

**SHADOW OPEN MARKET COMMITTEE**  
Policy Statement and Position Papers

March 11-12, 1984

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1. **Shadow Open Market Committee Members - March 1984**
2. **SOMC Policy Statement, March 12, 1984**
3. **Position Papers prepared for the March 1984 meeting:**
  - Deficits, Interest Rates and Monetary Policy, Karl Brunner, University of Rochester**
  - Base Velocity - The Trend Continues, Allan H. Meltzer, Carnegie-Mellon University**
  - Trade Restrictions Imposed in 1983, Jan Tumlir, University of California at Los Angeles**
  - Monetary Policy Options and the Outlook -- 1984, Jerry L. Jordan, University of New Mexico**
  - Economic Projections, Burton Zwick, Prudential Insurance Company of America**
  - Recent Behavior of the  $M_1$  - Adjusted Monetary Base Multiplier and Forecasts for Early 1984,<sup>1</sup> James M. Johannes and Robert H. Rasche, Michigan State University**
  - Budget Deficits and the Disarray of Fiscal Policy, Mickey D. Levy, Fidelity Bank**



Shadow Open Market Committee

The Committee met from 2:00 p.m. to 7:30 p.m. on Sunday, March 11, 1984.

Members of SOMC:

PROFESSOR KARL BRUNNER, Director of the Center for Research in Government Policy and Business, Graduate School of Management, University of Rochester, Rochester, New York.

PROFESSOR ALLAN H. MELTZER, Graduate School of Industrial Administration, Carnegie-Mellon University, Pittsburgh, Pennsylvania.

PROFESSOR JERRY L. JORDAN, Anderson Schools of Management, University of New Mexico, Albuquerque, New Mexico.

DR. MICKEY D. LEVY, Chief Economist, Fidelity Bank, Philadelphia, Pennsylvania.

PROFESSOR ROBERT H. RASCHE, Department of Economics, Michigan State University, East Lansing, Michigan.

DR. ANNA J. SCHWARTZ, National Bureau of Economic Research, New York, New York.

DR. BERYL SPRINKEL, Executive Vice President and Economist, Harris Trust and Savings Bank, Chicago, Illinois.\*

DR. JAN TUMLIR, Visiting Professor, University of California, Los Angeles.\*\*

DR. BURTON ZWICK, Vice President, Economic Research, Prudential Insurance Company of America, Newark, New Jersey.

\*On Leave from the SOMC; currently Under Secretary of the Treasury for Monetary Affairs.

\*\*On leave from GATT, Geneva, Switzerland.



Policy Statement  
Shadow Open Market Committee  
March 12, 1984

Press attention concentrates on the Federal budget deficit and propagates the mistaken belief that a smaller budget deficit is the key to lasting prosperity, stable growth and low inflation. Spokesmen for the Federal Reserve and some members of the Administration encourage this view. By concentrating on the budget deficit, they draw attention from Administration and Federal Reserve failures to implement policies that enhance price stability, efficiency and growth.

Most concerns about the deficit are misdirected. There is no careful study showing a direct connection between actual or expected budget deficits and market interest rates. No standard economic theory, Keynesian or non-Keynesian, predicts any direct effect of the deficit on market interest rates. The size and composition of government spending, as well as the method of financing it, affect the allocation of real resources, the rate of real growth over time, and interest rates. Furthermore, despite repeated claims by some public officials, neither theory nor empirical evidence supports the view that the current deficit has been a principal cause of the appreciation of the dollar in recent years. Typically, large budget deficits are the companions of weak, not strong, currencies. Government fiscal policies affect economic decisions in four ways. The financing of federal spending that agitates the financial markets is perhaps the least important influence. Effects on incentives have been emphasized by supply side advocates. In addition to these much discussed effects, fiscal policies change and alter the allocation of resources between consumption and investment and redistribute income.

Public officials, including economists in public office, present inaccurate and misleading measures of the deficit. Their statements concentrate on these inaccurate measures, and ignore more relevant measures. They wrongly suggest that the economy would benefit from higher taxes that lower the deficit. Furthermore, their statements ignore more important effects of fiscal policy on the composition of total spending and on money growth.

### Money Growth and Inflation

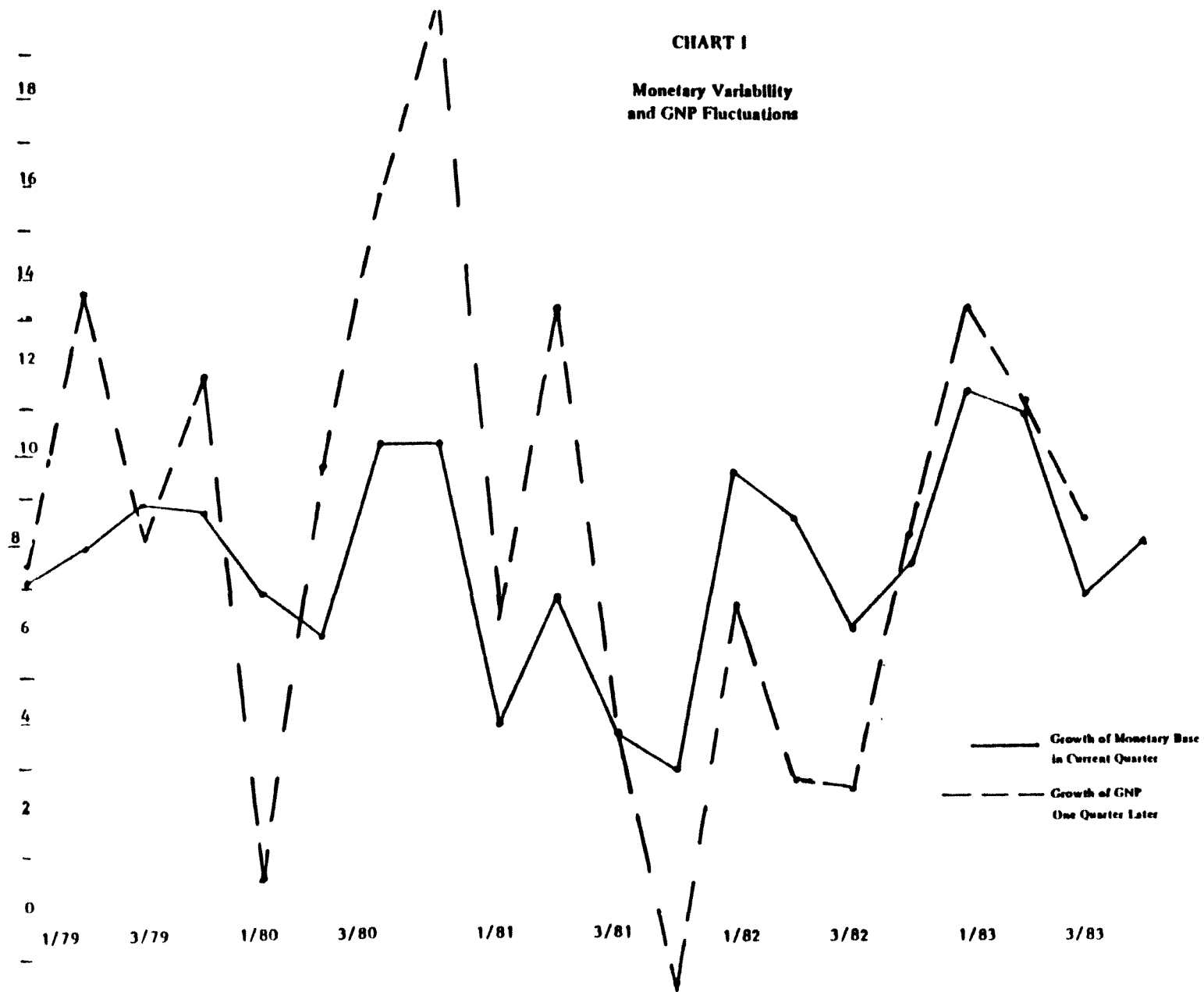
Current monetary actions are short-sighted and irresponsible. They increase inflation but have minor effects on the financing of the budget deficit. Actual budget outlays must be financed by taxing, borrowing and issuing base money. The principal effect of the budget on inflation, in the current U.S. economy, can be avoided. An independent central bank is intended to limit political pressure to finance government spending by issuing money.

Unfortunately, the Federal Reserve has failed repeatedly to conduct a responsible, non-inflationary monetary policy, and it is failing again. Frequent statements affirming the Federal Reserve's commitment to reduce inflation will once again prove to be meaningless unless the Federal Reserve controls money growth. Recently the Federal Reserve relinquished control of money growth. It is repeating the major mistake of the seventies -- holding the interest rate on bank reserves (Federal funds) in a narrow range. Under current, Federal Reserve operating procedures, actual monetary growth is a function of changes in market credit demand. Such an approach is inherently procyclical.

Under the policy of interest rate control, the Federal Reserve issues money and finances more of the deficit than planned whenever aggregate demand is above the Federal Reserve's forecast. All changes in aggregate demand are allowed to change money growth. The result is an erratic, unplanned rate of money growth that is consistent with the Federal Reserve's announced targets only by chance.

Erratic money growth, in turn, influences future spending with a lag. Chart 1 shows that, for the past three years, quarterly accelerations and decelerations of the monetary base have been followed within one quarter by accelerations and decelerations in nominal spending, or GNP. Each of the eight turns in money growth was followed within a quarter by a similar turn in GNP growth. There is no reason to expect GNP growth to follow base growth within a quarter, but, as Chart 1 shows, the pattern continues.

There is no easy way to correct the problems that present monetary procedures and lack of policy impose on the economy. Continuation of the recent rate of growth would take inflation back to the average levels of the seventies. This in turn would inevitably elicit calls for a shift to an anti-inflationary policy. If there were a sudden lurch to lower money growth late in the year, another recession will follow. The prospects of another period of stagflation are increasing.





For many years, we have advocated steady, gradual, pre-announced reductions in money growth. Ten years of experience has convinced us that this policy cannot be made to work under current practices. The Federal Reserve is not held accountable for its repeated failures to carry out the disinflationary policies it announces. Further, delay in lowering money growth accepts the return to higher inflation implicit in current and recent money growth.

Last September, the SOMC warned that more than 6 to 7 percent inflation in 1984 was highly probable if high money growth continued. We urged the Federal Reserve to keep the rate of growth of the monetary base -- currency and total reserves -- at 6 percent in the year ending fourth quarter 1984. Instead, the annual growth rate has exceeded 9 percent, far above our recommendation and much higher than is consistent with the Federal Reserve's frequent statements about the importance of reducing inflation. The difference between the SOMC recommended monetary growth and the recent 9 percent annual growth rate of the base is a trivial \$6 billion reduction in the Federal government's net borrowing requirement in calendar 1984. The cost of this minor one-year reduction in net borrowing would be a sharp increase in inflation that sets the stage for another round of stop-go, and another recession.

The alternative is to return monetary base growth to 6 percent this year. This is the path consistent with the Federal Reserve's target and our September recommendation. We urge, but do not expect, the Federal Reserve to implement this policy promptly to avoid the resurgence of inflation and another prolonged recession.

#### Measuring Fiscal Policy

Reported or projected deficits of \$200 billion give a misleading impression of the current fiscal problem. Such projections do not accurately measure the real burden of current fiscal policy on the public. Once the estimates are corrected, the main source of the fiscal problem becomes clearer. Corrections and adjustments are shown in the accompanying table.

Column (1) reproduces estimates by the Congressional Budget Office (CBO) of the 1983 deficit and their projections for 1984 to 1986. These estimates include the effects of the last recession and the incomplete recovery. It is widely recognized that cyclical increases in the deficit diminish as the economy

**Current and Projected Deficits  
1983-1986 (in billions)**

Year	Unified budget deficit  (1)	Structural deficit  (2)	Inflation tax*  (3)	State and local surplus  (4)	Adjusted public sector borrowing requirement  (5)	Current payment due on unfunded liability  (6)	Corrected deficit  (7)
1983	\$-195	\$-85	\$54	\$51.0	\$+20	\$-224	\$-204
1984	-190	-114	67	51.0	+12	-238	-226
1985	-195	-136	74	51.0	-11	-252	-263
1986	-217	-167	82	51.0	-34	-267	-301

- denotes deficit; + denotes surplus.

**Sources:**

Cols. (1) (2) and (3) Congressional Budget Office. CBO, The Economic Outlook, A Report to the Senate and House Committees on the Budget, Tables III.1 & III.2 p. 63-64. CBO estimates Table B.1 Col. 2 & Col. 3 p. 110.

Col. (4) 1983, Council of Economic Advisers; 1984-6 our projection

Col. (5) = Col. (2) less (col.) 3 and (col.) 4

Col. (6) 1983, Unfunded liability from Grace commission; 1984 to 1986, assumes growth at CBO's estimated growth of social security payments (5.8%); Current payment is 8% of outstanding liability column (6).

Col. (7) sum of cols. (5) and (6).

\* In principle the capital loss in outstanding gov't debt.

recovers. The so-called "structural deficit" remains after these cyclical influences are removed. Estimates of the structural deficit depend on the computation one chooses, but that is true of all projected deficits. Column (2) uses estimates produced by CBO.

During periods of inflation the purchasing power of wealth invested in government bonds shrinks with the rate of inflation. The government collects an inflation tax from bondholders. Part of the interest payment made to bondholders compensates them for their anticipated loss of wealth. If this part of the government's interest bill is counted as spending, it should also be counted as a tax and not included in the deficit. Column (3) is the CBO's estimate of the inflation tax on outstanding debt that should be subtracted from the deficit.

Most countries report the consolidated public sector borrowing requirement. This is the amount that the total government sector must finance. Column (5) reports this sum after adjusting for the inflation tax, in column (3), and the combined state and local government surplus, shown in column (4). Column (5) shows that most of the reported deficit for the next 3 years reflects government accounting procedures and the business cycle. Even if the state and local government surplus is not subtracted, our measure of the Federal deficit remains below 2 percent of projected total spending.

Unfortunately, these are not the only adjustments required to arrive at a meaningful estimate of the fiscal deficit. The most important neglected item is the unfunded liability in the social security, military and civil service retirement systems. The Grace Commission estimated that, in 1983, the unfunded liability is \$2.8 trillion. We have used this estimate and the growth rate of future social security payments to compute the amount that would have to be raised annually to honor current commitments to persons currently in the labor force or retired and eligible for pensions. These estimates are shown in column (6).

The adjustments to the reported deficit highlight the failure of Congress and the Administration to provide revenues to match the payments promised to current and future retired persons. These payments dominate the corrected deficit in column (7). They show that the failure of the Congress and the Administration to control spending is the heart of the fiscal problem.

### Real Effects of Fiscal Policy

In the absence of barriers to capital flows, global saving flows toward countries with the highest expected after-tax rate of return. Countries with high rates of saving invest where opportunities are highest. In recent years, private Japanese saving has flowed to the United States.

Trade discrimination against Japan -- quotas limiting imports of cars and steel, duties on motorcycles and other barriers to Japanese imports -- reduces the return on investment in Japan and encourages an outflow of Japanese saving. The offset to the inflow of saving into the United States is the current account deficit. Attempts to close the current account (or merchandise trade deficit) by restricting imports of specific commodities raise prices, lower efficiency and increase the burden of financing current government spending. Growing restrictions on trade are one of the real costs of our current fiscal policy.

Congress is now considering tax increases to lower the deficit. If they were to choose consumption taxes, it would reflect the belief that a higher saving rate would encourage capital formation while higher taxes would reduce the deficit. This does nothing to alter current government policies that shift resources from investment to consumption.

Concern about fiscal policy should not focus on the narrow issue of the deficit. The more important issue is the way resources are used. Current spending encourages consumption at the expense of investment, capital formation and future income. Raising taxes will not greatly change this long-term outcome. To increase investment and productivity, Congress and the Administration must reduce the growth of future public spending for health care, pensions and defense. This would release resources for investment and capital formation and raise future income.



## DEFICITS, INTEREST RATES AND MONETARY POLICY

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### I. The Deficit Syndrome

The deficit of the Federal budget dominates the attention of the public arena. The process began with President Carter's ill-fated budget announcement in February 1980. The response of the bond market revealed at the time that an increasing segment of the public recognized the futility of repeated official promises to balance the budget. Attention to the rising deficit approached since 1982 a feverish pitch. Wall street "economists", Senators, Congressmen, pundits, and the media in general attribute to the budget deficit an array of dismal effects. We heard in 1982 that the deficit would obstruct any incipient recovery of the economy from the recession. An upswing matching approximately the average rate of real growth observed over the first four quarters of postwar cycle recoveries effectively falsified this prediction. So it is replaced by a new prediction. The deficit is supposed to halt the recovery in the near future and possibly push the economy into a new recession. The deficit creates moreover inflation. A direct link appears to be asserted connecting inflation with the deficit. Lastly, the deficit seems to be the cause of double digit nominal interest rates. Such interest rates produce apparently an "over-valued dollar" encouraging imports and lowering our exports. This pattern reduces, so we hear, our welfare, as it lowers domestic employment and output below the otherwise achievable level. And the close interdependence of national capital markets transmits the effects of the "high interest policy" pursued by the US government represented by a "loose" fiscal and "tight" monetary policy to all major nations. This vision thus offers European officials an excellent opportunity to blame US policy for their economic troubles.

The public arena seems to find this story plausible. But many beliefs are "plausible", and economic analysis nevertheless offers no support for these fashionable and contentious inventions. Policymaking guided by this political

vision of our economic problem will at best shift the nature of the problem with little improvement in our future economic prospects. A clarification of the nature of the issues associated with the budget deficit seems thus at this stage particularly urgent and important. We may immediately dispose of the most egregious error without long arguments. We can assert with some categorical definiteness that deficits per se do not create inflation. Most particularly, our inflationary experience of the last 18 years was not caused by the deficit. Similarly, neither economic analysis nor empirical evidence support the contention that high interest rates raise the foreign exchange rate. Such assertions are on a level with the statements propounded by the Flat Earth Society.

## II. Economic Reality and "the Budget Deficit"

Economic analysis offers little support for the peculiar attention concentrated on deficits and its rationale. Economic analysis does not deny that fiscal policy exerts in various ways substantial real effects on output and the formation of human or non-human capital. We learn however from economic analysis to look beyond the budget deficit at the whole fiscal policy pursued by the government. The President's rhetoric, not necessarily his actions, points more nearly in the right direction than the concerns voiced by Congress, "Wall Street" and the media. The President addresses the expansion of the budget as the primary problem and the mode of its financing as a secondary problem. Congress, intent on escaping from hard choices associated with any meaningful control over the budget's magnitude, directs attention to the deficit. This emphasis provides a better opportunity to avoid spending controls and centers political action on taxes as the required instrument to "solve the problem". The problem solved by Congress hardly includes the prospects of effective budget controls. Such controls would seriously inhibit the political power of Congress.

The ultimate fiscal means affecting the economy are the magnitude and characteristics of spending on goods and services, the pattern of the effective tax schedule including both positive and negative taxes (i.e. transfers), the true value of the government's liabilities and possibly also the government's assets. A systematic investigation of the government's effect on asset markets and resource allocations will attend to all those dimensions beyond the officially measured deficit. An analysis directed to the long-term implication of fiscal

policy should moreover remove purely cyclic components among expenditures and revenues. The cyclic components probably contributed to raise the measured deficit. The inflation tax imposed on outstanding government liabilities is, on the other hand, usually omitted in the standard accounting measures. This tax reflects the implicit revenue accruing to the government as a result of the inflation-induced real depreciation of nominal liabilities. The rate of inflation is the tax rate and the stock of real valued debt the tax base. Such an adjustment in the deficit is unavoidable whenever we wish to obtain an economically significant measure linking the deficit with the change in the net stock of debt.

The listing of the government's liabilities is not exhausted however by its official debt. Pensions, the social security system and various guarantee schemes impose commitments for future outlays on the government. The present value of these commitments is a political and economic fact just as real as the official debt. It is noteworthy in this context that the apprehension on the political and media market, or Wall Street, seems not to include the economic reality of "unfunded liabilities".

Probing beyond the official measure of deficits alerts us to the real significance of fiscal policy. Decisions bearing on spending and tax schedules modify the allocation of our resources and the normal level of output. Different fiscal choices affect the division of output between investment and consumption. The incentives or disincentives associated with spending patterns and tax schedules affect savings, investment in productive capital (both human and non-human) and socially non-productive investment in the political process. The latter increases with the magnitude of spending and the complexity of tax schedules. These effects occur independently of the deficit and powerfully condition our economy. The attention concentrated on the deficit alone thus obscures to a large extent major problems associated with the budget policies.

This conclusion is reinforced by an explicit consideration of the deficit and its consequences on the stock of outstanding real debt. The professional discussion still copes in this context with a somewhat unresolved issue. The "Ricardo theorem", recently revived by Robert Barro with an extensive analysis, denies that the mode of financing the budget exerts any significant real effects. The argument is essentially based on an intertemporal budget constraint of households and government. This framework includes additionally a crucial



assumption to the effect that economic agents fully anticipate with certainty that government borrowing will be repaid from future tax revenues based on lump sum taxes. Current borrowing is thus equivalent to future tax liabilities and the present value of these tax liabilities is equal to the current value of borrowing. The (infinite) intertemporal budget constraint then implies under the circumstances that the division of current budget finance between borrowing and tax revenues does not affect the public's real consumption pattern. Reliance on borrowing calls forth, in view of the anticipated tax liability, a matching increase in the public's saving. Current deficits thus involve according to the Ricardo-Barro analysis a redistribution of tax revenues over time. By fully discounting these time shifts the public's behavior essentially offsets the government's fiscal action. Real consumption and real interest rates are consequently unaffected by the government choice of financing current expenditures.

But large borrowing over a long and indefinite future raising persistently the stock of real debt can indeed occur. We do not observe this, so far, in the history of the USA. But the political process of western democracies appears to move fiscal policies in this direction. The real interest payments as a proportion of real income tend to rise over time as a result. This fact forces ultimately a change in regime. The government raises either the inflation tax which effectively lowers the growth in the stock of real debt or alternatively the market's ultimate rejection of a growing avalanche of interest payments financed with the aid of new debt forces a radical change in fiscal regime. But the mechanism inducing the change in financial regime cannot be subsumed under the Ricardo-Barro analysis. It remains essentially an extraneous element incompatible with the basic assumptions. An indefinite horizon of permanent deficits need be interpreted as a violation of the intertemporal budget constraint.

An alternative analysis denies for a variety of reasons associated partly with the recognition of self-interested age cohorts with finite life spans the equivalence of current borrowing and future tax liabilities. Once this link is broken, due to a major discounting of future tax liabilities in the context of our diffuse uncertainties, the mode of financing a given budget assumes some significance. The accumulation of real debt does, under the circumstances,

affect the real rate of interest and thus also the allocation of output and the formation of capital over the larger horizon. It also explains more effectively the ultimate market response to indefinite debt financing raising the stock of real debt. This response would appear over the long-run in response to a gradual accumulation of the real debt relative to real income and the resulting increase in real rate of interest. This will eventually necessitate a change in fiscal or monetary regime. But a change in regime most favored by Congress, namely a substantial rise in taxes, is a poor "solution" of the deficit problem. All our taxes affect marginal returns of assets or marginal prices. They unavoidably impose distortions on the use of our resources. Replacing debt finance with additional taxes replaces one real effect with another real effect. There is no reason to believe that the new taxes will affect our economy more beneficially than persistent debt financing. Some tax increases would also raise the gross real rate of interest, obstruct savings and investments or discourage the supply of labor or the intensity level of effort. A variety of tax increases would eventually lower the comparative level of normal output. Proponents of massive tax increases intent on eliminating tax rate indexation need thus to demonstrate first that their proposals will retard our future welfare less than the current fiscal policy. They would find it particularly difficult to demonstrate that the welfare gain caused by massive tax increases even approaches the welfare gain to be expected from controlling real expenditures and the magnitude of the budget.

The somewhat unresolved state of economic analysis bearing on the mode of financing the budget still provides some useful implication bearing on the public critique of deficits. The Ricardo-Barro position tells us that deficits are equivalent to taxes. The real effects are thus completely determined by the budget and do not depend on the mode of financing. The alternative position recognizes distinct real consequences on interest rates, savings and investments resulting from deficit finance and taxes. Neither position offers a good rationale for raising taxes as a substitute for debt finance.

### III. Deficits, Debt and Interest Rates

The arguments advanced in the public critique of deficits involve a direct link between current savings, current deficits and the emerging interest rate.

The real interest rate in particular is seen to be determined by a "collision" of supply flows of funds expressed by savings and net foreign capital imports with demand flows made up by the government deficit and the private sector's real investments. This view is clearly presented in the Economic Report prepared by the Council of Economic Advisers. Dr. Emminger, former President of the Deutsche Bundesbank, used this argument in a recent piece published in the Neue Zürcher Zeitung. The media and "Wall Street" dominantly interpret our financial affairs in terms of this argument. It appears to explain plausibly how a larger borrowing requirement by the government sector competes with the private demand for a scarce flow of investible funds supplied by households and foreigners. This competition must be resolved by the rationing function of interest rates. Larger deficits thus raise immediately the level of interest rates. This vision implies moreover that interest rates, once adjusted to a deficit, will not be influenced by any further repercussions even by a large and persistent deficit. But interest rates are supposed, under the circumstances, to reflect sensitively and immediately the relative magnitude of the current deficit.

The plausible appeal of this view in the public arena is unfortunately not justified by economic analysis. We possess here a common professional core unaffected by Keynesian and monetarist disputes about macro-analysis. Our problem reaches actually beyond the bond market. It involves basically the nature of the pricing process of durable objects with comparatively low transaction costs. The prices of such objects formed at any given moment on the market are not determined by a flow of new production encountering a flow of new demands. A price determined in this manner would hardly persist beyond the shortest moment. The low transaction costs enable holders of already existing objects to change any time their existing possession. A price determined by demand and supply flows generates, under the circumstances, responses among the prior holders of objects. These responses together with the inherited stock of objects determine at any moment the prevailing price. This applies in particular whenever the existing stock is large relative to the new production flow. Prices in markets for durable objects with comparatively low transaction costs are thus controlled, not by flows of new production and a corresponding pro-rata allocation of savings, but the interaction between the accumulated stock and the public's willingness to hold this stock. Stock demand and stock supply and not a

(new) flow demand and (new) flow supply, determine the current price. The prices of GM shares or of any other shares are consequently not determined by the interaction between new issues and a partial allocation of current savings. Share prices are determined at any moment by portfolio holders willingness to hold the outstanding stock. The same situation describes the bond market, the foreign exchange market and many commodity markets.

The public's stock demand depends on current and expected future market conditions. Stock demands are in general quite sensitive to expectational states. Durability of objects and low transaction costs offer expectations substantial room to operate. Keynes recognized this phenomenon quite clearly. Keynes emphasized in particular that a larger variance of expectational patterns raises the transaction volume associated with given price changes, whereas a very small variance of expectational states may produce large price changes at a vanishing transaction volume.

This analysis of a "stock-dominated market" contrasts sharply with the vision of a "flow-dominated market" encountered in the public arena. Some important differences should be noted at this stage. Our intuition immediately alerts us to crucial distinctions in relevant proportions or orders of magnitudes. The proportion of the deficit looms in the context of the flow analysis with an impressive magnitude. This fact was carefully noted in the Economic Report. The direct link between deficits and interest rates thus suggests a massive effect on nominal and real rates of interest. The stock analysis conveys a very different sense. Deficits modify interest rates only indirectly. They gradually increase the stock of real debt and interest rates respond to this increase in the stock. But this increase in the stock relative to the inherited stock is modest compared to the savings-deficit proportion. We should expect therefore a smaller impact on interest rates by deficits than is typically suggested by a flow approach.

Closely associated with these aspects bearing on orders of magnitude is an important difference between transitory and permanent deficits. A temporary deficit, recognized as such by market participants, produces a negligible effect on long-term interest rates according to the stock analysis. The flow analysis implies on the other hand a substantial rise of interest rates for the duration of the deficit. A permanent deficit produces according to the flow analysis a

permanent, once-and-for-all increase of interest rates to a higher level. The stock analysis produces in contrast also a different implication on this point. A permanent large deficit implies a persistent increase in the stock of real debt per unit of real income, provided inflation remains sufficiently low. This persistent increase produces not just a once-and-for-all rise of interest rates but initiates a persistent upward drift over time in the real rate of interest. A stock analysis thus suggests that the shorter-run aspects of a deficit policy pose no serious economic threats. The longer-run implications of a permanent large deficit persistently raising real debt per unit of real income loom on the other hand more seriously than indicated by a flow analysis. The appendix to the position paper argues in more detail that an indefinite increase in the proportion of real debt to real income with the corresponding increase in the proportion of real interest payments to real income will eventually be broken either by an escape into inflationary policies or a change in fiscal regime produced by a political crisis.

But what is the evidence about the comparative status of the flow and stock analysis? We do know from ample observation that most transactions on "auction markets", i.e. markets for durable goods with low transaction costs, are associated with shifts in existing portfolios. This fact cannot be reconciled with a flow analysis. The CBO also published a survey of all the empirical work conducted in the profession over the past years. The results of the survey are quite unambiguous. None of the studies found a statistically significant or reliable systematic connection between current deficits and interest rates. There exists thus simply no empirical basis for the assertions associated with the flow analysis. Some studies addressing the role of the stock of debt found on the other hand a significant effect on the level of interest rates.

#### IV. The Anatomy of Interest Rates

The general argument developed so far need be supplemented for a useful judgment by an examination of relevant orders of magnitude. We partition the nominal rate of interest for our purpose into a sum of three components: the basic real rate on default-risk free government securities, a risk premium reflecting the market's uncertainty about the future course of monetary policy and thus the profile of inflation, and lastly, the inflation premium expressing the

market's expectation of the inflation rate. The sum of the first two components constitutes the gross real rate of interest. The argument developed in the previous sections and the appendix indicates that a persistent deficit may be expected to affect nominal interest rates via all three components. But the popular view based on the flow analysis thoroughly fails to comprehend the nature and magnitude of these effects.

The basic real rate on long term government bonds seems to have averaged, according to Eugene Fama, about 2.5 percent for most of the postwar period until the early 1970's. This level may be applied as a benchmark to a base period 1960-1964 used as a comparison with the current state. We need first an estimate of the effect on the basic real rate attributable to permanent deficits. This permanent deficit is specified as the cumulative stock effect expected by the market over a five year horizon. Suppose the market expects under the circumstances the stock of real debt to double over this period. The response of the real rate of interest to the increase in the stock of real debt, discounted by the market's expectation to the current interest level, depends on the elasticity of the real rate with respect to the real debt. The asset market analysis jointly developed over the past decade with Allan H. Meltzer implies an elasticity of about .6. A 100 percent rise in real debt would raise under the circumstances the basic real rate from 2.5 percent to about 4 percent.

The second component, i.e. the risk premium, was probably quite negligible in the 1960's. But it emerged in recent years as a significant component of the gross real rate of interest. The announcement of a move toward tighter monetary control in October 1979 was actually followed by a large and pervasive uncertainty concerning the future course of monetary policy. **Federal Reserve officials repeatedly supplied conflicting signals and statements.** The variance of monetary growth increased and the motion of the money stock approached a random walk. The market responded to this deep uncertainty about the future prospects of inflation with a lower level of bond prices. A risk premium became thus embedded in the gross real rate of interest. Mascaro-Meltzer estimated, in the Journal of Monetary Economics, 1983, this risk premium at around 2 percent to 2.5 percent. Eduard Bomhoff estimated the premium independently at about the same level. The gross real rate thus adds up to about 6 percent-6½ percent. The remainder of about 5½ percent-6 percent constitutes the inflation premium.

The following table compares in broadest outline the current state with the state prevailing 20 years ago. The table is not presented with any sense of precision or detailed reliability. But it does convey a general sense about the anatomy of interest rates. We should most particularly consider that our elasticity estimate for real rates is most probably an upper bound defining the range of our uncertain knowledge. We learn thus that the current effect of large anticipated increase in the stock of real debt explains at most 1½ percentage points of the eight percentage point difference between 1983 and the early 1960's. The current deficit thus fails completely to explain both current nominal and real rates. The permanent deficit explains via the stock effect a portion of the higher gross real rate. But even a permanent deficit of the order of magnitude specified cannot explain in terms of the real debt effect, only the drift from 4 percent to 12 percent in the nominal rate of interest.

	nominal rate	basic real rate	risk premium	inflation premium
1960-64	4%	2½%	½%	1%
1983	12%	4%	2%-2½%	5½%-6%

One particular event occurring in the last year which also contributed to raise the basic real rate need also be mentioned here. The investment tax credit included in the tax legislation of 1981 raised the net real rate of return on new real capital. The market distributed this effect over all assets lowering consequently bond and share prices at the time. This means that the estimate of the real debt effect or the inflation premium is too large.

A deficit expected by the market to persist into an indefinite future modifies the nominal rate also via the risk premium and the inflation premium. A permanent deficit raises over time the likelihood of irregular but substantial monetary accommodation. It contributes then to maintain, or even raise, the level of inflationary expectations and consequently also the level of the inflation premium. The likelihood of this feedback from permanent deficits increases moreover in case the stock of real debt per output unit drifts higher over time. The same pattern combined with the established tradition of discretionary policymaking also deepens the pervasive uncertainty about the future profile of inflation and affects both level and volatility of the risk premium. Once we consider the relation between deficits and interest rates in a broader context we

do find a decisive influence on level and variance of nominal interest rates exerted by a permanent deficit recognized as such by the market. But the mechanisms establishing the link are radically different than those suggested by the popular flow analysis discussed in a previous section. This flow analysis attributes most of the higher nominal rate to a higher basic real rate, our analysis in contrast attributes the eight percentage point increase over 1960-64 dominantly to the inflation premium (about 4½-5 percentage points), secondly to the risk premium (about 2 percentage points) and lastly to the basic real rate and the pure real debt effect.

The analysis of the anatomy of nominal interest rates presented here also determines the requirements for a low interest rate policy. A determined non-inflationary monetary policy would lower the inflation premium by a substantial amount. But this monetary policy would not persist in the context of a permanent deficit policy. A permanent policy of large deficits measured in terms of the associated growth in real debt imposes a gradual upwards drift on the basic real rate, fosters a high and volatile risk premium and prevents the attrition of the inflation premium in response to expectations of eventual monetary accommodation spurred by the rising real debt ratio to real income. A non-inflationary monetary policy appears thus as a necessary but not as a sufficient condition for comparatively low nominal interest rates. We need also to change in addition our fiscal regime holding the deficit to at most a very small margin of national income.



## APPENDIX

Some Simple Analytics of Deficits and Real Debt

The relation between the real deficit and the mode of financing may be formulated as follows:

$$(1) \sigma \cdot d + \beta \cdot b = \text{def} = g + \text{tr} + r \cdot d - t_a$$

where  $\sigma$  is the relative change in the nominal stock of debt,  $\beta$  the relative change in the monetary base,  $d$  denotes the proportion of nominal debt to national income at current price-level,  $b$  is the corresponding proportion for the base. We have moreover  $g$  = government expenditures on goods and services per unit of national income,  $\text{tr}$  = transfer payments per unit of national income,  $r$  = average nominal interest rate applicable to  $d$ ,  $t_a$  = nominal taxes per unit of national income.

Two more relations are required to complete the scheme. Equation (2) describes the steady state conditions for a constant volume of real debt per unit of real income with  $\pi$  denoting the inflation rate and  $n$  normal real growth of output. It also expresses the condition for a constant proportion of real interest payments to real income. Equation (3) states a steady state condition for the rate of inflation with  $v$  measuring the trend growth of base velocity. This equation will in general be violated over shorter horizons.

$$(2) \sigma = n + \pi$$

$$(3) \pi = \beta + v - n$$

Equations (2) and (3) yield together equation (4)

$$(4) \sigma = \beta + v$$

The interaction between (1) and (4) determines our theme. We replace  $\pi$  occurring as a component of  $r$  ( $=rr + \pi$ ) on the right side in (1) with the aid of equation (3) and obtain

$$(5) \sigma \cdot d + \beta (b - d) = \overline{\text{def}} = g + \text{tr} + (rr + v - n)d - t_a$$

Equation (5) defines line 1 in the diagram. The slope is given by (6), the vertical and horizontal intercepts by (7)

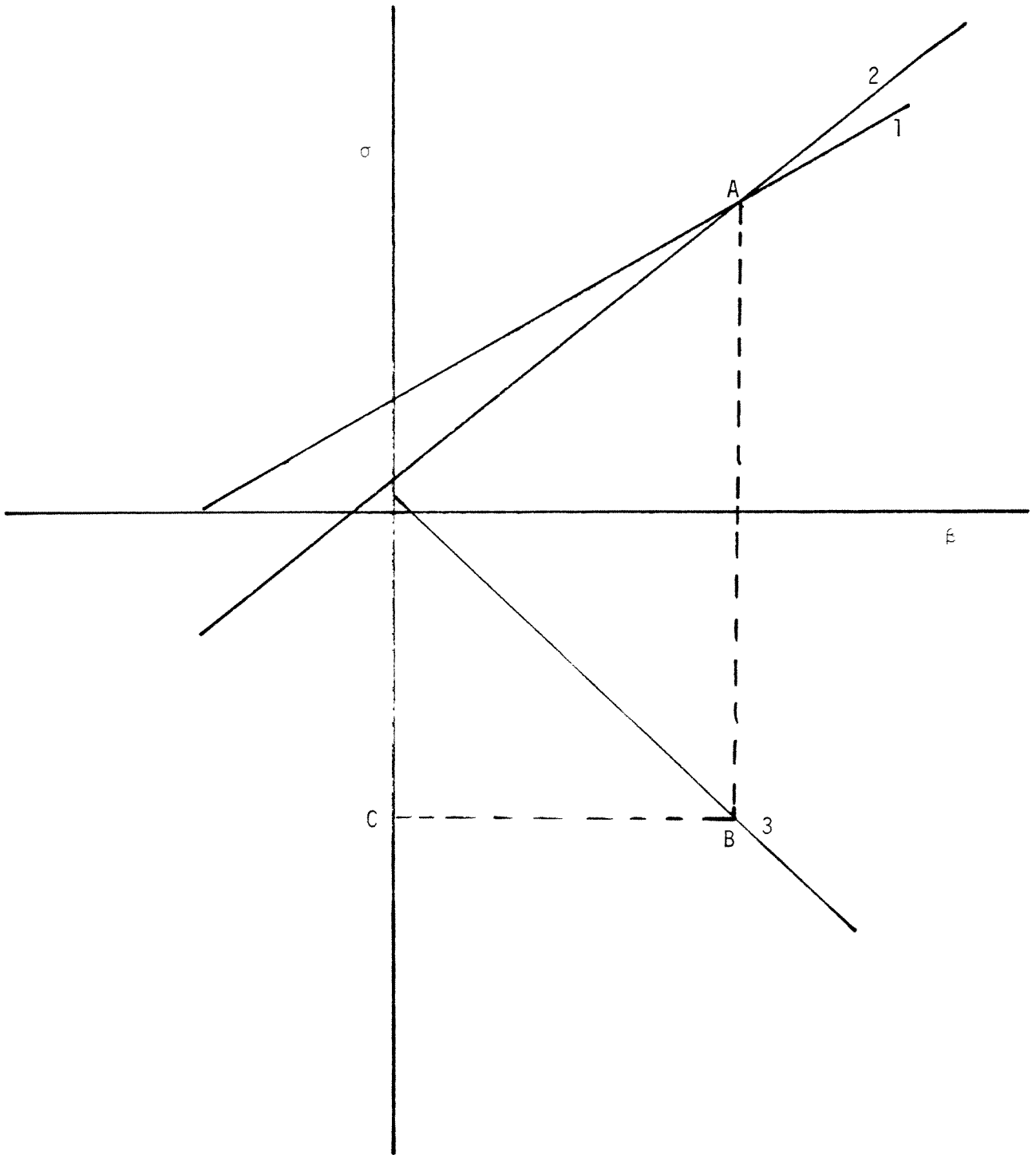


DIAGRAM I

$$(6) \frac{d\sigma}{d\beta} = \frac{d-b}{d} > 0$$

$$(7) \text{ vertical: } \frac{\overline{\text{def}}}{d}; \quad \text{horizontal: } \frac{\overline{\text{def}}}{b-d}$$

We observe under U.S. conditions that  $d \sim .3$  and  $b \sim .06$ . The slope approximates thus  $.8$ , the vertical intercept (with the full steady state adjustment for inflation) about  $.2$  while the horizontal intercept is approximately  $-.25$ .

Equation (4) defines line 2. The vertical intercept is  $v (\sim .02)$  and the slope is unity and thus exceeds the slope of line 1. With  $\overline{\text{def}} > vd$  the vertical intercept of line 1 exceeds the vertical intercept of line 2 and the intersection of the two lines occurs in the positive orthant. With  $\overline{\text{def}}$  sufficiently less than  $v$  the intersection lies in the negative orthant. Line 3 ultimately describes the relation between  $\pi$  and  $\beta$ . Its vertical intercept is  $(v - n)$ . The diagram thus depicts the steady state growth rate  $\sigma$  and  $\beta$  together with the inflation rate associated with a given deficit ratio  $\overline{\text{def}}$ , financial ratios  $d$  and  $b$ , and velocity and nominal growth  $v$  and  $n$ .

The diagram reveals that a larger deficit ratio raises  $\sigma$ ,  $\beta$  and  $\pi$ . We also note that a constant price level with a constant real debt per output unit requires a deficit ratio  $\overline{\text{def}}/d$  slightly above  $v$ . Combinations of  $\sigma$  and  $\beta$  on the segment between the vertical and the intersection point A on line 1 imply a rising real debt ratio  $d$  and the segment beyond A falling real debt ratios. An inspection of the graph shows that a persistent large deficit, expressed by a large positive vertical intercept of line 1, confronts policymakers over time with a serious dilemma. A non-inflationary (or modestly inflationary) monetary policy implies under the circumstances a persistent rise in the real debt ratio expressed by a choice  $(\sigma, \beta)$  left of A. Such a process may continue for quite a number of years. But the rising real debt and interest payment ratio ultimately impose some adjustments on the policymakers. Inflation, i.e. a greater reliance on  $\beta$ , offers an escape in this respect. The following table shows the steady state rate of inflation associated with three different levels of the (persistent) deficit ratio based on the assumption that  $v = .02$  and  $b = .06$  satisfying the condition of a constant real debt ratio. The results also satisfy the condition that the real rate of interest is equal to the normal rate  $n$  of real growth. The formula for the  $\pi$  is then

$$(8) \pi = \frac{\overline{\text{def}}}{b} + v, \text{ with } \overline{\text{def}} = g + tr - ta$$

With  $\overline{\text{def}}$  independent of  $d$  the steady state  $\pi$  is also independent of  $d$ .

$\overline{\text{def}}$	$\pi$
.01	18.7%
.06	102%
.1	169%

The results may astonish at a first glance. But we should remember that the crucial assumption expressed by eq. (3), viz. that inflation and also nominal interest rates are fully adjusted to the inflationary finance  $\beta$ . Without this feedback line 1 would have a negative slope and  $\pi$  would not blow up with the speed indicated in response to higher levels of  $\overline{\text{def}}$ . The feedback also implies a comparatively low critical level of the deficit ratio assuring a constant price level together with a constant real debt ratio.

The reader should be cautioned at this point that an important feedback has been omitted thus far. The ratio  $b$  depends on  $\sigma$  (or  $\beta$ ). This means that the slope of line 1 in diagram I steepens as  $\beta$  increases. The corrected intersection points on line 2 are thus even further removed from the origin. This result can be established in the following way. Recognition of the feedback modifies equation (6)

$$(9) \frac{d\sigma}{d\beta} = \frac{d-b-\beta b}{d} > \frac{d-b}{d}$$

This can be rewritten as

$$(10) \frac{d\sigma}{d\beta} = 1 - \frac{b}{d} [1 + \epsilon(b, \beta)].$$

The elasticity  $\epsilon(b, \beta)$  is negative and approximately equal to the interest elasticity of the base velocity multiplied with minus one. The marketed expression is thus at least .5. Larger steady state values of  $\beta$  lower  $b$ . It follows that the slope of line 1 increases as we move along the line and converges toward unity. This implies that a steady state solution only exists for deficit ratios which do not exceed a critical upper boundary.

The steady state rate of monetary expansion can also be determined with the aid of diagram II. This diagram is obtained from equation (8). It is rewritten as eq. (11)

$$(11) \quad \beta b(\beta) = \overline{\text{def}}$$

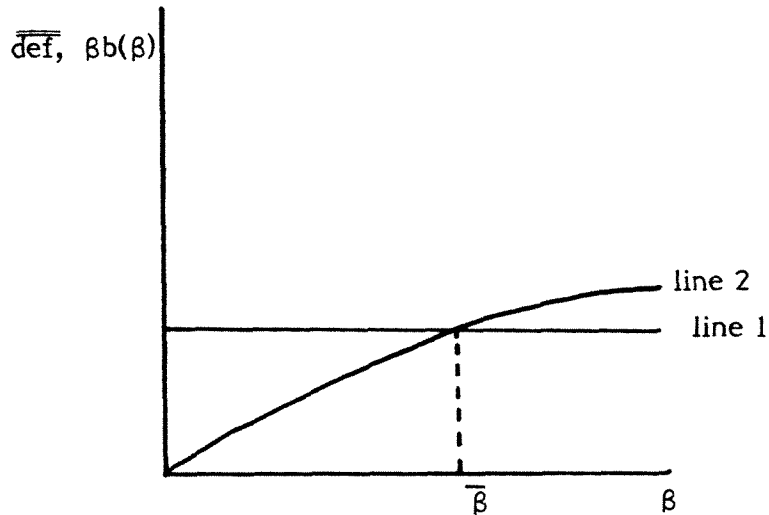


DIAGRAM II

The right side of eq. (11) is represented by line 1 and the left side by line 2. The slope of line 2 is  $b[1+\epsilon(b,\beta)] < b$  and declines with rising  $\beta$  as  $b$  falls. The slope is thus positive and declining as we move along the line. The intersection between the two lines determines the rate  $\overline{\beta}$  required to produce for given  $\overline{\text{def}}$  a constant real debt ratio. Given slope of line 2 this rate rises rapidly in response to larger permanent deficits.

## BASE VELOCITY -- THE TREND CONTINUES

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Attached to this brief statement is an updated version of the chart showing deviations ( $DV$ ) of base velocity from trend. The deviations are measured from the trend estimated for the postwar period, approximately 2.5 percent a year.

As before,  $DV$  depends on expected inflation and on innovations in base growth. Expected inflation ( $pe$ ) is the systematic component of a first order moving average of inflation rates and the innovations are the residuals from a second order moving average of base growth ( $DBMAZ$ ). Errors from the linear regression

$$DV = a_0 + a_1 pe + a_2 DBMAZ$$

are corrected for first-order serial correlation. Typically, the correction coefficient is 0.95 or above, so the deviations in trend are persistent.

Recent persistence is shown in the chart by the decline in 1982. Base velocity is now about 1.4 below its former trend, but it is rising at the old trend rate. This is shown by the serially corrected residuals on the right of the chart. They have remained close to zero for the past three quarters while the actual deviation ( $DV$ ) remains about -1.4 as shown on the left.

The low values of the residuals imply that if base growth remained constant, velocity would rise at its past trend rate. The level of base velocity appears to have been reduced.

11 LINE 6

PLLOT OF ACTUAL (+) AND FITTED(+) VALUES

PLLOT OF RESIDUALS(O)

ID	ACTUAL	FITTED	RESIDUAL
711	0.3244	0.4608	0.181
712	0.3195	0.2747	-0.121
713	0.3081	0.4864	-0.749E-01
714	0.3041	0.1457	-0.161
721	0.1005	0.1211	0.280
722	0.1119	0.1254	-0.284E-01
723	0.1174	0.2098	-0.214E-01
724	0.1019	-0.1491	0.138
731	0.2063	0.1522	0.160
732	0.1777	0.2229	-0.812E-01
733	0.1777	0.1521	-0.142E-01
734	0.1777	0.1521	0.548E-01
741	0.1777	0.1521	-0.161
742	0.1777	0.1521	-0.480E-01
743	0.1777	0.1521	-0.113
744	0.1777	0.1521	-0.119
751	0.1777	0.1521	-0.377
752	0.1777	0.1521	0.112
753	0.1777	0.1521	0.146
754	0.1777	0.1521	0.575E-01
761	0.1777	0.1521	0.115
762	0.1777	0.1521	-0.645E-01
763	0.1777	0.1521	-0.230
764	0.1777	0.1521	0.107
771	0.1777	0.1521	0.881E-01
772	0.1777	0.1521	0.157
773	0.1777	0.1521	0.703E-01
774	0.1777	0.1521	-0.178
781	0.1777	0.1521	-0.679E-01
782	0.1777	0.1521	0.312
783	0.1777	0.1521	0.329E-01
784	0.1777	0.1521	0.144
791	0.1777	0.1521	-0.513E-01
792	0.1777	0.1521	-0.540E-01
793	0.1777	0.1521	0.101
794	0.1777	0.1521	-0.115
801	0.1777	-0.6282	0.202E-01
802	0.1777	-0.4217	-0.320
803	0.1777	0.5216	0.218E-01
804	0.1777	0.4215	0.697E-01
811	0.1777	0.1521	0.315
812	0.1777	0.0200	0.564E-01
813	0.1777	0.1521	0.116
814	0.1777	0.2708	-0.334E-01
821	0.1777	0.7590	-0.334
822	0.1777	0.2524	-0.261
823	0.1777	-0.4262	-0.278
824	0.1777	0.0311	-0.288
831	0.1777	1.204	-0.235
832	0.1777	-1.062	-0.913E-01
833	0.1777	-1.305	-0.847E-01
834	0.1777	1.215	-0.581E-01

## TRADE RESTRICTITONS IMPOSED IN 1983

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Last time I presented some rough overall estimates of protection. Today I want to report on developments in 1983. Let me emphasize that my list is selective and illustrative only, compiled from official notifications to the GATT (which are themselves woefully incomplete) and from newspaper clippings collected by my office. I hope that all the major ones are listed but am reporting also some minor ones for their intrinsic interest.

Argentina: prior authorization of all payments for imports is now required.

Brazil: quantitative restrictions were imposed or tightened on all imports of manufactures.

Hungary: a general restriction imposed on imports from outside the Eastern trading area, for balance of payments reasons.

Israel: general import surcharge was raised and a prior deposit by importers is not required.

Nigeria: quantitative restrictions were imposed on all imports, for balance of payments reasons.

Portugal: a general import surcharge was imposed together with quantitative restrictions on imports of all consumer goods.

All these are countries in obvious payments difficulties. That trade restrictions are unsuitable for correcting payments imbalances needs no discussion here. Numerous import control measures have also been taken by Mexico on which, however, I do not have information, Mexico not being a member of the GATT. Then we come to the large trading countries.

Australia tightened restrictions on automobiles and steel strip.

Canada tightened restrictions on imports of footwear of all kinds.

More interesting is the complaint that Canada has reduced, apparently quite sharply, the number of customs officers authorized to clear clothing imports. Only twenty-six officers have been given the



'special training' which is now required for clearing clothing imports; of these, six are in Montreal, five in Toronto and Vancouver, where all Asian imports enter, has only three.

Canada also instituted official discussions with Japan of periodic 'forecasts' by Japanese automobile industry of its exports to Canada.

Pressures were reported from or on Canadian Parliament for domestic content legislation on automobiles. U.S.-made cars would presumably be exempt, these exchanges being regulated by the U.S.-Canadian Automotive Agreement.

The European Community: A major precedent was created in February 1983 when the European Commission obtained from the Japanese government an agreement to restrain ten items in Japan's export to Europe. This is the first Community-wide Japanese restraint; until last year, Japan has accepted bilateral restraints only vis a vis national governments. The items concerned are: cars, trucks, motorcycles, fork-lift trucks, color TV sets and tubes, numerically controlled machine tools, music recording and reproduction equipment, quartz watches and video-cassette recorders. These items alone account for some 40 percent of Japan's exports to Europe. Exports of steel, ships and textiles and clothing were already under an even tighter restriction.

A commission report published in September shows the number of anti-dumping investigations to have increased by 20 percent in 1982. Most of them were settled by the Commission's acceptance of price undertakings by the exporters concerned. A new method was devised for calculating normal value of imported iron and steel products. Proceedings will be instituted against exporters invoicing at less than normal value.

Two front-page headlines from The Financial Times of January 26, 1984: "France acts to slow down meat imports"; "Paris denounces US move to stem European wine imports".

An agreement under which Thailand had restrained its exports of manioc/tapioca to the E.C. was extended to 1986. This agreement was concluded in 1982, concurrently with a large loan by the European Community to Thailand. Subsequently, the E.C. Commissioner of External Affairs, Haferkamp, who had negotiated the restraint and the loan, was awarded the highest Thai distinction, the Order of the White Elephant.

The United States reported five cases of "safeguard action", or temporary emergency protection permitted under GATT Article XIX. In two cases, preserved mushrooms and porcelain-steel cooking wares, existing restrictions were extended in time while new measures were taken on heavy motorcycles (of which there is only one producer in the U.S.), lag screws and bolts, and speciality steels (by far the most important item of the five).

Outside GATT rules, the voluntary export restraint on automobiles obtained from Japan for three years in 1981 was recently extended for another year at a higher level of 1.85 million units.

In early 1982, the U.S. embarked on a 'reconquest' of some of its agricultural markets in the Middle East and the Caribbean by offering wider subsidy-margins than the E.C., in acute budget difficulties, could afford. Urgent negotiations were instituted..

Some additional comments are needed for full understanding of the trade restraints undertaken on the export side. The European-Japanese agreement was renegotiated and given greater precision in November. In particular, the amount of video-cassette recorders imported from Japan was made contingent on Japanese production of them in Europe in joint ventures with European firms. When Japanese color TV sets were under restraint in the U.S. in the 1970s, similar conditions were negotiated. Japan formally undertook not only to produce in the U.S. but to produce by methods no less labor intensive than those used in Japan. Finally, Japan's agreement to restrain automobile exports to the U.S. has already led to a spate of joint ventures between American and Japanese car makers. I shall return to the most important of them, the GM-Toyota project. Here we can conclude that this method of protection, in which the government of the importing country holds out tempting inducements to the export industry, eventually but almost inevitably leads to negotiations about the location of production and technology transfers through joint ventures.

Second, note that protection relying on restraint from the export side is in several respects more costly than the simple old-fashioned protection by tariff. The tariff at least ensured that the protecting country (as distinct from the consumer) obtained its imports at the lowest possible cost. Where it possessed some monopsony power, it could even, for a time, reduce the prices of its imports by raising the tariff. And its public always knew what the margin of protection was. Now exporters are bribed into self-restraint in that they are allowed to collect the export (scarcity) rent, that is, export at the price prevailing in the protected market which is considerably above their own cost-price. The Thai manioc/tapioca case is a particularly graphic example of bribing. A more interesting illustration (because it also reveals the quality of the thought that goes into these matters) is provided by the European complaints about the effects of the American-Japanese automobile restraint. It is said to have so increased the profit margins of Japanese firms on American sales that Japanese producers can cut prices in third markets where they compete with European cars. A slightly different though related issue -- closer to extortion than to bribing -- is involved in the background of the U.S. safeguard action on heavy motorcycles. The Japan Economic Journal of September 20, 1983, revealed that in February last year Harley-Davidson had approached the Japanese motorcycle

firms and the Ministry of International Trade and Industry for financial aid, offering to withdraw its application for emergency protection in return for a \$50 million debt guarantee. The safeguard measures by the U.S. government were taken in April. A new approach by the American motorcycle firm to its Japanese competitors was reported to have been made in the week preceding the Journal article.

Third, all that the export industry has to do in order to collect the scarcity rent on its restrained exports is to organize itself into a cartel. The new form of protection thus poses, intrinsically and inevitably, a problem for antitrust law. Private cartels are notoriously unstable formations. To survive for any length of time, they need government's help in enforcing discipline. The European steel cartel was disintegrating in 1982 when a conflict arose between the European Commission and the U.S. government about subsidization of European steel in the United States. The European export restraint by which the conflict was settled provided an effective means for the Commission to assert control over the failing cartel. As I read the Japanese situation, the automobile restraint has similarly enabled MITI to act on its old conviction that the Japanese automobile industry ought to be much more concentrated than it is. The three large firms get a lion's share of the controlled export volume while the smaller and younger, but fiercely competitive, companies go hungry. Thus we export cartels while paying lip service to the proposition that competition benefits and protects domestic consumers. The Japanese government must fear for its constitutional integrity and legitimacy as it is coerced into cartelizing one important industry after another, and is vainly trying to make the U.S. government understand that such a result cannot be in the interest of the American people either.

Whatever integrity there was in our antitrust law is vanishing rapidly. What we have there are two large bureaucracies -- the commercial policy establishment and the antitrust enforcement -- making work for each other, taking in each other's washing. The FTC already gave a provisional approval of the GM-Toyota joint venture. I am sceptical about the usefulness of antitrust in normal circumstances but there can be no doubt that behind the Japanese export restraint, the joint venture of these two firms, both No. 1 in their respective countries and Toyota No. 4 in the U.S., would substantially lessen competition in the American market. Toyota would have a strong incentive, for example, to price the new car so as to minimize its own Corolla's loss of market share.

Protection, Deficits, Exchange Rates and Efficiency

Allan has called my attention to the estimates of the cost made recently by Michael C. Munger, ("The Costs of Protectionism: Estimates of the Hidden Tax of Trade Restraint", Washington University Center for the Study of American Business, Working Paper No. 80, July 1983). As I suggested last time, any undertaking of this kind is fraught with difficulties. Munger's paper, however, is a thoroughly professional piece of work and its bottom-line (minimum) estimate of \$255 per inhabitant is within the order of magnitude of several similar estimates made in recent years. Reporting his findings in Cato Institute Policy Report (February 1984), Munger touches on several broader issues of current policy debate. This seems an appropriate occasion for the following comments.

The relation between fiscal and foreign sector deficits is easy to explain. We are in a period of a relative capital shortage. The global savings ratio has declined in consequence of (a) unprecedented rates of government dissaving in both industrial and developing countries and (b) the swing of the OPEC group of countries from a large current account surplus to a deficit. In this situation, countries compete for a reduced global supply of savings by the quality of the investment opportunities they can generate. To take two extreme examples, Japanese institutional arrangements are such that the country still maintains a savings ratio of some 30 percent of GNP while the U.S. aggregate saving ratio is currently only 15-16 percent. In Japan, however, experiencing intense trade discrimination abroad, investment opportunities are now insufficient to absorb national savings while in the U.S. they are growing so rapidly that domestic savings are insufficient to finance them without inflation. So the U.S. borrows abroad, and the only way the borrowed capital can be brought home is through a current account deficit. Yet many short-sighted economists have been strengthening the case for protection by calculating how many more jobs there would be if the U.S. did not have an external deficit. That is a meaningless calculation because, if the U.S. did not have a trade deficit, it would already have a rising inflation accompanied or followed by higher unemployment.

We should be similarly careful in pronouncing on how much the exchange rate of the dollar, necessary to bring the borrowed capital into the country, is hurting U.S. exporters and firms competing with imports. There is hardly a firm in the U.S. that would produce for exports only. While their domestic sales are

improving, the continuing sluggishness and increased competition for export orders in the rest of the world economy is depressing U.S. exports along with -- but would do so even without -- the high exchange rate of the dollar. We cannot say how much each of these forces contributes to the observed performance -- admittedly poor -- of our exports.

At the same time, the exchange rate keeps a lid on domestic prices. Except for a relatively small segment at the high-technology end of the spectrum, all U.S. industry is import-competing. In the 1960s and early 1970s, American economists tended to calculate the impact of an exchange rate change on the domestic price level as the product of the exchange rate change and the proportion of traded goods in the GNP. (Willy Fellner wrote about it in summing up his experience on the Council of Economic Advisers.) We learned eventually that the two changes are more likely to be of the same order of magnitude but recently, the old mistake seems creeping back again. We must keep explaining that exchange rate depreciation is not an independent contribution to inflation but an integral part of the mechanism by which inflation develops from the original monetary impulse.

All this said, we must acknowledge that a large current account deficit does generate strong political forces for protection. It is thus important to see clearly what the consequences of protection in this situation are.

Observe, first, that selective protection, which is what all countries practice, is, from the economic viewpoint, random. There are 'political economy' theories about which industries are most likely to obtain protection and they all boil down to the following proposition: only industries in closely disputed electoral districts get protection, those in safe ones never do.

Return, then, to the case of the expanding economy attracting capital from abroad as it cannot finance all the investment opportunities it generates from internal savings. The corresponding current account deficit generates pressures for protection to which the government yields. In a free trade situation, the industries bearing the brunt of the import competition intensified by the country's need for foreign capital would be those possessing the least comparative advantage, thus offering the least attractive investment opportunities. Their absolute or relative shrinkage, in other words, would be irreversible. When the investment cycle has run its course (or when the country

got its public finances under control again), the current account would revert to balance or surplus but at a higher level of trade.

When selective protection is granted, the industries with originally attractive investment opportunities will go on with their investment projects. But investment prospects have also improved in the industries receiving protection. The demand for external capital is still there and may have even grown. Since the imports through which it would have been most economical to transfer the capital from abroad are now restrained, other imports will grow. Under the intensified competition from abroad, investment prospects in industries with a more promising economic future but lacking the political influence will gradually deteriorate. Scarce resources will be tied up in the protected industries. How the corresponding foregone expansion will be divided between the high-technology industries whose original expansion potential started the investment boom, and the import-competing industries which might have been pushed by normal import competition into viable, higher-productivity forms of adjustment, cannot be theoretically deduced.



## MONETARY POLICY OPTIONS AND THE OUTLOOK -- 1984

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### Assumptions

1. Monetary growth will be somewhat less than in 1983; M1 and monetary base growth expected to be 8-9 percent;
2. Velocity growth expected to show some typical pro-cyclical increase, so nominal income growth expected to be faster than in 1983;
3. While 1983 nominal income growth was about 60 percent output and 40 percent prices, the split this year most likely will be reversed -- 60 percent prices and 40 percent output;
4. Nominal interest rates will rise on balance in 1984, but not as much as inflation; falling (ex post) real rates will be associated with a weaker U.S. dollar and rising imported goods prices; however, both the falling dollar and falling realized real rates will be the result of rising inflation;
5. Any actions by Congress and the Administration to reduce future deficits will have no discernible effect on 1984 economic activity.

### Economic Projections

A year ago, the SOMC outlook was for real growth of about 6 percent and inflation of about 5 percent in 1983. We were only slightly low on output, and somewhat too high on prices. We had indicated that "two or more quarters of real growth over 7 percent" was likely, so a vigorous recovery was anticipated at a time when others thought it would be anemic.

At the September 1983 meeting of the SOMC, the following table was discussed:

	<u>GNP</u>	<u>Output</u>	<u>Prices</u>	<u>M1</u>	<u>V1</u>	<u>Monetary Base</u>	<u>VB</u>
Q4/82-Q4/83	11.4%	6.1%	5.3%	10.2%	1.2%	9.3%	2.1%
Q4/83-Q4/84	9.2%	3.7%	5.5%	6.0%	3.2%	6.5%	2.7%



The assumptions underlying the table included a slowing of M1 growth to the mid-point of the target range and a return to a long-run trend velocity growth.

Also, at the September 1983 meeting, the following projections were made, assuming that the level of monetary base velocity returned to historic trend while the growth of the base slowed:

	<u>GNP</u>	<u>Output</u>	<u>Prices</u>	<u>Monetary Base</u>	<u>VB</u>
Q4/83-Q4/84	10.8%	4.3%	6.5%	6.0%	4.8%

Nothing has happened since last September to change that basic outlook, given the assumptions. However, in Q1/84 it now appears that monetary base growth will be in the range of 8 percent to 10 percent, following a 9.5 percent increase for all of 1983. Consequently, a most likely (although definitely not preferred) assumption about monetary growth in 1984 is that it will be in the 8 percent to 9 percent range. Therefore, the following projections are highly probable:

	<u>GNP</u>	<u>Output</u>	<u>Prices</u>	<u>M1</u>	<u>V1</u>	<u>Monetary Base</u>	<u>VB</u>
Q4/83-Q4/84	11-12%	4-5%	6-7%	8-9%	3-4%	8-9%	3-4%

The risk is that nominal GNP growth will be even faster, possibly exceeding the historic record growth of 13.\_\_\_\_% in 1978. Also, the probability is increasing that inflation in 1985 will exceed that of 1984. If monetary growth slows sharply in late 1984 and in 1985 in a shift of emphasis toward reducing inflation, nominal income growth would be reduced (after a short lag) while inflation continued to rise, leaving little or no room for real growth.

The inevitable conclusion of monetary analysis is that a more stimulative monetary policy in 1984 to maintain real growth and further reduce unemployment raises the probability of a recession in 1985. In the end, hangovers are caused by getting drunk!

Federal Reserve Objectives and Projections for 1984

It now appears likely that for the second year in a row nominal income growth will exceed the upper end of the FOMC projection range. A year ago, you may recall, in the February Humphrey-Hawkins testimony, the FOMC projected a very slow recovery (similar to Martin Feldstein's). Then in July 1983, the revised projections for 1983 showed a range in which the lower end was above the February upper end. Early in 1983, the FOMC reported an M1 target range of 4 percent to 8 percent, the same as they now have for 1984. Unfortunately, the actual M1 growth rate was 12.8 percent for the first two quarters of last year, according to the newly revised data.

It might seem that after all the huffing and puffing about M1 being misleading, some members of the FOMC might wonder if the much more rapid nominal and real income growth last year (compared to FOMC projections) was related to the much faster M1 growth (compared with targets). In any case, 1983 may be the first year in several in which the Fed did what they said they would. They said they would not try to keep M1 growth within the announced target range and they succeeded in not keeping it within the target range.

At mid-year, just as M1 growth was beginning to slow, the FOMC rebased and raised the target range; then money growth seemed to be falling short of the targets for the remainder of the year. When it was all over, we had 10 percent M1 growth for the year -- the fastest ever recorded -- and a vigorous recovery. Oddly enough, we also had a number of economists who should know better worrying that the Fed would put us back into recession. Admittedly, the 7.3 percent growth of M1 in the second half of 1983 was slower than the explosive growth of the first half, but since when is 7+ percent money growth too slow?

The FOMC has indicated the following for 1984:

	<u>Range</u>	<u>Central Tendency</u>
Nominal GNP	8-10.5%	9-10%
Real GNP	3.5-5%	4-4.75%
GNP deflator	4-6%	4.5-5%
M1	4-8%	

On the surface, that set of projections looks consistent, and is about the same as the consensus of business economist forecasts. But, of course, there are problems with it. One is that last year's experience gives us no basis for confidence in the Fed's ability to stay within its target ranges for money or to forecast nominal or real income growth. Another is that since M1 growth will come in at over 8 percent for the first quarter of 1984, getting back down to the mid-point of the range for the year would mean a significant deceleration at some point. That would play havoc with the real GNP projections. Furthermore, the FOMC's inflation projections appear much too low following a two year growth of M1 of 9.3 percent and monetary base growth of 8.5 percent.

Historic pro-cyclical patterns of velocity growth would suggest nominal income growth that is at least at the upper end of the FOMC projection, if money growth is in the upper half of the target range. However, if money growth is in the lower end of the target range, nominal income growth might fall in the FOMC range, but real output growth would be slower than the FOMC indicates. With real growth of 6 percent or more in the first quarter, growth of only 3.5 percent for the year (the lower end of the Fed range) would mean three quarters of under 3 percent average real growth.

Since the trend growth rates of both M1 and the monetary base have been about 8 percent for the past seven years, that serves as a good first guess about what it will be in 1984. The growth of M1 in 1982 (recession) was 8.5 percent and in the first year of recovery it rose further to 10 percent. Now, in the second year of recovery, it is just as likely to rise further as to slow. Since reported inflation was low in 1983 and FOMC projected inflation for 1984 is still low, the Fed is not likely to worry too much if money growth is exceeding targets again. The "Bunker Hill mentality" regarding inflation results in repeated overshooting. That is because waiting until the "whites of the eyes" of rising prices is observed before acting ignores the existence of rather long and uncertain lags between money growth and inflation.

What the FOMC actually does in 1984 will be influenced by financial market developments. If interest rates continue to rise, reflecting upward revisions of inflation expectations, and a weak dollar and rising gold prices suggest diminishing confidence in the outlook for U.S. inflation, the FOMC can be expected to (belatedly) take action to convince financial market participants

that they have not caved into political pressures to re-inflate. As long as our central bank is guided by a "premium on judgment", rather than objective rules, forecasting economic developments requires second guessing the FOMC's "reaction function" to market conditions.



## ECONOMIC PROJECTIONS

Burton ZWICK\*

Prudential Insurance Company of America

### Overview

The economy grew very rapidly in 1983, inflation remained generally well behaved and interest rates rose from the lows they reached in the first half of the year. Since 1983 included another round of tax cuts designed to increase output from the supply side, some have interpreted 1983's strong growth-low inflation performance as evidence of fundamentally improved supply conditions in the economy. By this interpretation, strong output growth can continue with less pressure on inflation and interest rates than is suggested by the traditional relationship between output growth and inflation.

An alternative explanation views the strong recovery in more traditional terms, as the combined result of rapid demand stimulus and a "natural rate" tendency of the economy to move toward full employment (postponed consumption of durable goods, reduction in real wage rates, high productivity growth, etc.). In particular, very rapid money growth from 1982:2 through 1983:2 translated with a short lag into rapid output growth from 1982:4 through 1983:4. Inflation remained well behaved partly because monetary stimulus always affects output more quickly than prices and partly because of the extremely high prevailing level of unemployment. By this interpretation, the unprecedented first year increases in utilization rates already suggest some acceleration of inflation, while continued rapid income growth brought on by continued monetary stimulus will lead to further increases in inflation and higher interest rates. Each attempt to extend the period of rapid growth can be achieved only at the expense of more rapid inflation and higher interest rates.

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\* I gratefully acknowledge extensive discussions with Jason Benderly and Michael Hamburger.

As discussed below, we believe that the strong 1983 output growth reflected monetary stimulus more than any fundamental changes from the supply side. We continue to believe that rapid growth, low inflation and low interest rates cannot coexist in the U.S. economy for any extended period because of persistent structural problems. The question is which of the unfavorable outcomes -- recession or accelerating inflation -- will be chosen by policymakers. We expect that, throughout most of 1984, policymakers will emphasize continued growth even at the expense of higher inflation, which we expect to reach 6-8 percent by late 1984 or early 1985. However, in an effort to avoid even higher inflation in 1985, policymakers will accept the need for slower growth. To prevent inflation from moving outside the 6-8 percent range, the Federal Reserve will tighten by the end of 1984 and induce a recession by the end of 1985.

#### Structural Problems in the Economy

In contrast to what would seem to be implied by a supply side resurgence, the U.S. economy continues to experience a strong orientation toward consumption and debt usage and away from saving and investment. The following developments over the past year highlight this orientation:

- \* The level of private saving on a cyclically adjusted basis was no higher in 1983 than throughout the past decade. The personal saving rate was 5.0 percent, somewhat above the very low rates in the past few years but far below the average of the post World War II period. Corporate saving was also unchanged on a cyclically adjusted basis, with corporations becoming net absorbers of available funds in 1983 as typically occurs during cyclical upswings.
- \* The three most credit dependent (and therefore interest rate sensitive) sectors of the economy -- consumer durables, housing and business inventories -- accounted for 75 percent of GNP growth during the first year of the recovery versus 60-65 percent historically. As a result, credit use has increased in line with past recoveries, consumers and corporations have reliquified only marginally, and overall liquidity for corporations is still quite low by post World War II standards.
- \* Business fixed investment typically rises with a lag as the economy moves out of recession. This recovery, business investment is rising, but only in line with what has occurred in past recoveries.

- \* The federal budget deficit has now reached about 4 percent of GNP on a full cycle basis. This compares with 2 percent in the late 1970s, less than 1 percent in the 1960s, and virtually zero in the 1950s. Since this deficit must be financed out of an unchanged volume of private saving, the only way the U.S. has been able to finance government spending and private expenditures over the past year is through enormous capital inflows. Our major export has been U.S. treasury securities. Of even greater concern, perhaps, is what these deficits imply for the outstanding stock of debt. The outstanding stock of debt is currently about \$1.3 trillion; annual budget deficits in the \$200-250 billion range will increase the outstanding stock about 15 percent per year. This is well in excess of annual GNP growth, so that the interest burden of the debt will escalate relative to GNP and federal expenditures. Pressure to escape this dilemma through monetization and inflation will intensify.

These patterns and structural problems suggest business as usual in the U.S. economy and undermine the argument of a supply side resurgence. They suggest why strong growth -- if it occurs -- is likely to be associated with accelerating inflation and higher interest rates in 1984 and 1985, as discussed below.

#### Outlook for 1984

The following factors form the basis for our 1984 forecast:

- \* The balance between consumption and investment in the U.S. economy, including the large budget deficits, remains unfavorable, as just discussed.
- \* Monetary growth (both M1 and the monetary base) exceeded 9 percent in 1983, following 8-9 percent growth in 1982. In order to promote continued growth, we expect the Fed to allow money growth (both M1 and the monetary base) in the 7-8 percent range in 1984, which will leave 3 year monetary growth -- 1982-84 -- close to its 1977-79 rate.
- \* The economy ended a very strong year with strong growth in the fourth quarter as well. The reported 4.8 percent growth in the fourth quarter is misleading because of a sizable negative contribution from reduced farm production in response to the payment-in-kind program and bad weather. We estimate that eliminating the effects of farm production shows non-farm growth of 5.5 percent-6 percent for the fourth quarter.
- \* Though inflation is far below the double digit figures in 1980, there is increasing evidence of a firming in the inflation numbers. The CPI, excluding food and energy, is running about 5.5 percent over the past six months, up from about 4 percent earlier in the year. Fixed-weight price indices for GNP and its major components increased at a 4.5-5.0 percent rate in the second half of 1983 versus 3.5 percent in the first half. Wage settlements are running about 6 percent, much lower in



declining industries but somewhat above 7 percent in the rest of the economy. Unit labor costs are certain to rise as soon as productivity growth slows in line with an inevitable slowing in output growth.

- \* Near-term money growth, though lower than the double-digit growth from mid-1982 to mid-1983, remains quite high. The monetary base grew over 9 percent per annum over the past three months and the past six months. M1 growth is slightly lower over the past six months but exceeds 9 percent over the past 12 months. These numbers do not suggest restraint but are consistent with continued growth over the next several quarters. Also suggestive of continued monetary stimulus is the positive slope of the yield curve. Typically, when the Fed tightens sufficiently to bring on recession, the yields curve flattens or even inverts. At present, the yield curve is as upward sloping as at the end of 1982.

Assuming 7 percent money growth and 3 percent velocity growth in 1984, nominal GNP will grow 10 percent to 11 percent in 1984. Total GNP growth should be fairly uniform throughout the year, but the distribution between output and inflation will change over the year. In the first half of 1984, inflation will still be 5½ percent-6 percent. With inflation below 6 percent and unemployment still above its natural rate, output will increase at a 5 percent annual rate. However, this above trend output growth will cause unemployment to decline to the 7 percent area and capacity utilization to rise to the 83 percent-85 percent area by late 1984. Reflecting long run monetary growth and the very rapid convergence toward full employment, the inflation rate will accelerate to the 6 percent-8 percent range by late 1984 or early 1985. Higher inflation and fuller utilization will result in a decline in output growth -- to the 3½ percent area -- in the second half of the year. We believe the greatest risk to this forecast is not the supply-side forecast allowing for another year of rapid growth with moderate inflation but a weaker economy (with somewhat less inflation) if the Fed opts for restraint to control inflation at the expense of continued expansion.

### Looking Ahead to 1985

Assuming that the Federal Reserve continues to foster above trend growth in 1984 in order to reduce unemployment, the economy will end 1984 with both inflation and unemployment at 7 percent. At this time, the Fed will face the same pair of unpleasant options that existed at the end of 1973 and 1979.

The Fed can opt for another year of expansion. Unfortunately, with inflation at 7 percent, it will take an 8 percent-10 percent rate of monetary

growth to keep the economy expanding faster than trend. With unemployment at 7 percent, another year of above trend growth will bring unemployment below its natural rate. Particularly with such a low rate of unemployment, 8 percent-10 percent money growth is likely to cause inflation to accelerate to an 8 percent-10 percent rate by late 1985. Alternatively, the Fed could opt for restraint to keep inflation from accelerating further. In this case, the economy will move into recession before the end of 1985.

Whereas we expect the Fed to promote expansion in 1984, we expect the Fed to bite the bullet and move toward restraint in late 1984 or early 1985. As well as the removal of election considerations, the inflation-unemployment tradeoff will appear different by the end of 1984. At present, with unemployment still around 8 percent and inflation below 6 percent, the major priority is to reduce unemployment. By the end of 1984, with unemployment closer to 7 percent and inflation moving toward 8 percent, the major priority will shift toward controlling inflation. Federal Reserve actions will shift in response to these changing priorities, just as the policy focus alternated between inflation and unemployment throughout the 1970s.

**ECONOMIC PROJECTIONS**  
(1972\$, Seasonally Adjusted Annual Rates of Change Except Where Noted)

	1982		1983				1984				Annual: 4th Qtr. to 4th Qtr.		
	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1E	Q2E	Q3E	Q4E	1982A	1983A	1984E
Real GNP	-1.0	-1.3	2.6	9.7	7.6	4.8	6.1	4.6	3.6	3.5	-1.7	6.2	4.4
GNP Deflator	3.7	3.8	5.5	3.3	3.6	4.2	5.5	6.0	6.5	7.0	4.4	4.1	6.2
Nominal GNP	2.7	2.5	8.2	13.3	11.5	9.2	11.9	10.9	10.3	10.8	2.6	10.6	10.9
Real Final Sales	-1.5	4.5	0.6	6.8	5.1	4.8	5.8	3.7	3.3	2.7	0.2	4.3	3.9
M1											9.0	10.0	7.0
Monetary Base											7.9	9.3	7.0
Velocity of M1											-5.9	0.5	3.6
Velocity of Monetary Base											-5.0	1.2	3.6
<b>Real GNP Components:</b>													
Consumption	0.9	3.6	2.9	10.0	2.2	5.7	6.3	4.4	2.8	2.0	2.5	5.2	3.9
Durables	-3.7	15.2	7.6	32.6	3.7	18.4	19.5	6.0	4.0	2.1	6.2	15.0	7.7
Nondurables	1.3	1.5	3.2	6.4	3.6	4.1	4.2	4.5	2.5	2.0	0.6	4.3	3.3
Services	2.1	1.9	1.4	6.4	0.6	3.0	3.7	3.8	2.6	2.0	2.9	2.8	3.0
Business Inv.	-8.8	-6.7	-1.5	8.0	18.6	29.1	12.9	10.6	9.6	8.6	-9.0	13.0	10.4
Structures	-7.2	-5.5	-13.9	-14.9	11.1	10.6	10.2	9.0	9.0	9.0	-4.2	-2.6	9.3
Equipment	-9.6	-7.1	5.0	19.8	22.0	37.1	13.9	11.2	9.9	8.4	-11.1	20.4	10.8
Residential	-13.1	53.1	57.7	78.6	36.0	2.1	5.0	2.5	0.0	0.0	3.0	40.6	1.9
Federal	26.2	28.2	-17.9	-2.7	4.5	-5.9	19.4	4.6	4.5	4.5	8.6	-5.9	8.1
Defense	14.1	5.1	6.5	7.5	0.0	7.3	7.1	7.0	6.8	6.7	7.5	5.3	6.9
Nondefense	59.1	92.6	-52.5	-23.4	16.5	-33.8	60.2	-1.1	-1.1	-1.1	11.1	-27.2	11.6
State & Local	-0.2	-0.2	-1.6	0.0	4.2	-0.5	0.0	-1.1	-0.5	-0.7	0.1	0.5	-0.6
Net Exp (Bi.72\$)	24.0	23.0	20.5	12.3	11.4	6.3	1.0	-2.0	-2.0	-1.5	--	--	--
Invent (Bi.72\$)	-1.3	-22.7	-15.4	-5.4	3.8	3.9	5.0	8.5	10.0	13.0	--	--	--
<b>Addenda:</b>													
Unemp Rate (%)	9.8	10.5	10.2	9.9	9.2	8.4	7.8	7.4	7.2	7.0	--	--	--
Funds Rate (%)	11.0	9.3	8.7	8.8	9.5	9.4	(9-10)		(10-11)		--	--	--
30-Yr Gov't. (%)	12.8	10.8	10.7	10.6	11.6	11.7	(11-12)		(12-13)		--	--	--
Ind. Prod.	-3.4	-8.1	9.9	18.4	21.8	10.6	11.0	9.0	6.0	3.5	-7.5	15.1	7.3
CapUtil Mfg. (%)	71.1	69.0	70.7	73.9	77.4	78.9	80.5	82.0	83.0	83.0	--	--	--
DPY72\$	-0.3	2.6	2.9	3.5	6.5	7.9	5.5	4.5	3.5	2.5	0.2	5.2	4.0
PretxProf W/IVACCA	4.1	-14.8	59.0	107.5	68.0	21.5	25.0	22.0	19.3	13.9	-15.7	61.1	20.0
Auto Sales*	5.6	6.0	6.1	6.9	6.9	7.2	8.0	7.8	7.7	7.7	--	--	--
Housing**	1.12	1.26	1.64	1.69	1.78	1.69	(1.7-1.9)		(1.7-1.9)		--	--	--

\*Millions of domestic units.

\*\*Millions of starts.

Prudential Economic Research  
February 27, 1984

RECENT BEHAVIOR OF THE  $M_1$  - ADJUSTED MONETARY  
BASE MULTIPLIER AND FORECASTS  
FOR EARLY 1984

James M. JOHANNES  
and  
Robert H. RASCHE  
Michigan State University

Since the last meeting of this committee, we have been experimenting with a different presentation of our forecasts of the  $M_1$  - Adjusted Monetary Base Multiplier. In the past we have always constructed forecasts directly from the forecasts of the various component ratios, which come out of the ARIMA models that we have estimated. These forecasts are not seasonally adjusted, so comparisons over time horizons shorter than one year are difficult to interpret. Our revised presentation allows us to compute forecasts on a seasonally adjusted basis that are not contaminated by errors in forecasting seasonal factors. The presentations employ the known seasonal factors that are published in the Federal Reserve Bulletin for the various components of the monetary aggregates and the seasonal factors constructed each year for the Adjusted Monetary Base by the Federal Reserve Bank of St. Louis. The exact formulas that are employed to construct a seasonally adjusted forecast of the multiplier from the not seasonally adjusted forecasts of the component ratios are indicated in the note attached to this report.

The history of our recent forecasting experiments is presented in table 1. There, monthly forecasts on up to six months horizons are given starting with data available through August 1983, and continuing through January 1984. It should be noted that the forecasts based on information through January 1984, correspond to the unrevised data as presented in the H.6 release of February 10, 1984, and not the revised data initially presented in Chairman Volcker's testimony and subsequently in the H.6 release of February 16, 1984. The latter data incorporate new benchmarks, new computations of the seasonal factors, and a new definition of the  $M_3$  aggregate. In order to construct forecasts

corresponding to the new revisions, we would need the historical series for all of the components of the monetary aggregates in order to reestimate our ARIMA models for the various ratios. It is our understanding that the historical data will not be available until approximately mid-March 1984 so at the moment we have no choice but to present the forecasts on the old basis.

Our forecasting experience in the recent months has been comparable to the results that we have tabulated at various times in the past. The mean error for the one month ahead forecasts (5 observations) is .15 percent and the corresponding root-mean-squared-error is .52 percent. When we advance to a two month forecasting horizon (4 observations) the mean error is -.26 percent and the root-mean-squared-error is .68 percent. On a three month horizon there are only three observations, so the sample is so small that computation of any error statistic is not very meaningful. On the surface it would appear that the forecasting performance deteriorates when we advance this far, but this conclusion can be heavily influenced by one month's observation.

The forecasts for the next six months suggest very little, if any, change in the multiplier in the near future. The forecasted values decline slightly in March and April, but then recover to the January level by June and July of 1984. Of course, it should be kept in mind that the models are naive with respect to the change from lagged reserve requirements to contemporaneous reserve requirements that has just taken place. It is possible that the uncertainty associated with this change may cause an increase in the demand for excess reserves by banks, at least temporarily. If such an increase should occur, then the observed reserve ratio would be higher than that forecasted by our ARIMA model, and the partial effect of this influence on the multiplier would be that the actual value would turn out lower than the predicted value.

M<sub>1</sub>-Adjusted Monetary Base  
Forecast for Months of:  
(Seasonally Adjusted)  
1983-84

Base	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Aug.	2.6384 (-.38)	2.6346 (-.78)	2.6349 (-1.40)	2.6421 (-1.24)	2.6333 (-1.29)	2.6446					
Sept.	2.6284**	2.6175 (-.13)	2.6181 (-.76)	2.6246 (-.57)	2.6227 (-.88)	2.6284	2.6241				
Oct.		2.6141**	2.6105 (-.47)	2.6165 (-.26)	2.6151 (-.60)	2.6207	2.6174	2.5996			
Nov.			2.5982**	2.5847 (.96)	2.5799 (.76)	2.5831	2.5775	2.5593	2.5733		
Dec., 1983				2.6096**	2.6051 (-.21)	2.6093	2.6057	2.5887	2.6040	2.5977	
Jan.,* 1984					2.5995**	2.6020	2.5976	2.5809	2.5970	2.5906	2.6028

\* Prior to revised data announced in H.6 release of 2/16/84

\*\*Actual multiplier

Note: Numbers in parentheses are percentage forecast errors

<u>Percent</u>	1 Month Forecasts (5)	2 Month Forecasts (4)
Mean Error	.15	-.26
RMSE	.52	.68

FROM: Bob Rasche  
 SUBJECT: Seasonally Adjusted Multiplier Forecasts

As you know, the multiplier forecasts that Jim Johannes and I have been constructing are developed from not seasonally adjusted component ratio data, and hence are forecasts of the not seasonally adjusted multiplier. The simplest way to construct a seasonally adjusted multiplier forecast is to use the seasonal factors prepared by the Board of Governors and the St. Louis Fed in February of each year, and which are used to seasonally adjust the data for the coming year. This eliminates any forecast error from errors in forecasting the seasonals.

The Board of Governors seasonally adjusts the components of M1 separately. Their seasonal factors are published on p. 200 of the March, 1983 Federal Reserve Bulletin. In contrast, the St. Louis Fed seasonally adjusts the whole adjusted monetary base, not its components. They have sent me their seasonal factors for 1983 (attached).

The seasonal factors are defined in all cases such that

$$\frac{X \text{ (NOT SEASONALLY ADJUSTED)}}{X \text{ (SEASONALLY ADJUSTED)}} = \text{SEASONAL FACTOR FOR X.}$$

Therefore we can write:

$$(1) \frac{M1(SA)}{BASE(SA)} = \frac{CUR(SA) + TC(SA) + DD(SA)}{BASE(SA)}$$

where CUR(SA) = currency (seasonally adjusted)  
 TC(SA) = travelers checks (seasonally adjusted)  
 DD(SA) = demand and other checkable deposits (seasonally adjusted)

We can use the above definition for seasonal factors (SF) to write this in terms of the not seasonally adjusted data:

$$(2) \frac{M1(SA)}{BASE(SA)} = \frac{\frac{CUR(NSA)}{CUR(SF)} + \frac{TC(NSA)}{TC(SF)} + \frac{DD(NSA)}{DD(SF)}}{\frac{BASE(NSA)}{BASE(SF)}}$$

Now divide through the top and bottom of (2) by  $\frac{DD(NSA)}{DD(SF)}$  :

$$(3) \frac{M1(SA)}{BASE(SA)} = \frac{\left[ \frac{CUR(NSA)}{DD(NSA)} \right] \left[ \frac{DD(SF)}{CUR(SF)} \right] + \left[ \frac{TC(NSA)}{DD(NSA)} \right] \left[ \frac{DD(SF)}{TC(SF)} \right] + 1}{\left[ \frac{BASE(NSA)}{DD(NSA)} \right] \left[ \frac{DD(SF)}{BASE(SF)} \right]}$$

But  $\frac{CUR(NSA)}{DD(NSA)} = k$

$$\frac{BASE(NSA)}{DD(NSA)} = (r + 1) (1 + t_1 + t_2 + g + z) + k$$

As forecast by the Johannes-Rasche models and

$$\begin{aligned} \left[ \frac{TC(NSA)}{DD(NSA)} \right] \left[ \frac{DD(SF)}{TC(SF)} \right] &= \left[ \frac{TC(NSA)}{CUR(NSA)} \right] \left[ \frac{CUR(NSA)}{DD(NSA)} \right] \left[ \frac{DD(SF)}{CUR(SF)} \right] \left[ \frac{CUR(SF)}{TC(SF)} \right] \\ &= tc.k \left[ \frac{DD(SF)}{CUR(SF)} \right] \left[ \frac{CUR(SF)}{TC(SF)} \right] \end{aligned}$$

Let  $\left[ \frac{DD(SF)}{BASE(SF)} \right] = S_b$ ;  $\left[ \frac{DD(SF)}{CUR(SF)} \right] = S_c$ ;  $\left[ \frac{CUR(SF)}{TC(SF)} \right] = S_t$

Then

$$\frac{M1(SA)}{BASE(SA)} = \frac{1 + (S_c.k) (1 + S_t.t_c)}{[(r+l) (1+t_1+t_2+g+z) + k] S_b} .$$





## BUDGET DEFICITS AND THE DISARRAY OF FISCAL POLICY

Mickey D. LEVY

Fidelity Bank

The Budget of the United States Government, FY1985 verified what already was well-known -- that high budget deficits will persist and the government's debt will mount rapidly, even if the economy expands continuously toward potential GNP. As stated in the Budget, on a current services basis,

deficits will remain near the \$200 billion level even after the economy has returned to lower levels of unemployment rate, below 6 percent in 1989. At that time economic recovery will have completed its contribution to deficit reduction... so projected deficits at this level of unemployment are not 'cyclical' or temporary. They are permanent or structural and will persist unless determined policy actions are taken to eliminate them. (2-14)

Very few budget forecasters quarrel with this assessment although some, like the Congressional Budget Office, use less optimistic economic forecasts and arrive at faster growth of outlays and/or lower revenues, and thus higher deficit projections.

Perhaps what is more disturbing about the FY1985 budget is that the Administration proposes no substantial changes in the trend of the budget aggregates. It proposes continuous increases in real dollar outlays and only a small reduction in outlays as a percent of GNP from an all-time high for a peacetime, expanding U.S. economy. It is a sad commentary that, even if Congress agrees to everything the Administration asks for (and if the Administration's economic outlook actually occurs), real spending will rise substantially and deficits will remain about \$175 in each of the next three fiscal years. Furthermore, Congress does not seem willing to consider anything more than minor, symbolic cuts in government spending. The unwillingness of the Administration and Congress to seriously address the budget issue -- at least until after the Elections -- points glaringly to the disarray of fiscal policy.

### The Administration's FY1985 Budget Proposals

The Administration proposes FY1985 outlays of \$925 billion, revenues of \$745 billion, and a unified budget deficit of \$180 billion, slightly less than the

deficit it estimates for FY1984. These proposed budget aggregates include \$19 billion of outlays savings from current services in FY1985 (\$72 billion during the three years FY1985-FY1987) and \$8 billion higher taxes in FY1985 (\$34 billion for the three years). Absent the proposed changes, the budget deficit would be \$208 billion in FY1985 and increase further in later years (see Table 1).

TABLE 1  
THE ADMINISTRATION'S BUDGET PROPOSALS  
(Billions \$)

	Fiscal Year		
	1985	1986	1987
<b>Outlays</b>			
Current Services	945	1019	1094
Saving-DOD	-13	-13	-6
Saving-Non DOD	-7	-15	-19
Budget	925	992	1068
<b>Receipts</b>			
Current Services	737	803	874
Receipt increases	8	12	14
Budget	745	815	888
<b>Deficit</b>			
Current Services	-208	-216	-220
Budget	-108	-177	-180

Slightly Slower Spending Growth. Outlays are proposed to rise 8.4 percent from FY1985, or 3.3 percent in real (constant 1972) dollars. In FY1986 and 1987, real spending is proposed to increase 2.1 percent and 2.9 percent, respectively. This represents a continuation of the recent trend toward slower growth in spending, but it is not as sharp a turnaround as one would hope. In fact, the Administration has scaled back from last year's budget proposals its request cuts in non-defense spending, and its recommended increases in defense outlays more than offset proposed reductions in non-defense spending. On the tax side, proposed revenues are 11.2 percent higher than FY1984 (7 percent in real dollars). Absent from this year's budget is the large contingency tax proposed last year, and included are some modest (\$8 billion) increases in tax revenues above current services.

Shift In Composition of Spending. The most notable characteristic of the FY1985 Budget, beside the persistent budget imbalance, is the continuation of the sharp shift in the composition of government spending, not the slowdown in spending growth. The portion of outlays for debt service and defense spending will each continue its sharp rise. Defense spending is retracing its share that eroded in the 1970s, while the portion of outlays for debt service is rising to new record highs for a peacetime economy. The portion spent for entitlements will not change much, but there will be further reductions in spending for programs in the domestic discretionary spending category (see Table 2).

TABLE 2  
COMPOSITION OF BUDGET OUTLAYS  
(Percent of total federal outlays)

Fiscal Year	Defense	Payments for Individuals	Net Interest	Other	Offsetting Receipts
1965	42.7	28.5	7.3	26.5	-5.0
1970	41.7	33.8	7.4	21.5	-4.4
1975	26.7	48.4	7.1	22.0	-4.2
1980	23.2	49.1	9.1	22.0	-3.4
1985 est.	29.4	47.6	12.5	14.3	-3.8

The Administration proposes a 14.5 percent increase in defense spending for FY1985 (9.5 percent in real terms). While this is less than the increase asked for in last year's budget, it would raise the portion of total federal outlays spent on defense to 29.4 percent from 23.3 percent in FY1980. Most of the proposed increase in budget authority in defense is for weapons procurement and operations and maintenance, although over one-quarter of the defense budget is for military personnel.

Outlay savings of \$5 billion are proposed for non-defense and non-interest programs in FY1985, representing less than a 1 percent reduction from those program outlays scheduled under current law. The Administration proposes very little change to social security, railroad retirement or unemployment insurance, which constitute about two-thirds of all entitlements and other "mandatory" spending programs. It does call for modest cuts in federal and military retirement and disability programs, primarily by delaying cost-of-living

adjustments. It recommends savings in Medicare, but those savings would be generated largely by increasing beneficiary premiums for Supplementary Medical Insurance (in the unified budget, this raises offsetting receipts, which are counted as negative outlays rather than revenue additions).

The FY1985 budget calls for further cuts in major means-tested transfer programs, such as AFDC, food stamps, and SSI, which are targetted toward lower-income families. (These cuts are similar to those proposed in last year's budget.) Additionally, the Administration recommends freezing at current prices farm support payments, which would generate substantial saving, depending on crop production and price levels.

Slight Increase in Revenues. The Administration's proposed tax changes would have only a relatively small impact on total revenues -- combined they would raise \$8 billion in FY1985 (approximately 1.1 percent of total revenues) and \$35 billion over the three years FY1985 to FY1987 -- but for the most part they represent worthwhile reforms. The largest revenue gains, taxing a portion of employer contributions for health insurance premiums, was recommended last year. Other recommended changes include increasing federal employees contributions to retirement and covering railroad employees under unemployment insurance; limiting use of tax exempt revenue bonds, leasing by tax exempt entities; and generally limiting use of several blatant tax shelters, particularly certain corporate accounting and tax abuse practices. Many of these proposals were part of last year's budget, and some already have been approved by the Ways and Means Committee.

### Persistent Deficits and Mounting Debt

Sensitivity of Budget Projections to Economic Forecasts. The Administration forecasts that with passage of its budget proposals, which during the three years FY1985-FY1987 reduce current services spending by \$73 billion and add \$34 billion to tax revenues, deficits still will remain above \$175 billion through FY1987. After that, the Administration projects deficits to fall, to \$152 billion in FY1988 and \$123 billion in FY1989. These out-year projections are aided somewhat by the mounting impact of its proposed spending cuts and tax increases, but even more by very optimistic economic projections of continued strong economic growth with monotonically declining rates of inflation and

interest. The Administration clearly states the extreme sensitivity of its budget forecasts to the path of economic activity, prices and, particularly, interest rates. It provides one example that is particularly eye-opening: if, beginning in 1985, the Administration's forecast for nominal GNP occurs, but with one percentage point slower real economic growth and one percentage point higher inflation, with no further declines in interest rates after 1984, deficits would be \$12.6 billion higher than forecast in FY1986, \$30.8 billion higher in FY1987, and \$85.7 billion higher in 1989.

Based on less optimistic economic assumptions, the Congressional Budget Office (An Analysis of the President's Budgetary Proposals for Fiscal Year 1985, February 1984), foresees deficits rising from \$184 billion in FY1984 to \$192 billion in FY1985 and \$211 billion in FY1986, even with enactment of the Administration's spending and taxing proposals. The largest difference between the two forecasts is the higher spending path estimated by the CBO, primarily as a consequence of its higher forecasts for nominal and real interest rates, and its outlook for slower economic growth beginning in 1986, as described in Table 3. In addition, the CBO forecasts faster growth of defense outlays based on the Administration's request for defense budget authority. The impact of different economic forecasts mounts as the projection period lengthens. The CBO forecasts that the Administration's FY1985 budget proposal will generate budget deficits of \$248 billion in FY1989. While it is impossible to accurately forecast economic events so far out, such projections illustrate quite clearly the instability of current spending and taxing policies (see Chart 1).

The SOMC also sees higher deficits than the Administration forecasts, particularly beyond 1986. The SOMC's outlook for real GNP growth in 1984 is similar to the Administration's, but it expects faster growth in inflation and nominal GNP, which would generate higher tax revenues. However, interest rates are not forecast to decline, leading to more rapid growth in outlays and, consequently, slightly higher deficits. Current interest rate levels clearly indicate the lack of financial market credibility in the Administration's interest rate forecasts.

The Rising Government Debt. The persistent flow of deficits is adding to the total stock of government debt at an alarming rate. The federal government outstanding public debt has risen from \$533 billion in FY1975 to \$908 billion in

Table 3  
 ESTIMATES OF THE ADMINISTRATION'S BUDGET PROGRAM  
 (Billions \$)

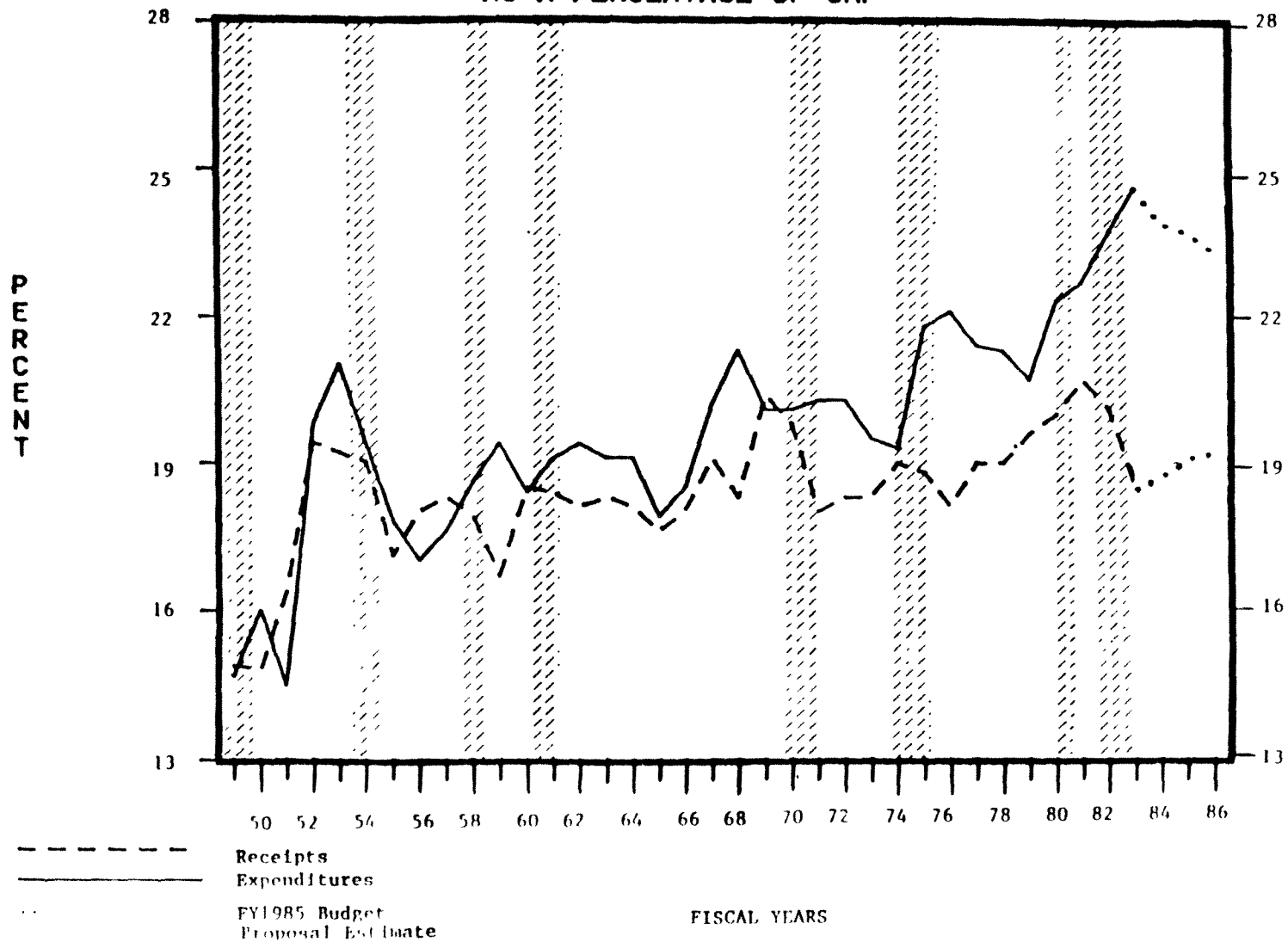
	1984	Fiscal Year 1985	1986	1989
<b>Revenues</b>				
Administration	670	745	815	1060
CBO	665	741	807	1039
<b>Outlays</b>				
Administration	854	925	992	1084
CBO	851	933	1018	1287
<b>Deficit</b>				
Administration	184	180	177	123
CBO	184	192	211	248

ECONOMIC ASSUMPTIONS UNDERLYING BUDGET FORECASTS

	1984	Calendar Year 1985	1986	1989
<b>GNP, nominal (Bil \$)</b>				
Administration	3642	3974	4319	5445
CBO	3651	3995	4339	5480
<b>GNP, real</b>				
Year-Over-Year % Chg.				
Administration	5.3	4.1	4.0	3.9
CBO	5.4	4.1	3.5	3.3
<b>CPI,</b>				
Year-Over-Year % Chg.				
Administration	4.4	4.6	4.5	3.6
CBO	4.5	5.0	4.9	4.3
<b>Unemployment Rate, civilian</b>				
% Average				
Administration	7.9	7.7	7.5	5.8
CBO	7.8	7.3	7.0	6.5
<b>3-Month Treasury Bills,</b>				
% Average				
Administration	8.5	7.7	7.1	5.0
CBO	8.9	8.6	8.4	7.8
<b>Inflation-Adjusted Interest</b>				
Rate (T-Bill minus				
GNP deflator)				
Administration	4.0	2.9	2.6	1.4
CBO	4.2	3.5	3.5	3.5

Source: Congressional Budget Office, An Analysis of the President's Budgetary Proposals for Fiscal Year 1985, pg. 10 and 16.

## TREASURY RECEIPTS AND EXPENDITURES AS A PERCENTAGE OF GNP





FY1980 to nearly \$1.38 trillion by year-end 1983. Based on the CBO deficit projections, the total outstanding debt will exceed \$2 trillion by year-end FY1986, a nearly 50 percent rise in just three years. And this outlook is based on continued strong economic growth that would provide a sharp erosion of the cyclical component of the deficit.

It is difficult to think of any benefits of such a trend, and easy to identify undesirable impacts:

**\*For Budget and Fiscal Policy.** The government's net interest costs will rise, in absolute terms, and as a percent of federal budget outlays and GNP. Budget outlays and deficits will become increasingly sensitive to interest rates. Thus, the avenues available to reduce spending and deficits shrink. Without unanticipated sharp and sustained declines in interest rates, budget outlays will rise, even as the economy moves toward its potential growth path. As net interest costs rise as a portion of federal spending and GNP, the deficit becomes less sensitive to macroeconomic fluctuations. This calls into question the future role of built-in automatic stabilization in the fiscal policy sense (particularly if inflation-adjusted rates remain high), and may have implications for the future path of potential GNP and the calculation of structural budget deficits.

**\*For Monetary Policy.** With the rapidly mounting stock of government debt, a non-inflationary monetary policy requires that the Federal Reserve absorb a smaller portion of new debt than its post-Accord average and substantially reduce the current ratio of federal debt held by the Federal Reserve to total federal debt. Maintaining the current ratio of debt held by the Federal Reserve to total debt would produce sharp increases in reserves and money supply, generating higher inflation and inflationary expectations. Simply put, with the deficits and mounting debt we now face, the fine line between monetary accommodation of government debt and inflation becomes razor-sharp, and the Federal Reserve has less room to maneuver.

**\*Other.** The forecasted rapid expansion of the stock of public debt would far exceed the growth of economic activity, growth of the stock of capital assets, or the growth of domestic saving. Regarding the impact of deficits and stock of debt on prices of financial assets, the jury is still out on the

basis of rigorous theoretical and empirical research. However, during the next several years the concept of Ricardian equivalence certainly will be severely tested, and the ratio of the stock of government debt to the stock of total capital assets will rise substantially, perhaps enough to induce portfolio adjustments, which would lead to upward interest rate pressures.

### Budget Prospects

Certainly, the goal of reducing deficits is important, but it should not be pursued blindly without regard to how it is accomplished and the economic effects of doing so. Slowing the growth of government spending should be considered equally high on the priority list. Rising government outlays bias the composition of economic activity and, under current circumstances of an already high ratio of spending to GNP, may reduce future economic growth. It would be a mistake to neglect the path of spending and reduce the budget imbalance by raising taxes in a way that would discourage saving and investment. Moreover, while Wall Street clearly favors lower deficits, one would be naive to believe that it is indifferent as to how deficits are cut. For example, raising taxes may lead to lower interest rates -- but it would do so by slowing economic growth, a counterproductive outcome.

Tax hikes should take the backseat to spending cuts. Most importantly, the indexation of personal income taxes scheduled for 1985 must remain intact, and tax increases should avoid increasing marginal rates or other means of discouraging productive economic activity. Nevertheless, within these guidelines, there is substantial room to broaden the tax base, increase economic efficiency, and improve the fairness of the tax system.

The Administration's few proposed spending cuts in the FY1985 Budget are disappointing, but not unexpected in this election year. In general, the proposed changes are minor relative to what must be done. In another sense, the lack of substantial cuts reflects the difficulty of the task at hand. Substantial momentum generated from earlier enacted increases in budget authority for defense nearly guarantees increases in defense spending. Interest expenditures will rise substantially, and probably will be higher than the Administration forecasts. And non-defense outlays for means-tested entitlement programs already have been cut sharply in recent years. Meanwhile, despite continued sharp

increases in payments to individuals, Congress and the Administration are still congratulating themselves on the passage of the Social Security Amendments of 1983. It is a discouraging exercise to go through the categories of federal spending programs and eliminate areas where spending cuts would be very difficult politically to achieve.

Two areas that must be addressed are the non-means-tested entitlement programs, where cash payments to individuals are not based on the beneficiary's income, and Medicare. The first group, which includes social security, railroad retirement, Veterans compensation, civil service retirement, and unemployment compensation, constitute over 80 percent of all non-health payments to individuals. Likewise, the very rapid growth of Medicare payments must be slowed. Medicare outlays have more than doubled every five years since the program began, and are proposed to be \$70 billion in FY1985. There are many ways that these programs can be modified to generate budget savings without dealing unfairly with the truly needy or undercutting adequate medical insurance for the aged (a list of options is provided in Congressional Budget Office, Reducing the Deficit: Spending and Revenue Options, February 1984). Until these components of the budget are faced squarely, budget cutting exercises will be limited to band-aid type solutions applied to a large, menacing problem.

What are the prospects for action in 1984? At present, Congress seems prepared to embrace the tax reform package passed by the Ways and Means Committee, which includes some of the Administration's proposals and would generate approximately \$50 billion in additional revenues during the next three years. Most of the recommended provisions in the tax package would improve the current tax structure. As budget policy, the importance of this legislation will be determined in part by whether it is accompanied by cuts in spending. While nothing major should be expected, I am cautiously optimistic that a modest spending cut package will emerge. That would represent a pleasant change from typical election year economic policies.