

THE REAGAN ECONOMIC PROGRAM

James Tobin
Robert Hall

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Opening Remarks

John J. Balles and
Michael W. Keran*

Keran. We would like to welcome you to the Federal Reserve Bank of San Francisco's Economic Series—a lecture series which has been going on for the past seven and one half years. The series has been designed to bring together in one place people from diverse backgrounds—academia, the business community and the financial community—with a common interest in public-policy issues. We hope that, with this joining of minds, we will all learn something useful.

Today's seminar is a special one—partly because we have not one, but two speakers. The only previous occasion of this type was four years ago, when we had a debate on the monetarist controversy by Professor Franco Modigliani, then President of the American Economic Association, and Professor Milton Friedman, who had just been awarded the Nobel Prize in economics. Recently, on re-reading the summary of that debate, I found that it had an interesting and current ring to it. Basically, the debate concerned whether monetary policy should be used to stabilize the business cycle, or used to reduce the inflation rate. Four years ago, the Carter Administration clearly chose to use monetary policy to work on the business cycle. Today, we have another, new administration, which has unveiled perhaps some of the most dramatic and far-reaching economic proposals we've had since the New Deal. And we're very fortunate to have two distinguished and knowledgeable speakers to discuss the Administration's program.

Balles. Michael Keran has given me a very easy and pleasurable assignment today—the privilege of introducing our guest speakers. I join Mike in welcoming our friends from the business, banking and academic communities. From my personal standpoint, it's a great relief to be listening to rather than giving a speech,

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since in this way I get my intellectual batteries recharged from time to time.

Our principal speaker today, as you know, is Professor James Tobin, Sterling Professor of Economics at Yale University. Professor Tobin hardly needs an introduction to a group like this; still, I'm going to give a few highlights. Throughout his long career — his first published paper appeared 40 years ago this month in the *Quarterly Journal of Economics* — Professor Tobin has been interested in the impact of public policy on the macro economy, and especially on the twin problems of inflation and unemployment. (That first paper, for example, concerned the impact of a general wage change on employment and the price level.) Over the years he's made distinguished contributions in economics, always seeking to maintain a balance between theoretical rigor and empirical relevance—trying to avoid both measurement without theory, and theory without empirical implications. This concern with the real world, the political economy in its broadest sense, has also made him a valued advisor to presidents and to seekers of the presidency. And as you well know, he served 20 years ago as a member of the President's Council of Economic Advisers. He's been particularly active in the area of macroeconomics most relevant to the Federal Reserve—the structure of financial markets, and the links between the Fed's policy actions and the real economy via the banking system. The money-market models we use today to guide Fed policy owe a great deal to the pioneering work of Tobin and generations of his students, many of whom have found their way into the Federal Reserve System. We're fortunate to have him with us today to discuss the President's economic-policy package. Perhaps he'll also have something to say about the role of the Federal Reserve in dealing with the nation's economic problems. I'm happy to introduce to you Professor James Tobin.

The Reagan Economic Plan — Supply-side, Budget and Inflation

Presentation by James Tobin

It's nice that you have a visitor from the East every four years, at the beginning of a new Administration. I'd like to assure everybody that the first article I published, to which President Balles just referred, was, like many of my subsequent ones, an anti-Keynesian paper.

A speaker who casts doubts on President Reagan's Economic Recovery Program is likely to be as unwelcome as a ghost at a wedding feast. After viewing the euphoria of the joint session of Congress when the President displayed his resilience and his oratorical magic, I hate to be a wet blanket. I wish that his was a cause to which I too could rally. I would like to be enthusiastic about the dawn of the New Beginning.

There are several ways in which we might view the Program. We could examine its *micro*-economics, how it reorders the nation's priorities, reallocates the country's resources, and redistributes income, wealth and power among individuals, groups, and regions. These may be the most important issues, the most fundamental new directions. The Reagan counter-revolution proposes to shift resources from public sector to private sector, from civilian government to national defense, from the Federal government to state and local governments, from beneficiaries of social programs to the taxpayers, from the poor and the near-poor to the affluent and the very rich. These proposals deserve to be considered in detail, item by item, and evaluated in terms of their economic efficiency and equity.

However, the Administration bills and sells its program primarily as a *macro*-economic policy. The President and his spokesmen appeal for support of their counter-revolutionary reallocations and redistributions not on their intrinsic merits, but on the grounds that they are necessary and sufficient to solve the problem of stagflation. Here, we are told, is the remedy, the only remedy, for high unemploy-

ment, high inflation, low growth, and lagging productivity. We are asked to swallow the micro-economic medicine not because it tastes good but because it is good for what ails us. So far, it appears, Congress, press, and public readily accept the program as the necessary remedy of our macro-economic ills.

It is the macro aspect of the program that I propose to discuss, as is only appropriate at a central bank. I'll begin by reminding you that there is precious little evidence in international experience that successful macro-economic management is inversely correlated with size of government, tax burdens, public debt, and social transfers. Some countries whose macro-economic performance we envy have much larger public sectors, more generous social welfare programs, greater tax burdens, and higher budget deficits.

The Reagan recovery program, viewed as macro policy, has a fiscal side and a monetary side. Together they are projected to accomplish the disinflation and the real economic growth shown in columns four and five of my Table 1 and columns one and three of my Table 2.

A neutral fiscal package

The fiscal policy, viewed from the standpoint of conventional aggregate demand analysis, does not seem to be a significant factor of either stimulus or contraction over the five years for which it is projected. It is important to judge the impact of fiscal policy against what is and has been going on, last year and this year, and not to use as a hypothetical reference path President Carter's January budget. The Carter budget, since it eschewed tax cuts to offset fiscal drag, would have tightened fiscal policy dramatically over the next few years. The Congressional Budget Office (CBO) compares the Reagan budget program with a more realistic baseline, the Carter

budget modified for 1982 and 1983 by some business tax reductions and by a 10 percent personal income tax reduction and by unspecified tax cuts to maintain effective tax rates constant after 1983. The CBO projections show little difference between the Reagan budget and this baseline in macro impacts. If anything, the Reagan program is a little tighter than the assumed baseline. Reagan spends less and taxes less, and the net effect is close to neutral.

Actually the high employment budget deficit (calculated for, say, 6-percent unemployment) declines slightly over the next few years under the Reagan proposals, even when the Administration's optimistic inflation scenario is replaced by the more pessimistic price forecasts of the CBO and private model-builders (see Table 3). These are conventional Keynesian calculations, without supply side optimism. (Neither do they apply to the federal government the inflation accounting

we recommend to private businesses, which would of course tell us that even the actual budget is already balanced.)

The composition of the budget, as well as its totals and its balance, affects its macro-economic impact. Under the Reagan program, federal purchases of goods and services rise because of the defense build-up. Transfers and taxes fall. The changes in composition are large, but I think they don't change the macro story just told. For the same budget totals, the shift to defense purchases is expansionary. On the other hand, the shift of purchasing power from liquidity-constrained transferees with high marginal propensities to consume to higher income taxpayers is moderately contractionary. Some economists believe that defense is intrinsically highly inflationary and cite with foreboding the fact that Reagan's projected build-up is comparable percentage-wise to Johnson's Viet Nam spending binge. The analogy is far from perfect. This defense build-

Table 1
Monetary Growth Targets vs. Reagan Projections of Inflation and
Real Growth Implications for Monetary Velocity
(percent per year, yearly averages)

Year	(1) Monetary (M-1B) Growth $\left(\frac{\Delta M}{M}\right)$	+	(2) Velocity Growth $\left(\frac{\Delta V}{V}\right)$	=	(3) Nominal GNP Growth $\left(\frac{\Delta \$GNP}{\$GNP}\right)$	=	(4) Price Inflation $\left(\frac{\Delta P}{P}\right)$	+	(5) Real GNP Growth $\left(\frac{\Delta Q}{Q}\right)$
1980 actual	6.7		2.2		8.9		9.0		-0.1
	Announced Policy Implied by				Reagan Administration Projections*				
	Other Columns								
1981	3.5 - 6		7.6 - 5.1		11.1		9.9		1.1
1982	3 - 5.5		9.8 - 7.3		12.8		8.3		4.2
1983	2.5 - 5		9.9 - 7.4		12.4		7.0		5.0
1984	2 - 4.5		8.8 - 6.3		10.8		6.0		4.5
1985	1.5 - 4		8.3 - 5.8		9.8		5.4		4.2
1986	1 - 3.5		8.3 - 5.8		9.3		4.9		4.2

*Office of Management and Budget, *Fiscal Year 1982 Budget Revisions*, March 1981, Table 6, p. 13.

Discrepancies between (3) and (4) + (5) are in original sources, and are due to second-order effects $\left(\frac{\Delta P}{P} \cdot \frac{\Delta Q}{Q}\right)$, quarterly compounding, and rounding.

up starts in an economy with a much larger amount of slack than there was in January 1966. And it lacks the compulsion to disregard costs and budget constraints that an actual war provides.

No observer of the current political scene can forbear comment on the ironies of the political parties' reversals of roles. Now the Republicans defend planned deficits against Democratic attack, advocate tax cuts not just to arrest recession but to sustain incipient recovery, and resist Democratic proposals to tilt tax reduction further toward businesses at the expense of individuals. It was a Democratic President who deliberately declined, ever since 1977, to recommend tax cuts to compensate for fiscal drag and bracket drift, and who sanctimoniously foreswore counter-cyclical fiscal measures to overcome the recent recession. It is the Democrats in Congress who now issue dire warnings of the inflationary

effects of stimulating the economy by three years of tax reduction even when the unemployment rate is 7 1/2 percent and capacity utilization is barely 80 percent. It is the Republicans — some of them, it is true, without full conviction in their new religion — who say that it is idle and self-defeating to try to balance the budget by higher and higher effective tax rates. The final irony is that it is a Republican budget, proposed by a President who is a free enterprise hero, to which the securities markets are currently registering a vote of no confidence.

The budget is taking a bad rap from those, whether liberal Democrats or conservative investment bankers, who say it is a reckless gamble to reduce taxes so much. To say this is not to agree with extravagant Administration claims that their package increases the national propensity to save, but only to say that it doesn't decrease it; clearly the tax cuts by

Table 2
Real Gross National Product and Unemployment, 1980-86
Reagan Scenario compared to Conventional Estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	<u>GNP (1980 \$billion)</u>		<u>Unemployment (%)</u>		<u>GNP</u>	<u>Reagan</u>
	<u>Reagan</u>	<u>Estimated</u>	<u>Reagan</u>	<u>CBO</u>	<u>(1980 \$billion)</u>	<u>Scenario</u>
	<u>Scenario</u>	<u>Potential at</u>	<u>Scenario</u>	<u>Alternative</u>	<u>Conventional</u>	<u>GNP Relative</u>
		<u>6% Unempl.</u>			<u>Estimate for</u>	<u>to</u>
					<u>Reagan Unempl.</u>	<u>Conventional</u>
						<u>Estimate</u>
1980	2629	2746	7.2	7.2	—	—
1981	2658	2815	7.8	7.8	2663	.998
1982	2769	2886	7.2	7.9	2802	.988
1983	2908	2958	6.6	7.8	2914	.998
1984	3039	3032	6.4	7.7	3001	1.013
1985	3167	3108	6.0	7.5	3108	1.019
1986	3300	3185	5.6	7.2	3217	1.026

- (1) and (3) Office of Management and Budget, *Fiscal Year 1982 Budget Revisions*, March 1981, Table 6, p. 13. GNP converted to 1980 dollars by deflator projections given in same scenario.
- (2) and (5) Author's estimates, assuming (a) Potential GNP grows at 2.5% per year, (b) $Y^* - Y = Y[.025(U-6.0)]$ where Y^* is potential GNP (2), U is unemployment percentage (3), .025 is the assumed Okun's Law coefficient, and the equation is solved to give Y , "actual" GNP (5).
- (6) = (1)/(5). For 1986, the Reagan scenario gives real GNP 2.6% higher than its unemployment projection would indicate in a conventional Okun's Law calculation.
- (4) Congressional Budget Office estimate of unemployment conditional on Reagan budget with less optimistic economic forecast. CBO, *An Analysis of President Reagan's Budget Revisions for Fiscal Year 1982*, Staff Working Paper, March 1981, Summary Table 3, p. xviii.

themselves, without the expenditure cuts, would diminish saving relative to GNP. Nor is it to agree with Lafferite views that the tax cuts will actually maintain or increase revenues. That is most improbable, as I shall explain below.

In judging the fiscal package to be more or less innocuous in its macro-economic impact, I am not endorsing it. I have serious micro-economic and distributional objections, but I will confine myself here to two

macro-economic reservations. First, I regret that once again opportunities are being lost to use tax reduction to gain ground on inflation. We could cut taxes that directly boost labor costs and prices, e.g. by reducing payroll levies. We could go further and offer tax inducements for disinflationary wage and price behavior. Second, we could aim for a different fiscal-monetary mix, one better designed to foster capital formation and growth. In my opinion, that would involve a tighter budget

Table 3
The Federal Budget, 1980-84
Outlays, Revenues, Deficit, High Employment Deficit

	(1)	(2)	(3)	(4)	(5)	(6)
	<u>Budget Outlays (\$billion)</u>			<u>Budget Revenues (\$billion)</u>		<u>CBO Alternative Inflation Scenario</u>
	<u>Reagan Estimates</u>	<u>CBO Estimates for Reagan Scenario</u>	<u>Estimates for 6% Unempl. and CBO Inflation</u>	<u>Reagan Estimates</u>	<u>Estimates for 6% Unempl. and CBO Inflation</u>	<u>% increase in GNP Deflator</u>
1980	580	580	577	520	554	
1981	655	660	657	600	662	10.3
1982	695	708	716	650	710	9.2
1983	732	740	761	709	765	8.6
1984	770	782	812	771	827	8.1

	(7)	(8)	(9)
	<u>Deficit (\$billion)</u>		<u>High Employment Deficit (\$ billion)</u>
	<u>Reagan Estimates</u>	<u>CBO Estimates for Reagan Scenario</u>	<u>Estimates for 6% Unempl. and CBO Inflation</u>
1980	60	60	23
1981	55	60	-5
1982	45	58	6
1983	23	31	-4
1984	-1	11	-15

- (1), (4), (7) Congressional Budget Office, *An Analysis of President Reagan's Budget Revisions for Fiscal Year 1982*, Staff Working Paper, March 1981, Summary Table 1, p. xiii.
- (2), (8) Reagan estimates plus subtotal for Alternative Programmatic Assumptions, Spending Rates, and Other Factors, CBO, *op. cit.*, Summary Table 4, p. xxi.
- (6) CBO alternative inflation forecast conditional on Reagan program, *op. cit.*, Summary Table 3, p. xviii. Compare Reagan scenario column (4) of Table 1.
- (3) Column (1) plus Total Reestimates from CBO Summary Table 4, *loc. cit.*, less author's estimate of reduction in outlays due to difference between CBO unemployment projections in Summary Table 2 and 6%. In principle, column (3) differs from (1) by adding outlays due to higher CBO estimates of inflation and interest rates and by subtracting outlays, mainly unemployment compensation, due to projected unemployment rates above 6%.
- (5) Column (4) multiplied by $(1 + 1.5(x-1))$ where x is the ratio of column (2) Table 2 to column (1) Table 2, i.e., potential GNP to projected actual GNP. The elasticity of revenues with respect to GNP is assumed to be 1.5.
- (9) = (3) - (5) Negative figures are surpluses.

policy compensated by a monetary policy that would give us lower real interest rates.

Monetary policy: disinflation the Fed's job

I turn now to monetary policy, where the greatest inconsistencies in the Reagan recovery program occur. The President and his Administration have assigned the Federal Reserve responsibility for inflation. You take care of prices, they say in effect, and we'll get the economy moving again. Criticizing imperfect marksmanship of the past, the President and his economic policy-makers order the Fed to cut the rate of monetary growth in half over the next five years. This was already the Fed's policy, as anyone who listens to Paul Volcker knows. Now he has Beryl Sprinkel and other monetarists looking over his shoulder, if not waiting in the wings.

The monetary targets of the Fed and the Administration are shown in the first column of Table 1. The idea that money and prices can be detached and delegated to central bankers while Congress and the Executive independently take care of budget, taxes, employment, and output is the kind of fallacy that makes exam questions for freshman economics, a fallacy now elevated to Presidential doctrine. If Amtrak hitches engines at both ends of a train of cars in New Haven station — we still do have a railroad there — one engine heading west to New York, the other east to Boston, and advertises that the train is going simultaneously to both destinations, most people would be skeptical. Reagan is hitching a Volcker engine at one end and a Stockman-Kemp locomotive to the other and telling us the economic train will carry us to Full Employment and Disinflation at the same time.

This inconsistency is shown in Table 1. The third column is the official Administration projection of nominal GNP, equal to the totals of columns four and five, the Reagan scenarios for inflation and real output growth. Subtracting the monetary targets of column 1 from the dollar-GNP projections of column 3 gives the implied growth rates of velocity of M1B, column 2. The two numbers correspond to the

two limits of the M1B target brackets.

There has never been a two-year period over which the average growth of M1B velocity has exceeded 5 percent. It would have to beat that in each of the next five years, hitting 7, 8, almost 9 percent to make the Reagan scenario come true. These increases in velocity are beyond historical experience, even in the recent decade of unprecedented financial innovation. Finance is one sector where American technology remains the best in the world, and the possibility of even faster progress in economizing cash can't be completely ruled out. But if policy-makers were to accept rescue from velocity miracles, or *a fortiori* from further regulatory changes, they would be substituting shadow for substance, appearance for reality. Although the Fed might be tempted by any escape route from the credibility impasse they have painted themselves into, I assume the Fed really means to do literally no more than what their targets say, and to do less if the spirit of the policy so dictates.

This translates, whether the Administration realizes it or not, into significantly lower rates of growth of dollar spending on GNP than the official projections (column three). Of course, another way to achieve high velocity growth is to engineer even higher nominal and real interest rates than those we're now suffering. But they would surely be inconsistent with the substantial recovery of real and nominal GNP promised by the President (columns three and five). On the other hand, if the inflation and interest rate projections of the Administration were realized, velocity would slow down.

Missing: a strategy for disinflation

As devastating as this inconsistency is to the credibility of the President's program, the scenario contains a more fatal flaw. This is the division of nominal GNP, column 3, between inflation, column 4, and real output growth, column 5. It defies historical experience to expect price inflation to subside as rapidly as shown in column 4 while output recovers as vigorously as projected in column 5. Experience tells us the combination is a most

unlikely one, given the stubborn inertia of existing patterns of inflation. Experience tells us that disinflation requires recessions, prolonged slack, and high unemployment. What entitles this Administration to expect to cut inflation in half while output is growing faster than its sustainable potential for five years?

The only answer that has trickled out of Washington is an appeal to self-fulfilling expectations. The public will read column 5. Observing the decisive budgetary moves of the new Administration, believing them to be the proper medicine for inflation as advertised, the public will act to make the predictions come true. That means they will negotiate lower wage bargains and slow down price increases. Previous optimistic inflation forecasts from the White House have not been self-fulfilling or otherwise fulfilled, but maybe this time will be different.

This is an expectations argument, but certainly not a rational expectations theory. Rational expectations require a model that makes sense, one that truly connects policy actions to results. Rational expectations not only generate but are generated from such a model. In this case no such model exists, and Robert Lucas and Robert Hall are as unlikely as Lane Kirkland and Sam Church to believe and act upon the advertised disinflation.

The two major English-speaking democracies are in conservative economic hands, but the policies and public stance of Margaret Thatcher in Great Britain are very different from those of Ronald Reagan in the United States. Their Prime Minister threatens workers, managers, and plain citizens like an authoritarian schoolmaster disciplining an unruly class. You won't have jobs, profits or prosperity until you stop inflating your wages and prices. Our President promises disinflation without tears, indeed with prosperity. He encourages unions and managements to carry on business as usual. After all, inflation is only the government's fault, and all we citizens are asked to do is to accept tax goodies and stop indulging the poor. The Federal Reserve, it is true, has been following a Thatcher-like policy

but in whispers. I am one of the thousand or so Americans who hear and read Paul Volcker and know that M1B is not an army rifle. I pay attention to Henry Wallich too. I believe they will do what they say they will do, and I am duly scared. If I were Lane Kirkland, I would take the monetary threats seriously and tell my constituent unions to take it easy.

The Fed's muted threat is quite different from Her Majesty's First Minister's standing up in Parliament and throughout her country to say that she doesn't care how much unemployment there is for how long, or what is the real rate of growth or decline; she will stick it through whatever the pain, however long it takes to eliminate inflation. Reagan has said nothing like that, and Volcker isn't well known in Peoria or Spokane, in the shops and offices where wages and prices are made. Federal Reserve threats are heard in financial circles all right, but the bond market does not seem to be impressed. In summary, if the Reagan anti-inflation strategy depends on expectations, the Administration has done and said nothing to make expectations work in its favor.

Let there be no illusion. There is no way to reduce inflation in this country so long as wage increases proceed at 10 percent a year. There is no possible miracle of productivity that can validate such a trend in money wages. Our lost 2 percent per year productivity trend may reappear as mysteriously as it vanished. If we are very, very lucky, policy to speed investment and research and development might add another half point or full point, not this year or next but some years down the road. But with the best of good fortune we would be left with domestic core inflation of 7-8 percent unless the money wage pattern is broken — and it may be more difficult to break it when workers can claim to have earned more via improved productivity. We must also expect an adverse trend in the terms of trade between American labor and resource-based commodities imported from abroad or produced within the country. This may be equivalent on average to a half point or full point of decline in worker productivity.

I emphasize the persistent inertial trend of money wages in the central non-agricultural "fixprice" sector of our economy, because no lasting solution of our inflation is possible unless it is brought much closer to the sustainable trend of productivity. In short runs, especially month to month and quarter to quarter, popular price indexes can vary widely around this core inflation rate, from the weight of flexible prices loosely tied to U.S. wages. In the next eighteen months, for example, the volatile elements in the Consumer Price Index might be favorable, and the Administration might be able to point to some apparent successes in its battle against inflation. If mortgage interest rates stay put or fall, the housing component will contribute less to CPI inflation news than in 1979-80. Perhaps we have purchased a respite on the oil front by selling Awacs to Saudi Arabia, as well as by slowing down our economy and swallowing the decontrol of domestic oil prices in one gulp early this year. Our tight monetary policy, if it does nothing else, is appreciating the dollar against other currencies; this may be bad for the U.S. export-import position but it lowers dollar prices of some imports and world-traded commodities. Food price prospects, always uncertain, are not so favorable, given the end of the grain embargo and the low level of world stocks. My purpose is not to predict prices but to warn that transient luck in the volatile elements of price indexes does not signify final victory, any more than transient misfortune justified panic about runaway inflation acceleration in 1979-80.

At the beginning of my talk, I pointed out that countries with enviable inflation records in recent years are not invariably those with Reagan-like fiscal policies. If the successful countries have a common characteristic, it is that they have some kind of handle on money wage decisions.

Here in the United States whoever was the victor in the November 1980 election had, I thought, the rare opportunity to use the window of good feeling that Americans open at the start of a new Presidential term to gain control over our wage-price spiral. To engineer

disinflation without a protracted dose of recession and economic stagnation, I believe it is necessary to give everybody assurance that everybody else is going to disinflate. Otherwise the fear and suspicion of each group that it will lose real and relative income lead it to stick to the existing inflationary pattern. This makes tough going for a Thatcher policy, and even tougher going for a contractionary policy without a clear and credible threat.

For this reason, I have favored a pre-announced schedule of gradually declining standards for wage increases over a five-year transitional period. Inducements to obey the guideposts would be provided by payroll tax rebates for employees in complying firms, and for employers too if their percentage markups do not rise. The guidepost schedule would be consistent with a macro-economic disinflationary policy to which the Administration, Congress, and Federal Reserve would be solemnly and visibly committed. Since nominal GNP growth and wage-cost inflation would decline in concert, there would be neither suppressed demand-pull inflation nor the damage to real economic performance caused by cutting monetary demand growth while money cost inflation proceeds unabated.

Such a policy clearly requires a consensus among labor, business, and government, and such a consensus clearly requires strong and persuasive leadership by a popular President. We lost that opportunity this year, just as we lost the chance to follow a "cold turkey" policy with some chance that inflation would melt faster than previous statistical evidence leads us to believe it will.

Supply-side economics: no free lunch

But can't we take hope from the recent discovery that the economy has a supply side? This remarkable revelation plays a big role in the rhetoric that rationalizes the Reagan program, although, as I argued above, the fiscal program as macro strategy does not really depend on Laffer-Kemp calculus. The official macro-economic scenario does contain a small bit of supply-side magic. Real GNP five years out is somewhat larger, relative to the pro-

jected unemployment rates, than received “Okun’s law” wisdom would allow. (Table 3, column 6) There appears to be on average an extra half percent per year of real growth, beyond what would normally accompany the unemployment reductions shown. It is not clear from what source these gains are supposed to come.

From labor supply? Supply-side wisdom is that the upward drift of marginal personal tax rates is drying up the supply of productive labor. That there has been such a drift, particularly since 1977, is undeniable, though it is not as great as often alleged. The Brookings Institution tax file permits calculation of the federal marginal rate of personal income tax, averaged over all brackets, faced by a breadwinner with spouse and two children: 1960, 18.8 percent; 1965, 15.9 percent; 1970, 18.2 percent; 1975, 18.0 percent; 1980, 21.6 percent. Yet it is hard to find evidence of a weakened propensity to supply labor in recent experience. Labor force participation, overtime hours of work, multiple job holding, weekly hours of work corrected for changes in industry mix — none of these indicators seem out of line with trends and cyclical effects dating from the 1950s and 1960s. Believe it or not, most of our seven million unemployed fellow citizens really do want work, and there are many “not in labor force” who do also. Finally, I observe that although the Administration’s tax bill reduces marginal rates for taxpayers, especially those in high brackets, its budget cuts will seriously impair work incentives for low-income families and individuals dependent on welfare, food stamps, and other transfers.

In the belief that a Curve deserves a Theory, I have derived rigorously a Laffer Curve based on labor supply response to after-tax real wages. Indeed, I have derived two Laffer Curves, one for Tax Revenues and one for National Saving (more precisely for Tax Revenues plus Private Saving, which exceeds National Saving by the amount of Government Purchases, assumed constant.) These are pictured in Figure 1, which also contains a rather cryptic, but I hope sufficient, explana-

tion of their derivation. The important parameters are the Cobb-Douglas elasticity of output with respect to capital, α , and with respect to labor, $1-\alpha$, and the elasticity of labor supply $1/\beta$. In the numerical example, I took both α and $1/\beta$ to be $1/3$. That is a generous estimate of labor supply response; the consensus guess is no higher than $1/6$. With these values my Laffer Curve peaks at a wage tax rate of $5/6$. The National Saving Curve involves also the marginal propensity to consume, which I took in the exercise to be .4 for capital income and .8 for after-tax labor income. The peak of this second, and more economically significant, Laffer Curve is at a tax rate of $3/4$. I doubt that we are on the wrong slope of either Laffer Curve now, and I hope we don’t go there.

A more credible supply-oriented policy is to stimulate non-residential fixed investment, in the hope that accelerating the growth of capital relative to output and labor supply will raise productivity. As one of the Kennedy team that originated the Investment Tax Credit in 1962, I have some sympathy with this goal. Clearly I do not have time to discuss adequately the Reagan Administration’s investment stimuli, so I will confine myself to four short remarks.

First, as I stated earlier, I regret that we cannot adopt a mix of macro-economic policies, fiscal and monetary, that would shift the composition of output toward capital formation. Why can’t we? The main reason is simply the monetarist dogma embraced by the Administration, to which the Federal Reserve is hostage. This locks us into a particular path of a particular monetary aggregate, invariant to fiscal policy and other macro-economic circumstances.

Second, there are ways to provide investment incentives in the taxation of business that do not make a shambles of economic efficiency and tax equity, as the present proposals for accelerated depreciation do. If the intention is to make amends for the overstatement of taxable profits due to historical cost depreciation, there are straightforward ways of doing so without freezing into the tax code a depreciation system that will still be there if and when

inflation abates. Anyway, this investment disincentive is offset, partially or fully, by another inflation distortion in the tax code, the deductibility of nominal interest.

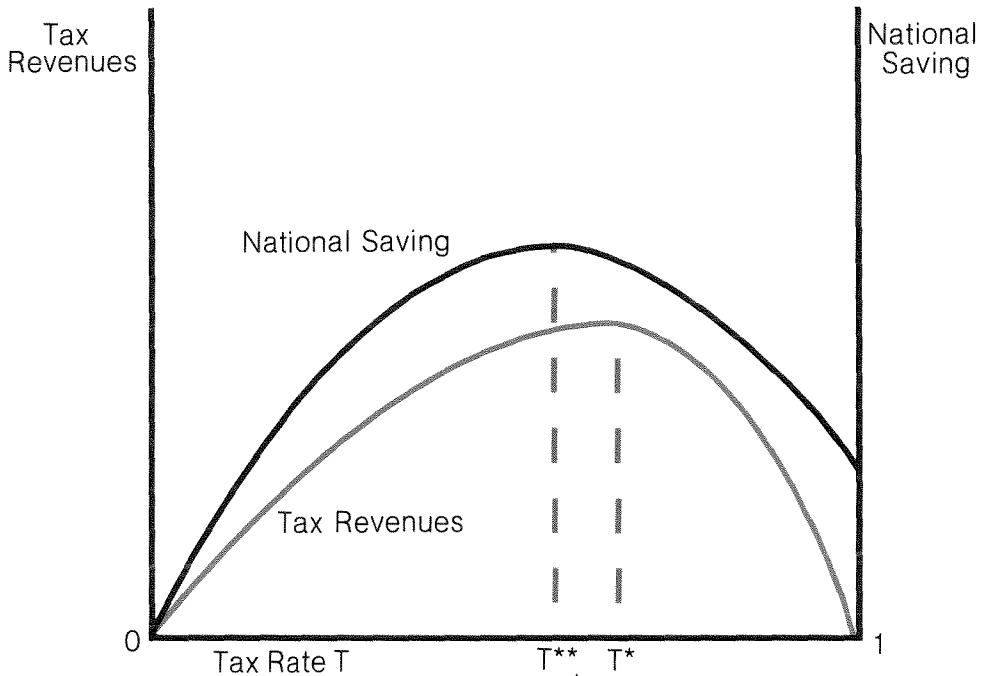
Third, whatever investment incentive is enacted now should be effective immediately. Its impact is diluted by a gradual phase-in such as the Administration proposes, because this gives an inducement to delay investment projects.

Fourth, plant and equipment is not the only social capital. If we wish as a society to make better provision for the future, we should also be concerned with the preservation and improvement of human capital, natural resources, and public sector facilities and infrastructure, all of which are sacrificed in the

Reagan budget, pervaded as it is by the ideology that only private business capital is productive.

The outlook, I am afraid, is for continued stagflation, with disappointing results on all fronts — inflation, unemployment, real output, interest rates, and capital formation. We will unwind the Great Society, redistribute income regressively, withdraw the Federal commitment to the environment, and we will have little or no macro-economic progress to show. The Program will not fulfill the promises that have led the country to support it. I wish I knew what will happen when the Administration, Congress, and public confront this reality.

Figure 1
Laffer Curves



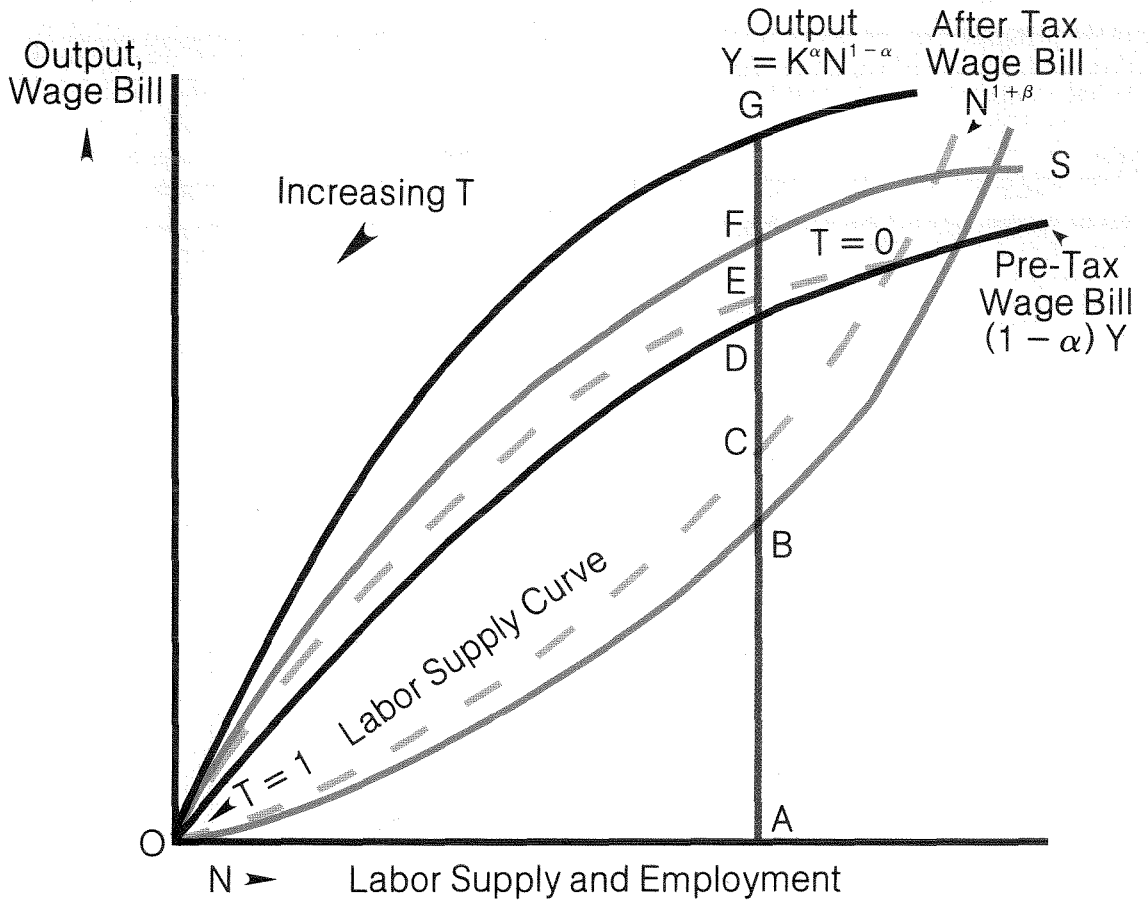
α = capital share of output $\frac{1}{\beta}$ = labor supply elasticity

C_K = marginal propensity to consume capital income

C_W = marginal propensity to consume labor income

$$T^* = \frac{\alpha + \beta}{1 + \beta} \quad T^{**} = 1 - \frac{1 - \alpha}{(1 + \beta)(C_W(1 - \alpha) + C_K\alpha)}$$

Figure 2
Derivation of Laffer Curves



The Reagan Economic Plan

Discussion by Robert Hall

Balles. The discussant for Professor Tobin's presentation, presumably giving the other side of the story, is Professor Robert Hall, Professor of Economics at Stanford and also a Hoover Fellow. He holds a joint appointment at both institutions; he is, as well, a member of the Brookings' Panel on Economic Activity and head of the National Bureau's business cycle dating project. His research projects are many and varied, but he has been particularly interested in the microeconomics of labor markets and in the influence of those markets on the employment and inflation process. I'm informed that he's currently editing a book on inflation for the National Bureau. At various times, he's investigated the impacts of government tax policies, both on the level of business investment and on the supply of labor. Hence, he is very well-qualified to comment on the likely supply-side impact of the President's policy package as well as other matters brought up, or perhaps not brought up, by Professor Tobin. So let's welcome Professor Hall.

Let me start by saying that in no sense am I a spokesman for the President's program. The closest I came to participating in the formulation of the policy was serving as a member of the Task Force on Inflation, which made its report last November. Since then, I have been an academic on the sidelines.

What do economists and the public think is wrong with the American economy today? In the first place, the economy suffers from disappointing real growth. The disappointment dates back to 1973 in its worst form, but actually real growth as we knew it in the 1960s came to an end in 1969. Since then, periods of growth have alternated with severe recessions, and, over the whole period, net growth has been weak. The past few years have been especially bad. And the prospect for the economy today is for continuing disappointments in real incomes and real growth. As I understand it, the administration is very, very concerned with the growth issue.

The second problem, first on the public's list but second on mine, is inflation. People are very tired of struggling with a dollar that loses some 10 percent of its value every year. The public has been clear about its desire to end inflation. There is a very strong political commitment to end inflation. We as economists

have an obligation to say, how can we do it?

The third item on my list is excess government control over the use of resources in the economy. There is simply too much intervention in various forms — regulation, taxing, and spending. A particular form of excess government intervention is the heavy taxation of the return to savings. There is virtually a crisis in the taxation of one of the most critical channels of savings and investment, equity-financed purchases of plant and equipment by corporations. Those transactions are taxed in the U.S. economy today at rates of something like 60 or 70 percent, which is simply excessive. On the other hand, as Professor Tobin points out, we have another problem today, that the tax system subsidizes tax shelters, because of the deductibility of interest. The tax system is completely out of kilter as a result of inflation, and we need to do something about it.

That's my short list of things that are wrong with the economy. Let me turn now to what we shouldn't do about it, and here you will find me in agreement with what Professor Tobin just said. The leading example of what not to do with the economy today is what the British are doing. Let me review the elements of the British macro policy as I see them. In the first

place, the British have brought about a sharp reduction in money growth. And that has brought with it the usual symptoms of a financial crisis, including high interest rates, overvalued currency, and the like. Second, government expenditures are continuing to rise. That, I think, is the central problem they are facing. They simply do not have a handle on the budget in Britain. Part of the budget problem takes the form of direct government purchases of goods and services, including the continuing sad story of deepening government involvement in operating government enterprises, in spite of Margaret Thatcher's commitment to free enterprise. Another important source of budget strain comes from transfers, which have risen because of the reduction in real activity and employment. Finally, under the influence of, I think, a very basically incorrect interpretation of supply side arguments, the British have sharply raised commodity taxes and sharply cut income taxes at the same time. The net effect on the budget from these two moves was not large but it brought about a sharp increase in inflation. There is a large amount of feedback from the cost of living index to wages and transfers in the British economy. And the worsening of inflation has not been offset by any supply side response, either in theory or in fact. A fundamental supply side analysis says that the incentive to work depends on the ratio of take-home wages to prices. That's not affected by a move which increases take-home wages but also increases prices.

Let's not do what the British are doing. I'm happy to see that, by and large, the Reagan Administration is not moving in the British direction. None of the three elements that I've listed in the British example exist in the proposed policy of the Administration. So what should we do? Again, I have a list, and it differs from the Administration's policy only in one of its elements.

In the first place, we need to limit government expenditures. Here, I think, is probably the largest disagreement with what Professor Tobin has said. There are a great many federal spending programs, transfer programs, and

regulations which the people don't want, which have an unfavorable effect on the public's spendable real incomes. We should make a list of all the rat holes that the government is pouring money into today, and we should eliminate them. If you go through the budget proposals of the Reagan Administration, you will find that the character of the expenditure reductions is largely, though not exclusively, elimination of rat holes. One can give countless examples. One which has been quite prominent is the Export-Import Bank — a good example of a program which simply does not have a proper role in a well-run economy. It certainly does not benefit the poor, and is something which should be dispensed with. Well, there are many, many things in the budget that should be dispensed with. My personal list would be considerably longer than the one the Administration has come up with. Furthermore, my cuts would be larger in those cases where the Administration has successfully identified a rat hole and then said, our way of dealing with the problem is to cut the budget by twenty percent. Having found a rat hole, I think we should simply stop pouring anything down it. Whole segments of the budget — like the Energy Department — are just collections of rat holes. Together, they consume a non-trivial fraction of real GNP.

Let me be very clear that I do not include in this category the types of expenditure which have virtually eliminated poverty in the United States over the past twenty years. I am very happy to see that anti-poverty programs like AFDC, supplemental security income, and food stamps have not been gutted. Though these programs are not completely satisfactory, they represent a very important step forward in improving the distribution of income in the most important way, by helping those at the very bottom. The President has been very clear on the need to retain anti-poverty expenditures. I think it's very unfortunate that a large number of opponents of the package have described it incorrectly as aimed primarily at eliminating expenditures on behalf of the poor. That's simply not correct. There are, of course, some attempts to improve the per-

formance of transfer programs, but it seems to me that one can correctly characterize most of the expenditure cuts as eliminating rat holes.

President Reagan has also proposed large increases in military spending. I don't feel qualified to judge the desirability of this move, but I think that economists do have one very important thing to say with respect to military expenditures — macro policy is capable of delivering full employment and price stability for virtually any level of expenditures. Here I agree completely with what Professor Tobin said. There are good examples of economies which have much larger public sectors than ours, and have full employment and price stability. If necessary, we could support a much larger military establishment than we have now without automatically creating any significant macro-economic problems. Of course, resources available to the private sector for investment and consumption would necessarily be less in an economy that was devoting a large amount of its output to military or other government purposes. Within that limitation, the total level of output and the behavior of prices are things that policy can control. An increase in government spending is not by itself a threat to the performance of the overall economy. Nor is a decrease in spending. We ought to be able to design macro policies that handle any of these contingencies.

One of the most controversial features of the President's program is substantial reduction in tax rates. I emphasize that what's being proposed are rate reductions, and not necessarily revenue reductions. One does not have to accept the labor supply rationale of the Laffer curve to entertain the proposition that a tax rate reduction could increase revenue. A very good example of that is the reduction in capital gains tax rates that went into effect in 1978. In a recent study, the Treasury concluded that revenue remained about the same as a result of a large reduction in tax rates. Rate reductions can stimulate revenue because people have a good deal of discretion about how they arrange their affairs and how they fill out their tax returns. When tax rates go down, the incentives to shelter income are dramatically

reduced; certainly that was the case with the capital gains reduction. And a fairly small fraction of total income actually flows through people's income tax returns. In spite of high apparent marginal rates, it's a curious fact of the U.S. economy that only 11 percent of personal income is paid to the federal government as personal income tax. I agree completely that the evidence that people work harder when they are taxed less is not nearly strong enough to support the notion that revenue would respond favorably to a tax cut. What the reduction in capital gains rates suggests is that people's incentive to avoid taxes would be dramatically reduced by cutting top marginal rates, and that would mean that revenue at least would not fall nearly as much as a simple calculation might suggest.

Although I am skeptical about the strength of the supply response to reduced tax rates, I endorse tax cuts as a way to restore real growth. Perfectly standard macro analysis, in which labor supply is exactly inelastic with respect to real wages, will tell you that tax cuts are expansionary. The idea that was pushed very hard and successfully in 1961 through 1964 is correct today. And it seems to me that it should be pushed today. One doesn't have to believe in an exotic labor supply function to take the view that the time has come for tax cuts.

I also favor tax cuts as by far the best way to keep expenditures under control. It seems to me that the reason that government expenditures haven't swollen worse than they have is Congressional fear of deficits. If we don't have a tax cut, there will be that much more room for pouring money down rat holes, which is not something I'd like to see happen.

The last topic on the fiscal side is investment incentives. As I said at the outset, heavy taxation of some kinds of investment income is one of our worst current problems. The President's proposal for accelerated depreciation — the 10-5-3 plan — is very much a stimulus to investment through reduced taxation of its return. I don't think it is the best way to cut taxes on investment, however. I would far rather see the following combination of changes: On the one hand, allow an immediate

write-off of all corporate investment — this would be the ultimate extension of accelerated depreciation. On the other hand, we should deny all interest deductions under the corporate income tax. That combination of proposals would provide even more stimulus than 10-5-3, and it would eliminate the inefficient subsidy we now pay to leveraged investment as well. In the long run, such a tax has a zero effective rate on a corporation that has no monopoly earnings. In a sense, it amounts to a proposal to abolish the corporate income tax, which I don't think would be a bad idea. Even with 10-5-3, the corporate income tax would become a very small part of the federal revenue picture. The big engine of revenue in the U.S. economy in the future will be the payroll tax — not the corporate income tax and not the personal income tax.

With respect to monetary discipline, what is needed is the establishment of a long-run framework for monetary policy. We need to be able to promise a move toward monetary stability, and therefore to price stability, over the next half-decade or decade. We need a convincing way to express that policy. It's not a matter of adopting a harsh reduction in money growth over the next 12 months. Rather, we need a way to promise the American public that we will not push the economy too hard at any one time, but we will push it to long-run price stability. So far, the Administration's proposals have not been in the form I would like to see — there has not been a strong announcement of a long-run monetary framework. Partly this is a recognition of the independence of the Federal Reserve System, and a reluctance for the President to appear to be trying to dictate to an independent branch of government what it should be doing.

What should the Fed be doing? The type of announcement I would like to see would state the target of monetary policy in terms of a path of nominal GNP. Take column 3 in Table 1 of Professor Tobin's handout and say, this is what monetary policy will achieve. We would love to accomplish what is shown in columns 4 and 5. We'd love to get inflation down that

rapidly; we'd love to raise real growth to these exceptional rates year after year. We can't promise either. What we can promise through the use of a sensible long-run monetary policy is column 3. We can promise to use monetary instruments to keep nominal GNP growth at a reasonably high level, that is, not undergo sharp recession, and yet, reduce this growth gradually to a non-inflationary level. What I don't want to see, and what I am afraid I am hearing more and more from the Administration, is that money growth will stick, come hell or high water, to the predetermined target of column 1. We can see from the table that column 1 does not mesh with column 3. I couldn't agree more strongly with Professor Tobin's comments on this contradiction. There's simply nothing in the economy that's going to give velocity growth as high as is suggested by column 2. Furthermore, to the extent that a policy is successful in bringing inflation to an end, it will also gradually reduce interest rates. Lower interest rates should cause velocity to fall, so the problem is even compounded relative to Professor Tobin's discussion.

One of the things I like most about the new Administration is its commitment to strong real growth. To the extent that policy is successful in bringing growth, the economy will need more money. We shouldn't be afraid of money growth, if the reason we need it is growth in real GNP. The strict target of low money growth of column one just doesn't make sense in a rapidly growing economy. We can get out of the box by announcing a nominal GNP target instead of a money growth target. So far, the Administration's position has been incomplete in this area.

Taken together, the policy of reduced federal command over resources, lower tax rates, and investment stimulus adopted by the Administration promises progress in solving economic problems. If coupled with a good long-run framework for monetary and price stability, it would be a very large step forward in economic policy making.

Comments by Speakers

Professor Tobin:

I knew that Bob Hall was a good macro economist, so I'm not surprised that he tried to shift the debate—or shall we say, the discussion—to the micro side of the budget program. Just a couple of comments: First, I don't think it's fair to say that the Administration has not committed itself to column one of Table 1. The President's message in the budget-revision document states that the growth of money stock must be cut in half over a period of time. Although Hall interprets the inconsistency as delicate respect for the independence of the Federal Reserve, another interpretation is that the Administration is setting up the Federal Reserve to receive the blame for the inconsistencies of the program. In case the inflation rate doesn't go down as advertised, the failing would be the Fed's because it had been assigned the responsibility. In case the recovery falls short, failure to finance it could be the Fed's failing too.

Second, I want to stress the need for a *concerted* policy directed to an agreed path of nominal income, or money spending on GNP (column 3). I was glad that Bob Hall endorsed nominal income targeting. But it should be the policy of the Federal Government as a whole, fiscal and monetary together, consistent as between the two. Similarly, in Congress, we need a concerted approach to macroeconomic strategy as between the various committees—those on the one hand that oversee monetary policy, and those on the other that oversee budget policy. We've had too much compartmentalization both in Congress and in the Administration, as if the two areas of macro policy weren't connected with each other. Desirable as an MV target policy may be compared to concentrating on M1B (column 1), I am skeptical that it will succeed without considerable pain and damage to the economy, and without the help of an incomes policy to bring about a reduction in wage and cost inflation consistent with the scheduled monetary disinflation. It is interesting, by the way, to see the distance conservatives take pains to put be-

tween themselves and British conservative policy, now that it appears that Thatcherism isn't succeeding too well.

Third, the claim that taxes take as much as 60 or 70 percent of net income generated by non-financial corporations seems a considerable exaggeration. Summers and Feldstein have cited figures of that magnitude as estimates of *marginal* rates. But they seem to be well above any estimates of average tax rates, and I suspect dubious as marginal rates as well. And they're really not consistent with what Bob Hall said himself, when he observed how little income appears on income-tax returns. That's certainly true of interest income, dividend income, and pension and annuity income — those kinds that reflect corporate-income payments.

Fourth, I think it's a great mistake, both in the Reagan tax program and in previous tax legislation, to correct inflation-generated distortions in the tax system by introducing other kinds of distortions. Why not meet head-on the non-neutrality of the tax system with respect to inflation? The problem may be historical cost depreciation, but we're going to be stuck with 10-5-3 for the rest of time no matter what the inflation rate after Bob Hall gets inflation down. The 10-5-3 plan, at that time, will no longer be justified as compensating roughly for inflation's exaggeration of taxable income. It would be better to have something like the Auerbach-Jorgenson plan, which would give the full present value of depreciation on a new investment right now, computed at a real interest rate of 4 percent or some arbitrary reasonable number. This plan is automatically neutral with respect to inflation. I also agree with Hall on eliminating the tax deductibility of interest costs.

Fifth, we cannot be sure as economic theorists that shifting taxation from capital income to wage income is a useful method of increasing saving and investment. The life-cycle model tells us that the aggregate supply of saving is scaled to after-tax wage income.

Whether a shift in taxation from capital income to wage income will actually increase the amount of saving depends on the interest elasticity.

Finally, about ratholes: It's not really true that all the items in the Stockman hit list are ratholes, that none touch the truly needy or those that should be protected by "safety nets". A lot of them have to do with welfare, with food stamps, with Medicaid. One consequence of the cuts is to turn these people over to the tender mercies of the states, not all of which are as benign as California, Connecticut, and Massachusetts. Also, inconsistent with the spirit of the program as a whole, the marginal tax rates of the poor and near-poor and working-poor are going to be increased by the emphasis on keeping all but the truly needy off the rolls. The sacrifice of benefits involved in earning additional income is going to be much larger than under present programs. Things like aid to "federally impacted" school districts and export-import loans are examples of ratholes, where we would all agree—both on efficiency and equity grounds—that cuts are justifiable. But by no means all Stockman's cuts are of this nature. Moreover, we could compile a list of items that deserve to be cut but have been spared. Consider tax expenditures, which are basically open-ended appropriations by the Federal Government to use resources at the discretion of tax-payers, often for doubtful purposes that would get the axe if they were on the other side of the budget ledger. We can't debate budgets this afternoon, but I don't think an inspection of the program would justify what Bob said about it.

Professor Hall:

Let me just discuss one topic, the taxation of savings and investment. As Jim said, the average rate of taxation of investment income is not as high as the example I gave of tax rates of 60 or 70 percent. It may help if I elaborate upon the example where rates are at that confiscatory level. A corporation issues new stock bought by individuals who are in the 40-percent marginal tax bracket, which is typical for

the owners of common stock. All of the proceeds are then invested in a plant. There's no investment credit involved. There is no leverage, no borrowing in the debt market, so there is no deduction for interest. The combination of the 46-percent statutory corporate income-tax rate, 40-percent marginal personal income-tax rate, and historical cost depreciation at 10-percent inflation gives a total effective rate of 60 to 70 percent, which is excessive.

The big problem with the tax system is the coexistence of these high rates with negative rates on other types of investment, notably those with high leverage and large interest deductions. That's why, when you add everything together, the average tax rates on all types of investment turn out not to look very high. So the evidence Jim referred to does not contradict my point that some critical types of investment are highly taxed. The problem with the tax system—entirely attributable to inflation—is that it deals very harshly with equity-financed investment and very, very generously with leveraged investment. You find individuals going out and leveraging themselves like crazy, borrowing everything they can to create tax shelters—and corporations, who are reluctant to leverage, incurring very heavy tax rates and therefore finding that the current environment is not very favorable for investment. The problem needs to be solved by eliminating the subsidy to leveraged investments and reducing the taxation of equity-financed investments. The two together don't have large revenue implications, because we could get the revenue by eliminating subsidies of leveraged investments and applying the revenue to reduced tax rates on equity-financed investments.

Unfortunately, 10-5-3 is not the best way to make this kind of a change. I understand the Administration is at least considering some more fundamental tax reforms to be proposed after Kemp-Roth and 10-5-3 go through. There are some very badly needed structural reforms that would improve the incentive for plant and equipment investment by corporations.

General Discussion

Q. The first-quarter GNP estimates didn't look anything like the OMB estimates, what with the reduced rate of inflation and sharply higher real rate of growth. Perhaps the Administration's decontrol of oil prices had some thing to do with this, since petroleum is such a major factor in economic activity. I'd like to ask both gentlemen to comment on the extent to which supply-side economics may bail the Reagan Administration out of the quandary that they seem to feel exists on the tight-money side.

Tobin: I think it's a good idea to decontrol oil prices. But I don't know how much that had to do with the first-quarter surprise in real output and prices. I doubt it was the major factor. But whatever truth may be there, it's not something that you can do every month and every quarter from now until 1986. It can't be counted on to produce miracles all the time. I just don't believe there's any overall productivity miracle or supply miracle capable of bringing about any substantial reduction in the rate of inflation over the next few years.

There's an illusion in some of the rhetoric about this—a fallacy of composition. Murray Weidenbaum (Chairman of the Council of Economic Advisers) was quoted as saying that inflation is too much money chasing too few goods—so we're just going to get more goods in the market, and with the same amount of money chasing those goods, the price will go down. And Mr. Laffer says that in an apple market, if you get a lot more apples offered for sale, the price goes down and that's all we're talking about for the real economy. I think Jean Baptiste Say had something to say about this a long time ago. Additional supply also creates additional demand, maybe not one for one, but 0.9 for one or something like that. You don't get a big reduction in excess demand, you don't get much excess saving or net excess supply from aggregate supply increases, desirable as they may be for their own sakes. There is no solution there to the inflation problem. Even if we were to have a considerable increase in the investment share

of national product, it would take some time before that shows up in additional productivity. Even then, the additional productivity growth will be small compared with the rate of inflation that we have to cope with. So there's no supply-side miracle that will make those predictions come true in the scenario.

Hall. One of the things we were careful to do in writing the inflation task force report was to warn the President that although these policies were good in the long run, there was going to be a very soft economy in 1981. That was a group of a dozen knowledgeable macroeconomists trying to make a forecast. Like many forecasts, this one has turned out so far to be quite wrong, and now there is the danger that people are going to say that the new policy has been miraculous. There is no reason to link the surprisingly strong performance in the first quarter to the new policies—oil decontrol is the only one put into effect during that quarter. A very important lesson of macro-economic experience is that you must not argue from the quarter-to-quarter changes in any variable. It would be a very serious mistake to make exaggerated claims for supply-side policies just on the basis of one quarter. We could have a very bad second or third quarter this year, and I wouldn't want to say that signalled the failure of supply-side policies any more than I would want to say the first quarter shows the success of the policies.

Q. Professor Tobin said that there were a lot of ratholes that the Reagan budget cuts don't touch, and he referred to tax expenditures. Now I don't regard those as ratholes, because all they do is let me keep my money, in the sense that the government has a tax expenditure by letting me keep 70 percent of the income I earn. But in terms of actual budget cuts, what would he like to see that President Reagan is not talking about?

Tobin: Examples that I might think of off-hand are elimination of subsidies for ship building and ship operation under American flags, and a much more thorough-going attack

on agricultural price supports than the minor compromise on dairy price supports that has received so much attention and praise. I think we eventually have to tackle the over-indexing of social-security payments and develop a more sensible index for that purpose. That's the middle class' favorite program, and one not touched by the Reagan Administration up to now. I could also think of some things that I might like the Federal Government to spend more money on. I don't agree, by the way, about tax expenditures. Deductible expenditures at the initiative of the taxpayer should be regarded as having something to do with the allocation of resources by government fiscal policy. Stockman and Reagan say that government should not subsidize humanities, non-commercial broadcasting, the arts, and social-science research because the private sector can do so out of tax-deductible contributions. But that's open-ended, and leaves the whole decision process up to the taxpayer. In a pluralistic society, I would like to have some of each.

Q. Professor Hall mentioned that there's a difference in opinion in the Reagan Administration—one group that wants to reduce the money supply year after year (who favor column one), and another group that wants to see a less dramatically declining rate of nominal income growth (who favor column three). It seems to me that most of the public statements have come from the people backing column one. What people are backing column three, and what are their prospects for success?

Hall. The work I did in the fall brought me into contact with supply-siders in a way that university life had not, and I found that the following general line of thought prevailed: Anti-inflation policy in general and monetary policy in particular needn't be the major thrust of policy. Rather, budget policy in its various forms should be the major thrust, and problems of inflation and money creation will take care of themselves if the budget can be brought under control. The monetarists, on the other hand, wanted to put most of the emphasis on controlling money growth. The supply-side forces in the Administration,

which are quite powerful, have not been very clear on what they think should be done with the money supply; only the monetarists have spoken up in any very detailed way on this issue. I don't think it would be fair to say that monetarism has completely taken over the Administration. The disagreement which resulted in the clear inconsistency between the real-growth and inflation targets on the one hand, and the money-growth targets on the other hand, represents a very important continuing split in the Administration. I don't see any immediate sign that that's going to be resolved.

Q. Some of the big "Keynesian" model builders, such as Data Resources Inc. (DRI), show 6-percent velocity growth over the next several years. They forecast money growth along the lines of what the Fed is targeting, yet they see 10-percent inflation continuing along with 3-percent growth. So they still get 13-percent nominal GNP and then 6-percent velocity.

Tobin: They say the Supreme Court reads the election returns, and I've observed that to be true also of econometric model builders.

Q. Almost everyone agrees that the Administration's program has nothing to do with inflation, yet it's sold to the public with the promise that it will take care of inflation. Actually, what the program will do, in effect, is to change the budget composition—the nature of the role of government expenditures and the role of taxes. With regard to tax policy, I would emphasize that the problem is really both one of tax structure and one of level. Now, Mr. Hall at times refers to the need for revising the tax structure, and at other times to the need for cutting taxes. Should we not be careful about mixing up these statements? To restate the point, is capital-gains tax reduction an appropriate analogy for income-tax reduction?

Hall. I was only giving an example, in which taxpayers under the existing tax law have great discretion about how to conduct their affairs. Capital-gains taxation is an

extreme case because taxpayers can choose when to realize their gains. I don't want to say that the negative relation between tax rates and tax revenues automatically applies to the case of labor supply, but again the fact that an awful lot of wage-type income manages to escape taxation one way or the other is an important fact. It suggests that there are discretionary tax shelters and the like which could respond in a sharp way to tax rates. But that's only a guess. We really don't know the answer to the question.

Tobin: I want to comment briefly on this shift of the supply-side view about tax revenues from economic effects to pure tax-evasion effects. There is a certain danger in the idea that we must reduce taxes because they're being evaded, and keep reducing them until we diminish the incentive to evade to the point where more will be actually paid. If you thought of the process as a game, considering the precedents set in that sequence of events, we would end up having no distortion by having no taxes. But maybe we should consider a trade-off between rate cuts on the one hand, and appropriating more money to the Internal Revenue Service on the other. And maybe we should fix up the tax system so that we don't have so many of these shelters built into it.

Balles. Professor Hall made a statement that he would warn against the adoption of column one in Professor Tobin's table; that is, a mechanical year-by-year half-point reduction in money growth until you got to a point, at the end of that period, where it was cut in half. He also said he thought that we needed a strong announcement as to what monetary-policy aims would be. Since this is a central bank, and since I am involved in monetary policy, perhaps we could conclude with his advice to us about what those strong announcements of monetary-policy aims should be.

Hall. I presented a proposal to the Board of Governors of the Federal Reserve last fall to make nominal GNP rather than the money stock the central focus of monetary policy. Although I agree with Jim Tobin's comment that all policy, not just monetary policy, should

be used to stabilize the growth of nominal GNP, I am prepared to defend the use of the monetary instrument alone for this purpose. We should adopt a specific target path for nominal GNP and stick to it. Every time nominal GNP gets a little higher than the path, we should push it down using the appropriate monetary contraction; and if we get a little bit below, as we might during a recession, then we should push it up through monetary expansion. According to my research, manipulation of monetary instruments could stabilize nominal GNP quite well. The policy could work in a number of ways, and might even involve the use of an interest-rate rule. Let me give you an example—I am not saying that this is the best of all policies, but here is an example of a policy that I think would have a reasonable chance for success. The Treasury-bill rate is to be pegged one percentage point above the rate of inflation for each percentage point that nominal GNP is above the target path, and correspondingly below inflation when nominal GNP is below target. So if nominal GNP is, say, five percentage points above target, then the Treasury-bill rate should be five percentage points above the rate of inflation. History has shown that it's a contractionary move for the Fed to set the Treasury-bill rate or other short-term interest rates well above the rate of inflation. Similarly, it's a very expansionary move, as we learned in the late 1960s, to hold the Treasury bill rate below the rate of inflation. This interest-rate policy would be very easy for the Fed to carry out; it doesn't get into any of the difficulties that pegging monetary aggregates does. And it's based on a nominal GNP goal. It's a feedback rule whose effect is to keep nominal GNP, plus or minus a percent or two, on a prescribed track. And it does what the Fed likes best, namely stabilizing short-term interest rates. It gives the Open Market Committee a formula to determine the target interest rate. It would accomplish exactly what I have advocated as the general principle of monetary policy, keeping nominal GNP on a predetermined growth path, instead of keeping a monetary aggregate on a predetermined path.