1/2 per cent range has been lowered because the public can be expected to shift funds to take

advantage of the ATS service, and the range has been widened because of uncertainties about the speed and extent to which the public may undertake such shifts.

Because of uncertainties about the relationship between M-1 and the transactions demand for money during the transition to the new ATS service, and in view of the widening role in financing transactions played by savings accounts, the Committee also indicated a growth range for M-1+ (M-1 plus savings accounts at commercial banks, NOW accounts, demand deposits at mutual savings banks, and credit union share drafts) that it expected to be generally consistent with ranges of growth in the other aggregates. This range has been set at 5 to 7-1/2 per cent over the one year period ending in QIII:1979.

The structure of the domestic payments system has been changing considerably over the past several years as a result of regulatory changes and financial innovations. Deposits in thrift institutions have been increasingly used for third-party payments. At banks, liquidity reserves of the public, as well as funds held against expected transactions needs, have come to be held more and more outside of demand accounts. On the other hand, banks and particularly thrift institutions have also lengthened the maturity of consumer-type time deposit liabilities, so that some deposits have become less money-like. And, in general, distinctions among depository institutions with respect to their deposits have become increasingly blurred. Existing measures of the monetary

aggregates are, as a result, becoming outdated. The Federal Reserve is studying possible adjustments to these measures to reflect the changing institutional environment. The measure of M-1+ represents an interim step in this process, while a more comprehensive revision is underway. It should be noted that one consequence of these ongoing changes is a need for more timely and broader reporting of deposit data--not only from nonmember commercial banks, but also from thrift institutions.

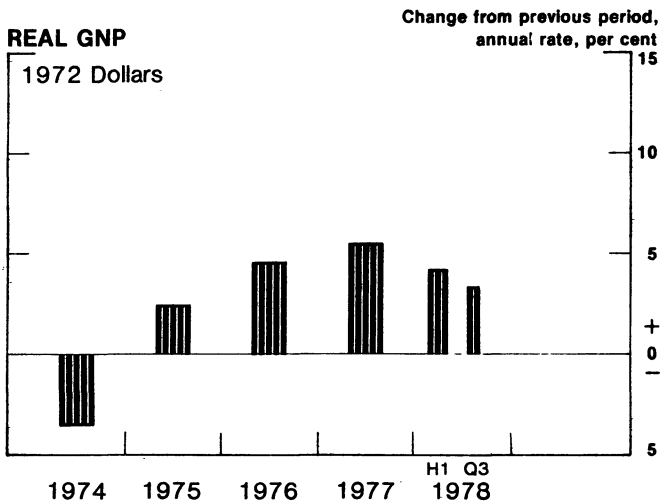
While monetary aggregates are useful indicators of financial conditions, the continuing change in the institutional environment and in public preferences for different deposits indicates that any single monetary measure, or even a set of several measures, can by no means be the sole focus of policy. Thus, a broad range of financial indicators--including nominal and real interest rates, credit flows, and liquidity conditions--necessarily must be considered in assessing the stance of monetary policy.

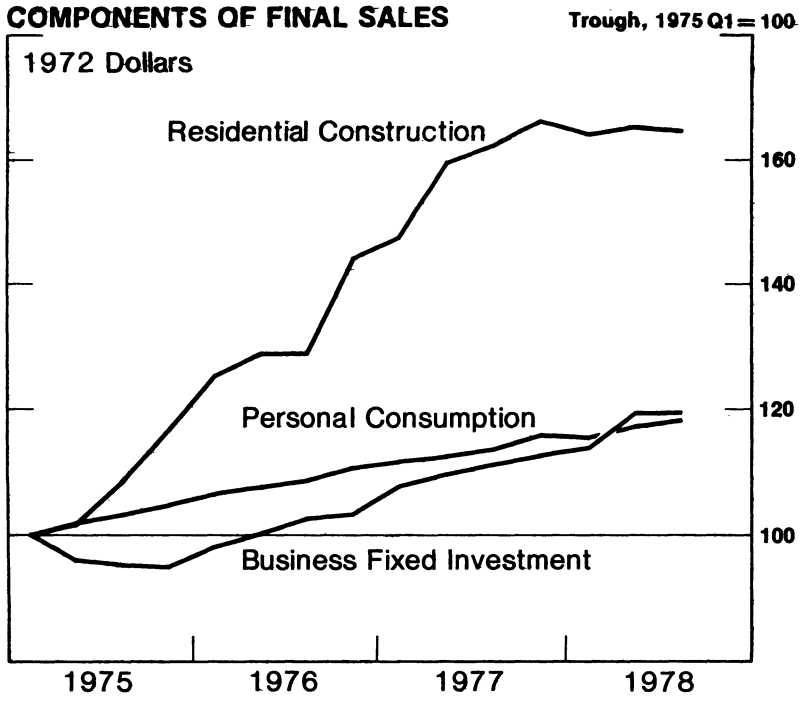
Looking beyond these relatively technical questions about how best to characterize monetary policy, it is clear that in the present environment we cannot rely solely on monetary management to contain inflationary pressures. It is essential to obtain public cooperation in the Administration's anti-inflationary program and to exercise restraint in fiscal policy, if the nation is to achieve a gradual, orderly reduction in the rate of inflation. You can be assured that monetary policy will do its part in achieving that objective.

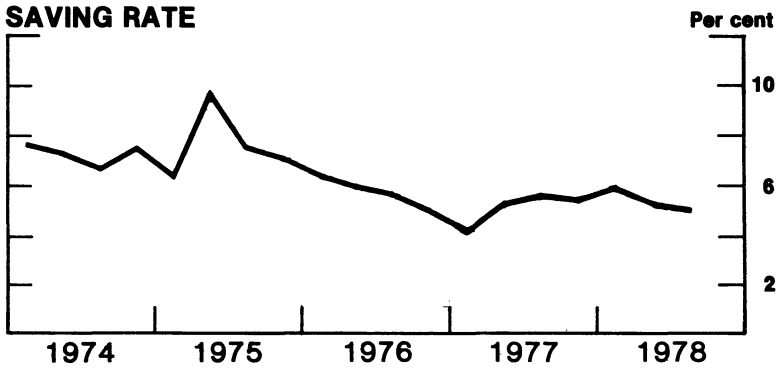
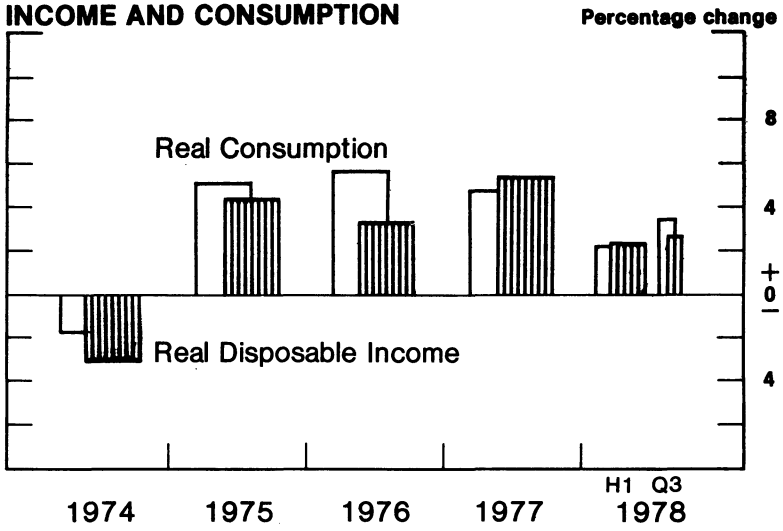
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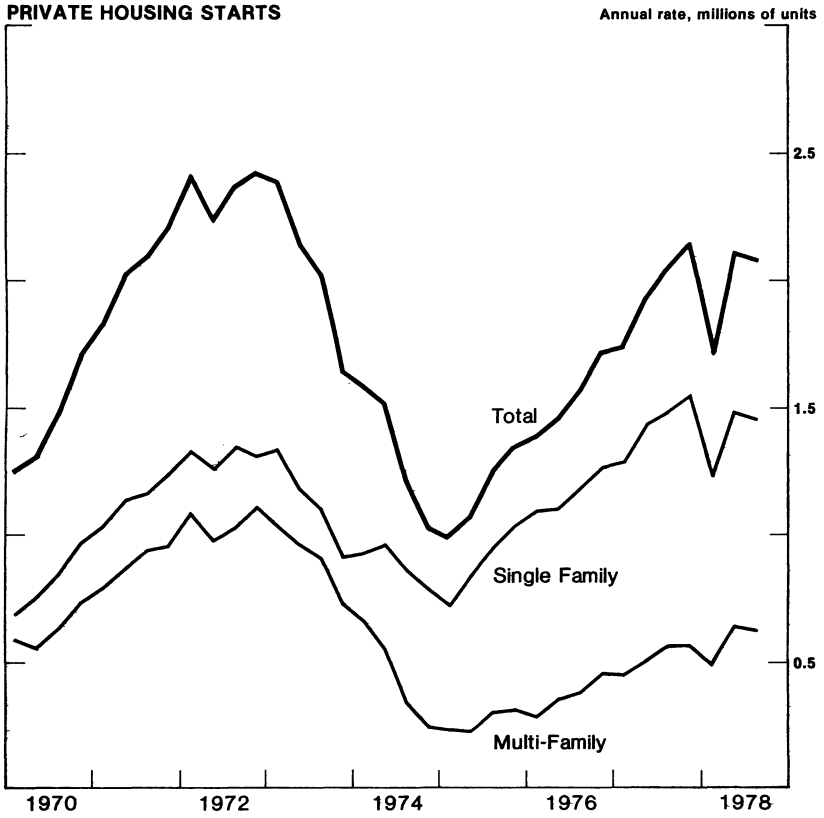
Charts to Accompany Testimony Of G. William Miller

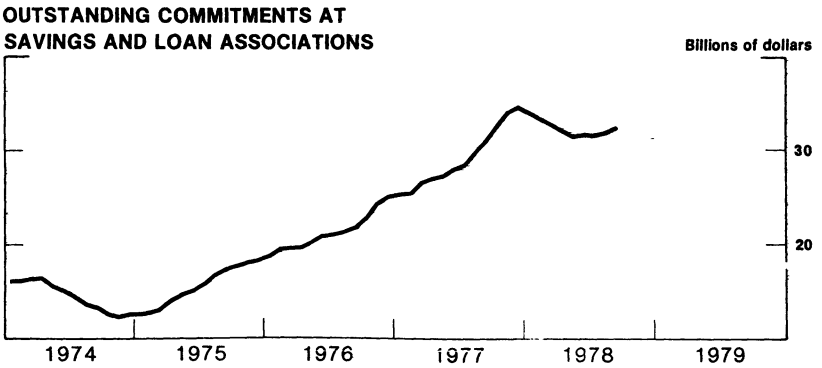
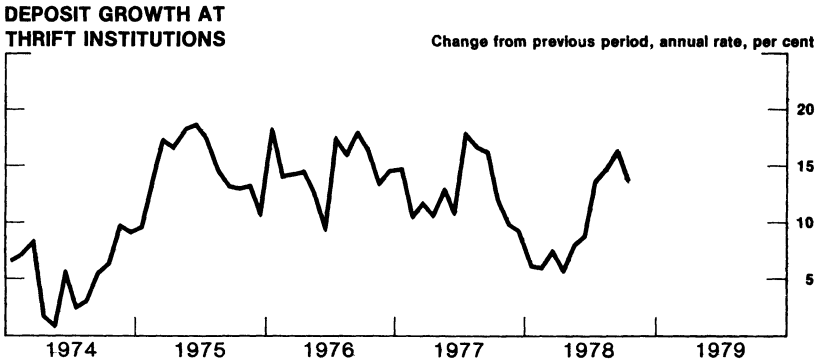
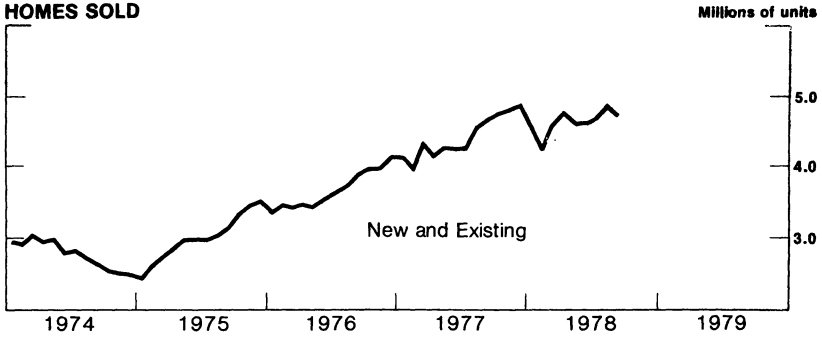
Chairman, Board of Governors of the Federal Reserve System

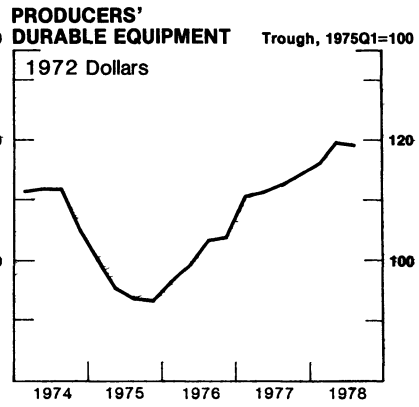
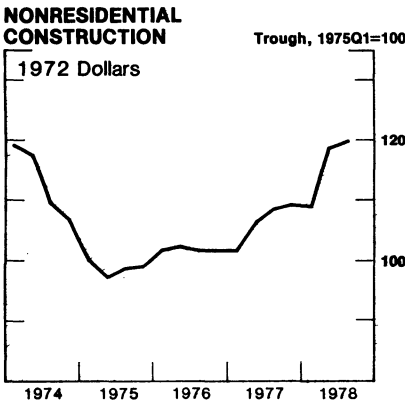
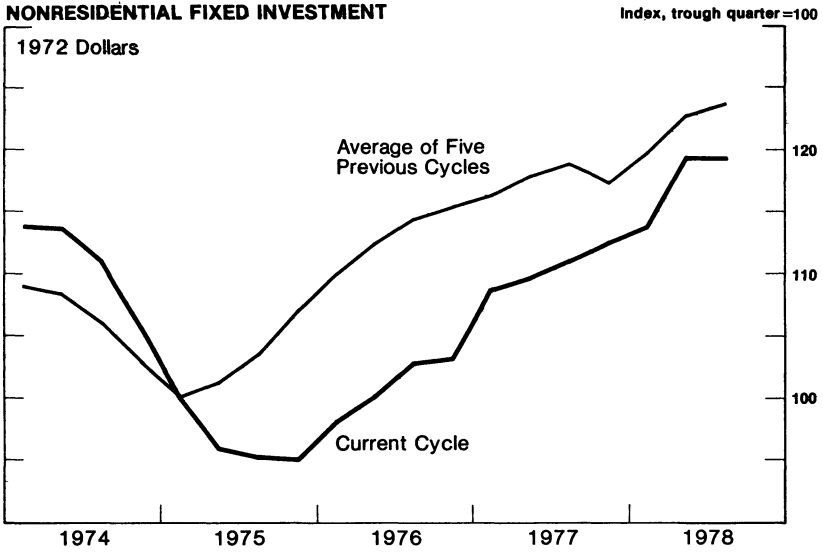


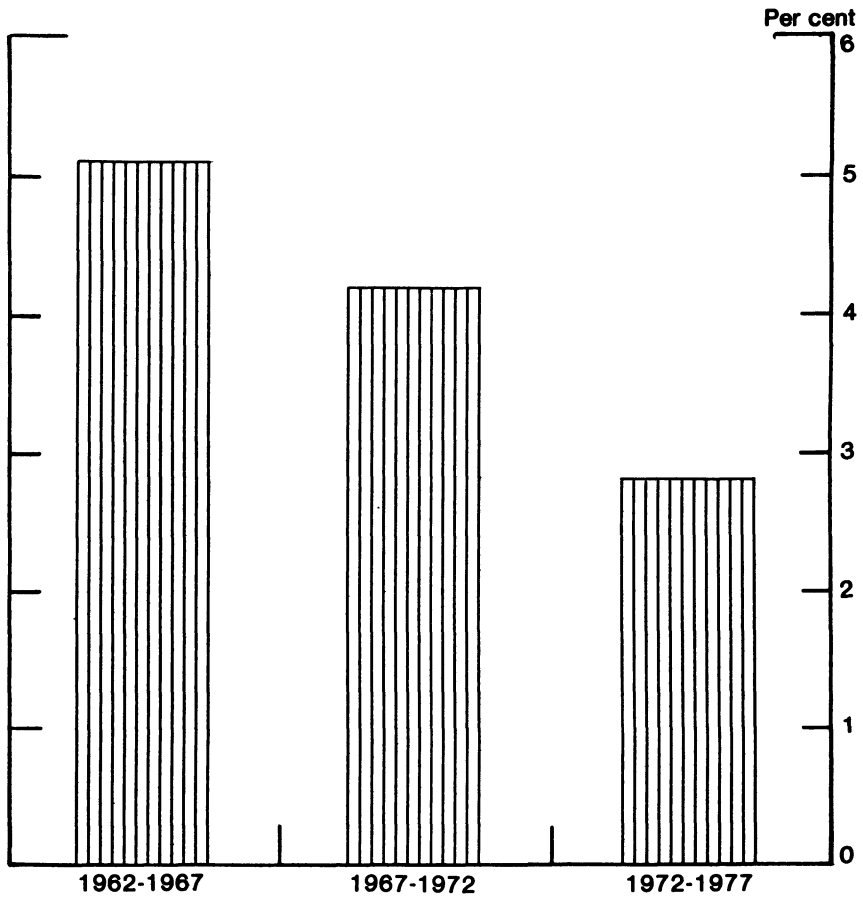




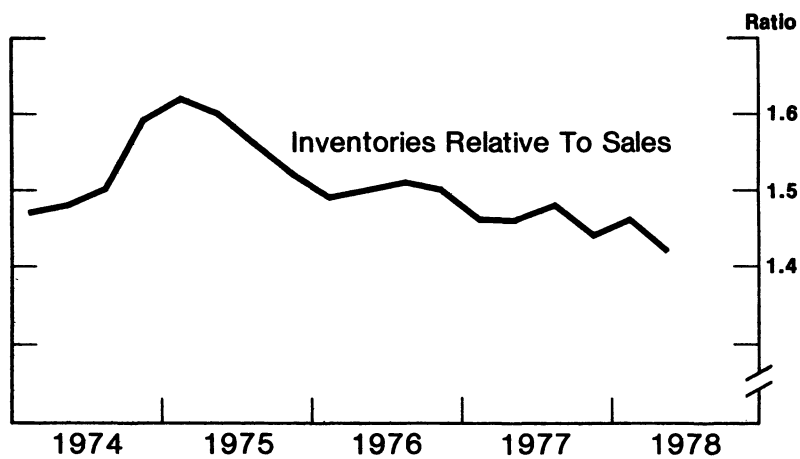
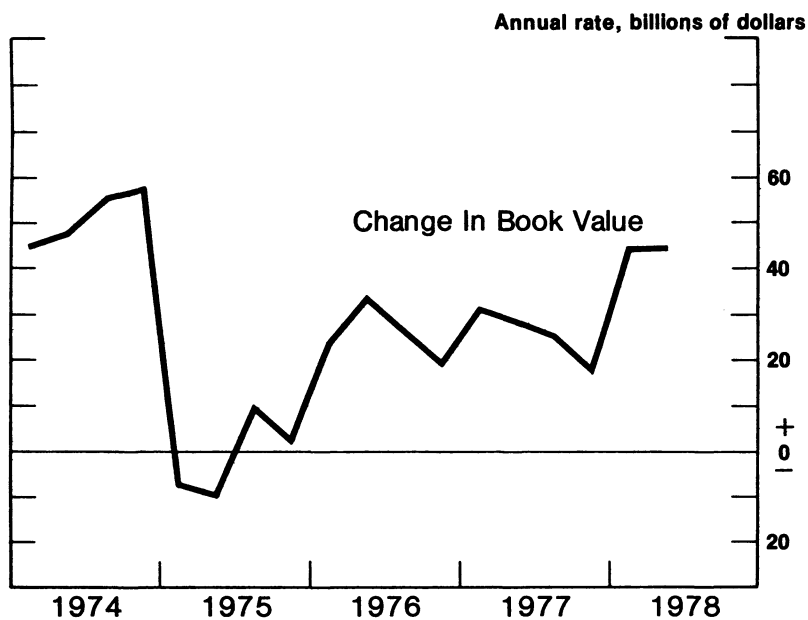






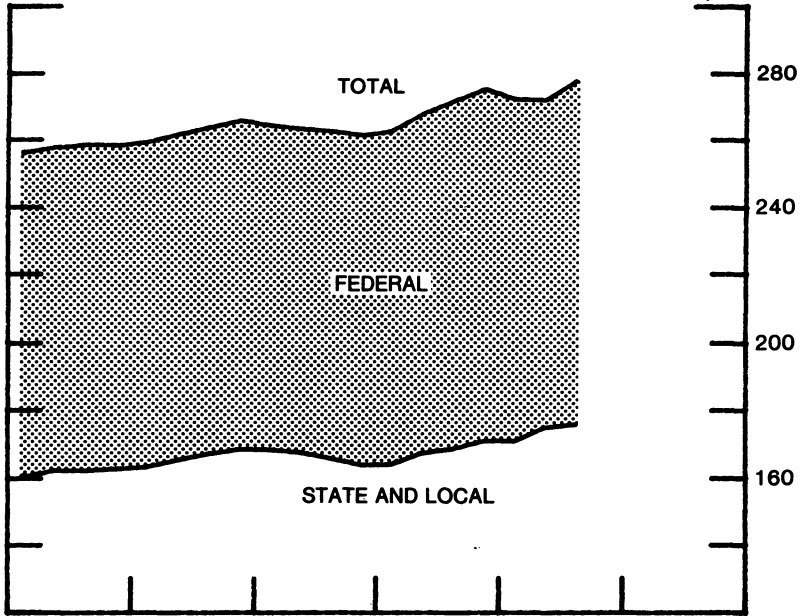
Average Annual Growth of the Capital Stock*

* Private nonresidential net capital stock measured in constant dollars.

BUSINESS INVENTORIES

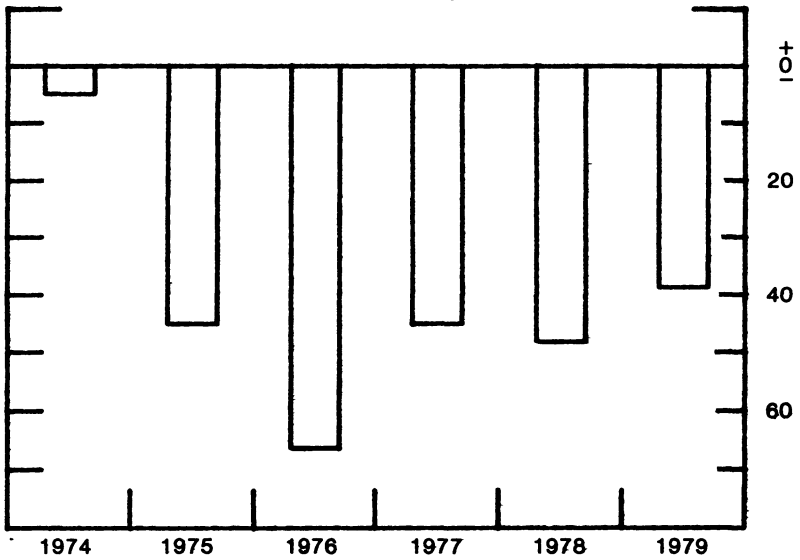
**REAL GOVERNMENT PURCHASES
OF GOODS AND SERVICES**

Billions of 1972 dollars

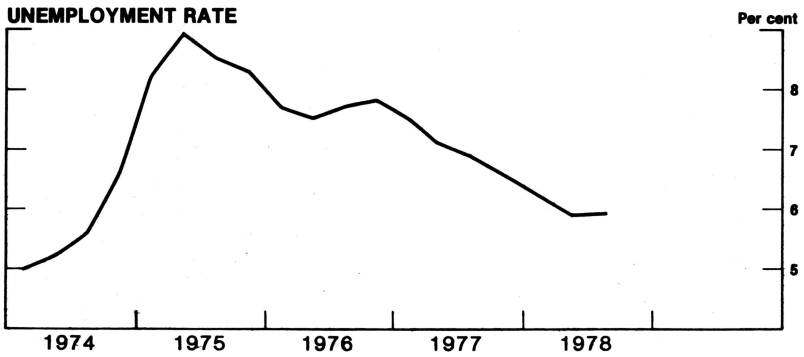
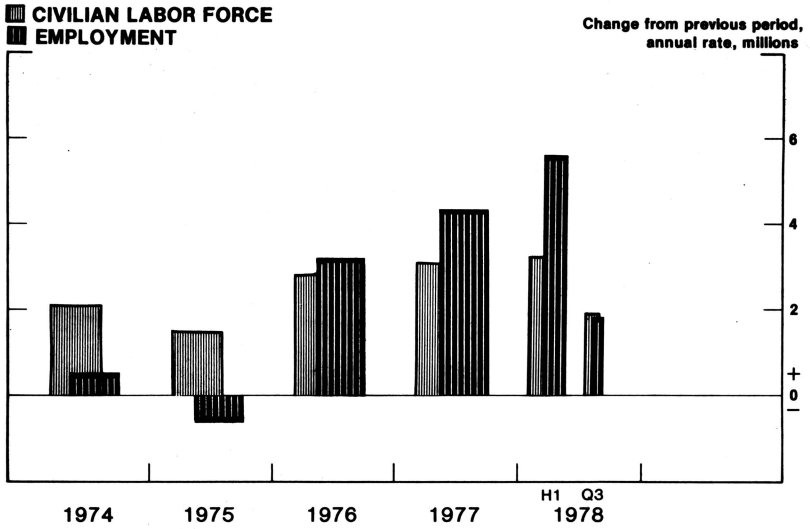


FEDERAL UNIFIED BUDGET DEFICIT *

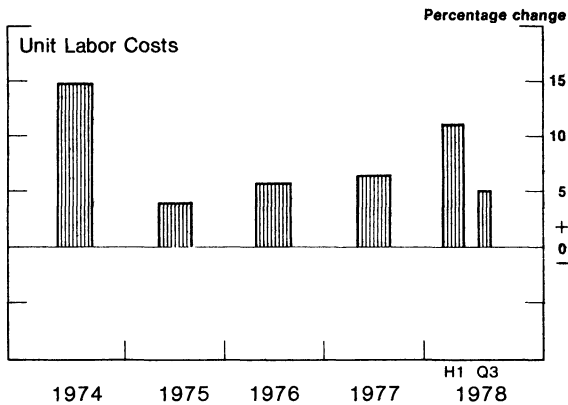
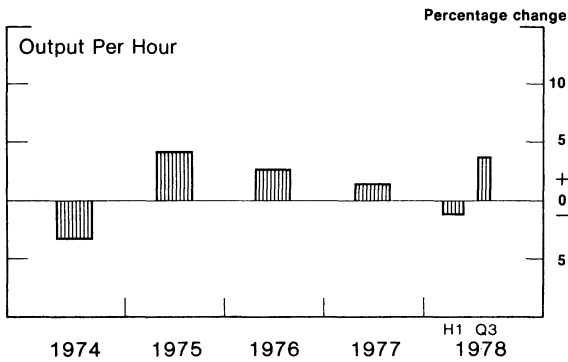
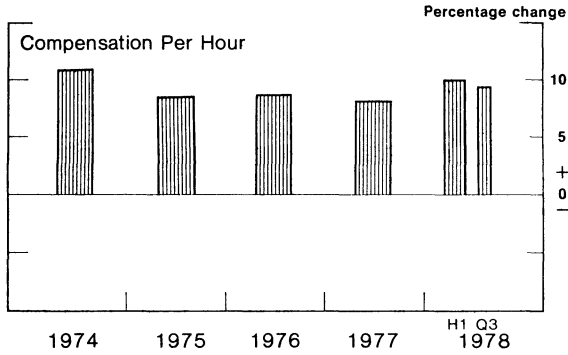
Billions of current dollars



* Fiscal years

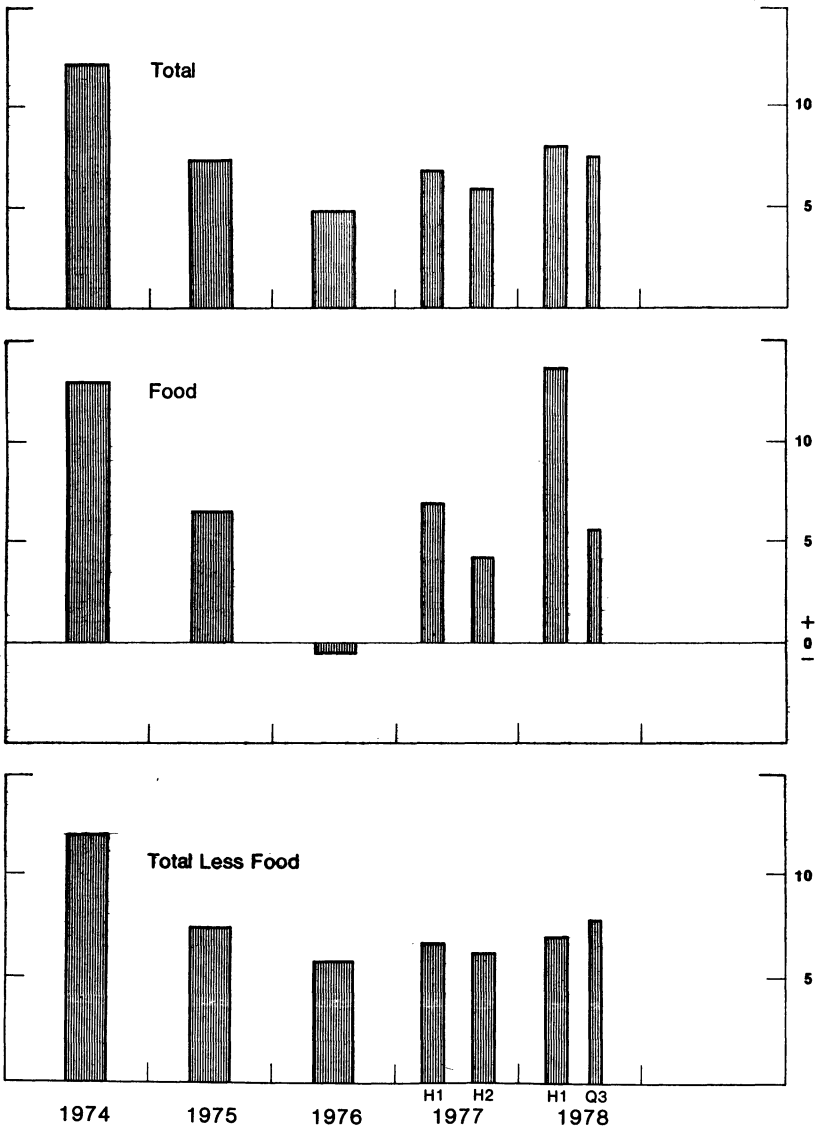


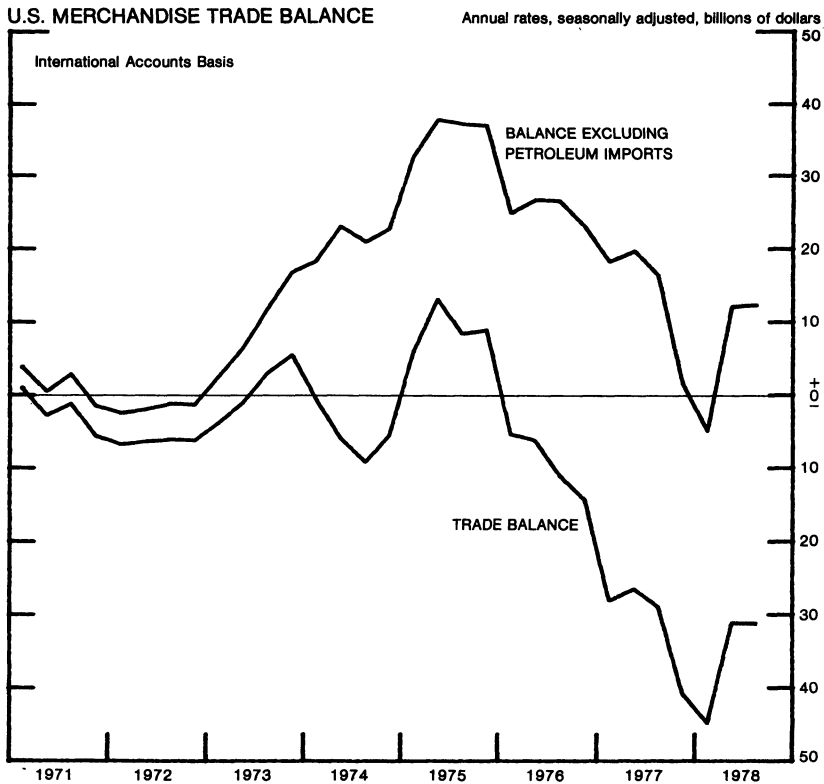
UNIT COST INDICATORS Nonfarm Business Sector



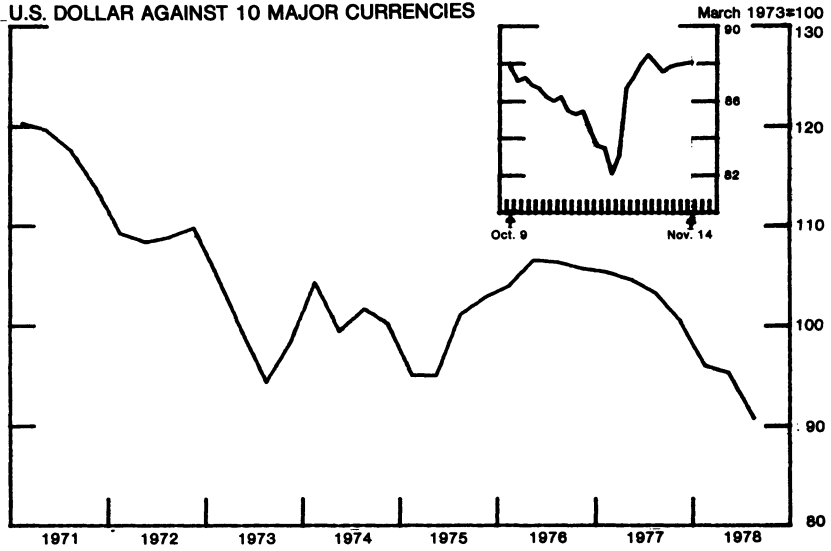
GNP PRICE INDEXES

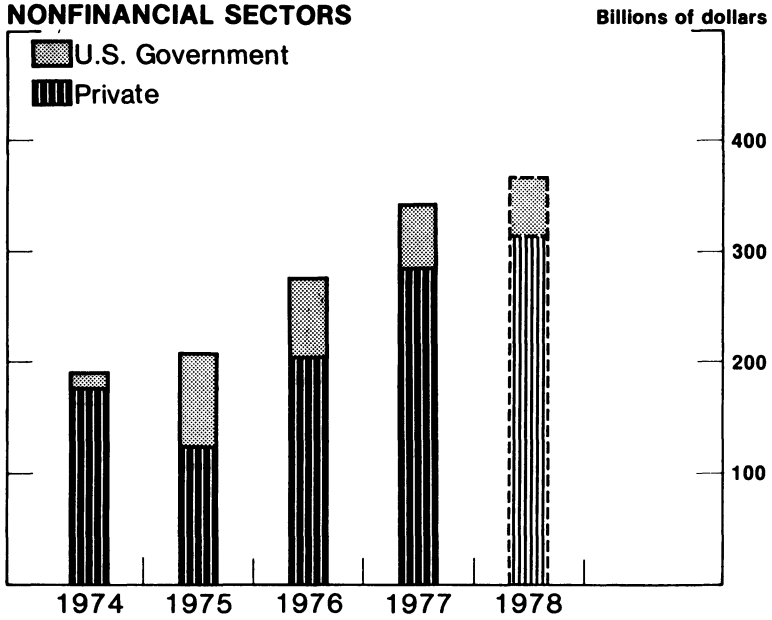
Change from previous period,
annual rate, per cent



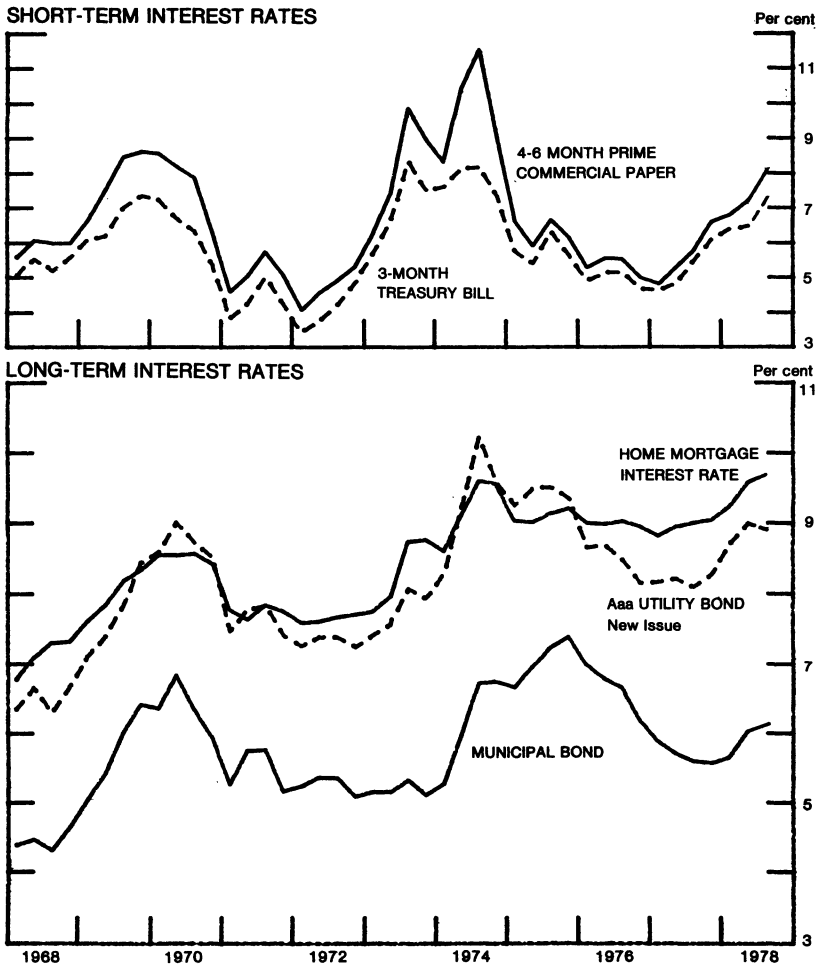


TRADE-WEIGHTED AVERAGE EXCHANGE VALUE OF
U.S. DOLLAR AGAINST 10 MAJOR CURRENCIES

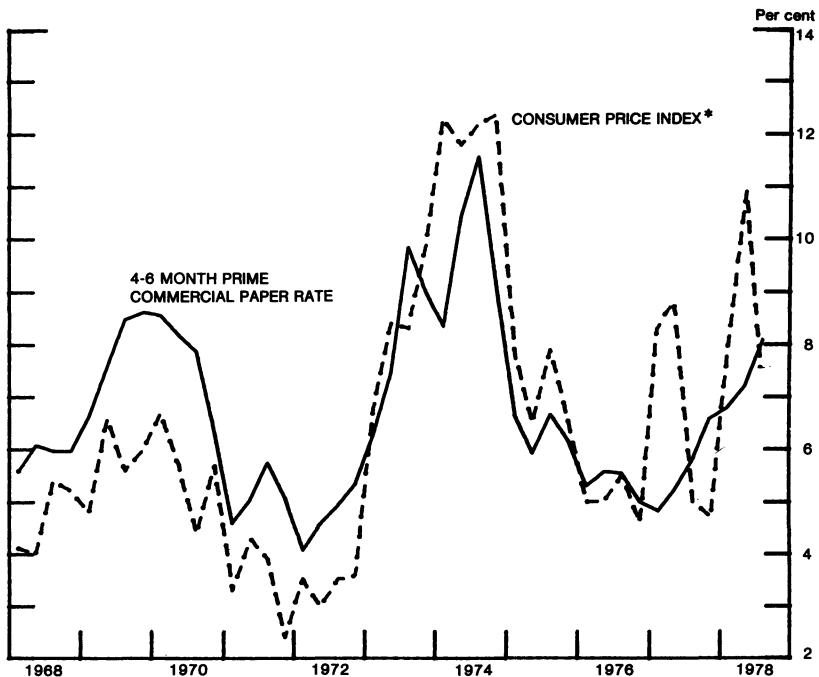


**FUNDS RAISED BY
NONFINANCIAL SECTORS**

Short and Long Term Interest Rates

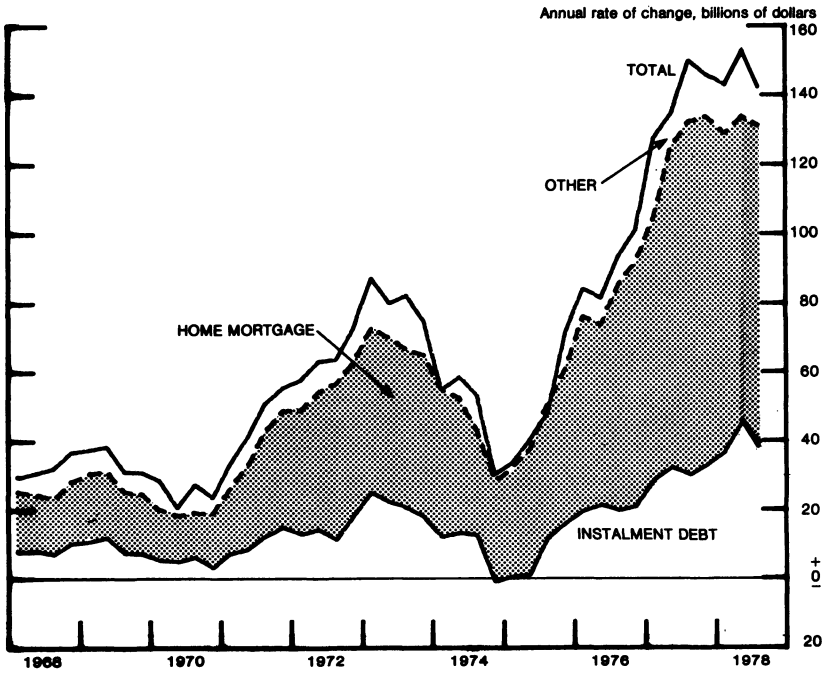


Short-Term Interest Rates and Inflation

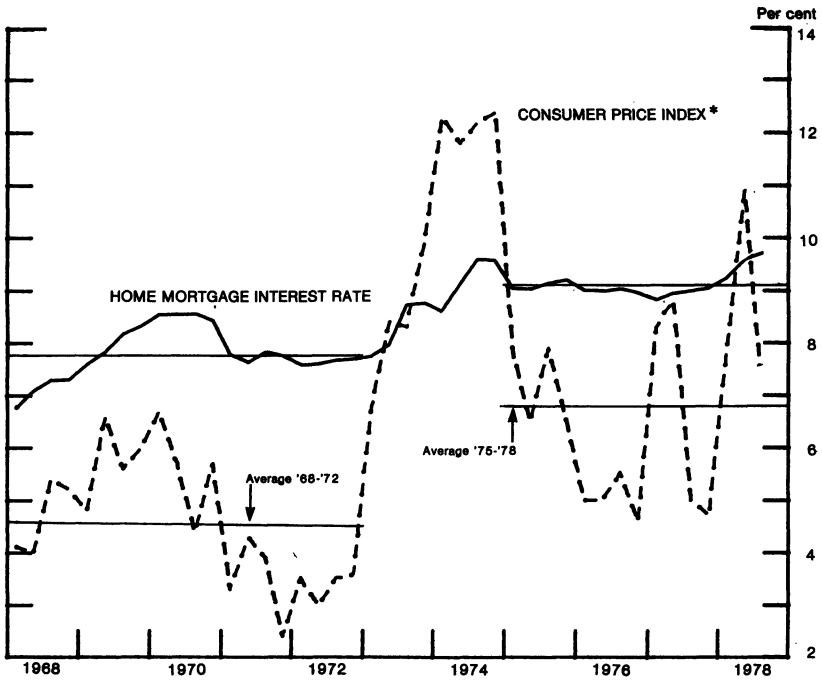


* Annual rate of change from previous quarter.

Household Borrowing

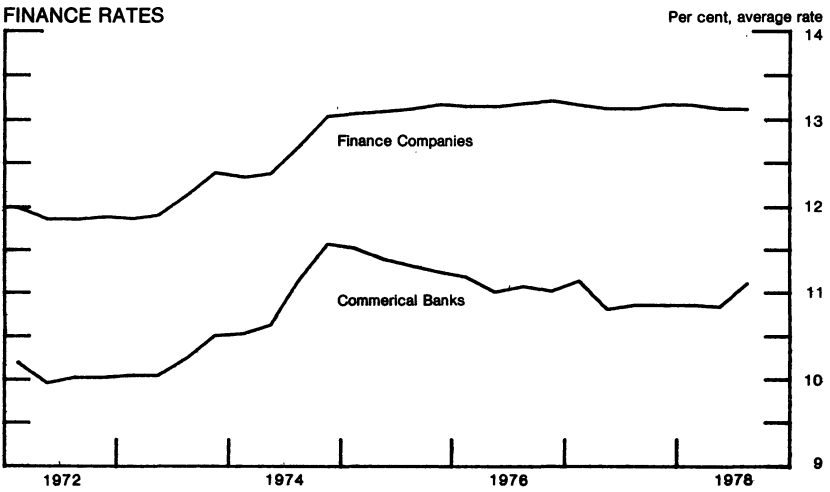
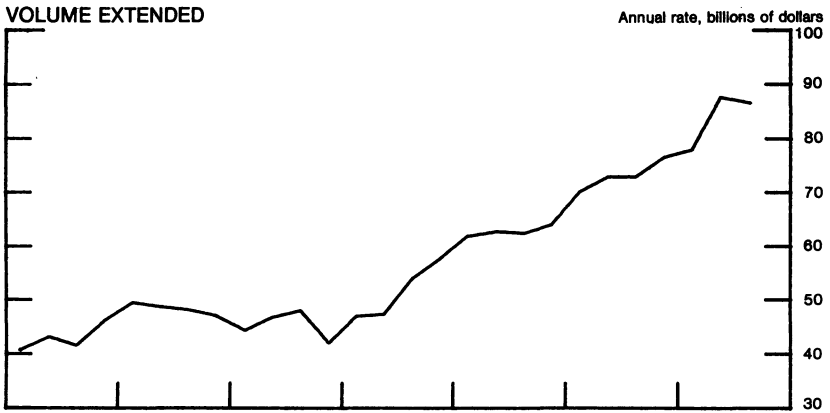


Mortgage Rate and Inflation

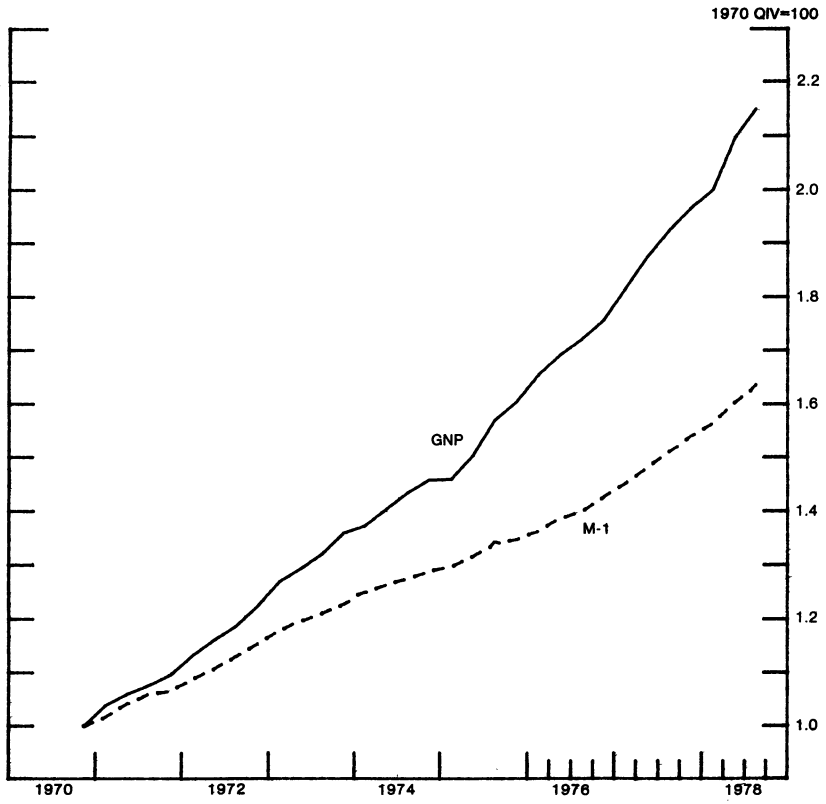


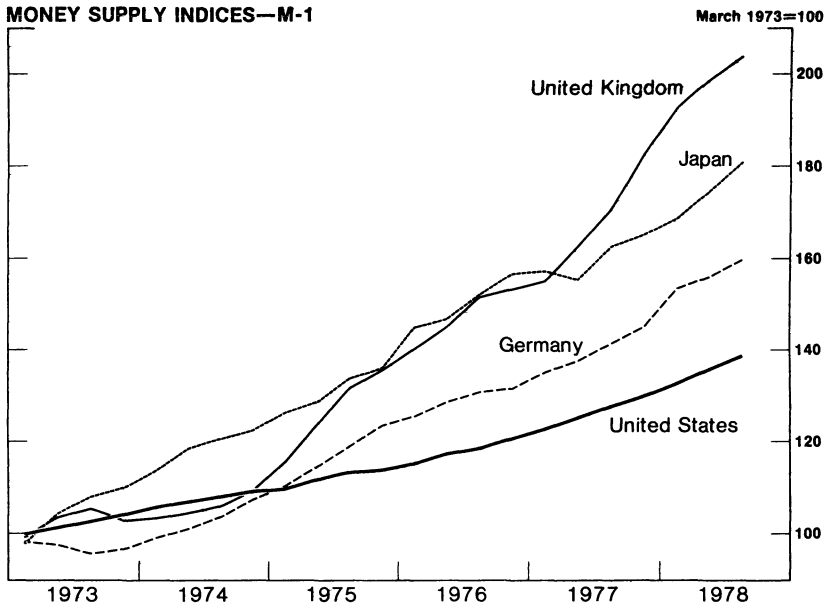
* Annual rate of change from previous quarter.

Total Automobile Credit

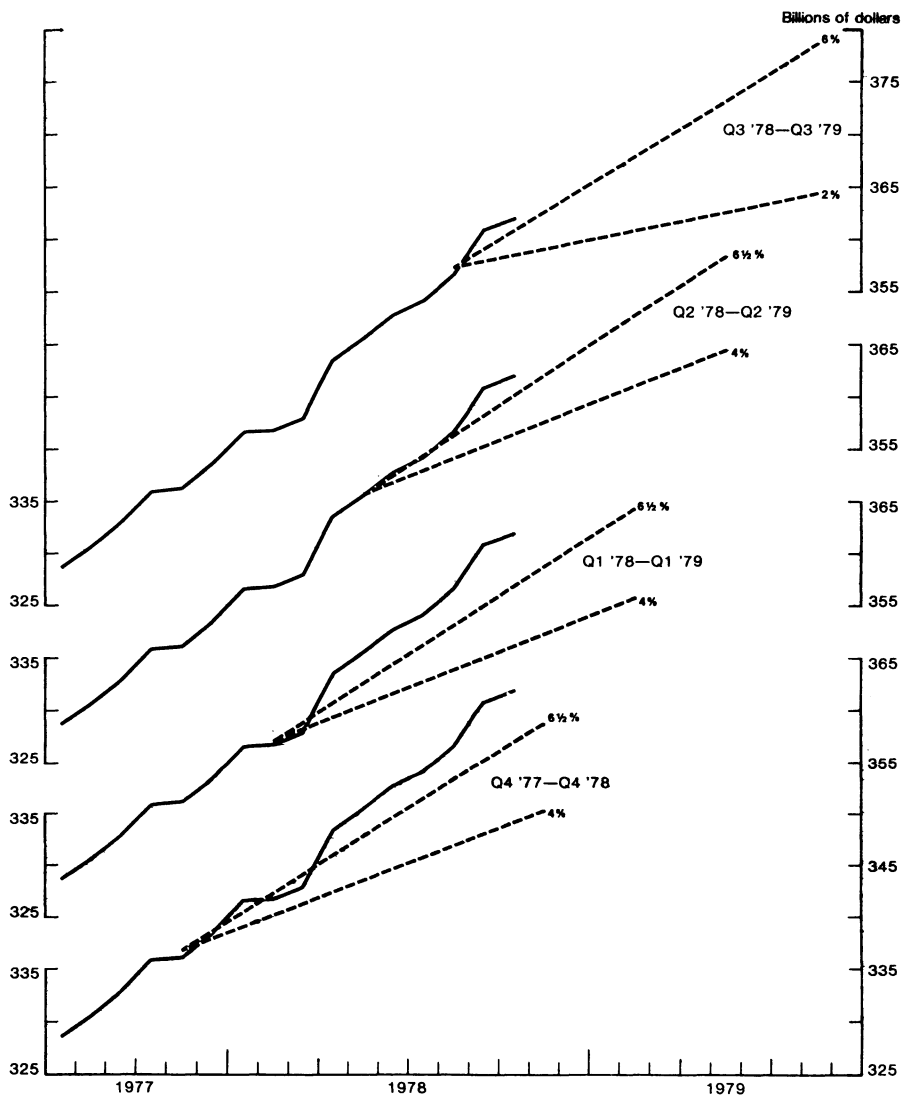


Index of GNP and Money Stock M-1

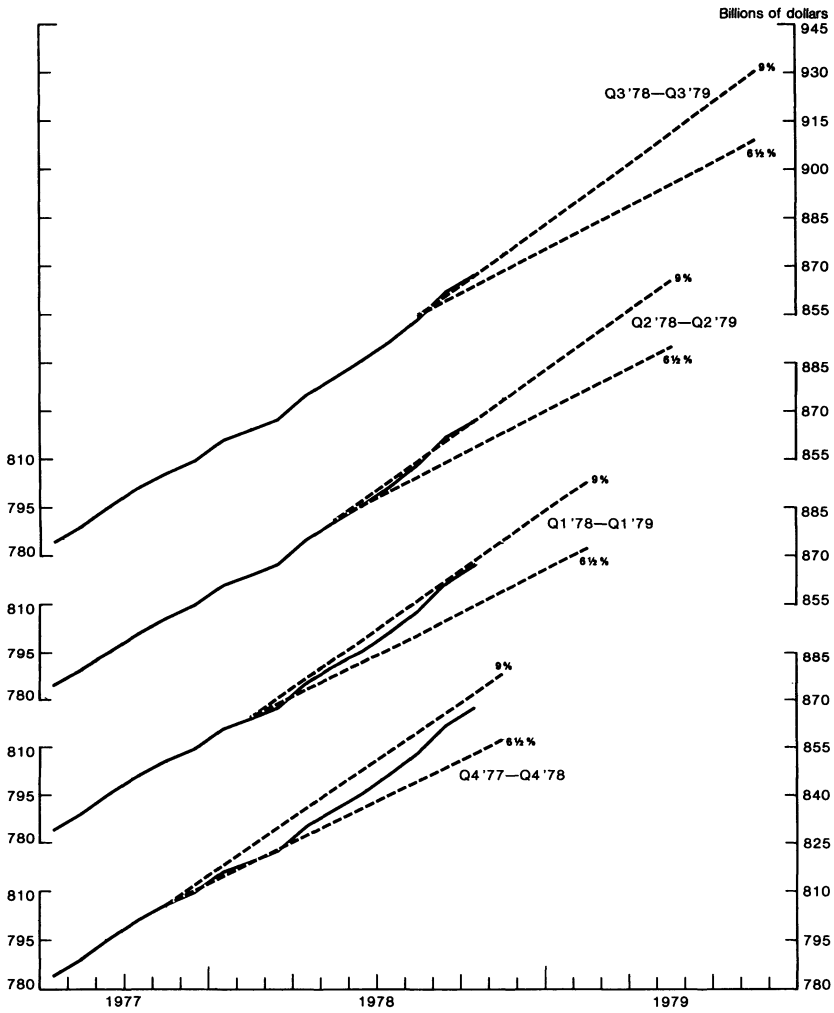




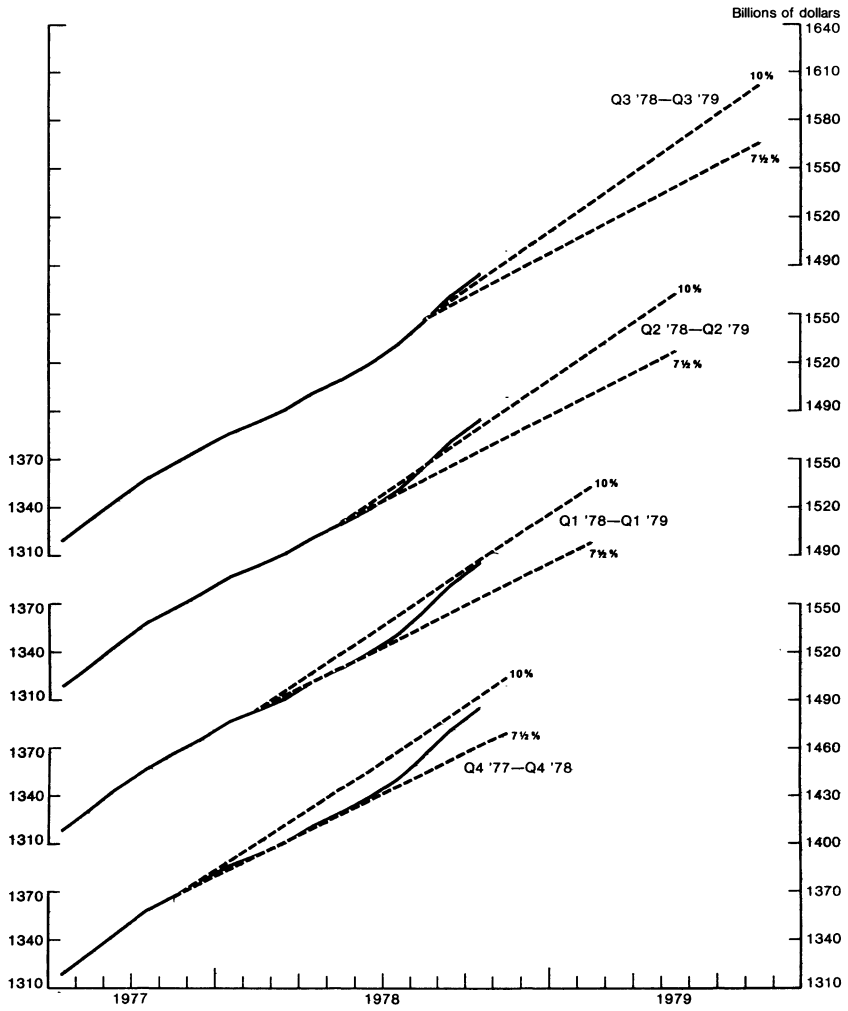
Recently Established M-1 Growth Ranges and Actual M-1



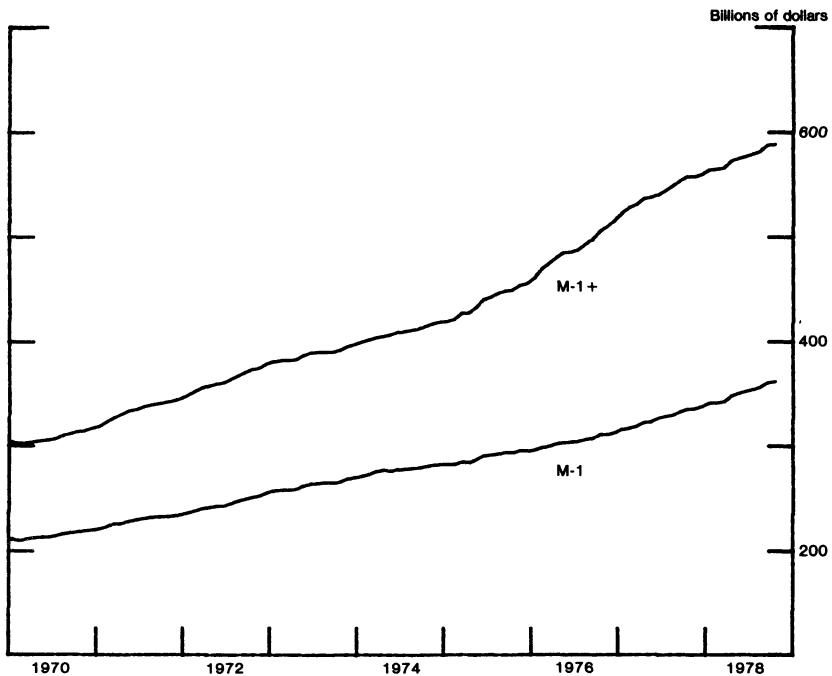
Recently Established M-2 Growth Ranges and Actual M-2

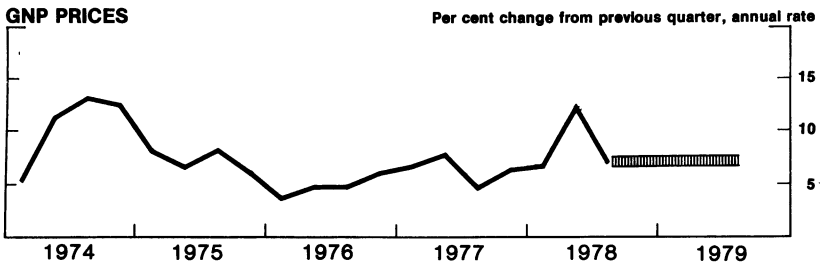
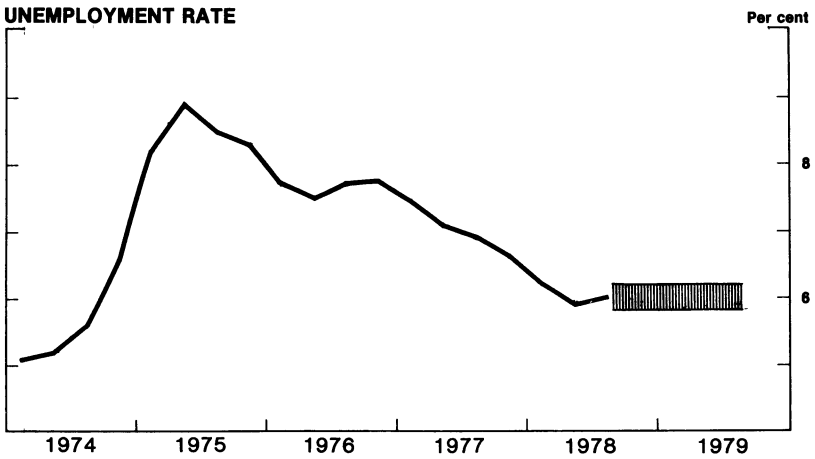
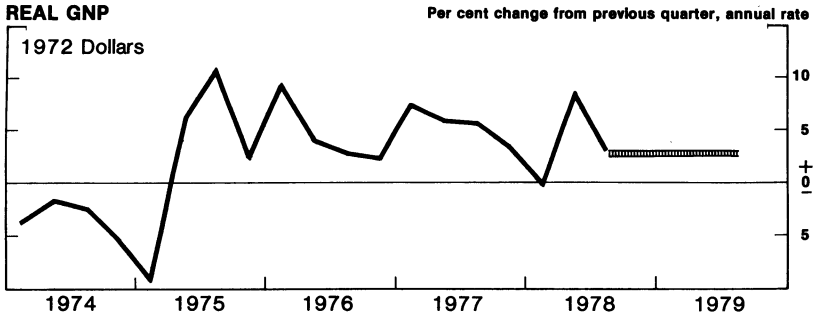


Recently Established M-3 Growth Ranges And Actual M-3



Money Stock M-1 and M-1+





MR. MILLER. I have now been in office as Chairman of the Federal Reserve a little over 8 months. My prediction before this committee at my confirmation hearings and in subsequent hearings of difficult times for the Federal Reserve certainly has proved to be accurate.

During these 8 months the difficulties we have faced with continuing domestic inflation and a sharp decline of the dollar have increased the threats to the stability and the growth of our economy.

During this period, the objective of the Federal Reserve has, however, been to foster monetary and financial conditions that will lead to a reduction of inflationary pressures while encouraging continued moderate economic growth.

If you will bear with me, let us follow together the charts that have been provided—I think they have been made available to everyone here—and perhaps we can see the application of this overall policy and some of the consequences and the conditions that now exist.

The first chart indicates performance in terms of real growth of the gross national product. From the trough of the very sharp and deep recession of 1974—with a negative growth rate in GNP of 3.5 percent in real terms, the worst we had seen in 40 years—we have seen the steady progression up to rather high rates of growth in 1976 and 1977, reaching 5.5 percent in real terms in 1977. Our conscious objective, with the acceleration of inflation, has been to lower that growth rate, to bring it down nearer to the longer term capacity of our economy, and to do that on an orderly basis so as to avoid disruptions, maintain balance within the economy, and slow down growth and slow down inflationary pressures without triggering a recession.

On the second chart, you will see some of the components which are reflected in the GNP, and you will see that there has been rather a good balance. The chart shows the relative growth of residential construction, personal consumption and business fixed investment since the 1975 period. The steep incline in residential construction might cause you to question the balance, but it appears because residential construction was in a deep depression in 1975 and therefore would be expected to return to a more normal level of performance. What we see is a topping out in these particular components and a slowing down in their growth rates, so that while residential construction has been maintained at a high level, it has not been continuing to expand. We have seen a rather balanced leveling off in economic growth.

On the next chart, you will see that during this period we have had very strong patterns of consumption in relation to real incomes and in relation to real disposable incomes, and that the savings rate has been going down as people have used their resources to buy more and more goods and services. One of our objectives, of course, is to dampen any tendency toward overconsumption and to improve conditions for more savings and investment.

On the next chart you will see, over a period starting in 1970, the performance of the economy in the private housing sector. What's very important to notice on that chart is that from the end of 1972 until the end of 1974 there was a dramatic drop in housing. Housing starts reached an annual rate of 2.5 million at the end of 1972; in a very short time, because of the condition of financial markets and the inflation in 1973-1974, housing tumbled from 2.5 million starts to an annual rate of 900,000. That's not a recession; that's a dramatic depression in the

housing industry. It pulled down the whole economy because it immediately affected the acquisition of other durables—home furnishings, and many materials and other things that go into housing. Notice that there was a particularly rapid drop in multifamily housing and also a very steep drop in single family homes.

There was a recovery in housing from the period of economic recovery starting at the trough and moving through 1976–77. But notice the “V” shaped performance in early 1978. What happened was that early in this year it was apparent that housing, under the conditions that then existed, was perhaps headed for another sharp decline. There was the threat at that time—because of inflationary pressures leading to higher interest rates—of renewed disintermediation which could have clobbered the housing market. What happened, of course, was that the Federal Reserve and other bank regulatory agencies moved to establish the new money market certificates that have allowed the continued flow of funds—allowed the thrifts to match other market rates in competing for funds—to the thrift institutions and thereby prevented a decline. The key here is that one of the monetary policies of the Federal Reserve was to maintain financial conditions that avoided an undue burden of restraint on any sector of the economy.

The next chart illustrates this point another way. Housing sales—total housing sales shown in the upper panel—after beginning to head downward after the first part of the year, have continued rather stable at a 4.6 to 4.8 million level. This figure includes both new housing and the turnover in existing housing. But the middle panel of the chart shows what was happening to the flow of funds into thrift institutions—a rather sharp decline from the mid-1977 period. With the introduction of the new money market certificates, there was a recovery in that flow of funds, and that saved the housing industry.

In the bottom panel you see the sharp decline in commitments for new mortgages which affects new housing starts and construction. Again, this was stabilized and turned up, thereby preserving the housing market during this period.

Turning to the next chart, let's take a look at nonresidential fixed investment. We have compared the current cycle—the heavy line—with the average of five previous business cycles. What is apparent here is, of course, that this cycle has shown a deeper decline because of the very serious recession, but that it has also shown a lag in recovery. You will notice that it was the end of 1977 before nonresidential fixed investment even came back to its prior peak in real terms. There was a much sharper recovery in prior cycles when investment reached prior peaks much earlier and then achieved further growth. Here we see both a slow recovery and a gap in the recovery from prior cycles.

This is a positive factor, because over expansion would have put pressures on our economic system and would have created an imbalance which could affect later recessionary tendencies. So, by and large, we must look at this as a positive factor, showing the additional capacity and ability of our economy to continue nonresidential fixed investment to meet our future needs. The strength in this sector continues to show up, particularly in construction and in production of durable equipment.

On the next chart, however, is something of deep concern to me and, I know, to you, and that is the continuing decline of the capital stock

in constant terms over the years. From 1962 to 1967 there was an annual average growth in capital stock of 5 percent; from 1967 to 1972, only 4.2 percent; and over the last 5 years, only 2.8 percent. That's a very alarming occurrence. It is, in my opinion, one of the reasons that we have had such a poor performance in productivity and, therefore, such a poor performance in trying to break the cycle of wages chasing prices and prices chasing wages.

Having looked at business fixed investment, let's look at business inventory investment. Look particularly at the end of 1974—the upper panel—and the dramatic decline in inventory accumulation that took place as the recession hit. That was, I believe, the steepest decline on record in terms of inventory shifts. The annual rate of change was dramatic and production came down rather rapidly in order to liquidate inventories and contributed to the severity of that recession. That dramatic liquidation is compared here with the gradual recovery and accumulation of inventory in relation to the needs of business. The bottom panel is particularly encouraging as regard the question of balance because it shows that inventories relative to sales are still very healthy and that we have in fact a lower ratio of inventories to sales than we have seen for a long time.

So this sector of the economy also is in good shape and doesn't create an expectation of major change.

Let's move on to the government sector. Here, of course, we know that government spending and Federal budget deficits have been contributors to economic activity but have also caused severe concern because—as you pointed out just a moment ago, Mr. Chairman—the heavy Federal deficits that have been generated in recent years do themselves contribute to the current inflationary pressures. I won't dwell on the upper panel, but you see the continued upward drift in government purchases of goods and services; these are in real terms.

I want to call particular attention to the bottom panel. Notice that there was almost a \$5 billion deficit in 1974. But look at the dramatic deficits that came about because of the recession and look at how large those deficits have continued to be, despite the recovery. Just look at the 5 years from 1974 through 1978; look at the estimate of about a \$49 billion deficit this year. Over those 5 years, the aggregate deficit—starting with the very modest one in 1974—is \$210 billion. That's not including the agencies' borrowing. With the expected deficit in 1979, we're talking about adding \$300 billion to the Federal debt over this period of time. This is one of the concerns that we have all had and that we share in looking at the mesh of monetary and fiscal policies in inflationary times.

Turning now to the employment aspects of our economy, we see some rather dramatic shifts in recent years. Obviously, there was a very severe decline in employment and a very rapid increase in unemployment in the recession of 1974–75, with unemployment levels reaching the highest that I have experienced in my adult lifetime or that any of us has experienced. This was very alarming. But there was also a very rapid recovery, and in the face of rather large gains in the civilian labor force there were very large gains in employment.

The growth of employment in 1977 was an unprecedented accomplishment; over 4 million jobs were added in 1 year, and that's very encouraging. In the first half of this year, the annual rate of job

increases was at 5.6 million, a really dramatic contribution to bringing our American workers back into productive employment. And, of course, there has been as the year progressed, some slowing down after those large increases. The point is, however, that there has been very good recovery on the employment front from the disastrous levels of 1974-75. And while none of us is entirely satisfied, the 5.8 percent current level of employment is one that is not a cause for immediate alarm. As a matter of fact, on the other hand, we take considerable comfort from the fact that we now have a record employment in this country of almost 59 percent of the adult population. That is an encouraging aspect.

However, if you turn to the question of the application of labor and unit labor costs on the next series of charts, you will see some area for continued concern. Compensation growth just hasn't moderated. We continue to have high increases in compensation, which is to be expected in the face of individuals facing continuing price increases. These compensation increases have been particularly large in the first quarter of recent years. The first part of this year they were quite large because of the social security tax increase and the minimum wage increase: In the first half of the year compensation per hour increased 10 percent; in the third quarter, 9 percent. So we still see high levels of compensation increases.

Output per hour was actually negative the first half of the year. This is quite alarming and another indication of our poor productivity position. Output has improved in the third quarter, but unit labor costs as a result of the interaction of the two top factors increased at 11 percent—an 11 percent increase in unit labor cost in the first half of the year. Fortunately, that's improved in the third quarter with increases at 5 percent. That's a little bit of encouragement, but doesn't yet represent a long-term trend.

Senator SCHMITT. Mr. Chairman, excuse me for interrupting, but how is the output per hour measured? What is output?

Mr. MILLER. Output per hour is the physical output of goods and services.

Senator SCHMITT. By dollar costs?

Mr. MILLER. No; by hour of labor input.

Senator SCHMITT. But how is the output measured? By the value of the goods?

Mr. MILLER. Not exactly. Output is measured in real terms by what the mines and factories produce in pounds and tons and units measured in 1972 dollars.

Senator SCHMITT. OK.

Mr. MILLER. Senator Schmitt, the top panel is in terms of money. The middle one—

Senator SCHMITT. I understand that, but output is output, and it can be measured in various ways.

Mr. MILLER. Turning to the question of inflation, this is, of course, our most serious problem and we cannot take any great comfort in what's happened this year. If you look at the top panel of the next chart, the total inflation rate in the first half of 8.1 percent is quite alarming; and even the slowdown in the third quarter to 7.5 percent is still not very much progress. We know that the first half was influenced by very high rates of increase in food prices of almost 15

percent, as we see in the center panel. But even if you take out food, as we have done in the bottom panel, you can see that the first half of the year shows a 6.7-percent increase in the inflation rate; and the third quarter shows 7.8 percent. So we don't find any comfort when we make some progress in food prices because other sectors are now beginning to reflect a general passthrough and the upward bias of prices. So inflation is our most important problem.

Turning to the international sector, the U.S. merchandise trade balance has been one of our severe problems in the value of the dollar. And the decline of the value of the dollar has created considerable inflation itself and has contributed to inflationary expectations.

We have made improvement, both because of the general change in relative growth rates between the United States and major trading partners, and also because the price level of U.S. goods has made us more competitive. So, as you see in the bottom panel, the trade balance, which was at a very high level in the first quarter, has improved and is expected to continue to improve. But just to make a point which we all know, the upper line shows the balance if we exclude petroleum, and if we exclude petroleum we know that we would have a very favorable balance of trade. So petroleum is very much the issue here as to how to solve this problem.

The next chart shows the trade-weighted average exchange value of the dollar from 1971, the time of the move from the fixed exchange rate era into the floating exchange rate era. The dollar declined during that period, rebounded somewhat and recovered particularly in and after the recession of 1975, but has been drifting downward for some time. The substantial decline in the past year of about 15 percent is of great concern.

The insert panel shows the recovery in the dollar that has taken place since actions taken on November 1, to correct the disorderly markets that had resulted in an overdiscounting of the value of the dollar. There has been a 7.5-percent improvement in the value of the dollar since November 1. So, to date, these actions have been successful in turning that situation around—although, as we know, the final solution to the value of the dollar depends upon our correcting the fundamental difficulties of inflation and current account deficits.

Senator SCHMITT. Mr. Chairman, could you in one or two sentences relate the value of the dollar to inflation itself?

Mr. MILLER. Yes; the decline in the value of the dollar in the last year has added about 1 percent to inflation. I would say that through the first three quarters of this year we have added about three quarters of 1 percent to inflation from that, and we will realize more. Perhaps, before it runs its course, we may even be impacted as much as 1.5 percent because of additional inflation from the decline of the dollar since last year.

Senator SCHMITT. Could you give us an example of how?

Mr. MILLER. It happens for two reasons. One, because a lower valued dollar means it takes more dollars to buy the same amount of physical imports and we have many essential imports which we must pay for in dollars. Also, the higher cost of imports reduces the competitive pressure of imported goods on domestically produced goods. So there are two reasons why inflation is affected adversely by a decline in the value of the dollar.

Senator SCHMITT. Now as the dollar increases, however, will not foreign goods become more competitive?

Mr. MILLER. As the dollar increases in value, or is stabilized, the effect is reversed. If the dollar should appreciate in value that would, for example, lessen pressures for increased petroleum prices, and we would be the beneficiaries—just as many of our other nations have benefited from paying lower prices. Japan, for example, with an appreciated yen while oil is priced in dollars, is paying less for oil this year than last year, while we are paying more.

Senator SCHMITT. But the trade balance figures may show, at least in the short term, an adverse effect to an improved dollar; is that correct?

Mr. MILLER. It depends. Once you have made the adjustments in supply relationships and when you consider that our trade balance includes large components of agricultural products, we still have the potential to improve our trade balance even with a stable or appreciated dollar.

The CHAIRMAN. Senator Schmitt, I appreciate your thoughtful and intelligent questions, but I do think, however, unless it's a matter of clarifying some technical statement that the Chairman is making while he's making his presentation, I would hope you could defer your questioning.

Senator SCHMITT. I'm only trying to establish the significance of the charts.

The CHAIRMAN. I understand that, but we can go back to the charts in the questioning and I would prefer to defer questioning until after the Chairman has finished his statement.

Senator SCHMITT. Thank you, Mr. Chairman.

Mr. MILLER. Let's turn to the next chart which deals with funds raised by nonfinancial entities. The point is to illustrate the tremendous growth in demand for credit over the last 5 years, both because of the expansion of the economy from the recession and because of the high level of demand generally in the economy, which I will talk about in a moment.

What's interesting to note is the very high relative demand from the governmental sector—the gray area on the chart—during the period of recession and postrecession, and the continued high level of Government demand for funds even though the private sector now has a larger share.

Let us look at some of the background. Turn to the next chart and let me just, for a moment, review the situation as to interest rates. The upper panel deals with short-term interest rates, the solid line being commercial paper and the dotted line being 3-month Treasury bills. You can see the cyclical nature of interest rates, which were affected by economic activity, demand for funds. The long-term rates show less volatility but also show the cyclical pattern as in the lower panel which shows mortgage rates, utility issues, and municipal bonds.

Turning to the next chart, it's important for us all to realize that interest rates are related very closely to inflation. Here we have replotted the short-term rate for commercial paper—the solid line—against the Consumer Price Index. It's apparent from this chart that interest rates follow right along with inflation. This is to be expected,

because those who lend funds must get back, in their view, enough to maintain the purchasing power of their loaned funds plus a return on their loan.

This is a very misunderstood factor in our economy. There seems to be some lack of appreciation for the fact that it is inflation that causes high interest rates, not some deliberate policy of the Federal Reserve or of Government.

To remind ourselves about the relation between interest rates and inflation, let me illustrate one of the very important sources of demand for credit. This next chart shows the demand from households, from people, to borrow money. Look at the dramatic growth in the annual rate of additional debt assumed by households. From the more austere demands of the recession period of 1974 and 1975, we've seen an explosion in the demand for credit by households; installment debt has escalated rapidly. The shaded area shows housing mortgages. Look how rapidly and unprecedentedly high that demand has grown. The "other" area shows other kinds of personal borrowings.

Households have been a major source of demand for credit. The total household debt now is \$306 billion, so we have a heavy burden of debt. The repayment required of households to service this debt now amounts to almost 21 percent of disposable personal income, which is a very high burden and something we want to watch carefully as we look at maintaining balance and moderate growth in our economy.

If you turn to the next page, I would like to point out something that I think is important. The solid line represents the rate charged for home mortgages. You will see that over the last 10 years there have been somewhat higher mortgage interest rates, as we all know, than was characteristic in earlier times. But if you look to the left part of this chart, at the years 1968 through 1972, the upper of the two straight lines going across indicates the average mortgage interest rate during that period. It was 7.8 percent. The bottom straight line is the average inflation during that period—represented by the Consumer Price Index—which was 4.6 percent. So individuals who bought homes during that period paid 3.2 percent in real terms: they paid the inflation rate plus 3.2 percent to buy homes. Look at the right side of the chart, 1975 through 1978. The average mortgage interest rate has been 9.1 percent. The average inflation has been 6.8 percent. The average individual has paid only 2.3 percent in real terms. He paid less interest rate to buy a house in real terms during this period than in the prior period.

So when we talk about interest rates and about mortgage rates, I hope you will bear in mind that in terms of the real cost, it actually has been lower in recent years, which accounts for why households have been willing to and anxious to buy houses as a store of value and as a reasonable purchase in the face of what appeared to be high nominal interest rates, although lower real interest rates.

Look at the next chart. The upper panel shows the rapid expansion in the volume of automobile credit. People are buying automobiles, and they are paying higher prices for automobiles, so that it takes more money to finance the purchase of automobiles. But look at the lower panel. There has been a level interest rate from finance compa-

nies to finance automobiles since 1975 and a slightly declining interest rate—going up a bit recently but basically stable—from commercial banks.

Individuals have not been paying higher interest rates, in real terms, to buy houses in recent years; they have not been paying higher interest rates in nominal terms—and less in real terms—to buy automobiles in recent years.

The point I want to make is that it is not interest rates that are the main problem for consumers. It is inflation which adds to the fundamental cost of houses and automobiles and durables. It's not the interest rate that is the culprit.

In terms of monetary aggregates we have the problems that Chairman Proxmire has just indicated: the shift by individuals and businesses in preferences for the kinds of money that we try to measure. We are perfecting our payments mechanism with new techniques. Because of a number of factors, what used to be considered to be savings or investment has become more and more like conventional money, and we have to deal with the monetary aggregates bearing this in mind. The next chart plots the relationship of M_1 —the basic, narrow measure which includes currency in circulation plus demand deposits—to nominal GNP, just as a reference point. This chart shows that the amount of money necessary to support growth in nominal activity in the economy—the turnover of goods and services—has been shrinking. M_1 growth has been much less rapid than the growth of GNP.

The following chart also corrects a misapprehension or misconception in this country: The growth of money in the United States as measured by M_1 has been lower than in major foreign countries, many of which have lower inflation rates. The growth of money, M_1 , on a relative basis, since 1973, has been lower in the United States than in Germany, Japan, or the United Kingdom. So I hope we will bear in mind, when we sometimes hear the statement that we have inflation because the growth of our money is so much faster than that in other countries, that that just isn't borne out by the facts. I hope we can correct that misperception.

But we do need to deal with establishing and achieving a monetary policy with the objective of slowing growth, of restraining inflationary pressures, and yet continuing conditions for a moderate growth rate in the economy.

Mr. Chairman, because of the features you mentioned, including the introduction on November 1 of a service whereby banks now may offer the opportunity to individuals—not to businesses but to individuals—to arrange for automatic transfer from their savings accounts into their checking accounts, M_1 is going to be distorted. We don't know by how much in the future. So the Federal Open Market Committee, for the coming four quarters, has established a range for M_1 of 2 percent to 6 percent.

Our prior range, as shown on the chart, was 4 to 6.5 percent. We have done two things that you will notice. We have lowered the range, but we have also widened it. We did so, frankly, because we don't know to what degree there will be a shift such as you mentioned. We are anxious to learn more, and we will be collecting data to track that shift and making it available to you so we will be able to assess what's

really happening. But, in the meantime, we are continuing a policy of trying to restrain the growth of the monetary aggregates, of trying to bend them downward. While we have had disappointments during the second quarter of this year because of the over 20 percent nominal activity in the economy, and while we have had disappointments in September for reasons we can't yet really explain, we are seeing a slower rate of growth in October and, so far, in November.

In October, M_1 grew at a rate of about 3.5 percent, which is an encouraging trend, although it's been too short a period of time to know if we have made a lasting impact.

By widening the range of M_1 we are not trying to duck the issue of our responsibility in this regard. We want to inform you later by reconstructing M_1 as it might have been and comparing that to what's really happened.

For M_1 , as shown on the next chart, we have reestablished the same rate of growth as in prior meetings: 6.5 to 9 percent. I might mention that both M_2 and M_3 have stayed within their growth ranges in recent times, even though M_1 has been stubbornly growing too rapidly. As in the case of M_1 , these other aggregates have been slowing recently; their rates of growth are much slower than they were last year. So we have made real progress with these two. But you will see that they have been in their upper ranges recently, and that's because of these new 6-month money market certificates. The money market certificates, which were introduced to avoid disintermediation, have resulted in \$45 billion being held in M_3 and M_2 rather than flowing out of these money aggregates into some other form of market instrument or investment. In that sense, we have a new factor here that we didn't have in prior cycles.

Look at the next chart for a moment. You will see that M_3 follows much the pattern that I mentioned. It's growing at a rate about 3 percent less than last year. We are maintaining a range for the coming four quarters of 7.5 to 10 percent, which we believe to be consistent with the objective of monetary policy to achieve the economic pattern I will mention in a moment.

The bank credit that would be associated with these aggregate growth ranges would be 8.5 to 11.5 percent. But there's one new measure that we want to publish today and that we want to begin to explore, and that is an alternative to M_1 that we can use as a means of tracking the growth of spendable money, of M_1 type money. That is shown on the next chart.

We are going to publish today a money aggregate called M_1 plus. M_1 plus consists of M_1 plus those savings accounts with banks which are more and more used like checking accounts because they are so easily accessible, plus NOW accounts, plus demand deposits at mutual savings banks, and plus credit union share drafts. In other words, we're taking M_1 , plus savings accounts at banks, plus those transactions accounts in thrift institutions which are more appropriately associated with M_1 .

The relationship of M_1 to M_1 Plus is shown in this next chart. We have established a range for the next four quarters of 5 to 7.5 percent for this particular aggregate, and we will be reporting to you as whether this could be a substitute in tracking narrowly based money in the future. However, I want to say to you that we are going to

continue to study this and we are going to come to you—we hope in the not too distant future—with some additional suggestions for redefinitions to perfect our ability—all of our abilities—to track what's really happening with the monetary aggregates.

It is my view, however, that monetary policy must not be limited to a look at aggregates. We must also consider other factors such as interest rates, the conditions of liquidity, the performance of the real economy. As has been my practice and your request, the next chart, the final one, shows you my views of the performance of the economy in the coming four quarters.

It is my view that the real growth of GNP over the next 12 months will be in the range of 2.5 to 3 percent. This means a slowing rate of growth, perhaps even slightly below the long-term trend, but it also means that I do not see conditions that will bring about a recession unless new factors are introduced or unless some economic policy decisions yet to be made affect this.

My view for the unemployment rate under these conditions is that it will range, at the end of this period, between $5\frac{3}{4}$ and $6\frac{1}{4}$ percent, not much different from what it has been—not an improvement, but at least not deterioration—as we try to deal with this problem of very virulent inflation.

My expectations for prices would be in the range of $6\frac{3}{4}$ to $7\frac{1}{2}$ percent, coming down from the very rapid rate of inflation in the second quarter, and more in line with recent experiences—not tremendous progress, but at least the beginning of improvement.

Thank you very much.

The CHAIRMAN. Thank you very much, Mr. Chairman, and I want to congratulate you on your presentation. It's a novel presentation. We have had these presentations from both Chairman Burns and yourself. This in many ways is one of the best I have heard. I think you show a remarkable understanding of all the elements that confront us in our economy and this is most helpful in putting it into a perspective we can understand.

Having said that, however, I must say that I'm deeply disappointed at the ranges you give us. After all, the fundamental purpose for your appearing is to tell us what monetary policy is going to be: what increase in the money supply you expect; and here you give us a range. I can understand why your range for M_1 has to be difficult, but to tell us it's going to be between 2 and 6 percent is giving us such a wide spectrum that it's meaningless in my view. I don't say it's an insult to the committee, but it doesn't mean anything in my view.

Now in the second place, for M_2 and M_3 , you also give us very, very broad ranges. That been done in the past and I have complained about it. If you, as chairman of Textron, had a division manager come in and say,

Our goal for sales in the next year—last year we sold \$50 million and next year we're going to sell between \$50 and \$75 million.

You would say,

Come on now. Give me a goal. I don't want a prediction. I don't want a wide range. That doesn't mean anything. Tell me where you want to go.

I have that difficulty here. When you give us this broad range I just feel as if we have no real notion of where the Federal Reserve Board is

aiming. There's some feeling that you think there are enormous possibilities here, you can range all over the place, but no chart that would indicate not where you were going to end up, because nobody can predict the future, but where you're trying to end up. And that, in my view, has been the principal objective of these hearings.

MR. MILLER. Mr. Chairman, with all due respect, I don't think it's possible, with so many variables, to set a narrow goal for M_2 or M_3 . Take, for example, the decision made earlier this year to introduce new kinds of savings instruments to avoid disintermediation. It would have been very nice to give you some narrowly targeted figures, but that would have encouraged us not to make the decision we did and therefore to impact the housing industry unfairly and unnecessarily. We would look good only in the numbers.

I would rather have the leeway to take action that is related to the real performance of the economy and to what we are trying to accomplish in maintaining balance and avoiding undue burdens on any sector than to be motivated to bring in some figures that look good but that have done irreparable damage to the economy.

The CHAIRMAN. What I'm talking about is having a precise goal that you're trying to end up with. When we started this discussion with Chairman Burns, he finally decided he would agree to come in with this provided we would permit him to work within ranges and not a specific goal. West Germany had a monetary goal of that year of 8 percent. They were going to try to hit 8 percent and I could understand how you could have perhaps $1\frac{1}{2}$ percent or 1 percent difference, but to have this—after all, on growth, you say growth will be between $2\frac{1}{2}$ and 3 percent for the whole economy. You say unemployment will be between $5\frac{3}{4}$ and $6\frac{3}{4}$. Prices will be between $6\frac{3}{4}$ and $7\frac{1}{2}$. Those are predictions not under our control but what you expect. Then when it comes to monetary aggregates which are very largely under the control of the Federal Reserve Board, you give us a range which doesn't really tell us what you're trying to do. I don't mean what you can accomplish, but what you think would be the best level for you to achieve in order to achieve your economic ends.

MR. MILLER. Other countries that have single targets miss them widely, so—

The CHAIRMAN. You have a range and you miss that very widely.

MR. MILLER. Not in M_2 and M_3 .

The CHAIRMAN. Well, in M_1 .

MR. MILLER. M_1 is a changing aggregate. You know, I don't want in any way to detract from the purpose of your discussion, but if you look at these charts and look at the size of the figures you're talking about, I don't think that, going out four quarters, the band that is shown is a very wide target. I apologize to you for the wide range on M_1 and I told you frankly why that exists.

The CHAIRMAN. I understand that, but it seems to me it might have even been better simply to say that because of the automatic transfer that M_1 is simply not any longer a viable goal and you're going to come up and tell us what your goals are on M_2 and M_3 . Other members of the committee might not agree with that, but as far as I'm concerned that might be a more helpful thing.

MR. MILLER. Mr. Chairman, we deal with an economy subject to so many variables. For example, we had a zero growth rate in the first

quarter and M_1 was within its target range. The nominal growth of GNP in the second quarter was over 20 percent because of catchups from the first quarter and because of pull-forward activity as people became concerned about inflation and changed their buying patterns well after the decision had been made as to monetary aggregates. For us to be locked in from a decision made in January to what people were doing in April with so many changes taking place—because of weather, unexpected growth of inflation, and a rather unsustainable nominal level of activity and the consequent need for money to carry on these transactions—would not have contributed to long-range policy, which I think has been rather appropriate.

When I came to Washington the expectation of growth, of real growth for this year was $4\frac{3}{4}$ percent. The outlook now for growth this calendar year in real terms is $3\frac{3}{4}$ percent. That's been reduced without penalizing the social goals of our economy: people have been employed; housing has been maintained. And yet we have dampened by a substantial amount the growth rate as a result of much tighter policies. That's the progress you should be interested in; I don't think any of us should get too locked in to mechanical, numerical—

The CHAIRMAN. It's a tighter policy in a way perhaps. Interest rates are going higher, but it's not a tighter policy in that the rate of increase in the money supply is greater than it has been in the past.

Mr. MILLER. We're likely to see that we have made real progress in holding down the growth of the money aggregates. We have a lag effect. The aggregates are slowing down and, in my opinion, you will see the money supply continue to slow.

The CHAIRMAN. Now you have given us a very good economic background here on the housing particularly and other elements of our economy that are especially sensitive to interest rates. You have also indicated that—and I think it's very constructive—I say that because of the fact this is the Banking, Housing and Urban Affairs Committee and we all concerned with housing—you follow policies, if not insulating housing completely, help housing be cushioned from the sharp increase in interest rates. The question arises, there's no gain without pain. Here we have a situation in which housing may have been protected somewhat but in protecting housing monetary policy is not as potent as it's been in the past, not as potent inasmuch as it doesn't really slow the economy with the same decisiveness and bite as it did when your monetary policy made less funds available for housing, slowed the economy through slowing housing, and had the effect of bringing interest rates and inflation under control somewhat more quickly.

Are you concerned with that and what will be the effect with the funds still available for housing, albeit at a higher rate of interest?

Mr. MILLER. Senator, I'm not convinced that any of us—any of us—should sit in judgment and decide what part of our economy should suffer the brunt. Why should we deny credit to housing as compared to automobiles?

The CHAIRMAN. I agree with that. I'm not arguing that at all. I'm just saying, what will be the effect of that? What will it mean? We'll have to suffer somewhat higher interest rates and somewhat higher prices.

Mr. MILLER. If you maintain the same amount of credit availability, there will be some sector that will bear more burden; housing will bear less. The effect on housing, in my opinion, from the actions we have already taken, is that housing will slow along with the whole economy. I would expect that housing starts next year will be more like 1.7 million instead of the 2 million this year, which is the consequence of the necessary tightening that we need to dampen inflationary forces. But it means that the housing industry can stay intact, free of the dismantling that took place in prior cycles, and in a vital position to maintain the housing stock needed for the future. I think that's the consequence. Whether or not interest rates will have to be somewhat higher in order to get the same restraint, I don't really know yet. If so, I think it will be a marginal difference. We're talking a half of a percent difference, if any, to achieve the same kind of restraint. That is a penalty, but I do not think it is a severe one.

The CHAIRMAN. Now, the witnesses you testified yesterday indicated that if monetary policy wasn't the only game in town, it would still, in spite of what we have just discussed, be the most potent and effective instrument we now have to cope with inflation. With tight monetary policy, we can begin to bring prices down. Without it, there's no way you can.

Do you concur in that view? What other policies would be helpful? In the past, Chairman Burns spoke of the importance of fiscal policy that was conservative and restrictive. There have been other suggestions with respect to regulation policy and so forth. Can you give us any suggestions as to how important (a) you think that monetary policy is, and (b) what else we can do to attack inflation?

Mr. MILLER. Monetary policy cannot do the job alone, but it is a potent and essential weapon in the arsenal for combating inflation. The two most important weapons are monetary policy and fiscal policy. We certainly need to have the discipline in fiscal policy that allows monetary policy to accomplish its goals with less damage to the system—or less potential damage. But one would have to say that putting in place those two key elements, there are still other things that properly can contribute to slowing inflation. One is a coincident incomes policy which is a part of the wage and price moderation program that has been announced recently. Such a policy, without responsible and sound monetary and fiscal policy, is useless; but with sound fiscal and monetary policy, it can make a contribution to working through this period of change toward more stable conditions.

The same is true of regulatory policies which, as you know have contributed significantly to cost increases and therefore to price increases. That, too, has a role to play—of reducing burden—but it will operate more slowly, because impact on the economy of a regulatory change does have a considerable lag. We should not lessen our enthusiasm for action on this front because we will benefit from such changes later. We must run such a program not only to stop inflation now—to begin to turn it down—but to work it out permanently.

As you know, my view is that it will take us 5 to 7 years to bring inflation down to the rate it should be—below 2 percent. All of our capacities—monetary policy, fiscal policies, changing some of our legislated and regulated cost increases—are going to be tested. Certainly we're going to want to use an incomes policy, at least as support.

The CHAIRMAN. My time is up. I just want to say how interested I am in your last remark that it will take 5 to 7 years to bring inflation down to 2 percent. The Humphrey-Hawkins bill that we passed provided for 3 percent inflation in 5 years. So you're more optimistic than that was and we were attacked in that.

Mr. MILLER. I put 7 years in just in case.

The CHAIRMAN. Senator Tower.

Senator TOWER. Mr. Chairman, I think you have made a very fine presentation, and I think the chairman has preempted some of the questions that I intended to ask.

Let me pursue just a little further on the matter of the monetary targets. Wouldn't it have been more effective if you had reduced the targets for M_2 and M_3 ?

Mr. MILLER. Senator Tower, we considered that, and there would be some advantage to reducing those ranges. Certainly there would be an announcement value and a public relations value in showing our commitment to fighting inflation. But I don't really think we need to be defensive about our commitment. We really are sincere about it, and we have demonstrated that.

The ranges are such that I believe we would be just as well served by moving toward the bottom of the ranges as by lowering them simply to augment our commitment to a lower rate of inflation. Perhaps we should have lowered them, but I believe we have more room here to be more moderate in monetary growth.

Quite frankly, we have been a little uncertain because we do not know to what extent these money market certificates will continue to bring funds in that would otherwise flow out of these aggregates.

Senator TOWER. Mr. Chairman, I think you have done a pretty good job without minimizing the impact of monetary policy on inflation of bringing it into proper perspective. I think there are perhaps some slightly exaggerated notions of the impact of monetary policy on inflation insofar as it's related to other causes which you have alluded to.

One that I'm particularly concerned about is productivity, and I think really that's one of the principal key issues in the inflationary battle. How do we get our productivity up? I think ultimately that's the answer to the slide of the dollar, not the total answer, but at least would partially contribute to the enhancement of the dollar. And you note in your charts the alarming lack of adequate capital growth and that investment spending will be a factor in sustaining the economy, but can we really expect investment to continue to rise in the face of higher interest rates?

Mr. MILLER. Senator Tower, higher interest rates are an impediment to investment, and therefore we have that kind of contradiction in terms which always troubles us in trying to control inflationary pressures. It's rather interesting, however, to observe that as we have continued to exercise monetary restraint—and we have said all year we would continue to do so to the extent necessary to bring down the growth of the aggregates and dampen inflationary pressure—and after we have done so—particularly following the November 1 action, which was quite a substantial increased tightening on the monetary side—long-term interest rates have behaved very well. Actually, the immediate effect of the November 1 announcement was for long-term

interest rates to drop. Even though they have to come back up somewhat, they are lower now than they were in the middle of October.

So, in a sense, as there is evidence of our progress in combating inflation, the financial markets create conditions for the lower long-term rates that are the rates we need to deal with investment. Now, in the meantime, as this committee knows—and I want to just elaborate a little on this point—it is critical that we deal with his productivity issue. It's critical that we deal with the inadequate business fixed investment that we have had for so long.

Japan spends about 20 percent of its gross national product on business fixed investment; Germany, 15 percent. We have been spending 8 or 9 percent. We can't go on decade after decade spending so much lower than other industrial and modern nations without falling behind in our productivity, in our technology, in everything. It's very critical that we reverse that trend.

One can see the effects of our declining investment just by looking back over the last 30 years. For the first 20 years after World War II, productivity gains were about 3 to 3.5 percent a year, really quite good; in the last 10 years, they have been down to less than 2 percent; and in the last 5 years, to 1.3 percent. That is the trend that, as you point out, we cannot continue. We are headed for disaster.

So I think we not only have to take the actions to combat inflation and thereby bring about conditions for more favorable interest rates—because interest rates would not have so high a component of inflation in them—but we also have to adopt policies that will incentivize investment. One of my favorites is a program to allow for more liberalized depreciation which would compensate for higher interest rates by returning a higher cash flow for investment. That policy, which I realize isn't in the jurisdiction of this committee but which is relevant to this committee, would be very important in trying to stimulate the investment side of our economy as we are holding down some of the demand side which makes the problem worse.

Senator TOWER. Have you all at the Fed made an attempt to determine what the impact is on capital growth of what we call the regulatory burden, compliance of certain regulations, which result in investment of capital in compliance that would otherwise go into improving productivity?

Mr. MILLER. Yes. There's been some work on that, but I'm not sure I'm prepared to quote any figures at the moment. Quite a bit of investment in recent times, of course, has gone into areas which do not contribute to productivity gains but contribute to social improvements. I can send you a report on this, Senator, if you like.

Senator TOWER. I think it would be a matter of great interest.

Mr. MILLER. I'm sorry I don't have that right at my fingertips.

[Chairman Miller subsequently submitted the following for the record:]

In order to comply with more stringent Government regulations, businesses have had to devote a substantial portion of their capital spending in recent years to pollution abatement and to promotion of worker health and safety. The following is a summary of the available data on such Government mandated capital spending; a concluding section discusses some recently published estimates of the impact of these regulations on productivity.

CAPITAL SPENDING FOR POLLUTION ABATEMENT

The Commerce Department has been publishing data on business capital spending for air, water, and solid waste pollution abatement since 1973. As can

be seen in Table 1, such spending now accounts for about \$7 billion or approximately 5 percent of total business capital spending. As might be expected, the share of spending devoted to abatement efforts appears to have been edging down in recent years after an initial period in which many existing as well as new facilities had to be brought into compliance with the new laws.

The burden of anti-pollution capital spending has been concentrated in six industries: electric utilities, petroleum, paper, chemicals, steel, and nonferrous metals. These six industries have accounted for about ¾ of all such spending since 1973. Moreover, each of these industries has devoted 10 percent or more of their capital spending budgets to pollution abatement.

CAPITAL SPENDING FOR HEALTH AND SAFETY

McGraw-Hill has been collecting data on business capital spending for health and safety since 1972. As is shown in Table 2, mandated capital spending for this function totaled around \$3 billion in 1977 or just over 2 per cent of total business capital outlays. Similar to the case of pollution abatement spending, capital outlays for health and safety as a share of the total were largest in the period soon after the adoption of the more stringent regulations.

IMPACTS ON PRODUCTIVITY

Estimates of the impact on productivity of the more stringent pollution abatement and health and safety regulations were published in a recent article by Edward Denison.¹ His study, which covered the period from 1967 to 1975, concludes that these regulations have been responsible for an increasingly large loss in productivity. He estimated that by 1975 pollution abatement was responsible for ¼ percentage point loss in annual total factor productivity growth and that health and safety regulations accounted for another ⅓ of a percentage point loss. Since the postwar trend of such productivity growth is only about 2 per cent, as of 1975, these regulations together appear to be absorbing approximately ½ of the underlying growth in output per unit of input.

TABLE 1.—BUSINESS CAPITAL SPENDING FOR POLLUTION ABATEMENT

Year	Billions	Percent change	Percent of total capital outlay
1973.....	\$5,238	-----	5.3
1974.....	5,617	7.2	5.0
1975.....	6,549	16.6	5.8
1976.....	6,762	3.3	5.6
1977.....	6,939	2.6	5.1
1978 ¹	7,154	3.1	4.7

¹ Anticipated spending as reported in a BEA survey conducted in November and December of 1977.

Source: BEA, U.S. Department of Commerce.

TABLE 2.—BUSINESS CAPITAL SPENDING FOR HEALTH AND SAFETY

Year	Billions	Percent change	Percent of total capital outlays
1972.....	\$2,509	-----	2.8
1973.....	2,569	2.4	2.6
1974.....	3,074	19.7	2.7
1975.....	2,714	-11.7	2.4
1976.....	2,376	-12.5	2.0
1977.....	2,884	21.4	2.1
1978 ¹	3,386	17.4	2.1

¹ Anticipated spending as reported in a McGraw-Hill survey taken in the spring of 1978.

Source: Economics Department, McGraw-Hill Publications Co.

Senator TOWER. Thank you very much, Mr. Chairman.
The CHAIRMAN. Senator Sarbanes.

¹ Edward F. Denison, "Effects of Selected Changes in the Institutional and Human Environment Upon Output per Unit of Input," *Survey of Current Business*, January 1978, vol. 58, No. 1, pp. 21-44.

Senator SARBANES. Chairman Miller, what real GNP growth would we have to keep the unemployment rate at least where it is, if not moving downward?

Mr. MILLER. Three to 3½ percent I would think, Senator Sarbanes; that order of magnitude.

Senator SARBANES. Now is it your view that we should have as an objective only a 2½- to 3-percent growth in the GNP, or that that's simply what's going to happen?

Mr. MILLER. That's my prediction of what's going to happen in 1979 because of other forces.

Senator SARBANES. Is your monetary policy designed, to help make that happen or is it designed to the extent you think possible, to give us a somewhat better GNP growth and therefore a better unemployment rate?

Mr. MILLER. The monetary policy that we're looking at now is consistent with real growth in the range of 2½ to 3 percent. If I had been speaking before this committee in July, I would have been talking of a growth rate more like 3 to 3½ percent, which is consistent with maintaining or improving labor utilization. The factors that have impacted negatively since then are the acceleration of inflation, the dollar situation which contributes to it, and the necessity of countering those actions which are at conflict with our other objectives. The fundamental thing we need to accomplish is to find that degree of dampening of inflation which would allow us, for a period of time, to have a more moderate rate of growth than a 3 to 4 percent range rather than to have a policy of recession followed by recovery.

Senator SARBANES. I don't quarrel with the desire to try to get a a steadier pattern rather than a roller coaster. The thing that concerns me and what I would like you to explain a bit is why a rate of 2½ to 3-percent growth as an objective in real GNP which would give us a rising unemployment rate as opposed to a somewhat not significantly large growth rate of GNP which would give us a steady unemployment rate and perhaps even a continuing decline in the unemployment rate, makes such a critical difference on the inflation question.

Let me add a couple of points. It's my own view that one of the difficulties in achieving productivity increases is resistance to changes that stem out of a fear of unemployment, that in an economy in which employment opportunities continue to develop there's less resistance to changes in how we do business which may cost people jobs because they envision there may be other jobs available to them. But what they perceive to be a declining employment situation causes enormous resistance to changes which would result in improving productivity, any number of labor disputes obviously reflect that.

Mr. MILLER. I think your latter point is true. We have an inflation which has been built up over 12 years. It started with an unwillingness to pay for the war in Vietnam and continued through an unwillingness to make the adjustments necessary to re-establish stability. We let the whole thing get out of hand. The price we have to pay now, in order to get our house in order, is to suffer some periods of slower growth than we would like, because that slower growth rate is essential if we are to reduce our demand for imported goods, restabilize the dollar, lessen the inflationary pressures of consumption and demand

at a time when we haven't put enough into the supply side. So we're paying the price of past policies.

Senator **SARBANES**. Do you assert—

Mr. **MILLER**. The sooner we pay the price with a policy of moderation instead of a roller coaster approach, as you put it—the sooner we are willing to saw wood for a few years and work our way out of it—the faster we are going to enjoy the opportunity to reestablish growth rates that will absorb recent increases in the labor force and achieve the level of unemployment we all want.

Senator **SARBANES**. Now if your policy moves the economy into a recession, clearly the Federal deficit will increase markedly. Is that not the case?

Mr. **MILLER**. There's no question, in my view, that recession is not a good policy. There are people who would advise that recession is a good response to the present condition. I don't agree with that; it is not a good response because it would immediately and automatically increase the Federal deficit, increase the stimulus from the fiscal side, take away what we are trying to accomplish by restraint and change it to another form which would be less attractive because it would add to the Federal debt and the permanent cost of carrying the economy which I don't think would contribute anything. So my view is that a recession is neither necessary—there's nothing out of balance in the economy that requires there be a recession—nor reasonable as a matter of policy because it isn't effective.

Look at what happened in 1974–75: It was the worst recession in 40 years, and we did not make real progress in eliminating inflation. We will eliminate inflation by being slower and surer and steadier and having more persistence.

Senator **SARBANES**. I think the line that you cross that I am very concerned with because I think it has significant psychological impacts in another area, is the line when the unemployment starts going back up. In other words, I think you can keep it moving down even at a decelerated pace in order to accommodate this more moderate growth and then you're moving in a positive fashion on both fronts. If you allow it to start going back up you're going to start developing a shift in attitude and a growing concern, which are going to affect a lot of policies that would otherwise contribute to the effort to get a more stable and balanced economy.

Let me ask this question: You have been one of those who have continually raised the social security tax issue as a contribution to inflation, the forthcoming increase. I don't understand the argument unless you're prepared to reduce the benefits. Wouldn't eliminating the tax increase result in a contribution to inflation because you would have higher payouts to maintain the benefit levels but lower receipts to balance the trust fund?

Mr. **MILLER**. Senator Sarbanes, next year's increase in social security taxes on January 1 would probably add a half a percent to inflation next year. But my comment that that be deferred has always been conditioned upon a commitment by Congress to make changes in social security which would reduce its long-term costs and thereby avoid the consequence you mentioned.

What is the purpose of social security? It is to provide a basic pension upon retirement. We can reduce costs by not giving as much bene-

fits to those who have other sources of income in their later years. For example, we could tax social security benefits which are now tax free when paid to people after they retire. We could tax benefits to those who have other income and thereby feed back funds into the social security system. That's one possibility.

A new law about mandatory retirement has been passed. If we extend the retirement age for social security by 1 or 2 years, that would reduce its costs substantially. If we look at the disability features—how they should be funded and from where they should be funded—that could be improved. There are many things we could do.

If we can't make those tradeoffs, we shouldn't change the tax; we should collect the money, I agree. But when you face the \$10 billion tax on all Americans next year from adding a half a percent to inflation—that is, a \$10 billion tax in the form of lost purchasing power—you have to look at alternatives.

Senator SARBANES. I'm glad to draw this out, though, because it never appears in any reports on your assertions that we ought to defer the tax increase. Implicit in that, if the reason for proposing it is as an anti-inflation measure, is a commensurate reduction in the benefits. In the way it's been presented, which of course becomes very appealing politically, the taxes ought not to be increased, but the fact is, if you take that route—for the reasons you advance at least—you would then have to cut benefits which of course reflects the basic question of balancing the benefits and the tax burden. There is no free lunch, as we are constantly reminded.

Mr. MILLER. I'm glad you cleared that up because my statement has always been conditioned on reducing the net benefits.

Senator SARBANES. Let me ask one final question. When you and Secretary of the Treasury Blumenthal took the stabilizing actions with respect to the dollar, or made the announcement and issued your statement, that statement was very forceful in stating that what was being done to the dollar was not a fair accurate reflection of the health of the American economy, and that the economy was in fact stronger than suggested by what was happening to the dollar in the international markets.

Why is that going on in the international markets? What's at work, and why isn't the underlying strength of the American economy, which although we have some problems is nevertheless quite strong, being reflected internationally? What is it that enables this preying upon the dollar to take place?

Mr. MILLER. We have to be honest with ourselves. It's a question of confidence. Whatever may have been the performance or the outlook for the economy, those who deal in currencies in world markets feel a declining confidence in either the capacity or the will or the desire of those who manage the American economy to combat inflation and to deal with the trade deficits in a way that would correct the dollar decline in the future.

For that reason, there were both shifts in portfolios out of dollars and anticipatory buying of other currencies that were expected to appreciate. There was pressure on the dollar and there was speculation, and all these factors combined to create a disorderly market that was not really appropriate to the true condition.

For that reason, we had to take forceful action to correct the situation. In the process, I hope to establish credibility for the fact that the Federal Reserve, the Treasury, the Congress, and the President have joined together and are committed to Government policies that will be effective and will address the issues and will correct the problems and will introduce the fiscal discipline and the monetary discipline necessary.

Senator **SARBANES**. Well, I see my time is up. Thank you, Mr. Chairman.

The **CHAIRMAN**. Senator Garn.

Senator **GARN**. Thank you, Mr. Chairman.

Mr. Chairman, since the programs announced by the President of voluntary wage and price restraints a couple weeks ago, there have been a lot of economists who have daily predicted that his proposals for strengthening the dollar would contribute to or lead to a recession in 1979, and there aren't too many views to the contrary. However, William Bowman in the current issue of Business Week disputes that, suggesting that the steps announced on November 1 may be the beginning of a chain of events that will stimulate long-term capital investment.

I'm wondering if you consider such an assessment accurate. There are not too many who have said that. As I have mentioned, most of them feel just the opposite.

Mr. **MILLER**. Senator Garn, I would make a couple of comments. The actions taken on November 1 lessen the chance of recession rather than increase it. I would have said, in July, that there was no reason for a recession. But if the instability in the exchange markets in August, which accelerated in October to become a cause of deep concern, had been allowed to continue, the disorderliness not only in domestic markets but in international markets would definitely have led to recessionary pressures, to holding back on economic activity.

Therefore, the action to correct the dollar situation was one that will lessen the probability of a recession. It is therefore consistent with that article to say that, if it is now perceived that for the first time all of the weapons are being mobilized to combat inflation and there's a will and determination to do so, then long-term interest rates—rates for long-term capital—will, if anything, stabilize or go lower which will bring about the conditions for businesses to make longer term capital investments which they are not doing now. That's the point of that article, as I recall; that does make sense.

Businesses became very liquid after the last recession. Prior to that, with the credit crunch in 1974, businesses were caught short and so afterwards they borrowed heavily in long-term markets and they became liquid. Under recent economic conditions, most businesses have been reluctant to borrow in the long-term markets and there's been a light corporate debt issue calendar. Instead, businesses are once again covering their needs with short-term borrowings, which means they are very reluctant to make commitments to long-term investment.

As they see a change, there is no question that there's an underlying probability that more businesses will be willing to commit to long-term investment.

Senator GARN. Well, I understand the philosophy behind the article. It said that they would lead to a chain of events, not an immediate thing, and you're reiterating the same thing. But in looking at wage and price restraints, voluntary or involuntary, it disturbed me last night on the news where Mr. Kahn said that if these did not work it would necessitate mandatory wage and price controls.

In light of what you have said, at least in my experience, wage and price controls primarily function by squeezing profits; increased costs are normally absorbed by squeezing profits rather than by higher prices where you have controls, whether they are voluntarily adhered to or whether they are mandatory.

It seems to me that it's contrary to long-term capital growth. Everybody has talked about it. I have heard you talk about it. Most everybody says we're not having enough venture capital, and we're not having enough investment in new plant and equipment, and that seems to be shared by most everybody; and yet here with these restraints it seems to me that squeezing profit margins from which investment capital has to come—I really don't see how we are not endangering the economy. Wage and price controls also inaccurately cast business and labor as the originators of inflation, and I don't share that view either. I think it's government.

But how, in the light of either voluntary or mandatory wage and price controls that are going to squeeze profits—where is this investment capital going to come from?

Mr. MILLER. I don't see the voluntary wage and price controls putting that squeeze on. I would think that mandatory controls might, and I would personally not be in favor of mandatory wage and price controls under any conditions that I see. I don't see how that's a solution.

Senator GARN. Do you agree with Mr. Kahn that if the voluntary wage and price controls fail, mandatory controls will become necessary? Is that a policy of the administration?

Mr. MILLER. No; I don't think they become necessary. I think they would be very unwise, because they are inequitable and they don't work, and they just result in putting off the day of reckoning, as I believe you're pointing out.

What happened the last time we had mandatory wage and price controls? We held the lid on, and then we reinflated the economy and made plenty of funds available and low cost, and stimulated the economy, and then took the lid off and went to double-digit inflation. That's an unwise policy, and putting controls on and starving everybody is an unwise policy.

In the meantime, having a speed limit in the form of voluntary wage and price restraints will mean more normal behavior as we take account of the flows of cash and profits that are necessary to sustain growth. If I were running a business under the voluntary wage and price controls, I would put my salesmen to work harder to increase my volume, to increase my turnover, and to keep my profits up. In that sense, motivations may change.

Senator GARN. I'm glad you don't favor mandatory wage-and-price controls. I would hope we would have learned from the mistakes of Richard Nixon who yielded to political pressure, and I think we have

all seen the results, as you outlined, of what happened in the early 1970's.

To get back to the profit squeeze under voluntary wage-and-price controls, according to press reports yesterday, the administration may relax the 7-percent wage standard under the guidelines without relaxing the price standard. If we're going to sell out to labor on the one side because George Meany won't support the President and we've got to somehow pacify him and we relax that and keep the lid tight on prices, obviously it's going to squeeze profits. You can't relax one and not relax the other. You're really going to have to stimulate that turnover and push your salesmen to work harder to overcome that. So I think he's already causing a problem if he yields to that political pressure from labor. I think he's going to doom the voluntary controls from working because the profit squeeze will be extremely more difficult, and I just don't see how it can work.

Mr. MILLER. I had understood that the alternative to a fixed allowance for price increases would be a "margin test" so that businesses would be protected. But perhaps I didn't hear correctly what was said yesterday. I had understood there would be an alternative: If costs that couldn't be controlled by business did go up more than the allowance in a base period, that a test to maintain profit margin would be allowed as an alternative. If so, I would think there wouldn't be the kind of pressure on profits that you mentioned.

Senator GARN. If that's true, we're not moderating the price of goods, and how are we solving inflation? That's how I get in trouble on the other side of the coin, too. If we're going to have those who do restrain themselves to 7 percent and we're going to have a subsidy to make up the difference to labor—maybe I'm just naive and don't understand the fiscal policy of this country or the economy very well, but I don't see how it's less inflationary when we have talked so much about the deficit and the need to reduce the deficit, and then we say, "All right, business, you restrain and, labor, you restrain, but if you really can't make it, we're going to take dollars out of the Treasury and refund to you," increasing the deficit. I would appreciate it if you could explain to me how that is cutting the inflation rate if we're going to say voluntary wage-and-price controls but if you can't really cut it we'll make some adjustments and we'll pump more taxpayers' dollars in to buck up the wages by the difference of what you think you needed and what the 7 percent allowed.

Mr. MILLER. I don't know the details yet. I don't think the details on the wage insurance program have been presented. But I presume that the tradeoff between avoiding direct cost and price increases and the cost of wage insurance will result in a tax credit that will not be the economic equivalent of foregone real income. There would be a cap on insurance; it wouldn't set up a runaway situation; it would be realized only by those sectors of the economy which had complied with the rules and held down wages and thereby contributed to the slowing of inflation. We'll have to wait to see just what is proposed—I'm not familiar with how the program would be administered as to groups of complying workers—whether there would be a dollar limitation or whether there would be a blank check. If the program were a blank check, one would be concerned. But if it is insurance in which all have

to share one could make a case that in the interim we would be holding down inflation and that the credit for taxes would come later and would merely make up for some of the foregone real income to individuals.

Senator GARN. My time is up, but one more question. Aren't we really playing games with a lot of complex economic policy in trying to transfer the blame to labor and management when the No. 1 culprit is Government? You have talked about deficits. If you were setting fiscal policy in light of the present economic problems, what target level would you set for a budget deficit in fiscal 1980?

Mr. MILLER. Senator Garn, there's no question, as I mentioned, that the inflation buildup started 12 years ago, and that it started as a result of Government policies. There's no question that Government has been a principal, and perhaps the principal contributor, to the rate of growth of inflation. There's no question but what sound fiscal and monetary policy would reduce inflation. But there's nothing to be gained by not also recognizing that an incomes policy and other kinds of policies to improve productivity and investment could be supportive of fundamentally sound fiscal and monetary policy.

As far as what I would set as a target, I have said before that we should move over several years toward reducing Federal expenditures from 22 percent of GNP to 20 percent, and that we should balance the budget by 1981. I notice that Senator Proxmire has indicated the budget should be balanced in 1980. I'm skeptical of whether or not certain legislative mandates could be dismantled in time to balance it by 1980, but we should be shooting near a \$20 billion or \$30 billion deficit and move in two steps to balance the budget by 1981. If we're at \$38 billion this year, we can cut it in half the next year and eliminate it the next, for a balanced budget. But I'm skeptical about it being balanced in one step.

Senator GARN. Well, I think you would agree that it certainly would be easier for you to use monetary policy effectively as Chairman of the Federal Reserve Board if the fiscal policy were more stable in the Congress.

Mr. MILLER. If the budget could be balanced in 1980, my life would be easier and my testimony before this committee would be far more interesting.

The CHAIRMAN. I want to follow up on that and before I do I want to say how delighted I am that you are completely, emphatically against mandatory wage and price controls. The President of the United States, the Chairman of the Federal Reserve Board and as far as I know every member of this committee—we took a little informal poll and all are against it—I don't know anybody on the committee who is for mandatory controls, and I hope the signal goes out loud and clear that the likelihood is that this Congress is not going to approve it and I hope the next Congress will not approve it. I think that will help make the present program work.

One other point Senator Garn raised, the question on profit margins being squeezed by the increase in pay. As I understand it, the employer can take the best two out of three of the preceding years' profit margin and he can maintain that if he has to increase wages. Senator Garn is right in saying that would tend to be inflationary, but you've got to do what you can do under these circumstances.

Then the final point was the argument that the wage rate insurance

of 7 percent could be very costly. Of course, the point that Mr. Schultze has made before us very emphatically is if you're going to get labor to agree to this kind of a sacrifice you have to have some kind of carrot, and if enough agree you won't get inflation exceeding 7 percent. The whole point is to get enough people in it. If you can get most of the work force in it or most of the big unions in it, then it will work.

Now I'd like to follow up what Senator Garn talked about and be a little more precise if I can. I'd like to see if we can establish a trade-off, as close a tradeoff as we can, between fiscal restraint and monetary policy and what the consequences will be.

Could you give me some notion of what effect it would have, for example, if we reduced spending, say, \$30 billion below what it otherwise would be? What effect would that have on short-term interest rates? Maybe it's asking too much to ask you that.

Mr. MILLER. Just off the top of my head, that's about an 8-percent reduction in demand for credit. To the extent that it had both aspects of the reduction in demand for credit and a convincing show of Government actions to restrain inflation, my guess is that there would be a fairly prompt reduction in long-term rates.

I'm afraid I couldn't tell you how much of a reduction because I'm not sure of how it would interact with other policies—perhaps I could do a little work on that.

The CHAIRMAN. I wish you would. If you could have your staff people put this in your computers and see if they can come out with some kind of notion I think it would be extremely helpful for us up on the Hill, for Senator Garn and others who are very anxious to hold down spending. If we can point to a definite consequence of lower interest rates, I think that would be a big boost to us.

Mr. MILLER. We'll do that.

[Chairman Miller subsequently submitted the following for the record:]

In response to your question, I asked my staff to use the Board's econometric model to simulate the effects of a \$30 billion cut in Federal spending. The results of such an exercise must, of course, be viewed as no more than suggestive, for they will reflect a rather mechanical translation of the average responses of the economy in the past and will be critically dependent on particular assumptions and initial conditions. The model indicated that, with a given rate of money stock growth, a Federal spending reduction of \$30 billion (at an annual rate) throughout 1979 would leave short-term market interest rates roughly 1 percentage point lower by year end than would otherwise be the case. The reduction in Federal spending, besides having a direct impact on government borrowing requirements, would tend to dampen aggregate demand in the economy and thereby also ease private demands on credit markets.

In reality, any number of factors might substantially alter the interest rate effect. More rapid monetary expansion would tend, for a time, to further lower interest rates while bolstering aggregate demand. A cut in Federal taxes would tend to offset the interest rate reduction while bolstering aggregate demand. There is also the possibility that, in the circumstances we face today with widespread concern about the destabilizing impact of Federal spending, private investment might respond very positively to greater fiscal restraint so that the effects on interest rates and aggregate demand would be appreciably offset.

Conjecture about the precise interest rate effects aside, the basic and important point is clear: reduced government spending would help to relieve inflationary pressures in the economy and would free financial and real resources for use in private productivity-expanding investment. This is one of the reasons I've advocated a reduction over the next few years in Federal outlays as a percentage of gross national product from the 22 per cent area to 20 per cent.

The CHAIRMAN. Today you're announcing the birth of your new baby. You're the proud daddy of M_1 , a new monster.

Mr. MILLER. I'm not going to claim it yet. If it works out, it will be

the Miller aggregate. If it doesn't work out it will be the Axilrod aggregate.

The CHAIRMAN. It will be whose?

Mr. MILLER. My associate, Steve Axilrod, who's our staff director for monetary policy.

The CHAIRMAN. Axilrod has a nice euphonious sound. Maybe you're the daddy and he's the mother. I think it's important for us to find out as much about this as possible so we know exactly what we're dealing with.

For example, you claim that savings accounts have played a widening role in financing transactions and that's true, but certainly not all savings deposits have transactional characteristics. What are your estimates of the percentage of savings deposits through transactions to justify including all savings account which you do here in the monetary aggregate where all other components are transactional in nature?

Mr. MILLER. Mr. Chairman, that's one of the things we're not sure about. If we had our druthers, we would define M_{1+} as being currency, true demand deposits—which may disappear some day—but those kinds of savings accounts at banks which can be accessed for third party payments. Some of them are accessed by card, some by telephone, and now of course some are automatic. If we could distinguish those kinds of accounts from those which are true savings—true savings that are subject to notification for withdrawal—we could answer that question. We haven't been able to do that, but M_{1+} has to be looked upon as being imperfect because obviously by including all savings accounts of banks it's including too big a universe.

However, by including NOW accounts—which are really transactions accounts—and share draft accounts, and that sort of thing, we are getting close to what “money” in a narrow sense should be. So I apologize, but we are doing surveys and trying to find out the answer to your question and we will be giving you information on that.

The CHAIRMAN. If you could give us the results of those studies we would appreciate it.

Mr. MILLER. We are going to keep giving them to you. We are going to get the results from time to time and see what shifts have occurred.

The CHAIRMAN. This past summer you requested the Congress to approve transactions accounts for thrift institutions, yet you're not including thrift institution transactions accounts in this M_{1+} .

Mr. MILLER. Yes; we are.

The CHAIRMAN. Not savings deposits.

Mr. MILLER. Not savings deposits.

The CHAIRMAN. Why not?

Mr. MILLER. Because at the moment they are not readily accessed for transactions. There are maybe a few that are tied in with—

The CHAIRMAN. They have telephone transfers, don't they?

Mr. MILLER. Yes; there are some that have access either by telephone or in conjunction with a bank or an affiliated organization, but as far as we can tell, those are fairly minor. But you're correct, to the extent these grow, we are going to have to find out how to measure them.

The CHAIRMAN. Now I realize it's very hard to start with something new and give us a guide that's helpful, but you have told us that your target range for M_{1+} is set at 5 to 7.5, as I understand it.

Mr. MILLER. Yes, sir.

The CHAIRMAN. It's hard to know whether those growth rates mean anything. I just don't know how to evaluate them. I don't know how the press can or anybody else can. So let's see if we can find out what the historical growth of these aggregate components have been, how stable the relationship between M_{1+} has been or can be expected to be, and what the growth rate in the past year and previous years has been. I presume you may have had some of that when you put this together and decided to include a new aggregate. So can you give us as much detail on that as possible?

Mr. MILLER. Let me make a comment on it, Mr. Chairman, and I will send you a schedule on it too. Look at the chart that shows M_1 and M_{1+} . Let me show you one of the imperfections of M_{1+} . You will notice that M_{1+} goes along a trend until about 1975 and then seems to bend up rather rapidly. During a period of recession, savings increase, and therefore more people were saving their money instead of marshalling it for spending. That's the imperfection of M_{1+} at the moment; we haven't segregated out those funds that are being held to be spent as distinguished from those being saved.

Bearing in mind that imperfection, and that we want to work more on it, if you look back M_{1+} grew at a rate of 11 percent from mid-1976 to mid-1977. During the year 1977, it grew at only a 9-percent rate. And in the last four quarters, it has grown 6 percent.

Perhaps it would help if for the record I give you a table of the growth rates behind this chart.

The CHAIRMAN. Well, that's very helpful and it would be helpful to have that. We didn't have the growth rates documented here. We had the chart but not the rates. That's very helpful.

Mr. MILLER. Let us give you the table. One of the reasons we're not sure it's the ideal aggregate is because it's still not as pure as we would like it to measure funds which are being held for immediate purchases.

[Chairman Miller subsequently submitted the following table for the record:]

Money Stock— M_{1+} Growth Rates

(Annual rates of growth, compounded quarterly)

Annual:		
1975	-----	8.8
1976	-----	12.6
1977	-----	9.3
Quarterly:		
1975:		
I	-----	5.3
II	-----	5.3
III	-----	11.3
IV	-----	6.9
1976:		
I	-----	14.1
II	-----	13.8
III	-----	7.7
IV	-----	15.1
1977:		
I	-----	13.2
II	-----	8.9
III	-----	8.2
IV	-----	7.0
1978:		
I	-----	5.0
II	-----	7.0
III	-----	5.4

The CHAIRMAN. I have some more questions but my time is up. Senator Garn.

Senator GARN. What about Senator Schmitt?

The CHAIRMAN. Senator Schmitt is coming back.

Senator GARN. I just wanted to pursue further what I was talking about when my time ended before, and that's a discussion I suppose that went on continuously between Chairman Burns and me, and I suppose will continue between you and me for some time into the future. That's the point I was trying to make about these voluntary wage and price guidelines. And I understand, as the chairman has pointed out, that there are obviously offsets.

The point I was trying to make is they are very technical. They are going to be very hard to administer, particularly with small businesses. You can look at the giants. You can go to General Motors and so on. But the complexity of trying to deal with the vast number of businesses and industries across this country—I have never seen those programs work very well just from the technical complexities alone. So there may be offsets as far as the inflationary impact, but the difficulty of trying to administer and decide who gets the credits and who does not and how they are paid seems to me to be missing the point once again, that you have got to look at the primary cause of inflation as government.

Certainly I agree with you that we need to go ahead and do everything in the private sector to supplement that effort. My point is we are not doing nearly enough in the public sector. We are saying, "Do as I say, not as I do." We are talking about restraints. Why should labor and business cooperate when we're raising our budgets at 20–25 percent a year, when we're having these huge deficits? We had token cuts—I laugh at the 95th Congress saying we cut the budget after we increased it 18–20 percent in many areas. We had 2 percent across-the-board cuts on the floor. So we were taking little tiny nibbles at the increase. The budget was not cut in the Congress this year. Fiscal policy was not cut back, despite Proposition 13.

When I read the Washington Post saying that this was a conservative Congress, my goodness, it may be to them; but a half a trillion dollar budget—and I just really don't understand how they can say that there was any great emphasis on the private sector. I don't disagree with what you said, Mr. Chairman, but we are still running rampant in the way we spend money, and we are kidding ourselves when we say we are not. The increases are big. We are not restraining ourselves.

And when you talk about the inflationary impact of the increases of social security, I agree with you, they are there. I agree with your philosophy on social security as well. We are funding a lot of rich people that shouldn't have to be on social security. It's gone far beyond its original intention. But when we plug another \$40 or \$50 billion of deficit in and you figure that here is 1 percent from the social security increase alone, then why was the President unwilling to accept—not the Roth-Kemp—but the Nunn-Bellmon, the son of Roth-Kemp, which was tied to exactly what you were saying, regulating taxes and growth in spending as a percentage of the GNP? To me this proposal would have shown some real progress in fighting inflation, but it was passed by the Senate and it was passed by the House and it was kicked out in conference because the President objected to it. But then we have this big program to get business and labor.

Again, I don't object to the voluntary program, but until we start

as an administration and as a Congress really responding to the basic causes, which are deficit spending, wild, foolish spending, which is still unrestrained despite the mood of the people of this country, and the overwhelming regulatory burden, the economic costs of which are estimated as high as \$130 billion a year or \$2,000 per family, promulgated without any regard whatsoever for the cost of regulation—there's no cost-benefit analysis that we do when we pass them—and much greater attention to the importation of energy, what you're talking about is a very small part, at least in my opinion, to those three causes that are all under the control of Government. And we're not doing it.

That's hardly a question. It's a speech. But I didn't get to finish it in the other round. I have no other questions other than I'm glad you disagree with mandatory wage and price controls, but I think we've got to have emphasis on Government and quit pushing the blame to the private sector, either labor or management.

Mr. MILLER. Senator Garn, I have been in my assignment for a little over 8 months, and I came in, I hope, with a realistic attitude. Therefore, I suppose my feeling of more comfort is because I'm willing to be satisfied with some progress. When I came to Washington the outlook for fiscal year 1979 was for a deficit of \$60 billion; now the outlook is for a deficit of \$38 billion. I admit that is still large, but from my point of view at least it was a step in the right direction. When I came to Washington there was certainly resistance, if not hostility, to monetary policy dealing with the issue. Now it seems we have support from Congress and from the President for a monetary policy tougher than we have seen in many a year. I take comfort in that, and I take comfort in the fact that we have been able to slow the economy down 1 percent and have that accepted by everybody as necessary medicine. I take comfort from the fact that we have really seen some minor miracles in shifting fiscal policy, in shifting the attitude of Government toward monetary policy, in dealing with the condition of the dollar that didn't exist 8 months ago, and in trying to bring the economy down in a balanced fashion and wash out the inflationary pressure without the necessity of recession.

The progress so far, I would have to say, makes me feel better about coming to Washington than I expected to feel. While it's been tough and the problems haven't been addressed with as much vigor as any of us would like, the progress has been much greater than we might have expected given the climate when I arrived in March.

Senator GARN. I feel slightly better, but you didn't have to listen to all the speeches of the politicians during election. There wasn't a Liberal in this country, Democrat or Republican. All of them were fiscal conservatives. They certainly ran that way and I hope their constituents around the country try to see during the 96th Congress that they vote the way they talked during their campaigns and then we might be able to give you a great deal more help if they will vote like they talk. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Schmitt.

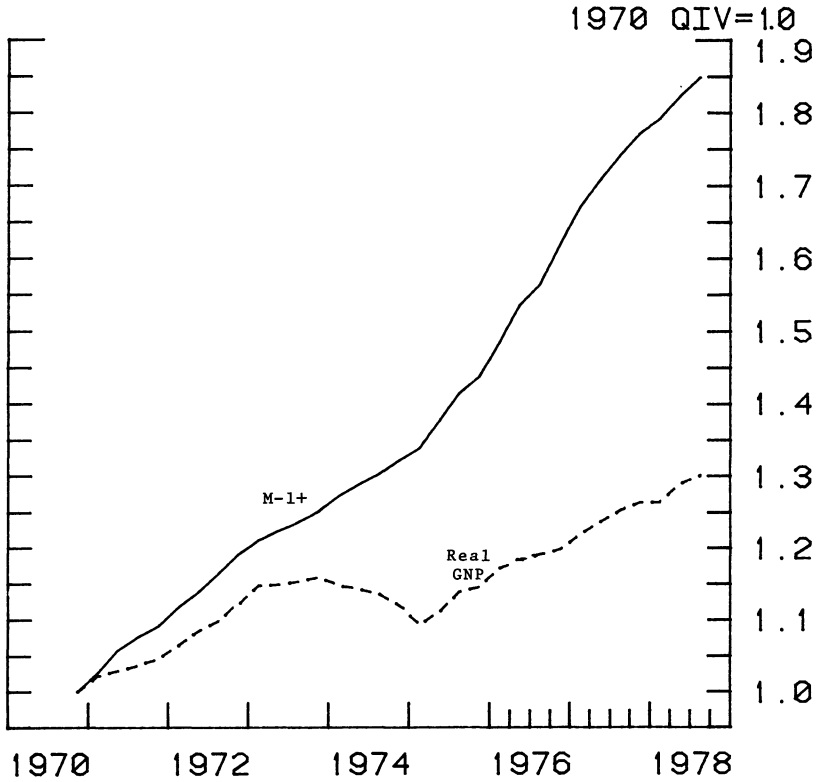
Senator SCHMITT. Thank you, Mr. Chairman.

Chairman Miller, do you have any chart to show the real growth of the GNP compared with the growth of M_1 over the last several years; that is, the inflation compensated GNP growth? The chart you gave us indexes GNP and M_1 .

Mr. MILLER. I don't have a chart. I can provide you with one if you like.

Chairman Miller subsequently submitted the following chart for inclusion in the record of the hearing:

INDEX OF REAL GNP AND MONEY STOCK M-1+



Senator SCHMITT. Do you have an estimate of what the relative growth rates have been?

Mr. MILLER. Of M_1 plus, yes. If you look at the second from the last chart, you will see, as I was mentioning a moment ago, that M_1 plus shows an acceleration in growth in the period 1975-76.

Senator SCHMITT. I made a rough calculation. It looked like that was probably about a 12 or 13.

Mr. MILLER. It was running about 11 percent. M_1 plus as we define it now is imperfect because it does include pure savings and during a recession people save more.

Senator SCHMITT. Then you would estimate 11 percent?

Mr. MILLER. Since that time it's been about 7 or 8 percent.

Senator SCHMITT. The M_1 plus?

Mr. MILLER. M_1 plus.

Senator SCHMITT. The M_1 has been 6 or 7.

Mr. MILLER. M_1 was 8 percent last year and this year.

Senator SCHMITT. What?

Mr. MILLER. M_1 was 8 percent last year and this year.

Senator SCHMITT. Then why would M_1 plus be less?

Mr. MILLER. M_1 plus has been 6.1 percent over the past year as against 8 percent for M_1 . M_1 plus has been less, of course, because savings rates have gone down; we have put in M_1 plus all the transactions kind of accounts and savings have actually dropped off. It's an imperfect substitute for M_1 , although it's getting closer to what we want.

Senator SCHMITT. But over the last 2 years M_1 plus has been growing at about what rate?

Mr. MILLER. About 9 percent in 1977; so far this year, about 6 percent.

Senator SCHMITT. What is the real growth in GNP in that same period of time?

Mr. MILLER. The real growth of GNP was 4.6 percent in 1976 and 5.5 percent in 1977; over the past four quarters, it was about 3.75 percent in real terms.

Senator SCHMITT. Do you think that the rough difference in those figures is the true measure of the contribution that excess money growth gives to the inflation rate, somewhere around 2 or 3?

Mr. MILLER. You can look at it the other way around. Nominal GNP has been growing at about 11 or 12 percent, and M_1 plus is declining in its relation to nominal activity of the economy. Therefore, the money available to carry on that level of nominal activity is declining.

We included the chart showing that M_1 has been declining in its relation to nominal GNP—its growth rate is lower than nominal activity.

Senator SCHMITT. But isn't the partial measure of the contribution of excess money supply growth to inflation roughly the difference between the real GNP growth rate and the money supply growth rate?

Mr. MILLER. It certainly is a contributing factor and we should get the rate down, no question.

Senator SCHMITT. Isn't that a rough quantitative measure?

Mr. MILLER. I personally don't believe it's that closely related, no. For example, you had 20 percent nominal activity in the second quarter, and M_1 grew at 10 percent, and I don't believe—

Senator SCHMITT. I don't think you can look at it on a quarterly basis. I think you have to look at it over a year.

Mr. MILLER. Over many years; I think it would be more apt to be true over a long time.

Senator SCHMITT. Because again, just on the back of the envelope here and from what you said, it sounds like the contribution of excess money growth over the last 2 years may be really adding 2 or 3 percent to the inflation rate which is now at about 10 percent. Would you agree with that?

Mr. MILLER. No, I don't think so. Even if you believe in the long-term relationship, you have to consider the length of the lag effect. You have to look at the growth 2 years ago. At that time the growth of M_1 was much lower. I think the lag effect is such that—

Senator SCHMITT. Then why have we had a doubling of the inflation rate over the last 2 years?

Mr. MILLER. One reason, of course, is that we had a doubling or quadrupling of the price of oil that's worked its way into the economy. We have also had famines and shortages of food throughout the world. Supply and demand does work in pricing, and the shortage of grain and the Humboldt current that moved out West causing the anchovy crop to fail all contributed to a shortage of goods and the driving up of prices. This has been true throughout history; supply and demand is a factor.

Senator SCHMITT. And you think the doubling in the last 2 years is a result of forces external to the United States?

Mr. MILLER. I think it's a combination of factors. As I say, it started with the failure to pay for the Vietnam war and the inflationary impact created by too large a growth of money, but other, exogenous factors have also contributed.

Senator SCHMITT. We have passed the inflationary pulse as a result of the Vietnam war.

Mr. MILLER. Sure, but once you start it and build it in, you have an automatic, structural inflation with cost-of-living increases on wage contracts, and—

Senator SCHMITT. I agree with all that, Mr. Chairman, but the point is, 2 years ago the inflation rate had been coming down and had reached a 4.8-percent level, and then started up again. And what I'm asking you is what caused that upswing?

Mr. MILLER. In my opinion, it was caused by a decline in the demand for goods and services because of a major recession; we had 9-percent unemployment.

Senator SCHMITT. So the recession is what built in the inflation rate, the new inflation rate, the reason we have 10 percent now?

Mr. MILLER. The higher demand for goods and services without an increase in the capacity to supply has added to pressures on prices, as has the supplying of credit to allow—

Senator SCHMITT. So you're saying no matter what the administration might have done or the Congress might have done 2 years ago, had we been smart enough and wise enough, we couldn't have avoided the increase in the inflation rate over the last 2 years?

Mr. MILLER. Over the last 2 years we have been operating much nearer our capacity level. Experience shows us that when we get up to 85 percent of industrial capacity we get to uneconomic capacity

which contributes to inflationary pressures because of the higher costs that go with higher resource utilization. We have had high unemployment much of which consisted of inexperienced workers, but we also have had high employment and high utilization of—

Senator SCHMITT. That's been roughly the same for several years. There's not been a major change in the structural unemployed.

Mr. MILLER. There's been a major change in the number of employed in the last several years—the highest increase possible—thereby putting pressure on the purchasing of labor. More money has been paid to acquire labor because it has, in terms of experience and skills, been in short supply.

Senator SCHMITT. Well, somehow I find it—

Mr. MILLER. Unskilled labor and inexperienced labor have been in plentiful supply. Skilled and experienced labor has been in short supply.

Senator SCHMITT. Do you have any feeling for what contribution that's made to the inflation?

Mr. MILLER. As I said, I would not single out any one factor; it's been the interaction of many factors; 1 percent of inflation has come from the decline of the dollar; 1 percent has come from minimum wages, social security taxes, and unemployment taxes. You can account for the whole 2 percent increase without ever counting the money supply effect.

Senator SCHMITT. That's 2 percent out of 5.

Mr. MILLER. Two percent out of 8; we had 6 percent before. The marginal difference of 2 percent can be accounted for by other things.

Senator SCHMITT. What about the rate of increase in regulatory costs? Senator Garn mentioned an approximate figure.

Mr. MILLER. One might argue that the underlying rate of inflation has declined, but that despite the decline in the underlying rate of inflation we have added inflationary components by legislating them—social security taxes, minimum wage, unemployment insurance taxes; by failing to solve our energy problem, bringing in more oil, and thereby contributing to a weak dollar due to deficits in foreign trade; and by imposing regulatory burdens that have resulted in costs to the system without commensurate output. All of those have contributed to inflation, as has excess money, as has excess Government spending.

Senator SCHMITT. So are you saying that had the Congress and the administration jointly refrained from the increase in payroll costs, primarily minimum wage, and social security, had we somehow developed our own productive capacity in energy rather than depending on higher cost foreign supply, had we resisted the increases in regulatory authority, that we could have at least held our own against that inflation rate that was inherited by the 95th Congress and the Carter administration?

Mr. MILLER. It would appear so.

Senator SCHMITT. Do you think we ought to try to do those things in the 96th Congress?

Mr. MILLER. Yes, sir.

Senator SCHMITT. At least to try not to make it any worse?

Mr. MILLER. I sure do.

Senator SCHMITT. Thank you, Mr. Chairman.

The CHAIRMAN. Chairman Miller, I think your chart 12 which you discussed so well explains a lot of that colloquy you just had with Senator Schmitt. You recognize that food in 1976 dropped in cost and in 1978 in the first half it skyrocketed up to almost 14 percent. It's clear that a very, very large share of the increase in prices has been the food increase.

Mr. MILLER. That's correct, and you can go back quite a while, Mr. Chairman, to some of the causes. A lot of that increase has been in meat, as you know, and that goes back to policies of the past which resulted in liquidation of herds and a shortage of supply. A restriction on the importation of meat has also added to the shortage of supply, and the operation of supply and demand has driven prices up.

The CHAIRMAN. You have given your estimates on GNP growth, unemployment, inflation, and so forth. I'd like to know what type of fiscal policy assumptions you have made to get those expectations. What do you expect the size of the deficit to be in this current fiscal year and next fiscal year?

Mr. MILLER. For fiscal year 1979, we have assumed a Federal deficit of \$39 billion and an agency deficit, I believe, of \$11 or \$12 billion.

The CHAIRMAN. \$39 billion for fiscal 1979. Did you make any assumptions for 1980?

Mr. MILLER. For 1980, of course, we haven't seen the administration's proposal, and therefore we have not done any more than go on an assumption of \$30 billion.

The CHAIRMAN. How much do you expect the Federal or do you think Federal spending should rise in real terms in fiscal year 1980? Would it be practical in your view to keep Federal spending stable in real terms?

Mr. MILLER. In real terms, I would hope so. In fact, one could argue for a decline because if the amount of inflation is increased we still would not make much progress.

The CHAIRMAN. The President has indicated or newspaper reporters have indicated that the administration plans a 3-percent real increase in defense spending. So if you're going to hold overall spending stable, that means you're going to have to have some cut in domestic spending.

Mr. MILLER. You're going to have to have a cut in other spending, yes.

The CHAIRMAN. Do you think that's realistic to expect to have a stable real spending overall?

Mr. MILLER. It would be the minimum expectation. I would hope that some inroads could be made. After all, in terms of getting Federal expenditures down as a percent of GNP, you're not only going to have to hold the rise to the inflation rate, but also to begin to eat into it if at all possible. If you hold it to the inflation rate, in a number of years you will have reduced it down to 20 percent, I realize; but the sooner, the better.

The CHAIRMAN. The administration has said that the President's anti-inflation program should reduce the rate of inflation between 6 and 6.5 percent. You forecast $6\frac{3}{4}$ and $7\frac{1}{2}$ percent. Why do you think the administration is wrong and too optimistic?

Mr. MILLER. I really can't say, in terms of their analysis, because I have not had the benefit of it. But we have done an independent

estimate and based upon built-in increases—based upon the outlook for food which is improved but not good, and based upon the continued high prices of meat, and based upon the expectation of an oil price increase—we just come to a different conclusion. We built our estimate from scratch, so I don't know how we could compare it with the administration's.

The CHAIRMAN. Yesterday Leif Olsen from Citibank told the committee that loan commitment growth has accelerated and there's some indication of anticipatory borrowing because of fear of credit controls.

Now as you know, that authority is on the books. The Wall Street Journal on Monday indicated the same thing. President Nixon set up a Committee on Interest and Dividends in Phase II which was supposed to moderate interest. President Carter hasn't included banks in the anti-inflation program but said that banks and other financial institutions are expected to follow the wage standards and profit margin test.

What role will the Federal Reserve play in seeing that monitoring profit margin and interest rate increases in the anti-inflation program?

Mr. MILLER. We haven't been called upon to play any role.

The CHAIRMAN. Would it mean anything if you don't monitor it? Nobody will.

Mr. MILLER. If we are asked to, we would be pleased to do it; we have not been asked.

The CHAIRMAN. Well, what does it mean then when the President said the banks and other financial institutions are expected to follow the wage standards and profit margin test? Just hope they will and nobody checks it?

Mr. MILLER. I expect Chairman Kahn's organization will be pursuing this with banks, just as they will with other organizations.

The CHAIRMAN. But they have always looked to you, the Federal Reserve Board, to be the instrument to carry out that policy. I don't know how Mr. Kahn can do it. He will have, at most, 150 people with the whole economy and the Federal Government to monitor, and obviously the Federal Reserve Board has the personnel and the expertise.

Mr. MILLER. Yes, we do have. It's a decision that is up to the administration.

The CHAIRMAN. But if the President should call on you to do it, you would?

Mr. MILLER. We would be pleased to cooperate.

The CHAIRMAN. Now on Monday, the Mellon Bank announced it was establishing a special prime rate for small business loans at a base rate one quarter percentage below the bank's prime rate. The dual prime rate was encouraged by the Committee on Interest and Dividends in 1972. Would you encourage other banks to follow the Mellon Bank?

Mr. MILLER. I was very pleased to see that, and I certainly would encourage it. Our structure for checking small businesses would indicate that by and large there has not been any differential lack of credit for small business as compared to other businesses, but we are now in a zone where I think that could be a problem. You're correct in indi-

cating that a dual rate might be desirable until we get back to a more normal rate structure.

The CHAIRMAN. As you know, there's been some discussion in the press and also an allegation by a bank official of one of the biggest banks in the country that our large banks may have speculated against the dollar and contributed to its downfall. I'm very suspicious of any conspiracy theory because I have seen so few work out, and I recognize that conspiring to reduce the value of the dollar seems to be about as speculative an activity as you can get into. But I wonder if the Federal Reserve has any evidence that the banks have done this. A number of constituents have asked me about this and I think many people in the country are concerned about it.

Mr. MILLER. We have no evidence, Mr. Chairman. We would be concerned and, as a matter of fact, because of the growth of the international exchange markets, I think we plan to take a critical look at their structure and learn more about them so that if any such characteristics are developing we can determine what action, if any, should be taken before a crisis is created by an imperfect market. We do not, however, have evidence of that.

The CHAIRMAN. Now apropos of the same subject, the Eurodollar market, you have been quoted as saying this:

The Eurodollar market is of deep concern to us because a very large amount of dollar denominated money is out there over which the central bank has very little control. A lot of money is created in the international market outside the control of any central bank and this is one of the greatest worries in this period of time.

My question relating to this is, first, how much money is out there? I understand it's approaching a half a trillion dollars. What effect is this uncontrolled money creation having on the U.S. money supply and interest rates?

Mr. MILLER. There are various estimates of Eurodollar deposits. As best we can determine they may run from \$400 to \$600 billion. Perhaps one would assume that \$400 or \$500 billion would be reasonable. We are not sure of the net position; that's one of the worries.

This kind of dollar denominated resource has to be of concern because in times of shifts there's just no way to cushion or deal with it unless we have some concerted central bank effort.

The CHAIRMAN. Well, are you trying to do this?

Mr. MILLER. Yes, indeed. This is one of the areas the Bank of International Settlements has been looking into and gathering data on. It is trying to determine Eurocurrency positions. At the moment the debate is about data and facts; beyond that, one moves to policies that would allow for an orderly system for dealing with that money base.

The CHAIRMAN. So you would negotiate with other central banks to try to establish reserve requirements or other restraints in Eurodollar creation? Can that be done?

Mr. MILLER. It seems to me, both with regard to exchange markets and Eurocurrency, cooperation with the other major central banks is required to get an effective policy. Everybody has to work together on a common base and establish a willingness to apply the same rules. Money always goes to wherever it is treated the best and markets can pop up anywhere—in Singapore, Hong Kong, anywhere. Therefore, the central banks that control the banking institutions which have

those deposits have got to take fundamental coordinative action. I hope over the coming years that we can develop some constructive actions along these lines that would give greater stability to the international money market and the flow of funds.

The CHAIRMAN. I have a couple more questions. My time is up. Senator Schmitt.

Senator SCHMITT. Thank you, Mr. Chairman.

Chairman Miller, I received a mailogram from Frank Moore, Assistant to the President for Congressional Liaison, on November 2, 1978. In that mailogram there are statements such as the following :

I want to explain to you the actions taken today by the President in support of the dollar.

At the request of the President, the following actions have been taken by the Secretary of Treasury and the Federal Reserve.

Two of the actions listed are as follows :

A one percent increase in the discount rate by the Federal Reserve effective immediately, and an increase of two percent by the Federal Reserve in reserve requirements against certificates of deposit.

Now as you know from our phone conversation and correspondence, I'm very disturbed by the White House taking credit for things that or actions that are entirely within the purview of the Federal Reserve System. Would you care to explain how this happened and your feelings about this?

Mr. MILLER. There are two aspects to the policies and the decisions announced on November 1. Those dealing with intervention involve areas of responsibility that are primarily the Treasury's.

Senator SCHMITT. I understand that.

Mr. MILLER. The Treasury is the Government's arm that is represented on the IMF, and it draws from the IMF and sells SDR's and can issue bonds for foreign currencies. It's necessary to coordinate that action with the Federal Reserve because as the central bank, we maintain the Swap lines with other central banks—even though that is an international monetary matter of concern to the Treasury—and we do implement, through the Federal Reserve Bank of New York, the actual intervention for our account and for the account of the Treasury. So it has to be coordinated.

The monetary actions that were taken by the Federal Reserve were completely independent. They were not requested by anyone. They were policies that had been under discussion because of the general economic conditions and because of the disorderly markets that were evidenced in August and had worsened in October.

The President, as you know, announced in August that he had requested Secretary Blumenthal and me to counsel him on actions that might be appropriate to deal with the dollar. In that counseling, he did request us to give him advice and to take those actions that are the responsibility of the Treasury and the administration, with the support of the central bank. But at no time did the President or anybody else request monetary actions, domestic monetary actions, by the Federal Reserve. Those were taken independently, and they were taken based on discussions that predate the President's speech on inflation on October 24. The discussions predate the decisions taken, but they were obviously coordinated so as to be well timed as part of any effort to deal with the dollar. They were announced by the Fed-

eral Reserve in a separate document and, as you know, the Federal Reserve was not represented at that press conference on November 10. I cannot say anything more than that we announced jointly with the Treasury the international actions and announced separately our own domestic monetary actions.

Senator SCHMITT. Why do you think the President—let's just say the White House has chosen to make a contrary statement to the Members of the Senate and I presume the House?

Mr. MILLER. Maybe the semantics are causing confusion. The President had requested us to take action to deal with the dollar which is a matter within his proper authority. It may be too much was covered in one press release. I must say it's a happy day for the Federal Reserve when, instead of being criticized for monetary policy, the White House is commending it for responsible policy.

Senator SCHMITT. I have no problem with that. I do have some questions about whether it was a wise action, but nevertheless, that isn't what bothers me. What bothers me is that the White House either doesn't understand or has chosen to mislead us on their control or apparent control over the Federal Reserve System and I think your statement has clarified that situation today and I hope that, once again, as we said in your confirmation hearings, that the independence of the Federal Reserve is something you will continue to protect.

Mr. MILLER. Senator Schmitt, there were two kinds of actions by the Federal Reserve. First, a series of decisions by the Federal Open Market Committee, which is the forum for dealing with the international Swaps with operating interventions. That Committee was involved in the decision to increase the Swap lines with Germany and Switzerland and Japan and to activate the Swap line with Japan. The decision of the Committee was unanimous. Except for myself and Governor Teeters, the members have been on that Committee for a long time, predating the President. I don't see how the President could control them since my calling them and bringing them to Washington was not within his knowledge.

Second, the action on the discount rate and the reserve requirements was taken by the Board of Governors. It was unanimous, and it involves Governors with long service who cannot be influenced by the President. So I think our independence is well established.

I want to repeat those things because I want to reassure you of—

Senator SCHMITT. It may be well established in your mind and in mine and others, but it certainly was not well established in the mind of Frank Moore or in the press conference that the President called.

Mr. MILLER. Don't forget, I have written on my mirror at home that "The Federal Reserve is a creature of the Congress." I don't think the Chairman was listening; he's supposed to listen when I say that.

Senator SCHMITT. There's some question down on Pennsylvania Avenue about that.

Chairman Miller, do you think that it's really possible by sometime next year to see a 3- or 4-percent decline in the inflation rate?

Mr. MILLER. Three or four, no.

Senator SCHMITT. Well, you said 6½ to 7.

Mr. MILLER. I said 6¾ to 7½ against an inflation rate this year of about 8 percent.

Senator SCHMITT. Against the average inflation rate for this year?

Mr. MILLER. Yes.

Senator SCHMITT. But the inflation rate of the last month or two is over 10 percent, is it not?

Mr. MILLER. The inflation rate overall for the third quarter using the inflator is 7½ percent. Don't mix that up with the CPI. The Consumer Price Index in the third quarter was 9 percent, as I recall. But looking at the total economy, not just consumer spending, the—

Senator SCHMITT. Let's take the Consumer Price Index, which is what most consumers have to look at at the grocery store and elsewhere. That is rising. Do you think that that can be reduced over the next 12 months?

Mr. MILLER. It can be reduced, but I don't think it can be reduced 3 percent. In the first quarter, the CPI was up 9.3 percent; in the second quarter, 11.4 percent; and in the third quarter, 7.8 percent. So the third quarter is the latest data we have. It's 7.8 percent. I don't think it will be reduced more than—

Senator SCHMITT. I think you're going to find many shoppers have not seen any decrease. At least they don't perceive to have seen it. I think that was a factor in the election. I think it's going to be a factor next year in the actions of the Congress. From what I hear, the inflation rate of raw materials and other preprocessed components of consumer goods are going up at a much higher rate than the Consumer Price Index and that means another pulse of inflation in the Consumer Price Index somewhere downstream.

Mr. MILLER. One of our charts—"Short Term Interest Rates and Inflation"—compares the commercial paper rate with the Consumer Price Index. You will notice how the CPI bounced up in late 1976 and 1977, and the steep increase of the Consumer Price Index in 1978, with the dropoff in the third quarter. Part of that, as you know, is the dropoff in food prices as the harvest came and some of the shortages cleared up. But other factors, as you point out, are continuing to rise.

I would not want to mislead you. I don't think any index of inflation is going to come down by large amounts in 1979. I have said that if you start with an inflation rate measured at about 8 percent on the inflator, you're talking of 5 to 7 years to get it down to 2 percent. I have not thought that we could bring it down instantaneously. I wish there were a simple way.

Senator SCHMITT. I just want to be sure we are not misleading people about what's going to happen in the grocery store. You talk about an inflation rate of 6 or 7 percent. That isn't what the homeowner has seen or the shopper has seen, and I think it has to be very clear that it's not going to be easy—it's not going to be easy at all over the next 12 months to see any significant decrease in the inflation rate in the Consumer Price Index.

Chairman Miller, the President has proposed a concept of wage insurance. Has the Federal Reserve begun to look at that in terms of its economic impact and particularly its impact on inflation?

Mr. MILLER. We have just begun to study it. We don't know the details yet, and until we know how it will be capped, how widely it will apply, and what its conditions will be, we are a little at a disadvantage in trying to evaluate it. But as soon as we have the details of the proposal we will see what we think the impact will be.

Senator SCHMITT. As soon as you feel comfortable in doing so, would you inform the committee of your analysis on that?

Mr. MILLER. I would be delighted to. Going back to the CPI, I was showing you all items. Let me break out food, just to show you the problem. Food was up 16 percent in the first quarter; 20 percent in the second quarter; but only 3 percent in the third quarter.

Senator SCHMITT. Aren't you concerned that that's an artifact based on the trends that we have seen?

Mr. MILLER. The high meat prices in the first and second quarters were offset somewhat by the more plentiful supply of other foods, including fruits and vegetables. I just want to confirm that when you talk about grocery prices you're talking a component that's rising faster than the overall CPI. Gasoline and fuel oil prices were also quite heavy in the third quarter, 12.5 percent. I give you the overall rate of 7.8 percent; some of the components are very volatile and move among quarters very rapidly.

Senator SCHMITT. I realize that, but I just want to be sure, as I said, that we don't mislead—that the apparent inflation rate is going to look very high until we do take some positive, longer-term actions and see the effect of those longer-term actions. The short-term things that we're talking about really is 1 percent maybe.

Mr. MILLER. There's no one basic inflation rate; that's correct.

Senator SCHMITT. Thank you.

The CHAIRMAN. Chairman Miller, you will be joined I understand by a new member of the Federal Reserve Board shortly. We have a vacancy with the resignation of Governor Jackson, a man whom we all respect and admire. I think he's done a fine job. I do hope that you will do your best to see that you get an expert in monetary policy. I think that that's the name of the game as you know now so well, and a top flight economist who can add to the expertise of your distinguished board. Can you give us any hint or any indication of who you're looking for, what decision you may have made, who it might be?

Mr. MILLER. It will be a decision made by the President, but I certainly hope we will have a highly qualified Governor, and I will point out that we need to have full strength in these difficult times. It will be hard to replace Governor Jackson, but we will do our best.

The CHAIRMAN. Chairman Miller, economists at Chase Manhattan Bank have done a statistical study of the currency composition of the external portfolios of European banks, which shows that diversification of foreign currency holdings out of dollars and into German marks, Swiss francs, and other nondollar assets is "a major force behind the dollar's current decline." They point out that the huge dollar holdings abroad plus the trend toward diversified currency portfolios in times of dollar instability imply that "when the dollar gets into trouble, the trouble is going to be serious. International investors are going to diversify away from dollars as soon as there is a hint of trouble and, to the extent this occurs, the dollar problem may be magnified and the role of the dollar in international finance reduced."

What concerns me most is that the response at Treasury and the Federal Reserve to this problem is all too likely to be to push interest rates still higher and pile up more and more foreign currency debts. We are falling into the trap of letting the asset preference of foreign bankers determine the health of our economy. Foreign bankers love

to see the United States have high interest rates so their dollar holdings will earn more.

How can we prevent foreign bankers from holding the dollar hostage, pressuring it at will by diversifying their assets or threatening to do so, thereby pressuring the Federal Reserve to raise U.S. interest rates and depress our economy? You have climbed on that merry-go-round already. How do you propose to get off? Are you content to let foreign bankers set U.S. interest rates?

Mr. MILLER. The problem, of course, of excess dollar holdings in the world comes from a long stretch of years of running deficits. During a certain period of time when we had a trade surplus, a deficit in certain of our accounts helped to recapitalize Europe and other parts of the world. But the continuation for a generation of excess dollars in the world has resulted in the "chicken coming home to roost." We are faced with the long-term difficulty of reducing the number of dollars, and when we do so I don't think we can control the probability that some holders of dollars will want to diversify their assets.

The CHAIRMAN. So the situation might get worse in the future than it already is?

Mr. MILLER. No. We have seen some shifts, but as we demonstrate our progress with the fundamentals of inflation and the current account deficit—which will be reduced next year—we will make it through this period and see stability.

What we must do is commit ourselves to 5 to 7 years of proven policies which don't generate a new set of problems by throwing out a whole new flood of dollars.

The CHAIRMAN. Well, my question is, how big a role would high interest rates have to play in that? Can we do that without having interest rates that are close to historic highs?

Mr. MILLER. Interest rates, in my opinion, are influenced mainly by the rate of inflation. Are they high or are they not? One of my charts illustrates that in real terms the rate for mortgages is lower now. If you have an 8-percent inflation rate, it's not unusual to expect something like 11 percent as the price of money. The real rate of interest of 3 percent today is rather consistent with the past.

The CHAIRMAN. You made me a little hypnotized on that. As you recall, after World War II we had a period in which inflation was serious and in which interest rates were extremely low. This can happen. After all, you say an investor will insist on some kind of a premium plus inflation. He may not have a choice. If you're sitting there with \$100 in cash or \$100,000 in cash and interest rates are lower than the inflation rate, what do you do with it? You don't have much of a choice. Maybe you can put it in gold and maybe that will go down. Maybe you can put it in real estate and what will happen to that? It's not as if the investor can command higher interest rates.

Mr. MILLER. Mr. Chairman, history shows that if there's not an adequate return on capital for a significant period of time holders of capital hide it in real goods of one form or another. At the time of the French Revolution the French currency was debased. The result, of course, was complete destruction of the monetary system with enormous consequences.

We could have the same thing here. We could get lower interest rates by flooding the country with dollars and by paying the piper later, to the great detriment of all of us. None of us must be tempted by that solution. Interest rates, in the meantime, will continue to be nominally high as long as inflation is high.

The CHAIRMAN. I think you're right. There undoubtedly is some connection between inflation and interest rates. I just don't think it's so absolute and complete and I'm just hopeful that the efforts to improve the dollar will not result in interest rate policies that will tend to slow the economy excessively.

Now let me ask you about another issue. During the past 4 years the Federal deficit has been over \$200 billion, but as you said earlier that does not include all agency borrowing nor does it include borrowing back the Federal loan guarantee. So the Government's effect on the credit market is understated if you just look at the deficit.

Should we have a total Federal aggregate and an actual credit budget so we can better control the Federal Government share of borrowing in the credit market or at least have a better idea of what's going on and recognize what influence we are having?

Mr. MILLER. Yes, I think so. I think Congress should be looking at the other figures and not just look at the deficit.

The CHAIRMAN. We haven't been looking at this. We primarily look at the Federal debt and the deficit grows out of the budget and not all the other elements.

Mr. MILLER. I think it's important. There's just as much effect from demand for Government credit through agencies as there is from the Treasury.

The CHAIRMAN. In all this discussion there's been very little questioning about what I think puzzles many people about our current situation. We still have manufacturing capacity utilization rates far below the peaks reached in previous expansions. We have 5.8 unemployment which is far above what it has been in the past when we had serious inflation as a result of shortages. We have had no sign that I know of of labor shortages. Real GNP is growing at 3 or 3½ percent rate.

So there's still plenty of slack in the economy. Given those conditions, why is inflation getting worse and where is the inflationary pressure coming from?

Mr. MILLER. The inflationary pressure has come from a series of elements, in my opinion. I do think government deficits have helped increase demand, to my mind to the point where we are at the level of relatively full utilization of economic resources as distinguished from physical resources.

The CHAIRMAN. Your own Federal Reserve figures show about 85 percent for utilization.

Mr. MILLER. I said economic as distinguished from physical. The 85 percent figure is the physical capacity output, but many of the currently unused facilities in the United States are marginal and higher costs come into play as any business begins to use up all of its facilities.

The CHAIRMAN. Why doesn't the Federal Reserve Board give us capacity utilization figures then which measure the economic factors here and give us a better picture?

Mr. MILLER. I wish we could. I don't think we have the basis yet for obtaining data on the cost of capacity.

Mr. Chairman, you also must realize that in some industries we have high utilization. The steel industry is being very highly utilized right now, at well above 90 percent of capacity. At that level, that industry is up against considerable limits on its economic capacity.

The CHAIRMAN. Mr. Chairman, you know perfectly well the way steel has done their prices. They have raised their prices when they have been operating at 60 percent capacity. They don't seem to pay attention to supply and demand in that industry. One firm will raise the price and within 24 hours they all go to the same price or within 1 percentage point.

Mr. MILLER. Commodities always sell at the same price; it's true.

The CHAIRMAN. They move in remarkable concert.

Mr. MILLER. All commodities tend to. But you know the factors that have led to inflation. Once you start on a course of inflation you create structural inflation. Fifty percent of the income recipients in the United States are tied directly or indirectly to inflation. As inflation goes up, compensation costs go up. We know we have legislated in costs, some of which we talked about today. We know the decline of the dollar has added to inflation. We know the OPEC cartel that is able to impose higher petroleum prices adds to inflation. And we know that the fact that we have poor productivity gains with high compensation increases adds to prices and costs and inflation. We know that government spending has added to inflation. We know money has been growing more rapidly than we like.

We dampen the economy as we have been doing in order to wring out these inflationary forces. Inflation is a combination of factors and it's going to take a combination of policies to wring it out. Monetary policy cannot do it alone, but we can do it if we continue to get cooperation. I think many of the things you advocated, Mr. Chairman, are becoming more and more recognized in Congress; there certainly has been a trend in the right direction, a different fiscal policy. Senator Garn mentioned that every politician this year, Democrat or Republican, was a fiscal conservative. That can't be bad; and if they vote that way next session that will help.

I would like for us in this country to believe in ourselves a little more. It's been a trying time; it's been a difficult time. When I came here the problem looked insurmountable. We have made some progress. We have done so with less discord and disharmony than might have been expected. I believe if we keep at it and show our determination and willingness and persistence and stick-to-it-iveness, we will wring inflation out. But it's going to take a while. It's going to take courage, and it's going to take persistence, and it's going to take understanding.

I hope these charts help us to get a better view of the total picture and to realize it isn't just monetary policy—it isn't just any one sector—it's what we can do in total.

The CHAIRMAN. Well, Mr. Chairman, several times today you have said we have made progress and I think in some areas not related to inflation we have. but in the inflation area I think you're very, very hard put to show that we are making any real progress. Maybe in the last couple of months it's a little better, but that's because of the volatil-

ity of food increases. At any rate, the point of my question is that I hope you recognize that we may have something aside from demand inflation. We have a cost-push inflation, wage increases exceeding productivity increases by a tremendous amount, poor productivity performance, plus increases in food prices and energy prices.

Mr. MILLER. You're absolutely right. Until fairly recently the inflation of the last few years has been more cost-push than demand-pull. Only recently have we come into demand-pull factors.

The CHAIRMAN. Now I just conclude by saying once again that I think you have done a splendid job here. You have a very impressive grasp of all the economic factors involved. I think we have all been very impressed, but I do think, once again, these ranges are excessive. Particularly when you father your own child I think you should have a much more precise range than the range you have given us for M_1 . You are establishing targets, not giving projections. I would hope that you could narrow that to a half of 1 percent range at the most and maybe you can give us a specific target for something that's your own baby.

Mr. MILLER. Mr. Chairman, we need to get into the range first, and then we can narrow it.

The CHAIRMAN. Thank you very much.

The committee will stand adjourned.

[Whereupon, at 12:55 p.m., the hearing was adjourned.]

ADDITIONAL STATEMENTS AND DATA SUPPLIED FOR THE RECORD

FLEXIBLE EXCHANGE RATES AND MACROECONOMIC POLICY

Revised
October 1978

THE U.S. SINCE

Rudiger Dornbusch

Massachusetts Institute of Technology

This paper sets out the background for an evaluation of our experience with floating rates. The evaluation of such an experience is of course made difficult by the fact that there is no obvious reference standard. It is for this reason that the most practical way of going about the task is to look at key issues. I would include among these key issues the following: exchange rates and the transmission of business cycles; exchange rates and international patterns of inflation, exchange rates and current account adjustment, predictability and stability of exchange rates.

Part I of this paper reviews in some detail the US domestic macro-economic scene in the reference period. Here we look at the course of economic activity and at policy initiatives in the field of stabilisation policy. Part II deals with the behavior of exchange rates and the external accounts and reviews key issues. Part III proposes a policy mix for the medium term.

I. THE US MACROECONOMIC EXPERIENCE 1973-78

The period since 1973 has been marked by a very disappointing macro-economic performance. Inflation has been high and, soon after the boom year of 1973, the economy moved into the sharpest recession in forty years. Recovery from the recession has been steady but very unexciting. The trade-off between inflation and unemployment remains very unfavorable; investment remains depressed, and productivity growth has declined,

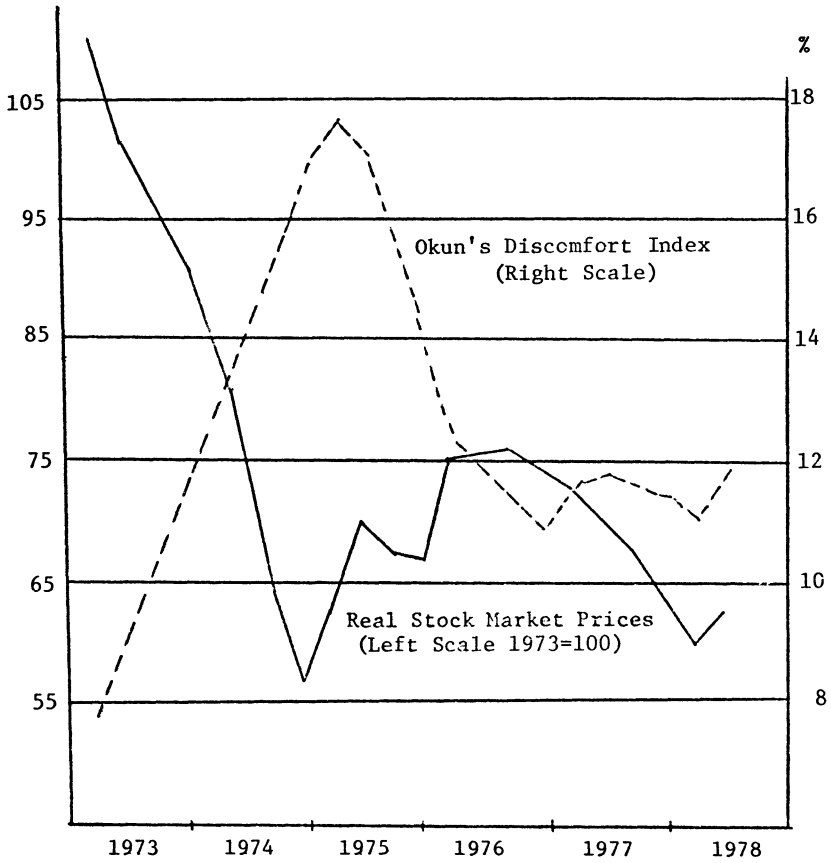
* A paper prepared for the Tripartite Meeting, Tokyo, November 14-16, 1978.

1. An Overview

Chart I summarizes the macroeconomic performance in terms of two key indicators -- Okun's discomfort index and the real value of the stock market. The real value of the stock market shown here is the Standard & Poor composite stock price index deflated by the GNP deflator. It thus expresses the real value in terms of output of the nations' capital stock. That value has sharply declined since 1973 -- a decline of almost fifty percent by the time the economy had reached the 1975 recession bottom. While there has been some recovery in 1975/76 it has not been lasting. In summary the real value of the stock market is much below its level of the early seventies or the 1960's. This is of course a striking fact since the capital stock has been growing and technology has improved. It is more than anything else an indicator of an unpromising outlook for the economy.

Okun's discomfort index is calculated as the sum of inflation and unemployment. The Chart shows the sharp deterioration of macroeconomic performance (and comfort) in 1974/75 as inflation and unemployment both increased sharply. There has been an unquestionable increase in the underlying rate of inflation. Nevertheless much of the run-up of 1974/75 proved temporary and has since subsided. The same is true for unemployment. Even so, however, we find ourselves at present with an uncomfortably high rate of inflation, the possibility of acceleration and a rate of unemployment that is too high -- although it may be "normal" -- to undertake deflationary policies.

The change in economic outlook is shown in Table 1 by a comparison of subperiods during the last twenty years.



Note: The Okun Discomfort index is the sum of the rate of CPI inflation and the unemployment rate for males 20 years and over.

CHART 1 INDICATORS OF ECONOMIC PERFORMANCE

Economic Performance

	Inflation	Unemployment	GNP Growth	Productivity Growth
1957-67	1.7	5.2	4.2	2.9
1967-77	6.1	5.5	3.9	2.9
1973-77	8.1	7.7	5.0	2.0

Note: All numbers are average annual percentage rates. The unemployment rates are those for the civilian population and males 20 and over respectively.

In the remainder of this part we consider the experience in more detail and review the relative roles of macroeconomic policies and external shocks.

2. The Move into the Recession

The late 60s, with over-expansion and deficit finance of the Vietnam War had increased inflation and brought the economy beyond full employment. By 1972/73 the GNP gap, using the revised and more conservative estimates of the CEA, had vanished and overutilization ran to half a percent of potential output. Inflation rose from only 3.3% in 1972 to 5.2% in 1973 and thus marked a substantial change in the policy priorities. Both monetary and fiscal policy moved toward a tightening stance.

The tightening of monetary and fiscal policies in 1973/74 is shown in Tables 2 and 3 where we review indicators of monetary and fiscal policy. Monetary growth that had been ample during the period of price controls in the recovery from the 69/70 recession tightened substantially. Short-term interest rates increased by more than two hundred basis points.

TABLE 2: Nominal Monetary Growth and Interest Rates

	M ₁	M ₂	M ₃	R _{TB}	R _{AAA}
1970-72	7.1	10.6	12.1	5.0	7.5
1973	6.2	8.8	9.1	7.0	7.4
1974	5.0	7.7	7.1	7.9	8.6
1975	4.4	8.3	11.1	5.8	8.8
1976	5.7	10.9	12.8	5.0	8.4
1977	7.9	9.8	11.7	5.3	8.0
1978/I	5.6	6.9	7.7	6.4	8.7
1978/II	9.5	8.3	8.0	6.5	9.0
1978/III				7.4	8.7

Note: All numbers are average annual percentage rates.

Fiscal policy behaved much in the same manner. After a fiscal expansion with a widening full-employment deficit in 71/72 we find a reduction in the full-employment deficit and, indeed, an actual surplus for the consolidated public sector.

TABLE 3: Fiscal Policy

	GNP Gap (%)	Federal Budget Surplus Actual (Bill \$)	Budget Surplus H.E.	Government Budget Surplus (as % of GNP)
1970-72	1.5	-17.1	-7.0	-1.0
1973	-6	-6.7	-4.6	.5
1974	4.2	-10.7	1.1	-.2
1975	8.7	-70.6	-24.3	-4.2
1976	6.5	-53.8	-18.6	-2.0
1977	5.3	-48.1	-24.5	-1.1

Note: Gap is the GNP gap using the Council of Economic Advisors' estimate. The Federal Budget Surplus is measured on a national income accounts basis (actual) and a high employment basis (H.E.). The Government budget surplus in the last column measures the consolidated government sector surplus, including state and local governments.

Given the sharp increase in inflation in 1973 and the fact that the economy was at full-employment, if not beyond, one can hardly take issue with a move toward more restrictive policies. Furthermore the fact that both monetary and fiscal policy turned to a restrictive stance was a notable exception to the historical record. If it had not been for the supply shocks of the year that reduced external demand, raised inflation and disrupted economic activity we might now take the view that the policy mix was altogether appropriate.

As it turned out, of course, the external supply shocks in commodity markets and the OPEC oil-shock brought about a sharp reduction in real aggregate demand along with an adverse shift of the aggregate supply schedule. Real aggregate demand declined because fiscal policy failed to offset the "overtaxation" that inflation brought about in the presence of progressive taxation on nominal income and inappropriate accounting techniques in the corporate sector. At the same time monetary growth was insufficient to make up for the high inflation so that the real money stock declined sharply.

Table 4 summarizes the facts about inflation, GNP growth and real money growth for the period. There is no need to allocate the cause of the

TABLE 4: Inflation, Real Growth and Money Growth

	GNP Growth	Inflation	Real Money Growth
1973	5.5	6.2	1.2
1974	-1.4	11.0	-4.9
1975	-1.3	9.1	-4.5
1976	6.0	5.8	-0.7
1977	4.9	6.5	0.7

Note: Inflation is measured in terms of the CPI. Real money growth is the growth rate of M_1 deflated by the CPI, 1972 = 100.

subsequent steep decline in economic activity to fiscal policy, monetary policy or the external shocks. The fact is that the economy moved rapidly into a deep recession without policy makers being particularly aware or responsive to the deterioration.

3. Recession and Recovery

The peak of the expansion of the early 70's is dated November 1973. The slide into the recession took up the period from November 73 to the trough in March 1975. Unemployment increased sharply reaching an extraordinary 9%. Inflation continued to increase in 1974/75. Monetary policy remained tight through 1975. Fiscal policy in 1974 moved to a further tightening in the failure to offset the inflation effect on real tax burdens. It thus deepened the recession while it was well underway. Only in 1975 do we see a decided move toward fiscal expansion. On a full-employment basis the federal deficit swings by 25 billion, while the actual deficit increases by as much as 60 billion. The large actual deficit of the government sector -- 4.2 as a percent of GNP -- of course signals to a significant extent the slack in economic activity rather than discretionary fiscal policy.

The fiscal expansion in 1975 no doubt helped the recovery. So did a substantial, unanticipated decline in velocity. The demand for money $[M_1]$ declined relative to money income more than can be accounted for by the normal cyclical movement of velocity. The traditional money demand equations overpredicted money demand and the economy had the benefit of what Okun has called the "velocity bonus". Even though monetary growth was deliberately kept low -- below the rate of inflation as Table 4 shows -- economic activity recovered along with declining interest rates. The velocity bonus was an essential aspect of the recovery and brought about a

precarious reconciliation between the monetarist insistence for low nominal money growth and the need for an expansion in real economic activity. The bonus was so timely that it has been suggested that the Fed deliberately and consciously instituted a host of M_1 saving regulations so as to reduce M_1 demand and foster an expansion even with low M_1 growth rates.

In 1976 and early 1977 the real expansion continued, along with a decline in both unemployment and inflation. The real stock market picked up. Economic management was in the pleasant position of charting a recovery course with sufficient scope for expansion before the inflation unemployment trade-off came to dominate. That issue was reserved for 1977/78. Inflation slightly increased, unemployment had declined very substantially. Two issues now surfaced in the discussion: First, would continuing fiscal ease bring about crowding out and impinge on an already poor record of private investment? Second, what was the level of full-employment and what rate of unemployment should policy makers set as a target?

The discussion over the natural rate of unemployment was widely shared and led to a considerable consensus. The 4% natural rate that the CEA had targeted in the 60's was no longer appropriate. It could no longer be reached in view of a slow down in productivity growth, in part due to the oil shock, and a changed composition of the labor force. The natural rate of unemployment increased to a range of 5-6%. The great uncertainty that surrounds the estimate of the natural rate, of course, could not fail to make expansion policies more timid.

The question of fiscal policy continues to be very active. The incoming Carter administration had scheduled substantial tax cuts amounting to a two year \$ 31 billion package. The continuing strong expansion in early 1977 and the desire of a budget balanced around 1980 led to a reconsideration and a much more modest tax package in 1977. For 1978 much the same prospects stand out. Ambitious tax reform is gone and the preferred tax package -- roll-backs of social security taxes and other price increasing measures -- seems barred. All the administration can hope for is that the tax package is either so wild that it can be vetoed or else so modest that it maintains revenues for anti-inflation policies next year.

Much of the economic policy action has been in the field of monetary policy. In 1975 the Fed, under congressional direction, adopted monetary growth targets. Table 5 summarizes the targets and the performance to date. While in the early part of the recovery monetary policy was broadly in the target ranges this has ceased to be the case. Monetary growth since the second half of 1977 has been increasing [for M_1] while the monetary growth targets have, of course, been kept down so as not to add fuel to inflationary expectations. The Fed is once more facing the cyclical dilemma of rapidly rising interest rates and rapidly increasing monetary growth.

TABLE 5: Monetary Growth Targets

PERIOD	M_1		M_2	
	Actual	Target	Actual	Target
76/2 - 77/2	6.6	4½-7	10.7	7½-9½
76/3 - 77/3	7.8	4½-6½	11.0	7½-10
76/4 - 77/4	7.8	4½-6½	9.8	7-10
77/1 - 78/1	7.5	4½-6	8.8	7-9½
77/2 - 78/2	7.9	4-6	8.6	7-9½
77/3 - 78/3		4-6.5		6.5-9

Since early 1977 we have seen rising interest rates. Short-term interest rates increased by nearly three hundred basis points. Long-term rates have increased by more than fifty basis points. While the Fed has allowed substantial monetary expansion, it certainly has done so along with sharply rising interest rates. The traditional bite of interest rates, through disintermediation, is alleviated through special funding arrangements for S & L's, but also through the baby boom and inflationary expectations in the housing market.

TABLE 6: Interest Rates in 1977/78

	1977/1	1977/2	1977/3	1977/4	1978/1	1978/2	1978/3
Fed. Funds	4.66	5.16	5.82	6.51	6.76	7.28	8.02
Aaa Utility	8.17	8.21	8.09	8.27	8.70	8.98	8.71

4. The Outlook:

The stance of monetary policy is so essential in the current phase of the business cycle because the right monetary/fiscal policy mix is important for a continuing expansion with high investment and a deceleration of inflation. Briefly, the key issue is whether fiscal initiatives can be used to slow inflation -- along with a good performance of food prices -- so that monetary policy need not tighten further and become a more serious impediment to investment. Unfortunately the outlook for a favorable monetary-fiscal policy mix are entirely dim at present.

The "official" economic outlook for 1978/79 is summarized below:¹

¹ See Survey of Current Business, July 1978. The current account forecast comes from Morgan Guaranty Trust Co. World Financial Markets, September 1978.

TABLE 7: The Outlook

	1978	1979
Real GNP	4.1%	4.3%
Inflation (CPI)	6.8%	6.4%
Unemployment	6.5%	6.6%
Current Account Deficit (\$ Billion)	19.0	10-11.0

There is of course considerable disagreement that surrounds this forecast. The brunt of the disagreement runs to the effect that inflation is likely to be higher, in the 7 to 7½ range perhaps.¹ Real growth prospects are viewed with skepticism and many will argue that growth in the 2 to 4 percent range is quite likely. Unemployment in 1978 will be around 6-6.2 percent but may rise more than the forecast allows for if growth turns out to be low.

Finally as to the current account there is a very substantial range of forecasts. The broad consensus is of course to see an improvement, both as a consequence of reduced domestic growth and perhaps increased growth abroad. More importantly, the sharp real depreciation of the dollar in the last year is expected to bring its fruits over the next year and contribute toward an improved external balance.

¹The Wall Street Journal reported on October 3, 1978 that the Council on Wage and Price Stability perceives an underlying rate of inflation that is accelerating with non-food inflation thus far at over 8%.

II. THE BALANCE OF PAYMENTS AND THE EXCHANGE RATE

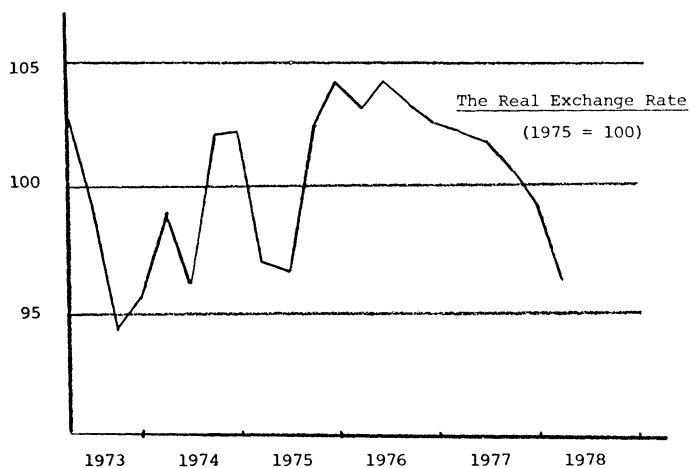
In this part we study the external developments and attempt an explanation of the evolution of the balance of payments accounts and of the exchange rate. In a first section we summarize facts about developments in the nominal and real exchange rate. The next section reviews the balance of payments accounts. The analysis is combined in section 3 where we explain the evolution of net exports in terms of growth patterns and changes in competitiveness.

1. Exchange Rate Developments

Chart 2 shows the evolution of the real exchange rate. The numbers shown there are multilateral effective exchange rates for the dollar adjusted for divergent movements in wholesale prices for manufactured goods. The Chart suggests two important facts.

First, we observe the major real depreciation of the dollar in 1973. Next it is important to recognize the subsequent appreciation of the dollar in real terms on several occasions but in particular the sustained appreciation from late 1975 until early 1977.

Table 8 summarizes the movements in effective nominal and real exchange rates. It documents a substantial nominal and real appreciation of the dollar for 1973/III to 1976 and a subsequent rate has had a very moderate nominal depreciation of about 1.5 percent. The real exchange rate has however, continued to depreciate. The precise estimate of the real depreciation differs, of course, depending on the price adjustments. The range, as shown in Table 8 is between 3 and 9 percent respectively for adjustments with the WPI and the deflator. The movement in effective nominal rates on an annual basis conceals, of course, the very substantial fluctuations and trend changes in the key rates of the DM and the Yen,



Source: International Monetary Fund

CHART 2 THE REAL EXCHANGE RATE

Table 9 indicates that for the entire period 1973/74 to 1978/II the nominal effective exchange rate of the US dollar has shown much less movement (-3.1) than the corresponding appreciation of the DM (23.6) and the Yen (27.4). This of course indicates that the DM and the YEN were at one end of the currency spectrum while the US occupied an intermediate position with currencies like the Canadian dollar or the Pound Sterling depreciating relative to the US while others, including the Yen and the DM appreciated.

TABLE 8 \$- EXCHANGE RATE INDICES
(1975=100)

	<u>Effective Rate</u> (Nominal)	<u>Real Rate</u> (WPI-Adjusted)	<u>Real Rate</u> (Def. Adjusted)
	<u>Indices (1975=100)</u>		
1973	98.6	98.2	104.8
1974	100.8	99.9	102.9
1975	100.0	100.0	100.0
1976	105.0	103.2	104.0
1977	103.8	100.9	102.4
1978/I	98.1	96.1	96.3
1978/II	96.6	n.a.	n.a.
	<u>% Changes</u>		
1973/III-1976	10.6	9.3	n.a.
1976-1978/I	-6.6	-6.9	-7.4
1973/74-1978/I	-1.6	-3.0	-7.3

Source: International Monetary Fund

TABLE 9 COMPARATIVE NOMINAL EXCHANGE RATE MOVEMENTS (% CHANGES)

	\$	DM	DM/\$	YEN	YEN/\$
1973/III-76	10.6	3.4	-4.9	-6.1	-10.6
1976 - 1978/II	-8.0	14.4	21.2	31.4	34.4
1973/4 - 1978/II	-3.1	23.6	26.1	27.4	27.4

Note: Columns one, two and four show multilateral effective exchange rate movements. Columns three and five show bilateral exchange rate changes. A minus sign indicates a depreciation.

Source: International Monetary Fund

TABLE 10 CHANGES IN NOMINAL AND REAL EXCHANGE RATES: 1973/74 - 1978/I

	US	GERMANY	JAPAN
Nominal	-1.6	24.7	18.1
Real Rate (WPI)	-3.0	3.6	-1.6
Real Rate (DEF)	-7.3	1.6	4.2

Source: International Monetary Fund.

The striking comparison is of course that between nominal and real exchange rate changes. Table 10 shows the comparatively minor changes in real exchange rates that accompanied the large appreciation of the Yen and the DM. This large discrepancy reflects the differentials in inflation rates. Each of the countries shown had comparatively lower inflation rates than partner countries and accordingly their relatively favorable inflation performance reinforced nominal depreciation or substantially offset nominal appreciation. The most striking instance is that of Japan where the real exchange rate on a wholesale price basis actually depreciated despite the substantial appreciation of the nominal rate.

2. The Balance of Payments:

The balance of payments accounts for the last five years are shown in Table 11. Chart 3 supplements the table with details of the current account evolution since 1970. We note the growing tendency toward a merchandise trade deficit and, an increasingly positive balance for services, mainly as a consequence of a sharp increase in the dollar value of investment income. The current account mirrors the major swings in the merchandise balance and accordingly is in surplus in 1973-75 and has deteriorated since.

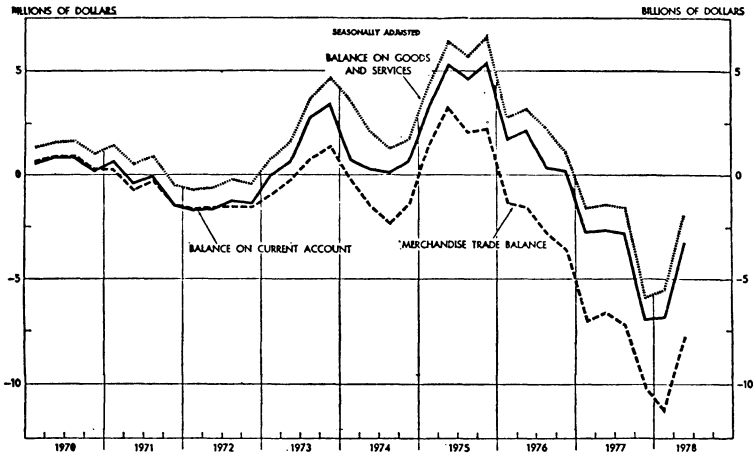
Net capital flows have been outward throughout the period. The magnitude of these flows has increased substantially as has the item "statistical discrepancy."

TABLE II THE U.S. BALANCE OF PAYMENTS
(Billion \$)

	1973	1974	1975	1976	1977	1978	
						I	II
<u>Merchandise Trade:</u>	.9	-5.3	9.0	-9.4	-31.1	-11.2	-7.8
<u>Current Account:</u>	6.9	1.7	18.4	4.3	-15.2	-6.9	-3.3
<u>Net Private Capital:</u>	-8.0	-9.9	-26.8	-30.0	-17.0	-12.1	1.0
<u>Statistical Discrepancy:</u>	-2.7	-1.7	5.4	9.3	-1.0	3.8	8.0
<u>Official Settlements:</u>	5.3	8.8	4.7	10.6	35.2	18.3	-4.6

Source: Survey of Current Business, June 1978 and Economic Indicators, Sept. 1978

Note: Quarterly data are seasonally adjusted. Capital flows do not include government capital flows.



Source: Economic Indicators, Sept. 1978

CHART 3 THE US BALANCE OF PAYMENTS

The official settlements balance is a measure of the extent of official intervention or managed floating. Over the period there has been a substantial increase in liabilities to foreign official holders. The extent of intervention, of course, reached its peak in 1977/78 with the UK, Germany and Japan all attempting to stem the appreciation of their currencies. There was no semblance of intervention to counter "disorderly markets" but rather an outright leaning against the wind or trend.

The changing pattern of the trade balance reflects in part, of course, the fact of higher oil prices. Beyond that, however, there are no major changes in regional balances. Table 12 looks at this question and shows a deteriorating balance with the OPEC countries. The merchandise balance with Europe remains favorable, that with Japan continues to show a deficit.

A surprising development is the deterioration of the merchandise balance with non-oil LDCs. As we will comment below this reflects their growing importance as suppliers of manufactures and as a new competitive force in the world economy.

	Western Europe	Japan	OPEC	NON-OPEC LDC	TOTAL
1970	2.9	-1.2	.1	1.4	2.6
1973	1.4	-1.3	-1.7	1.6	0.9
1975	9.1	-1.7	-8.9	5.0	9.0
1977	5.9	-8.0	-22.9	-6.8	-31.1

Note: Rows may not add due to rounding.

Source: Survey of Current Business June 1978, Part II.

TABLE 12 REGIONAL MERCHANDISE BALANCE

	Foods, Feeds & Beverages	Industrial Supplies & Materials	Capital Goods	Consumer Goods	Other
<u>Exports:</u>					
1970	13.8	32.5 (5.2)	43.6	6.6	3.5
1973	21.3	27.8 (3.6)	40.4	6.7	3.7
1975	18.0	27.9 (5.3)	44.2	6.1	3.8
1977	16.3	28.6 (5.0)	43.8	7.4	3.8
1978/I	17.6	27.5 (3.2)	43.8	7.4	4.2
<u>Imports:</u>					
1970	15.4	38.6 (8.0)	24.5	18.6	2.8
1973	12.9	39.9 (12.7)	26.7	18.3	2.1
1975	9.9	52.3 (29.1)	22.6	13.5	1.8
1977	9.3	53.4 (31.5)	21.7	14.4	1.2
1978/I	9.5	49.3 (25.7)	23.8	15.8	1.8

Note: The third column, in brackets, shows the category fuels, lubricants, petroleum and products. The category capital goods in the third column includes automotive vehicles, parts and engines. Data for 1978/I are seasonally adjusted. Percentages may not add to 100% due to rounding.

Source: Survey of Current Business, June 1978, Part II.

TABLE 13 PERCENTAGE COMPOSITION OF US TRADE.

In Table 13 we review the commodity composition of trade. The major change is again the large increase in the import share of oil products. Their share rose from less than ten percent before 1973 to more than 25% after the oil shock. For the remaining product groups the time period is too short to observe any significant shifts in the commodity composition of trade. There appears to be however a change in the group of foods, feeds and beverages which have declined as importables and grown as exportables.

3. Explaining the Balance on Goods and Services:

A key question in the analysis of the US external accounts and in the evolution of the exchange rate is the balance on goods and services. We saw above in Chart 3 the goods and services balance near zero through 1972, showing a surplus in 1973-76 and then moving into a very substantial deficit.

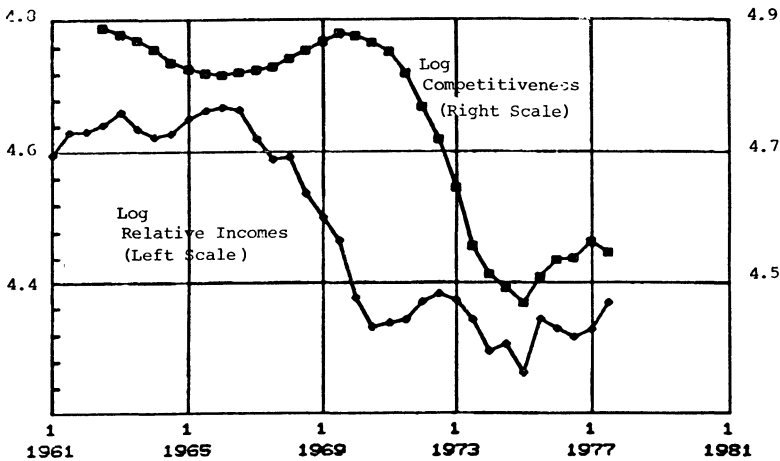


CHART 4 RELATIVE INCOMES AND COMPETITIVENESS

Note: Competitiveness is a 2-year moving average of relative wholesale prices adjusted for exchange rates. Relative Incomes are measured by the ratio of US to foreign manufacturing output indices.

The main explanations for this pattern of the goods and service balance derives from three factors:

- i. The development of the US competitive position in world trade.
- ii. The relative rates of income expansion in the US and abroad.
- iii. The real price of agricultural products which are a net export good.

Appendix I sets out equations for imports and exports of goods and services. These equations suggest the following points: First, both exports and imports are sensitive to the US competitive position, but in both cases the lags are very pronounced with very little effect occurring in the first year. There is thus clearly a J-curve. Second, an expansion in US income, given potential output, raises import demand in the same proportion. An expansion of income and capacity at the same rate implies a substantially higher income elasticity of 2.5. Third, a foreign income expansion raises our exports by one half the rate of foreign expansion. If both actual and potential output rise abroad the export expansion is still only .85 times the foreign rate of growth. There is accordingly a very pronounced asymmetry in the real income response of our imports and exports. If domestic and foreign income, actual and potential, expand at the same rate our goods and service balance worsens substantially.

Table 14 and Chart 4 show the data for an analysis of the goods and services balance. We show here indices for domestic and foreign income, US competitiveness and the real price of agricultural products. Competitiveness, because of the adjustment lags, is shown as a two-year moving average.

Consider first the period to 1973. Here the main effect is the very substantial real depreciation of the US dollar since 1971. From 1970 to 1973 the real dollar had depreciated by 17 percent and that depreciation progressively showed up in an increase in net exports. At the same time 1973 shows a high real price of agricultural products and fast growth abroad

	YUS (1967=100)	YROW	COMP (1975=100)	RPA (1972=100)	Net Exports (Billion \$)
<u>1973</u>					
I	122.9	155.0	107.1	121.6	3.0
II	123.5	160.5	102.5	139.5	11.4
<u>1974</u>					
I	118.8	161.7	100.2	131.9	6.8
II	114.4	154.2	99.1	122.3	5.3
<u>1975</u>					
I	102.5	144.2	98.0	111.9	19.9
II	112.8	146.4	100.0	118.5	20.9
<u>1976</u>					
I	118.9	156.7	101.5	114.0	10.1
II	121.2	161.6	101.6	110.4	4.9
<u>1977</u>					
I	124.8	164.6	102.9	112.4	-7.2
II	128.8	162.9	102.0	101.3	-15.1
<u>1978</u>					
I	n.a.	n.a.	n.a.	109.1	-19.0

Note: YUS and YROW are output indices for the US and the rest of the world. For YROW we have formed an index with the following weights: Japan 29.0%, Germany 23.3%, France 18.0%, UK 11.3%, Canada 9.8%, Italy 8.9%. The underlying data are compiled by the IMF. COMP is a 2 year moving average of the US real exchange rate using the IMF multilateral, price adjusted effective rates. The adjustment uses wholesale prices. RPA is the real price of agricultural products.

TABLE 14 DETERMINANTS OF THE US TRADE POSITION

relative to the US. 1973 is thus clearly the year where everything works toward an external surplus.

Consider next the very substantial surplus in 1975. Here we have to look to the large decline in US output (17% since the second half of 1973) with only a 10% decline abroad. We also have to look to a continuing gain in competitiveness as measured by the moving average which shows a 4 percent gain since the second half of 1973. Thus both the relative growth rates and the change in competitiveness help explain the large 1975 surplus.

Finally we want to look at the sharp reversal of the goods and service deficit in 1977. First, looking at relative output growth we find for the US an expansion of 26% for the period 1975/I to 1977/II. Abroad the expansion amounts to only 13 percent. Second, we observe a deterioration in the competitive position since the first half of 1975 of four percent. Finally we observe a decline in the real price of agricultural goods. All three factors combine, therefore to give us a very substantial deficit. 1977 in that sense is precisely the opposite of 1973.

What are the prospects for the goods and services balance? The depreciation of the dollar since last year has reversed the loss of competitiveness that arose in the 1973/4-1976 period. Real exchange rates constructed by Morgan Guaranty suggest that from Sept 1977 to October 1978 the dollar depreciated in real terms by almost seven percent. There is thus a very substantial further gain in competitiveness in the pipeline that should make itself felt over the next two years. The second important consideration is the relative slowdown in economic expansion anticipated in the US and the prospect for increased growth abroad. The promise of substantially higher growth abroad strikes me as unrealistic. The main effects must therefore stem from reduced growth at home. Given the high value of our income elasticity of import demand such a reduction in the rate of expansion to the level of capacity growth may stop a further deterioration in the

external balance and perhaps help reduce the deficit.

A word of caution, however is needed. The difference in income elasticities is so pronounced, and unfavorable to the US, that the growth patterns which we are likely to observe -- three to four percent here and abroad for actual output --, cannot make too much of a dent if any. The fact that the rest of the world, in particular Germany and Japan have set lower medium term growth targets than their average in the sixties and early seventies will prove a major constraint on US policies.

Table 14 shows that in the period 1967-73 growth abroad was more than twice as high than in the US. For the entire period 1960-73 the rest of the world real income (using the weights described in the appendix) grew at a rate of 6 percent compared to only 4.2 in the US. For the period to come growth of potential output abroad is estimated at 4.2 percent and that seems a high estimate of growth performance abroad. Accordingly there is little prospect for a substantial divergence in growth rates given US intentions or constraints to sustain growth at about 3.5 percent or above. One must conclude, therefore, that an improvement in the US competitiveness is required not only to close the present trade gap but in fact to prevent it from widening. I would go further to argue that the similarity of the growth path in the near future requires quite possibly a continuing real depreciation of the dollar.

4. Exchange Rates, Inflation and the Adjustment Process:

Flexible exchange rates have changed the trade-off between inflation and unemployment. Expansionary aggregate demand policies through monetary or fiscal ease cause the exchange rate to depreciate thereby raising import prices. Import price inflation in turn affects domestic inflation rates of the CPI through a variety of channels which we consider in more detail below. Flexible rates thus accelerate the inflationary impact of expansionary policies before any expansion in aggregate demand can actually take place.

They modify the inflation process from one that is governed by the level of aggregate demand relative to potential output to one where import prices and therefore the CPI become considerably more flexible and inflation can occur even at high levels of economic slack. There is a further complication that arises from the possibility of shortrun J-curve effects on aggregate demand. If in the shortrun an exchange depreciation worsens the current account so that nominal spending on net imports increases, does this spending increase occur at the expense of domestic output? Is it thus possible that expansionary aggregate demand policies have little direct effect on demand for domestic goods but do have a substantial inflationary impact? If so the traditional case for stabilization policy -- sticky prices in the shortrun and aggregate demand that is policy responsive--is exactly reversed.

Clearly the scope for stabilization policy under flexible rates is now an empirical question. We have to know by how much a depreciation of the exchange rate by say ten percent raises import prices and by how much the increase in import prices raises domestic inflation. Second we need to know by how much the depreciation changes competitiveness and to what extent the change in competitiveness affects net export demand.

In Appendix III we report some results for price equations of the US economy. We show there that a ten percent increase in import prices would raise domestic prices--CPI or GNP deflator--in the current quarter by 1.5 percent and in the longrun by about 3 percent. There is thus a quite substantial effect from import prices to domestic inflation. To complete the links we need to know the transmission from exchange rates to import prices. Here a reasonable estimate is a 2:1 transmission: a ten percent depreciation would raise import prices by about five percent.

These numbers clearly bear out the idea of an important inflationary impact of depreciation. They show also, however, that depreciation is still a powerful way of changing relative prices. A depreciation changes import

prices relative to domestic prices and thus changes our competitive position. Some of that gain in competitiveness from increased import prices is lost through the spill-over into domestic inflation. Most of it, though, is preserved and helps achieve a longrun improvement in net exports.

The extent to which a change in competitiveness affects net exports has been reviewed in the previous section. We noted there that both exports and imports are substantially responsive to changes in competitiveness and that accordingly depreciation in the longrun helps improve the current account. In the shortrun, of course, the responsiveness of trade flows to relative price changes remains small.

We conclude from a review of the relevant facts that for the US economy exchange rate adjustment has an inflationary impact, that the inflationary impact is not sufficient to to impair a substantial gain in competitiveness and that the gain in competitiveness will in time yield an improvement in net exports. The US therefore can use exchange depreciation as a means to increase aggregate demand and restore external balance simultaneously. There remains, of course, the question about the proper monetary/fiscal policy mix that accompanies a depreciation.

To get some perspective on the inflationary or deflationary impact of import price movements a comparison with the appreciating countries-- Germany, Switzerland and Japan--is helpful. Table 15 shows how in these countries the absolute decline in import prices due to appreciation has made inflation stabilization possible and certainly much less costly than it would be in a depreciating country. The strong asymmetry has suggested the idea of a virtuous and vicious circle where appreciating countries succeed in reducing inflation which in turn favorably affects their exchange rate performance while the converse is the case for depreciating countries.

TABLE 15: DOMESTIC AND IMPORT PRICE INFLATION

	GERMANY		SWITZERLAND		JAPAN	
	Domestic	Import	Domestic	Import	Domestic	Import
1975	5.9	-1.7	6.7	-9.8	11.9	7.6
1976	4.5	6.7	1.7	0.4	9.3	6.0
1977	3.9	1.5	1.3	1.2	8.1	-4.2
1977/78	2.7	-6.5	1.4	-10.0	3.6	-17.0

Note: Domestic inflation is measured by the CPI. Inflation for 1977/78 refers to the rates from 1977/II to 1978/II.

Source: Federal Reserve Bank of St.Louis and International Financial Statistics

The substantial impact of falling import prices on domestic prices and export prices implies that in these smaller, open economies exchange appreciation works mainly as an anti-inflationary device and only to a lesser extent as a means to changing relative prices and competitiveness. This observation is reinforced by our review of changes in real exchange rates in section 1.

III TOWARD A POLICY MIX

In this concluding part I will briefly make a case for a policy mix that involves fiscal tightness, low real interest rates and a real exchange rate that generates a full employment current account surplus. If that case is accepted then there is a strong case for allowing continuing real depreciation of the dollar to achieve the gain in competitiveness that is implied by the policy mix.

In Figure 1 we plot two schedules along which we achieve respectively full employment goods market equilibrium, II, and a specified current account surplus, EE. On the vertical axis we have the long terms real

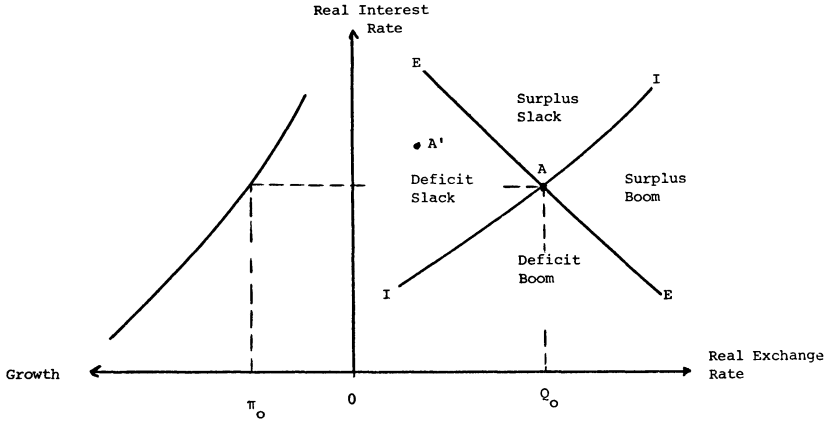
interest rate and on the horizontal axis the real exchange rate which serves as a measure of US competitiveness. The II schedule is positively sloped since higher interest rates reduce aggregate demand below full-employment and therefore require a compensating improvement in our competitiveness to maintain internal balance. Along EE a decline in the interest rate raises real aggregate demand and therefore generates a current account deficit. To restore the current account to the target level we require a gain in competitiveness so that the external balance schedule is negatively sloped. The schedules are drawn for a given stance of fiscal policy (say a full employment balanced budget) and given foreign incomes, tastes and technology.

The equilibrium that reconciles the targets of internal and external balance is at point A with interest rate R_0 and the real exchange rate Q_0 . The real interest rate will in turn affect the composition of aggregate demand between investment and consumption and thus the growth prospects. This is shown in the left hand panel where the growth rate of output is shown as an inverse function of the real interest rate. Corresponding to the equilibrium at point A we have a real growth rate π_0 .

The formalism of our model is deliberate. It serves to remind us of the key role played by interest rates and real exchange rates in determining the longrun real structure of the economy. Indeed, these two variables, along with fiscal policy fully determine the allocation of resources between goods, between sectors and across time. It is thus a useful framework to set out a medium term program for US policies.

As a starting point we look at Figure 1 where we show the current equilibrium at point A' with economic slack, and a deficit in the external balance. Real interest rates are high. Because of economic slack and because of high real interest rates investment and real growth of potential output and productivity are low.

FIGURE 1 THE POLICY MIX



Where is the problem? The problem is an improper policy mix and an inappropriate set of relative prices. Fiscal policy is too easy and, given overall fiscal policy, it has been favoring consumption at the expense of investment. Given the ease of fiscal policy monetary policy has been relatively tight thus maintaining high real interest rates. Finally there is a good chance that the real exchange rate has not depreciated sufficiently.

The proper policy mix then is to pursue an overall tightening of fiscal policy and to redistribute fiscal revenue in a manner that will favor investment, productivity growth and will tend to reduce inflation. At the same time monetary policy should ease and the real exchange rate should be allowed to remain at its present level or even depreciate. In terms

of figure 1 the policy mix should move us to point A.

Why is investment and growth in capital and productivity important? I have argued above that the important change in foreign growth patterns implies a structural deficit for the US current account unless we are prepared to accept a trend depreciation in the real exchange rate and, of course, the implied reduction in our real income.

A second factor works in the same direction. Foreign producers, particularly in LDCs continue to adopt and imitate US products and processes. They have been gaining in competitive advantage, productivity gaps are shrinking and the product cycle may well be accelerating. For the US this implies continuing loss of competitiveness and, once more, the need for continuing real depreciation to maintain a market for our output.

The alternative strategy that is advocated here takes a longrun view. An effective remedy to break the pattern of what Kindleberger so perceptively has called the "aging of America" is a move toward an investment, innovation and trade oriented-pattern of the economy.¹ Such a policy would allow maintenance of the real exchange rate not through overvaluation and stagnation but rather through the introduction of new products in the export sector and through cost saving innovations in traditional industries.

IV CONCLUDING REMARKS

The paper has reviewed our experience with flexible exchange rates since 1973. The question of exchange rate flexibility as an adjustment process has been addressed and the following conclusions emerge:

¹See C.P. Kindleberger "The Aging Economy." Weltwirtschaftliches Archiv, forthcoming.

(1) Exchange rate changes have been substantially larger in nominal terms than in real terms. Real exchange rates, until the end of the first quarter of 1978, have been quite moderate. The magnitude of nominal rate fluctuations must be seen in the fact that Japan and Germany have substantial flexibility in their traded goods price structure and that accordingly very large changes in nominal exchange rates are required to bring about a given change in real exchange rates.

(2) The U.S. current account does not present a puzzle. Changes in competitiveness and relative rates of expansion in the U.S. and abroad account well for the surpluses of 1973 and 1975 and the deficit of 1977. In a longer term perspective there is the serious possibility of a structural deficit because of the Houthakker-Magee law: The U.S. has a very high income elasticity of demand for imports but faces a low world elasticity of demand for her exports. Accordingly, with a decline in the growth rates in the rest of the world increased innovation or a trend real depreciation are required to avoid a widening of the current account gap. This conclusion is reinforced by the fact of growing competition from LDC manufactures in the U.S. market.

(3) The medium term policy mix in the U.S. can either attempt to stabilize the financial dollar for the benefit of external holders of dollar denominated assets or it can stabilize the real dollar for the benefit of internal balance, current account improvement and growth. A reasonable policy mix that stabilizes the real dollar involves a shift toward fiscal tightness and increased use of fiscal resources for the promotion of innovation, investment and productivity. The move toward fiscal tightness should be accompanied by easy money so as to keep real interest rates low and to permit a depreciation of the real exchange rate. The policy mix will ensure a move toward external balance and a reallocation of resources toward growth.

APPENDIX I: Trade Equations

This appendix briefly reviews equations for exports and imports of goods and services for the US economy. The equations were estimated with half-yearly observations and are designed to cast light on the role of real exchange rates or competitiveness and real income expansion on the current account. The competitiveness variable we use is the IMF multilateral exchange rate adjusted for wholesale price changes. "Rest of the World" actual and potential output are indices of manufacturing output for six industrialized countries using the following weights: Japan 28.8%, Germany 23.3%, France 18.0%, UK 11.3%, Canada 9.8%, Italy 8.9%. Potential output indices are obtained from the series constructed by Artus and Turner.¹

On the export side we use as a category exports of goods and services in the national income accounts measured in 1972 prices, X. The equation is estimated for the period 1963-1977, using half-yearly data:

$$A-1 \quad \log X = 5.15 - .20 \log \left(\frac{Y^*}{Y_P^*} \right) + .82 \log Y^* - 1.03 \log (P/P^*)$$

(.86) (.15) (.03) (.16)

$$SER = .022, \text{ Rho} = .32 \text{ DW} = 1.88$$

Standard errors are given in parenthesis. The equation is estimated with a correction for first order serial correlation. Y^* and Y_P^* are foreign actual and potential output indices, P and P* are US and foreign dollar prices and their ratio is thus a measure of US competitiveness. The competitiveness variable is entered as a second order unconstrained polynomial allowing for effects in the current and three lagged quarters.

The equation does show some response to a change in competitiveness. Increased US competitiveness will raise exports. The elasticity is about one. The lag in adjustment, though, is very pronounced; in the first year the elasticity is close to zero.

¹ J. Artus and A. Turner "Measures for Potential Output in Manufacturing for Ten Industrialized Countries, 1955-80. Unpublished Manuscript, International Monetary Fund, May 1978.

Consider next the implications of foreign changes in income. A one percent rise in foreign income, given potential output, raises exports by about half a percent. There is thus an extraordinarily low cyclical effect on our exports. If foreign income expands along with potential output the elasticity rises to .82. This would suggest that there is an import bias in the pattern of foreign capacity expansion. Of course .85 is still very low indeed as an income elasticity of demand for US goods.

On the import side we have an equation for the category imports of goods and services in the national income accounts measured in 1972 prices, M. The equation is estimated for the period 1964-77:

$$A-2 \quad \text{Log } M = -14.4 - 1.71 \log (Y/Y_p) + 2.64 \log Y + 1.3 \log (P/P^*)$$

$$(1.00) \quad (0.1) \quad (.08) \quad (.15)$$

$$SER = .025 \quad DW = 1.90$$

Here Y and Y_p are US actual and potential output. The competitiveness variable is entered again as an unconstrained second order polynomial allowing for the effects in the current half-year and an additional three years lagged. The lag is thus considerably longer than on the export side.

The import equation shows a substantial response to changes in competitiveness. The longrun elasticity here is 1.3. Again we find, however, that the lag is very pronounced. The elasticity for the first year is only .5 and thus confirms the idea of a J-curve.

The level of imports is highly responsive to our income. Given potential output an income expansion of one percent raises imports in real terms by nearly one percent. When actual and potential output expand together the income elasticity rises to as much as 2.64 thus showing a very large import bias in the trend composition of U.S. output and demand.

The estimation methods used here are quite unsophisticated and the data are not without problems. Accordingly one should take the elasticity estimates primarily as representative evidence rather than as very tight

and exact estimates. Even so there is a striking implication of the equations: on a full employment path in the world our imports would rise faster than our exports unless in the rest of the world real income grows three times as fast as it does in the US. Failing such a substantial differential in growth patterns changes in the terms of trade would have to come about to raise our competitiveness and thus restore balance to a growing trade gap.

The change in the real effective exchange rate that has taken place since last year is about 6%. Such a change will raise exports by about 4.25 percent once the full adjustment has taken place and, assuming of course, that the change in competitiveness is sustained. On the import side the change in competitiveness would imply a reduction in imports of almost 8 percent.

APPENDIX II: EXCHANGE RATE EQUATIONS

In this appendix we set out a theory of exchange rate determination and provide some evidence on the limited success of monetarist models of the exchange rate.

The longrun equilibrium exchange rate, \bar{E} , is determined so as to set relative prices compatible with external balance:

$$A-1 \quad \bar{E} = \sigma(\bar{P}/\bar{P}^*)$$

where σ is the longrun equilibrium real exchange rate and \bar{P} and \bar{P}^* are the longrun price levels here and abroad. Today's equilibrium spot rate E is related to the expected future equilibrium rate. The current rate is the present discounted value of the anticipated future rate, the discount factor being the international nominal interest differential.

$$A-2 \quad E = \frac{\bar{E}}{1 + r(M/P, Y) - r^*}$$

where r is our shortterm interest rate which is a function of the real money stock, M/P , and real income. The foreign interest rate is r^* . Combining A-1 and A-2 yields:

$$A-3 \quad E = \sigma \frac{\bar{P}/\bar{P}^*}{1 + r(M/P, Y) - r^*}$$

The determinants of the equilibrium exchange rate according to A-3 are:

- i. Shortterm interest rates: An increase in our shortterm interest rate causes an appreciation of the exchange rate, and conversely for an increase in foreign rates.
- ii. The average future path of prices: if prices here are expected to increase relative to those abroad, and there is no offsetting increase in the interest differential, then the spot rate will depreciate. In this respect the ratio of expected price levels, \bar{P}/\bar{P}^* , can be proxied by the differential in longterm interest rates which indicate the longterm inflation differential.

- iii. The longrun equilibrium real exchange rate, σ : a depreciation in the equilibrium real exchange rate, because of a loss in competitive advantage, shifts in demand, adverse oil price changes or the like will lead to an immediate depreciation in the terms of trade.

Most empirical single equation models of the exchange rate use a simple monetary approach. The equilibrium exchange rate is determined by the relative supplies of nominal monies and the relative demands for real balances:

$$A-4 \quad E = \frac{M}{M^*} \frac{L^*(r^*, Y^*)}{L(r, Y)} = E(M, M^*, r, r^*, Y, Y^*)$$

In the accompanying table we show loglinear versions of equation A-4 specified to include long and short interest rates as well as an adjustment lag in money demand. The equations show a substantial standard error which no doubt is due to the lack of a real exchange rate term which serves as a vehicle for expectations.¹

¹For a more detailed treatment see R.Dornbusch "Real and Monetary Determinants of Exchange Rates." Unpublished Manuscript, MIT, 1978.

MONTHLY DM/S EXCHANGE RATE EQUATIONS: 1974/3 - 1978/5

#	m-m*	$(e+m^*-m)_{-1}$	(y-y*)	(r-r*)	$(r_L - r_L^*)$	const.	Rho	SER	DW
1.	1		-.41 (.20)	.87 (1.61)		1.13 (.10)	.97	.021	1.28
2.	1		-.38 (.20)	.14 (1.61)	9.12 (4.38)	1.24 (.09)	.97	.021	1.41
3.	1	.67 (.11)	-.23 (.17)	-1.05 (1.49)	10.27 (3.18)	.46 (.20)	.53	.018	1.94
4.	1		-.45 (.21)	3.23 (3.14)		1.13 (.12)	.97	.022	1.36
5.	1		-.61 (.33)	8.01 (6.65)	29.55 (3.52)	1.44 (.03)	.65	.029	1.79
6.	1	.57 (.21)	-.26 (.27)	-1.51 (5.56)	13.37 (6.33)	.60 (.31)	.58	.018	1.90

Notes: The estimated equation is: $e+m^*-m = \text{const} + a_0(e+m^*-m)_{-1} + a_1(y-y^*) + a_2(r_S - r_S^*) + a_3(r_L - r_L^*)$
 Equations 1-3 were estimated using a correction for first order serial correlation. Equations 4-6 were estimated using Fair's method with production, the lagged right and left hand variables and time as instruments. Standard errors in parentheses.

APPENDIX III. Import Prices and Domestic Inflation

This appendix briefly reviews the channels through which import prices enter the domestic inflation process. An equation for the US summarizes these channels and gives some quantitative idea of the importance of depreciation as a source of increased inflation.

Consider a depreciation of the exchange rate. We should expect such a depreciation to lower foreign prices and to raise domestic prices of imports. A rough approximation is that import prices rise by about half the depreciation. Now given such an increase in import prices how will it spread through the economy and lead to increased consumer prices?

The most immediate effect of a depreciation is to raise the prices of commodities, and in particular food. This is a direct effect on consumer prices that we would expect to occur without substantial lags.

A second effect is from increased import prices on the prices of competing domestic products. This "sympathetic price increases" again should arise with relatively little lag. The extent to which we would observe them depends largely on the extent to which markets are competitive and on the extent to which there are unemployed resources and capacity. In the US the perhaps most obvious example of this process is the automobile industry where small car prices are market up along with import prices.

A third channel arises from any impact that import prices have directly on wages. Such a direct effect, given the rate of domestic inflation and unemployment, would arise primarily as an expectational response to the extent that import price inflation leads domestic inflation. There is, I believe, no evidence yet of this channel in the US. It is more important in relatively open economies where import price inflation sets domestic inflation and where monetary policy fully validates the ongoing inflation process.

Finally there is an indirect response of wages to increased import price inflation. This arises in one of two forms. First the adjustment of

wage inflation to increased price inflation that is brought about by the other channels discussed above. Two parallel sources are increased wages arising from the reduction in unemployment and/or the gain in profit margins that arise from the gain in competitiveness. These responses are subject to some lag, but their empirical relevance can certainly not be discounted.

Given these various channels we have to ask whether a depreciation does not in fact get ultimately passed on fully into increased price inflation so that relative prices remain invariant.

A summary of these different channels for the US is provided in the equations reported below:

Price Index	const	\dot{P}_{-1}	1/u	\dot{P}_m	R^2	DW
\dot{P}_{CPI}	.002 (.003)	.43 (.14)	.007 (.005)	.15 (.03)	.54	1.92
\dot{P}_{DEF}	.004 (.002)	.40 (.10)	.004 (.003)	.15 (.02)	.76	1.96

\dot{P}_{DEF} , \dot{P}_{CPI} and \dot{P}_m are respectively the inflation rates for the GNP deflator, the CPI and import price. The prime male unemployment rate is u. The equations were estimated for the period 1965-1977 with quarterly data. The import price inflation was entered as a one year moving average.

The equations show a shortrun impact of import price on domestic inflation of .15 and a longrun impact of about twice that magnitude. This suggests that depreciation is quite effective in changing relative prices but that it does certainly have an inflationary impact.

APPENDIX IV: REAL EXCHANGE RATES

(Indexes of Relative Costs and Prices
vis-à-vis Other Industrial Countries, 1975=100)

1970	1971	1972	1973	1974	1975	1976	1977	1976			1977			1978	
								III	IV	I	II	III	IV		
<i>Relative Unit Labor Costs (65umcf110)</i>															
154.0	141.1	124.4	111.3	111.0	1000	104.5	103.1	104.4	104.8	107.1	103.9	101.3	100.0	99.1	United States
99.8	100.5	104.6	100.2	100.0	111.2	101.9	112.5	111.7	103.7	101.6	102.1	96.4	91.7	96.4	Canada
70.3	74.9	86.8	93.8	100.5	100.0	101.0	107.7	101.4	100.3	103.4	106.3	108.3	112.9	109.5	Japan
84.0	86.8	88.7	96.5	97.0	100.0	100.0	104.8	99.1	102.9	102.5	105.6	106.8	104.0	107.8	Austria
96.9	97.2	98.3	96.3	98.5	100.0	102.0	102.5	100.7	104.9	105.8	102.2	101.3	99.5	100.8	Belgium
104.9	97.3	94.8	101.8	102.8	100.0	101.1	105.2	101.2	104.2	111.2	108.2	99.9	101.5	108.1	Denmark
93.1	89.2	91.0	93.3	89.4	100.0	95.4	91.3	93.2	91.8	89.8	91.7	91.8	92.0	87.7	France
91.9	96.2	98.9	110.6	108.3	100.0	99.5	102.2	99.2	103.7	101.0	102.8	102.1	102.9	105.0	Germany
97.8	100.7	100.2	95.6	89.6	100.0	89.4	89.8	95.2	88.7	86.0	86.7	93.7	92.8	92.8	Italy
89.5	90.1	92.2	96.6	97.5	100.0	101.0	104.4	99.5	104.7	105.3	104.5	105.7	102.1	105.9	Netherlands
86.0	87.4	87.4	91.5	93.4	100.0	105.5	108.1	106.6	112.0	114.0	110.7	106.5	104.6	106.3	Norway
83.7	93.9	96.1	92.6	90.4	100.0	113.2	111.4	110.9	118.6	119.5	114.0	110.6	101.4	101.7	Sweden
79.9	83.1	84.8	91.5	95.1	100.0	100.6	92.7	100.0	99.3	91.8	90.6	91.7	96.7	103.3	Switzerland
103.6	105.7	101.6	90.8	96.3	100.0	95.2	94.2	94.4	87.1	92.5	93.6	93.1	97.6	101.2	United Kingdom
<i>Relative Normalized Unit Labor Costs (63umcf110)</i>															
144.5	136.9	123.5	109.9	105.1	1000	105.7	105.3	106.1	106.0	106.8	106.2	105.5	102.8	100.8	United States
98.7	101.3	101.4	98.4	103.7	100.0	107.5	99.8	108.8	107.2	103.5	101.2	99.3	95.0	92.0	Canada
82.2	86.6	96.4	105.5	108.3	100.0	103.1	112.9	104.8	104.6	107.1	110.6	113.6	120.3	120.7	Japan
79.1	81.7	83.3	89.2	92.1	100.0	100.7	106.3	98.8	105.0	102.8	108.1	107.2	107.0	110.0	Austria
93.0	91.4	95.0	93.9	96.4	100.0	100.4	101.3	99.5	103.1	102.7	102.0	101.5	98.9	102.6	Belgium
104.2	96.0	92.6	96.6	96.5	100.0	97.4	94.8	97.3	98.8	97.7	95.6	94.6	91.4	94.6	Denmark
95.4	92.4	94.3	95.6	90.7	100.0	97.5	93.2	95.5	93.4	93.6	93.3	93.8	92.1	90.6	France
85.3	88.7	90.4	95.3	102.6	100.0	100.6	106.7	100.4	105.1	105.3	107.0	106.0	108.5	109.2	Germany
101.8	103.6	103.2	101.7	97.5	100.0	87.9	82.4	90.5	85.2	81.3	80.8	84.6	82.8	79.9	Italy
83.5	90.7	91.8	97.4	102.3	100.0	100.7	101.2	99.6	104.3	103.2	102.3	100.5	98.8	100.6	Netherlands
80.6	85.3	85.2	89.8	93.3	100.0	102.3	106.5	102.7	107.4	109.0	108.7	106.3	102.0	100.9	Norway
100.5	98.8	101.1	97.4	93.0	100.0	105.7	99.4	104.1	108.3	107.8	101.5	97.1	91.1	90.7	Sweden
88.5	90.7	90.2	97.0	98.6	100.0	102.6	96.8	103.2	102.6	96.3	95.0	95.5	100.5	107.8	Switzerland
101.5	104.1	102.6	91.3	97.6	100.0	92.9	89.3	91.9	84.9	88.7	88.2	88.2	92.2	95.6	United Kingdom
<i>Relative Value Added Deflators (99byf110)</i>															
122.7	133.8	120.2	104.8	102.9	1000	104.0	102.4	104.0	104.4	103.5	103.3	102.5	100.2	96.3	United States
93.0	94.5	96.8	96.7	101.5	100.0	104.6	98.0	105.8	103.2	100.9	99.2	97.5	94.2	93.5	Canada
89.1	87.8	97.9	111.1	112.7	100.0	105.6	111.2	109.1	106.4	107.1	109.0	111.3	117.5	116.6	Japan
88.0	89.1	89.2	95.3	99.4	100.0	100.5	103.7	101.0	104.3	104.3	103.4	103.2	102.8	105.1	Austria
104.0	102.7	105.4	103.9	106.0	100.0	101.9	103.2	101.8	105.9	105.3	104.4	102.4	100.8	102.2	Belgium
97.3	94.7	94.4	100.0	93.8	100.0	101.6	99.4	101.1	104.1	103.1	100.4	98.3	96.9	100.5	Denmark
94.1	90.8	93.5	95.8	98.3	100.0	96.8	90.7	94.1	91.8	90.3	90.4	91.3	90.9	88.7	France
92.4	96.9	96.4	104.1	103.9	100.0	99.7	102.3	99.3	103.0	102.4	101.9	102.1	102.8	105.7	Germany
96.8	97.0	98.8	96.0	93.6	100.0	91.5	90.1	92.4	91.5	90.4	90.7	90.3	89.0	86.5	Italy
86.5	87.8	92.0	95.0	97.6	100.0	102.7	107.8	102.4	107.5	107.4	108.5	108.1	107.0	110.4	Netherlands
82.8	83.7	85.2	88.3	89.3	100.0	97.6	101.1	96.9	100.9	102.3	102.5	101.0	98.5	96.8	Norway
92.6	88.0	90.3	92.3	97.7	100.0	103.2	98.8	103.1	106.9	106.7	102.0	96.7	89.6	89.5	Sweden
99.1	102.9	100.7	91.7	97.6	100.0	93.4	96.5	92.8	86.8	93.4	95.1	97.0	100.4	104.6	United Kingdom
<i>Relative Wholesale Prices (63zf110)</i>															
118.5	115.3	106.9	98.2	100.0	1000	103.2	100.9	103.1	102.4	102.0	101.9	100.7	99.0	96.0	United States
100.9	102.7	103.3	101.4	104.0	100.0	104.8	97.5	105.6	103.7	100.7	98.6	97.1	93.6	92.2	Canada
97.9	94.3	100.5	111.3	113.9	100.0	103.9	107.3	106.8	104.0	104.1	105.5	107.3	112.2	110.8	Japan
87.1	90.2	91.4	94.8	95.2	100.0	100.4	103.3	100.7	103.9	103.9	104.1	102.8	102.4	104.8	Austria
101.4	96.4	99.1	104.3	106.1	100.0	101.9	102.4	101.5	105.3	105.3	104.0	101.2	99.0	99.5	Belgium
89.5	88.4	90.7	100.3	98.7	100.0	102.2	100.1	101.8	104.7	102.5	101.1	99.1	97.6	100.3	Denmark
95.6	93.8	97.2	97.0	88.6	100.0	95.9	90.2	93.1	91.0	89.6	89.8	90.8	90.5	88.2	France
89.9	93.6	94.3	102.7	103.2	100.0	101.7	103.7	101.5	104.9	103.9	103.3	103.5	104.0	106.7	Germany
107.2	106.5	106.2	99.1	98.8	100.0	92.7	94.9	94.8	94.9	94.3	95.0	95.1	95.0	93.3	Italy
95.2	96.8	99.7	101.4	99.2	100.0	101.9	105.7	101.2	106.0	105.4	106.2	106.2	105.0	107.7	Netherlands
93.6	89.7	88.6	93.7	101.4	100.0	101.5	100.5	102.0	104.7	103.7	102.1	99.7	96.6	94.8	Norway
92.0	90.4	90.5	93.0	96.9	100.0	102.5	99.5	102.3	105.9	105.9	101.5	96.8	89.9	89.9	Sweden
80.6	83.3	84.2	92.4	96.4	100.0	101.9	96.3	102.4	101.0	95.6	93.3	95.4	101.0	107.7	Switzerland
105.2	110.4	107.7	94.5	95.0	100.0	93.1	99.0	92.3	87.9	95.2	97.5	100.0	103.3	107.4	United Kingdom
<i>Relative Export Unit Values (74eyf110)</i>															
112.2	109.9	103.7	95.5	96.1	1000	106.0	102.5	105.1	106.2	102.2	102.1	103.1	102.6	99.8	United States
122.7	117.9	114.6	111.6	106.9	1000	104.6	98.6	105.0	99.2	103.6	101.3	97.1	92.5	91.6	Canada
98.7	99.3	103.4	107.8	115.1	100.0	96.2	101.8	97.5	98.9	101.7	102.0	100.0	103.3	104.5	Japan
95.1	93.9	92.0	95.4	99.6	100.0	98.1	97.9	101.6	97.1	97.3	95.0	98.7	96.8	96.8	Austria
99.4	97.3	99.7	99.8	99.9	100.0	101.0	102.3	99.8	102.4	101.6	102.8	102.3	102.4	104.2	Belgium
91.0	91.9	92.7	98.0	99.5	100.0	100.9	99.6	100.9	102.2	101.6	100.2	95.4	97.1	99.0	Denmark
92.5	92.3	93.9	98.9	97.1	100.0	98.7	95.7	97.2	94.2	95.7	94.8	96.6	95.6	94.9	France
94.5	96.5	96.7	104.8	100.7	100.0	100.1	100.6	100.0	102.4	101.1	100.1	100.7	101.1	101.4	Germany
102.7	103.4	102.7	95.8	96.1	100.0	93.1	95.8	96.3	94.6	95.5	96.4	97.8	93.6	93.6	Italy
96.1	94.5	97.6	97.4	103.8	100.0	99.6	96.2	98.9	102.7	97.1	97.3	95.4	94.9	95.6	Netherlands
84.7	84.4	81.0	82.5	91.2	100.0	94.8	92.6	98.2	95.4	94.2	95.8	91.0	89.5	89.0	Norway
87.0	87.8	90.8	92.6	93.2	100.0	104.0	100.7	102.7	107.3	107.0	102.9	98.9	93.8	93.2	Sweden
82.2	87.5	89.4	96.3	92.8	100.0	104.1	100.0	103.0	101.6	98.8	98.9	97.0	105.6	111.0	Switzerland
104.6	105.9	107.5	99.3	98.1	100.0	96.9	103.5	97.0	92.5	98.7	102.6	104.3	108.5	111.7	United Kingdom

Source: International Monetary Fund, International Financial Statistics, October 1978.

Cost and Price Comparisons for Mfg.

The five indicators of relative costs and prices in manufacturing shown in this table for each of the industrial countries are calculated by the Current Studies Division, IMF Research Department. Each of the indexes represent the ratio (rebased to 1975 = 100) of the relevant indicator for the country listed in the stub to a weighted geometric average of corresponding indicators for the other thirteen industrial countries, after expression of all of the national indicators in terms of a common currency. The indicators thus take account of changes in exchange rates.

These indexes should be interpreted with considerable caution. While every effort is made to use national data that are as nearly internationally comparable as possible, the degree to which it is practicable to assure comparability is limited by the character of the available data. For this reason, the table provides a wide array of available indicators.

Several of the indicators are subject to frequent and sometimes substantial revisions. To an important extent, these revisions stem from the procedures used to estimate several of the indicators. Thus, the national data underlying the two unit labor cost series and the value-added deflator series are calculated by benchmarking the best available monthly or quarterly series on reasonably comprehensive and comparable, but periodically revised, annual data from the national accounts. While such benchmarking makes these series particularly susceptible to revision, it also permits the calculation of up-to-date quarterly series which, on an annual basis, are also reasonably comprehensive and comparable. The latter two characteristics could not be assured on the basis of quarterly data alone without a considerable narrowing of the theoretical concept subjected to measurement.

The weights used to construct the partner—or competitor—country index are designed to make the indicators particularly relevant with respect to movements in costs and prices affecting exports of manufactures. The weights, which are built up from disaggregated (i.e., four-digit SITC) trade data for manufactures in 1975, take account at the disaggregated level of the relative importance of a country's trading partners in its direct bilateral relations with them, of competitive relations with 'third countries' in particular markets, and of differences among countries in the importance of foreign trade to the manufacturing sector.

The nature and scope of the various national indicators entering into the comparisons are briefly described below. While mention is made of specific deficiencies in some of the indicators, the emphasis is on what the indicators purport to measure.

1. *Unit labor costs.* These are defined as compensation of employees, per unit of real output (in the value added sense) in the manufacturing sector. Account is taken of employer-paid social insurance premia and other employment taxes as well as wages and salaries. For the most recent quarters, however, the unit labor cost indexes typically refer more narrowly to wages or wages and salaries per unit

of total output of manufactured products (rather than of value added in the manufacturing sector).

2. *Normalized unit labor costs.* These data are intended to abstract from the cyclical swings in conventionally-measured productivity that often distort the actual unit labor cost series (mainly because cyclical changes in reported employment do not correspond closely to those in effective inputs of labor). The normalized series are calculated by dividing an index of actual hourly compensation per worker by an index of output per manhour adjusted so as to eliminate estimated cyclical swings.

3. *Value-added deflators.* These represent the quotient of the current and constant price estimates of value added in manufacturing—adjusted, however, for changes in indirect taxes. Such indicators, which share the properties of the corresponding GNP deflator series for the overall economy, are best viewed in the present context as composite indicators of the cost (per unit of real value added) of all primary factors of production (including capital and 'entrepreneurship,' as well as labor). These indicators differ from final product prices in that they abstract from the costs of intermediate inputs obtained by the manufacturing sector from other sectors. The extrapolation beyond the most recent benchmark year is based on wholesale prices for manufactures adjusted to exclude the influence of changes in raw material prices.

4. *Wholesale prices.* In principle, these indexes are intended to measure final product prices (excluding indirect taxes, which are not generally imposed on exported goods). However, the various national indexes tend to lack comparability in both concept and commodity composition. Wherever possible, use is made here of indexes which approximate final product prices (e.g., 'industry selling prices' or 'finished' goods prices). For France, the manufactures component of the consumer price index is used.

5. *Export unit values.* These series, which serve as proxies for data on final product prices for traded goods, suffer from some of the same compositional drawbacks as the wholesale prices. In addition, because of the less-than-complete homogeneity of the commodity classes upon which the unit values are calculated, the national series are often somewhat erratic. On the other hand, the relatives (each computed as the ratio of one country's index to that of its competitors) tend to be much less variable than those for the other indicators because of the degree of competition characteristic of international trade and the resultant selectivity in the composition of a country's exports. International competition often places severe limits on how far an exporter's prices may diverge from those charged by competitors, so that goods not competitively priced tend to disappear from the trade flows for which unit values are computed. Consequently, the export unit values reflect 'underlying' cost developments imperfectly.

By Milton Friedman

Money Watchers Beware



The figures on the quantity of money released by the Federal Reserve System each Thursday afternoon are awaited on Wall Street with bated breath. The bond and short-term-money markets slow down until they appear. The weekly monetary change is headlined the next day by the financial press to explain movements in market interest rates. Indeed, this money-watching game has been carried to nearly ludicrous extremes, in view of the large margin of statistical error in the week-to-week figures.

Different money watchers rely on different monetary aggregates, but the favorite is doubtless the aggregate termed M_1 , the total of currency outside banks plus demand deposits at commercial banks.

GOODBYE M_1

The Fed has adopted a change in regulations for member banks effective on Nov. 1, 1978, that will, at least for a time, render M_1 a nearly useless aggregate in judging economic or financial conditions, or in interpreting monetary policy.

The new regulation will "permit banks that are members of the Federal Reserve System to arrange with their [individual, not corporate] depositors for the automatic transfer of funds from depositors' savings accounts to demand deposit and other accounts to cover checks drawn or to maintain a minimum balance."

The immediate effect will be a massive transfer of deposits from demand to savings deposits in order to earn interest. Why should anyone who qualifies continue to maintain more than a minimum balance in a demand deposit? Changes in M_1 will be dominated by such transfers rather than by Fed policy. Past relations between changes in M_1 and in other economic magnitudes will cease to hold.

There will be less effect on broader monetary aggregates, such as M_2 , which is M_1 plus time and savings deposits at commercial banks other than large negotiable certificates of deposit; or M_3 , which includes also deposits at mutual savings banks, savings-and-loan shares, and credit-union shares. Transfers between components of these broader aggregates will cancel out. But there will be second-order effects. By making deposits at member banks more attractive relative to other assets, the new regula-

tion will tend to increase M_2 relative to M_3 and broader aggregates. Perhaps more important, reserve requirements on savings deposits are lower than on demand deposits. Hence, the transfer of deposits will release reserves that could generate a sharp growth in M_2 . To counter this potential inflationary development, the Fed will doubtless engage in offsetting open-market operations, introducing different and hard-to-predict perturbations into the figures. Money watching will become a most uncertain sport.

END INTEREST LIMITATIONS

There is a good reason for the change: the development of close substitutes for checking accounts by mutual savings banks and other thrift institutions (NOW, POW, COW accounts; telephonic fund transfer, etc.). The right response would not be piecemeal tinkering but removal of the present prohibition on the direct payment of interest on demand deposits. Unfortunately, the Fed cannot of its own accord remove that prohibition; that requires an Act of Congress.

I wish that, instead of, or in addition to, promulgating its new regulation, the Fed had forthrightly asked Congress to repeal the whole of Regulation Q—not only that part which prohibits the payment of interest on demand deposits but also the part which gives the Fed power to limit the interest rates that member banks may pay on time and savings deposits. Needless to say, any legal provisions which limit the interest rates that may be paid by nonmember banks and thrift institutions should be repealed at the same time.

We should end once and for all the attempted, and to some extent successful, exploitation of depositors for the benefit of banks and the government. Had limitations on interest rates never been introduced or had they been repealed years ago, the present proliferation of ingenious devices for evading Regulation Q would not have arisen; the ugly word "disintermediation" would never have entered the financial lingo; the financial structure would have developed in a more rational and efficient way; and monetary policy would have been freed of a major source of confusion and disturbance.

FOR RELEASE TUESDAY A.M.'S OCTOBER 17, 1978

NATIONAL CITY BANK OF MINNEAPOLIS

October 17, 1978

U.S. ECONOMIC OUTLOOK AND POLICY

by

WALTER W. HELLER AND GEORGE L. PERRY

The next twelve months will provide a new test of the "soft landing" thesis. Can a programmed slowdown of the economy, designed to ease pressures on prices and the dollar, find happiness in a pause that refreshes — say a two to three percent growth rate for several quarters? Or will an inventory drawdown (or perhaps an abrupt end of the housing boom) convert slowdown into recession?

Economic and political developments of the past several months have raised the odds, if not on a crash landing, at least on running off the end of the expansion runway. Under the impact of the Fed's doses of tighter money and the "Proposition 13 effect" on state-local spending, a recession in 1979 has gone from being a possibility last spring to an even money bet today.

The recession risk could be reduced by policy actions here and developments abroad. The Fed could ease up somewhat. A successful launching of the Administration's new program of wage-price moderation would relieve some of the pressure on the Fed and also reassure consumers. Economic expansion in Europe, Japan and Canada might be stronger than currently forecast.

The authors of this Letter, while not differing on either the qualitative factors at work or the downward push they are exerting on the economy, do differ on whether present trends will stop short of, or end up in, a recession in 1979. So for the first time in the 12-year history of the Bank Letter, we have agreed to disagree — mildly.

Heller is betting against history and assuming that the deceleration of the economy will not inevitably feed on itself, i.e., that the slower advances in consumer and government spending won't necessarily trigger an inventory recession or crippling cutbacks in housing and business investment.

Lending some credence to this position is that the current expansion, in spite of its advancing age, has considerably less than the usual quota of imbalances, speculative excesses, and shortages that presage a recession. In this setting, given a sizeable tax cut — and given even a mild letup in inflationary pressures and monetary tightening — the economy could dip to a 2% growth rate or even below, without falling through the floor.

Perry has history on his side. Slowdowns to a growth rate of 2% or less have typically turned into recessions. So our quantitative assessments below are based on Perry's slightly more pessimistic outlook for 1979, one which foresees a mild recession by next spring.

For 1978, the rise in GNP will be about \$220 billion, representing 3.8% real growth and 7.3% inflation (as measured by the GNP deflator). But by the end of this year, the growth rate will decline to 3% or less. Further slowdown (including two or three quarters of slightly negative growth) will limit the year-over-year rise in GNP to about \$180 billion for 1979, with real GNP up only 1.6% and the price deflator rising by about 7%.

THE POLICY SETTING

Past recessions have almost invariably been associated with a tightening of fiscal or monetary policy, or both. Monetary policy is the major restraining force in the economy today:

- The Federal Reserve has raised the federal funds rate by 200 basis points during the past nine months. And over the past year, it has allowed less than 1% growth in the real value of the monetary aggregates.
- The Fed has been pushed in this direction by continued stubborn inflation, by the weakness of the dollar, by the monetarist convictions of some members of the Federal Open Market Committee, and finally, by the hope that new savings instruments will largely insulate housing activities from sharply rising short-term rates. These factors are still at work to push rates somewhat higher.

Fiscal policy will also swing toward restraint once the stimulus of January's income tax cuts is behind us. Federal budget expenditures, which rose to about \$450 billion in the fiscal year just ended, will rise about 9% in both FY 1979 and FY 1980. Trend revenue growth over this period would be around 12% in the absence of any tax changes. Even a \$20 billion income tax cut will not keep the high-employment surplus from growing by fiscal 1980 in the face of a near-\$10 billion payroll tax increase next January and the unrelenting "inflation tax."

Although the marked slowdown or even recession we foresee for 1979 will increase some expenditures like unemployment compensation and decrease tax revenues, thus temporarily deepening the deficit, it is the comparative trend growth rate of 9% in spending versus 12% in revenues that defines the fiscal pressure that the Federal budget will be exerting on the economy.

DETAILS OF THE OUTLOOK

As already suggested, the recession risk for 1979 does not grow out of imbalances and excesses in the private sector. The expansion has been balanced and demand has not outstripped supply capabilities in any significant sector of the economy. Inventories are modest relative to sales, and business additions to plant and equipment are not outstripping the growth in markets for their products. Although bank liquidity has declined, it is not in the danger zone. The cash position of business (especially big business) is not being squeezed.

However, the following assessment of demand prospects by sectors will expose weaknesses in the short-term outlook for several sectors. The danger is that these weaknesses will be contagious and spread to other sectors.

Consumption

The good performance of consumption during the past year is closely associated with the surprisingly sharp growth in payrolls during this period. The combination of nearly 4 million new jobs in the non-farm sector and hefty wage increases kept personal incomes rising strongly. By mid-year, wages and salaries were 12% above year-earlier levels, and consumer spending rose almost in proportion. Disposable income was up 11.5% and consumption spending, 11.3%. Personal saving, at a rate below 6% of disposable income for this period, stayed well below the average rate of 7.4% in the years 1970-75. Spending on durable goods, especially automobiles, remained high and led to a corresponding increase in installment debt. But the burden of total consumer debt, in terms of repayments as a percentage of disposable income, rose only slightly above its long-term average of 20%.

As the level of spending on durable goods tapers off during the second half of 1978, it will pull the increase in consumer spending for 1978 as a whole down to about 10½%. Income tax cuts will help support consumer demand, but some two-thirds of their impact will be offset by payroll taxes. The combination of higher prices for 1979 models and the recent history of strong sales will dull consumer appetites for automobiles in 1979. Sales of some 11.4 million units this year are likely to shrink to 10.6 million units next year. Consumer savings rates will be moving up again, to something like 6½% in 1979. Overall, therefore, we expect consumer spending to rise only 7¼% next year.

Business Investment

Business investment in plant and equipment and inventories will reflect the slowdown in consumer spending. The "accelerator process" will be at work: the slowdown in overall demand will lead business to scale down its inventories and its spending for new plant and equipment.

The weakening of final sales will be reflected rather promptly in business inventories. If the pattern of previous business cycles repeats itself, the slower pace of consumer spending would translate into a decline of \$15 to \$20 billion in inventory-building between 1978 and 1979. If this inventory swing materializes, it would be the major force in converting the 1979 slowdown into a recession.

Business fixed investment will respond more slowly:

- The gradualness of the recovery of such investment from the deep recession has masked the fact that investment is near its historical peak as a ratio to GNP. By virtue of a 17% advance over 1977, business fixed investment will average about 10½% of GNP in 1978.
- Even after combing out the investment outlays that are being made to meet pollution standards, one finds business fixed investment running above 10% of GNP and adding over 3½% to the business capital stock this year.

- A further positive factor in 1978 is that business spending on structures has been growing somewhat more rapidly after being depressed by excess capacity for most of the current expansion.

The 1978 performance of plant and equipment spending assures some momentum in this sector in 1979. But with the growth rate of the economy falling short of the growth rate of capacity in coming quarters, the strength of business investment will ebb before the year is out. Investment outlays will still rise by 13% to 14%, year-over-year, but the pace of such spending will slacken as the year progresses.

Residential Construction

Except for an interruption during the unusually cold winter of 1978, housing starts have remained at a robust annual rate of just over 2 million units during the past year. A variety of measures, notably the new 6-months saving certificates with interest rates geared to Treasury bills, kept the sharp rise in market interest rates from draining funds from the thrift institutions. So housing starts have rolled along at higher rates than most forecasters had anticipated.

Even now, with low vacancy rates and the small stock of unsold homes, housing demand remains strong. But housing starts will not be totally immune to tighter money.

- Past experience suggests that rising mortgage interest rates, already up 50 basis points during 1978, will be somewhat of a damper on the demand for new housing.
- Further increases in short-term interest rates propelled by Federal Reserve policy will test the ability of thrift institutions to pay for further funds and trigger some disintermediation in spite of the buffer provided by the new 6-months certificates.
- As against the unexpectedly strong housing performance in 1978, when starts will total just under 2 million units and residential construction outlays will be up by 15%, next year is likely to see no change in construction spending as starts fall to about 1½ million units.

Net Exports

One of the brightest sectors on the 1979 horizon is that of net exports. In 1977-78, disappointing growth rates among our trading partners have contributed to the large U.S. net export deficit and, with it, to the weakness of the dollar. In the year ended June 30, industrial production in the other major OECD countries rose only half as fast as in the United States: 2½% against 5%. The ensuing 12 months will see a virtual reversal of that performance, with the rise in industrial production abroad approximating 5% as against a rise of perhaps 3% in the United States. This shift in relative growth rates will boost U.S. exports and curb U.S. imports.

The trade balance will also be helped by the decline that has already occurred in the dollar. On a trade-weighted basis, the dollar's value on foreign exchange markets is down about 10% from a year ago (with much larger slippage, of course, against the mark, the Swiss franc, and the yen). Net exports in the national income accounts, which are likely to run at about the same \$11 billion deficit in 1978 as they did in 1977, should approach a balance for 1979 as a whole. If foreign economies grow considerably faster than we now expect — as their high unemployment and excess capacity would readily permit them to do — it would step up our net exports and possibly ward off a U.S. recession.

Government Purchases

Federal purchases of goods and services have moved erratically in recent quarters as agricultural support buying rose during 1977 and then declined during the first half of 1978. But this decline in purchases is being reversed even in the face of budget stringency. The back-pressure on the budget is being exerted mainly on Federal pay increases and grants to state-local governments. Real purchases, especially for defense purposes, continue to rise at a good clip. We anticipate that total Federal purchases will rise by 6% this year and 8½% in 1979.

At the state-local level, we find a different story. In 1977, state and local governments ran an aggregate surplus of \$29½ billion. Of this total, \$18 billion was a surplus in retirement funds, with the remaining \$11½ billion representing a general fund surplus. This year, the combination of rising revenues, expanding federal grants, and the cushion of accumulated surpluses will boost state-local government purchases by more than 12%. But the general fund surplus is being sharply eroded in the second half of 1978, partly as a result of slower growth in the revenue base but mainly as a result of California's Proposition 13:

- Taken by itself, the California action will have little net direct effect on total demand as state and local taxes are cut by more than expenditures while Federal taxes on Californians rise somewhat.
- However, the Proposition 13 fever will hold down spending plans in general. Federal grants, which rose by \$11 billion in the most recent four quarters, will rise only half as much in coming quarters. Revenues will grow more slowly as the rise in incomes tapers off.
- As a result, purchases by state-local governments will rise only 9% in 1979.

PRICES, PROFITS AND EMPLOYMENT

Prices: Although the basic inflation rate has worsened during the past year, some modest improvement is in sight. As unemployment declined during the expansion, the average rate of wage increases rose by 1 to 1½ percentage points. But the increase in wages in recent months has been tapering off, and the prospects of a weakening economy — together with the Administration's new initiatives for slowing inflation — provide some insurance against a further speedup in prices. Although meat prices will continue to rise, the food component as a whole will not be as strong an inflationary factor in the year ahead as it has been this year. Overall, therefore, we foresee a rise of just under 7% in the GNP deflator in 1979 against a rise of 7.3% in 1978.

Profits: With increases in sales volume tapering off, profit margins and profits will not perform very well in 1979. As against a rise of 14½% in profits in 1978, we anticipate only a small further rise in 1979. On a year-over-year basis, profits comparisons will look rather favorable early in the year but will deteriorate as the year progresses.

Unemployment: The unemployment rate declined to near 6% last winter and has stayed there through the spring and summer months. A falling rate of real expansion will now translate into rising unemployment. From an average of 6% this year, unemployment is expected to rise to 6½% in 1979 and may well approach 7% by the end of the year.

CONCLUSION

The shadow of chronic inflation continues to fall over the U.S. economy's prospects of full employment at home and a stronger dollar abroad. By now, surely, thoughtful observers must be aware that there is no easy way out of the inflation thicket:

- Putting the economy through the wringer of recession (by tighter money and leaner budgets) would offer us something like a 1% cutback in the inflation rate at a cost of about \$200 billion in lost GNP.
- Putting the economy in a straightjacket of wage and price controls would temporarily suppress inflation at the cost of curtailing our economic freedom of choice, distorting resource flows, and inviting widespread chicanery.
- That leaves us the undramatic alternative of combining monetary and fiscal moderation with wage and price moderation and unrelenting efforts by government to minimize its own cost- and price-propping and competition-stifling actions.

It is the third route that the Carter Administration has chosen. Belatedly, it is initiating a program of wage-price jawboning with teeth — a program that will use procurement, regulatory, and other indirect levers to induce business to decelerate its wage and price boosts. If it works — if it carries both clout and conviction — it can ease cost-push forces, strengthen the dollar, and keep Federal Reserve policy from saddling us with a 1979 or 1980 recession.

So the American people — as consumers, as workers, as employees, and as stockholders — have an enormous stake in the success of the new Carter offensive against inflation. If the program fails — either because the White House bungles it or because business and labor sabotage it — the country may well face the Hobson's choice of recession versus controls, or heaven forbid, both.

Walter M. Heller
George L. Perry



