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CAPITAL FORMATION

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

NINETY-FOURTH CONGRESS

SECOND SESSION

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WEDNESDAY, JUNE 9, 1976

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10:15 a.m., in room 1202, Dirksen Senate Office Building, Hon. Hubert H. Humphrey (chairman of the committee) presiding.

Present: Senators Humphrey, Percy, and Fannin; and Representative Brown of Ohio.

Also present: Courtenay M. Slater, William R. Buechner, William A. Cox, Lucy A. Falcone, Robert D. Hamrin, L. Douglas Lee, and Louis Krauthoff, professional staff members; Michael J. Runde, administrative assistant; and Charles H. Bradford and M. Catherine Miller, minority professional staff members.

OPENING STATEMENT OF CHAIRMAN HUMPHREY

Chairman HUMPHREY. I call to order the meeting of the Joint Economic Committee.

Unfortunately, today will be one of those times in which there are a number of rollcalls and will most likely take place down in the Senate. I'm not really sure of just what we're doing there, but we're running back and forth. We're whipping ourselves, I think, for the Olympics. We will ask your indulgence if we have to leave from time to time.

I called this hearing as chairman of this committee because of the deep interest members of the Joint Economic Committee and people in all walks of life have in the subject of capital formation. I believe it is necessary at this time to reassess the outlook for capital formation in the American economy.

We all understand the tremendous capital needs of industry, particularly in areas such as utilities, agricultural production, and manufacturing. Much has been said in the past few years about the needs of various industries to expand capacity and their consequent need for financial capital.

It is also widely agreed that the Nation needs faster capital formation to enhance productivity, and to sustain the economy on its upward course. As long as the economy was in a deep recession, however, we could not expect business leaders to commit themselves to many large or new investment projects. But now the economy is recovering somewhat—and I hope steadily, with business profits leading the way—profits excluding inventory gains rose about 25 percent last year and are expected to increase again by at least that much more in 1976.

Profits retained by corporations for reinvestment have grown even faster. This is all to the good. Credit markets have returned to reasonably good health, so that investors now can raise money on more favorable terms. But investment spending is not bouncing back and this is the cause of major concern. It is estimated by the Department of Commerce that this year's business outlays for plant and equipment will be only 8 percent higher in money terms than in 1974.

Now, if you translate that into real terms—that is, what the money buys, after allowing for price increases—this means that outlays for plant and equipment are 8 to 10 percent lower than 2 to 3 years ago.

The latest surveys of future investment intentions indicate that business investment will remain very flat in real terms in the next year. If this is true, we cannot expect it to help much in sustaining the economy's growth. At today's hearing we hope to shed some light on the weakness in business investment.

The potential for capacity shortages in various sectors of the economy remains even though the overall utilization of plant capacity is still below what we would call a reasonable limit.

The significance of flat investment spending projections for the future strength of our economy needs to be examined, and future of interest rates and the availability of credit and the adequacy of corporate resources for investment. So with these and other questions in mind, let us ask the witnesses from the business community to come forward: Mr. Frederick Jaicks, chairman of Inland Steel, if you please, sir. We welcome you. And Mr. James O'Connor, senior vice president of Commonwealth Edison Corp., and Mr. Leif Olsen, senior vice president of Citibank.

This is our first panel and we will have a second panel following yours. My colleague, Senator Percy, also has a statement that he would like to enter at this time.

Opening Statement of Senator Percy

Senator Percy. Thank you very much, Mr. Chairman. I certainly commend you for calling these hearings. I don't know of any problem that is more pressing and more urgent to American business and financial institutions than providing the necessary capital for American business. Our ability to solve this problem will really determine whether or not this economy is going to continue to move upwards, whether we're going to provide employment for those unemployed, whether we're going to absorb all of the new jobseekers. And we have a series of conflicting proposals presented to us, almost as conflicting as the antitrust legislation on the floor of the Senate that will probably pull us out several times this morning.

I'm very pleased, indeed, that half of our witnesses this morning are from the heartland of America and the State of Illinois. Fred Jaicks is one of our most respected industrialists in America and, headquartering in Chicago, James O'Connor, excutive vice president of Commonwealth Edison—we certainly welcome you. To have the academic input, we certainly couldn't be more pleased in our next panel to have Robert Eisner, professor of economics of Northwestern

University. And Leif Olsen has long been adviser and counsel to many of us in the Congress. He has been generous with his advice, counsel, and help. We haven't always agreed, but his input has been stimulating to all of us.

In my own judgment, some of the proposals that have been made to reform our tax system and to alleviate existing and future employment needs, would have to be looked upon as somewhat shortsighted and almost counterproductive in the long run. They could reignite inflationary pressures and rob the private sector of the resources it needs to provide an adequate number of well paying jobs in the future.

I'm convinced that the only means to assure a healthy economy, full employment, and acceptable standard of living for all American workers and their families in future years is to increase our level of capital investment today. To meet these goals by 1980, the Bureau of Economic Analysis, Department of Commerce, estimates that we must increase the proportion of our GNP devoted to fixed business investment to 12.4 percent annually during the intervening 5 years. Such investment has averaged 10.1 percent during the past 5 years, an actual reduction from the preceding 5 years.

In dollar figures, Secretary of the Treasury Simon has estimated that meeting these goals will require more than $4 trillion in savings and investment over the next decade. I'm afraid that discussions of this type and figures of this magnitude almost give rise to expressions such as "the pointy heads in Washington." But examined in its constituent parts, the need is real and very well substantiated.

To achieve full employment during the next 10 years, we'll need at least 19 million new jobs. However, a large percentage of investment during this period—it was 62 percent during the decade of the 1960's—must be devoted solely to replacing and modernizing existing equipment. Also a significant portion of investment must be devoted to pollution control equipment, safer working conditions, and other expenditures necessary to maintain and improve the quality of our lives.

We will need significant investment over and above such nonproductive investment, if we can call it that, which is mandated by law. They are not going to create new jobs. They are improving the quality of working conditions and improving the quality of life. So we must have additional investment compared with what we did before.

We're going to need significant investment over and above such so-called nonproductive investment if we're to provide 19 million new jobs, enable the payment of higher wages, maintain our standard of living. Adequate investment is the key to obtaining a level of productivity necessary to meet these goals.

Unfortunately, in some respects, we appear to be on the opposite course. Rather than draw any conclusions, I'd rather leave the conclusions to our witnesses, though we'll not restrain from venturing our own opinions occasionally during the course of questioning.

Our rate of capital formation is demonstrably insufficient, in my judgment. I believe the situation is critical and that's why I commend Senator Humphrey for calling these hearings and we express our appreciation. I know Senator Fannin will have his own comments, but we both appreciate our witnesses appearing before us today.

Like other Senators, I'll have to be back and forth on other hearings, but we'll be back and forth enough, we hope, to always have minority and majority represented at these hearings this morning. Thank you.

Chairman HUMPHREY. Senator Percy, thank you.

Senator Fannin, if you please.

OPENING STATEMENT OF SENATOR FANNIN

Senator FANNIN. Thank you, Mr. Chairman, and I join my colleague from Illinois in commending the Chairman for calling these hearings. I don't know of any hearings as important as these hearings that will be held at any time during this session of Congress. Capital investment is the key element of providing jobs and we're all vitally concerned about that. Regardless of the economic system employed by society, the building and employment of citizens in constructive jobs and improving the well-being of all of its people is directly related to its savings and investment policies.

Capitalist, Socialist, and Communist societies share this economic reality. Let us look at the hard economic reality facing our Nation. The United States lags behind most industrial societies in both capital investment and productivity growth. The average annual weight of real economic growth during the decade of the 1960's for thc 20 OECD nations range from a high of 11.1 percent for Japan to a median of about 5 percent for Australia—the Netherlands and Norway—to a low of 2.8 percent for the United Kingdom. The United States, during this time, experienced an average growth rate of only 4 percent a year—17th among the 20 nations. Now, that certainly isn't something to be proud about.

Capital investment is the key element influencing economic growth. The United States retains a position of economic leadership because it has enjoyed an adequate combination of several economic variables, along with political stability and improving social mobility. However, a quick examination of the relative rate of capital investment in this country during the 1960's will illustrate that our present economic position is in jeopardy. the gap has increased between the U.S. level of investment measured as a share of national output and the commitment of other leading industrial nations.

Treasury Department figures indicate that total U.S. fixed investment as a share of national output during the period of 1960 through 1973 was 17½ percent, which ranks the United States last among a group of 11 major industrial nations. Our investment rate is 7.2 percentage points below the average commitment of the entire group.

We are very pleased to have gentlemen here that are very much involved in the energy program of our Nation. The United States lags behind other industrial nations in investment in these particular facilities. Energy development has suffered and there are many instances—I am very pleased that we will have these very prominent leaders in the industry that are testifying before us today. Thank you, Mr. Chairman.

Chairman HUMPHREY. Thank you very much, Senator Fannin. Gentlemen, I have a press release from Senator Edward M. Kennedy that I want to place in the record at this time. It also carries with it

the study of the Library of Congress on the question of appropriate incentives for capital formation.

I mention this to you publicly because you may want to get a copy of the Library of Congress study and I would really appreciate from all of our witnesses today a critical analysis of that study. I always have a high regard for the Library of Congress, but I also think sometimes that there needs to be an analytical study made of what they recommend.

And maybe our staff can see to it that each witness will get a copy of the study that was made for Senator Kennedy. Second, I would incorporate in the record at this point a Washington Post article of June 8, 1976, entitled, "Business Investment Plans Improve With Less-Than Expected Strength." I defer to this summary from the Department of Commerce, but I think it would be well to have the full text of the article by Mr. David Wallace of the Associated Press printed in the record.

[The material referred to follows:]

SENATOR EDWARD M. KENNEDY RELEASES LIBRARY OF CONGRESS STUDY ON TAX INCENTIVES FOR INVESTMENT

JUNE 8, 1976.

One of the major issues that Congress will face in the forthcoming debate on tax reduction and tax reform is the question of the appropriate incentives for capital formation.

Recently, I asked the Library of Congress to analyze this complex question and to compare the effects of several different types of widely discussed capital incentives. I received the report of the Library of Congress yesterday, and I am pleased to make it available to the Senate.

The report analyzed five proposals, using the Data Resources Inc. (DRI) model of the economy. The report ranked the proposals in the following order in terms of their effectiveness and efficiency in stimulating new investment:

1. Replace the current investment credit with an incremental investment credit, available only for increased investment over a base period level.
2. Adopt an across-the-board increase in the current investment credit, with an additional credit for incremental investment, with both credits made immediately refundable and accompanied by repeal of the present ADR system. (Earlier this year I suggested this proposal for consideration as part of the current tax reform debate.)
3. Adopt an across-the-board increase in the investment credit.
4. Adopt a more generous ADR (Asset Depreciation Range) system, allowing shorter useful lives of property and hence increased depreciation deductions.
5. Reduce the current 48% corporate tax rate.

For purposes of the comparison, the Library of Congress analyzed the proposals over the five years 1977–1981, and chose levels for each alternative that produced the same overall revenue loss to the Treasury for the period—$11 Billion. In other words, the study asked the question, how much new investment will be produced over the next five years if a Federal tax subsidy of $11 billion is provided under each alternative?

The comparison shows that the proposals differ widely in their efficiency in stimulating new investment, as the following summary, prepared from the Library of Congress tables, indicates:

	Increased investment, 1977–81 (billions)	Increased investment per dollar of revenue loss
1. Replace the current 7-percent credit with an 18-percent incremental credit	$25.8	$2.30
2. Increase the current credit to 10 percent, add a 5-percent incremental credit, make the credit refundable, and repeal ADR	13.4	1.20
3. Increase the current credit to 10 percent [1]	5.5	.49
4. Expand ADR to shorten the average useful life from the current 11.1 years to 8.9 years	3.9	.35
5. Reduce the corporate tax rate from 48 percent to 46 percent [2]	.4	.04

[1] The report used a credit of 9.67 percent to reach the same revenue loss as in the other alternatives.
[2] The report used a rate of 45.47 percent to reach the same revenue loss as in the other alternatives.

These figures demonstrate the dramatic differences in efficiency that exist among the various proposals now being considered as incentives for capital formation. A "pure" incremental investment credit would be extremely efficient, with each dollar of Federal tax expenditure generating $2.30 in new investment.

By contrast, a cut in the corporate tax rate would be grossly inefficient, producing only 4 cents in new investment for each tax dollar lost to the Treasury.

Even the current investment credit is clearly inefficient, producing only 49 cents in new investment for each dollar lost to the Treasury—or less than one quarter as efficient as the incremental credit.

The incremental credit is of special benefit to new businesses and growing businesses. In addition, by making the credit refundable immediately, the incentive will be available to new and growing businesses, especially small businesses, when it can do the most good—in their early years of growth, when initial losses and other expenses may result in little or no tax liability to be offset by the credit. The refundable feature means that such businesses will be eligible for the credit immediately, without having to wait for future profits before they qualify for the tax incentive.

By contrast, as the "control" columns in the Library of Congress tables indicate, the less efficient incentives are largely windfalls to businesses for investments that would be made anyway. Thus, for each dollar of Federal subsidy through the present "flat rate" investment credit, the nation receives 49 cents for new investment; the other 51 cents is wasted as a "windfall" element that produces no additional investment.

Perhaps, if there were no other reasonable alternatives for the stimulation of new investment, it would be worthwhile for the Federal Treasury to spend $1.00 to get 49 cents in new investment. But we face no such choice. Each of the two incremental credit alternatives in the report has a superior efficiency to the present flat rate credit. In fact, both alternatives produce even more than a dollar of new investment from each dollar of revenue loss, and the "pure" incremental credit actually produces over $2 in new investment per dollar of subsidy.

The new Library of Congress report is especially valuable, because it is one of the first quantitative econometric studies of the relative efficiency of various tax incentives for capital formation.

Too often in the past, Congress has adopted tax incentives with little or no sound economic analysis. Now, with the help of the Library of Congress, the Congressional Budget Office, and the Senate and House Budget Committees, Congress is beginning to answer questions that should have been asked long ago. In this way, we can reassess existing tax expenditures and analyze new proposals, before committing Congress to wasteful Federal subsidies through the tax system.

As the current study indicates, there are obvious ways to use the tax system to stimulate business investment and encourage capital formation. But the method we have chosen so far—the "straight" investment credit—is now revealed as one of the least effective methods available.

If we are genuinely concerned about achieving maximum efficiency from the use of scarce Federal funds, it is clear that the incremental investment credit us far superior as a tax incentive for growth and increased investment.

I intend to offer a floor amendment to the forthcoming tax reform bill to improve the efficiency of the current investment credit, and I hope that the Senate will debate and adopt a capital incentive that produces substantially more value for the taxpayer's dollar than the nation is now receiving.

Attachment.

COMPARATIVE COST-EFFECTIVENESS OF ALTERNATIVE INVESTMENT TAX INCENTIVES

(By Robert Tannenwald, economic analyst, and Warren E. Farb, specialist in macroeconomics, economics division, Congressional Research Service, Library of Congress)

I. INTRODUCTION

During the past several years, a number of economists and businessmen have been warning the country of an iminent "capital shortage". They fear that the nation's capital stock will be insufficient to meet the demands likely to be placed on it during the next several decades. In order to reduce this projected shortfall, they have suggested various tax proposals designed to stimulate investment.

Those concerned about a possible capital shortage have expressed an interest in comparing alternative investment tax incentives in terms of which stimulates the most additional investment per dollar of revenue loss. This study makes such a comparison for 5 specific proposals of equal revenue cost: (1) a reduction in the corporation income surtax by 2.53 percentage points; (2) a shortening of the average useful tax life of business machinery and equipment from 11.1 to 8.9 years; (3) an increase in the investment tax credit from 7 percent (4 percent for utilities) to 9.67 percent for all taxpayers (including[1] utilities); (4) a refundable incremental tax credit (i.e., one that applies only to investment greater than that undertaken during a designated base period) of 18 percent; and (5) Senator Edward Kennedy's investment tax credit proposal [a combination of proposals (3) and (4), coupled with a repeal of the Asset Depreciation Range System].

After a discussion of what these proposals specifically entail, the study draws on economic theory to formulate hypotheses concerning which tax proposal should have the greatest economic impact per dollar of revenue cost. In addition, the impact of each proposal is analyzed using the Data Resources, Inc. long-term quarterly model of the economy.

II. DESCRIPTION OF PROPOSALS AND RELEVANT PORTIONS OF CURRENT LAW

(1) *Reduction in corporation income surtax rate.*—Under current law, the surtax rate is 26 percent. This proposal would lower it to 23.47 percent.

(2) *Shortening of average useful tax life.*—Useful tax lives currently are determined under the Asset Depreciation Range System (ADR). Promulgated in 1971, ADR allows taxpayers to vary industry-wide class lives of machinery and equipment assigned by the Department of the Treasury up to 20 percent in either direction. (In effect, therefore, it gives taxpayers the opportunity to shorten the useful tax lives of such assets from pre-1971 levels by up to 20 percent). ADR also repealed the Reserve Ratio test, a device which required firms to equate roughly their useful tax lives with their actual asset retirement experience.

Currently, the average useful tax life of business machinery and equipment is estimated to be to be 11.1 years.[2] Proposal (2) would change the flexibility of useful tax lives under ADR so that, for 1977 and later years, this estimate would be 8.9 years. In other respects ADR would remain unchanged. The corporate income surtax rate would remain at 26 percent. The investment tax credit would revert to its pre-1975 level, as provided for under current law.

(3) *Increase in the standard investment tax credit.*—As explained in footnote 1, page 1, The Tax Reduction Act of 1975 provides for an investment tax credit of 10 percent for all taxpayers (including public utilities).[3] The credit applies only to non-residential machinery and equipment; it does not apply to structures. On January 1, 1977, the tax credit is scheduled to revert to its pre-1975 level of 7 percent (4 percent for utilities).

Proposal (3) would provide that beginning on January 1, 1977, the investment tax credit would become 9.67 percent for all taxpayers (including utilities). The corporation income surtax rate would remain at 26 percent. The average useful tax life of business machinery and equipment would remain at 11.1 years. The ADR system would remain intact.

(4) *Incremental credit.*—Under this proposal, beginning on January 1, 1977, the investment tax credit in its current form would be repealed. In its place would be established a refundable investment tax credit applicable only to investment in non-

[1] Currently the investment tax credit is generally 10 percent for all taxpayers (including utilities). According to the Tax Reduction Act of 1975, the credit is scheduled to revert to 7 percent (4 percent for utilities) on January 1, 1977.

[2] This is the figure used by Data Resources, Inc. in its long-term quarterly model.

[3] Firms which establish employee stock ownership plans are eligible for a bonus credit of 1 percent.

residential machinery and equipment in excess of the average annual level of such investment during the 3 previous years. If a firm's investment in non-residential machinery and equipment were to equal $500 million in 1977, while its average annual investment in such assets during 1974–1976 were $400 million, it would be entitled to an 18 percent investment tax credit on $100 million ($500 million–$400 million). The average useful tax life of business machinery and equipment would remain at 11.1 years. The ADR system would remain intact. The corporation income surtax would remain at 26 percent.

(5) *The Kennedy proposal.*—Senator Edward Kennedy has proposed that beginning in 1977 the investment tax credit be retained at 10 percent for all taxpayers (including utilities). Moreover, according to his proposal, beginning in 1977 an additional 5 percent credit would be allowed for investment in machinery and equipment in excess of the average annual level of such investment during the 3 previous years. If a firm's investment in business machinery and equipment were $500 million in 1977, while its average annual investment in such assets during 1974 through 1976 were $400 million, it would be entitled to a 15 percent investment tax credit on $100 million and a 10 percent investment tax credit on $400 million.

Starting in 1978, both the regular and incremental tax credits would become refundable, i.e., independent of the tax liability of the taxpayer.

In 1977, in addition to extending the 10 percent investment credit and introducing a 15 percent incremental credit, Senator Kennedy would repeal that element of the Asset Depreciation System which permits a 20 percent deviation from guideline lives. He would restore the use of guideline lives as they existed prior to 1971 and the authority of the Department of the Treasury to insure that guideline lives correspond to actual business experience.

The changes in the economy that would occur were each of these proposals put into effect were compared with changes that would occur were current tax law to remain in effect through 1981.

The 5 alternatives outlined above, as stated above, are equal in revenue cost. More specifically, they are equal in the amount of revenue each would lose from 1977 through 1980. However, in estimating the revenue loss of each proposal, the fact that a dollar of revenue loss in 1980 is worth less than a dollar of revenue loss in 1977 was taken into account.

As illustration of how this compensation was effected, consider this example. The following are the projected revenue losses from the reduction in the average useful tax life of business machinery and equipment from 11.1 to 8.9 years, as provided for in proposal (3) described above: (in billions of dollars. Source: estimates made by the Congressional Research Service)

1977	1.78
1978	3.09
1979	4.00
1980	4.36

To reflect the fact that a dollar of revenue loss in the future is worth less than a dollar of revenue loss in the present, each annual figure was discounted in proportion to how far into the future it would occur.[4]

In this study, based on a recommendation of the Joint Committee On Internal Revenue Taxation, a discount rate of 10 percent is used. The present value of the projected revenue losses over the next four years from reducing the average useful tax lives of business machinery equipment is from 11.1 to 18.9 years is approximately $11.2 billion.

[4]The discount formula employed was:

$$PV = A^0 + \frac{A^1}{(1+i)} + \frac{A^2}{(1+i)^2} + \frac{A^3}{(1+i)^3} + \frac{+A^n}{(1+i)^n}$$

Where:

PV equals the discounted value of the revenue loss over the 4-year period, or its "present value."

A^0 equals the loss in the first year

A^1 equals the loss in the second year

A^2 equals loss in the third year, and so forth

"i" in this formula is known as the "discount rate."

This amount is equal to the present values of the projected revenue losses over the next 4 years from the other proposals whose economic effects are analyzed in this report. In this manner, the estimated revenue costs of these alternatives are equal.

III. THEORETICAL ANALYSIS

There are 3 major ways in which these 5 tax incentives could stimulate private investment:

(1) By increasing the immediate cash flow of businesses in general; (2) By redistributing income towards firms with a relatively high propensity to invest; (3) By decreasing the cost of capital and therefore increasing the after-tax return on investment.

By definition, the cash flow effects of the proposals are identical. This theoretical discussion, therefore, concentrates on factors (2) and (3).

According to neoclassical theory, firms employ their funds in the most profitable uses available. They will pursue projects, therefore, whose rates of return exceeds the interest rate, the return on loans. They will eschew projects whose rates of return are below the interest rate.

The reduction in the corporate income surtax rate, the increase in the conventional investment tax credit, and the reduction in average useful tax life will increase the net return on all investment projects by a uniform percentage. Some projects previously less profitable than loans will become more profitable. Investment will therefore increase.

An incremental credit, by contrast, affects after-tax rates of return only on levels of investment above the pre-credit equilibrium—the investment "base". Consequently, only those investment projects above and beyond those that form the "investment base" receive the benefit of an increased rate of return. However, the rate of return on each of these projects is less than the interest rate. The incremental credit, therefore, will lift some of them into the realm of profitability—it will increase their rates of return above the interest rate. Consequently, the incremental credit also will augment investment.

The Kennedy proposal would increase the net rates[5] of return on all investment. However, because it entails a larger credit for incremental investment than for "base" investment, it would enhance the rate of return on the former more than the rate of return on the latter. Again, some incremental investment projects formerly less profitable than loans will become more profitable. As a result, investment will be induced bythe tax incentive.

All 5 proposals, therefore, theoritically would stimulate investment. The central question addressed in this study is which would result in the greatest stimulus per dollar of revenue loss.

The tax savings resulting from a reduction in the corporation income surtax rate are a function of corporate profits, not corporate investment. A profitable firm which substitutes labor for capital enjoys just as much tax savings from a surtax rate deduction as one which substututes capital for labor. A profitable high growth firm enjoys just as much benefit as a profitable low growth one. A profitable firm with a high dividend pay-out ratio enjoys just as much tax savings as a profitable firm with a low pay-out ratio, even though dividends might be consumed rather than reinvested. The tax savings from the other 4 measures, however, are much more closely tied to investment levels. In other words, they redistribute income more directly to firms with a relatively high marginal propensity to invest.

Similarly, a refundable incremental investment tax credit should result in a greater increase in investment per dollar of revenue loss than would either a shortening of useful tax lives or a uniform investment tax credit. Neoclassical economic theory states that all base investment is expected to be profitable with or without tax incentives. Allowing tax reductions for this investment, therefore, merely provides a windfall gain for successful investors. This gain is exactly what a standard investment tax credit and a reduction in useful tax lives provide. An incremental credit concentrates all of its incentive where it can increase investment at the margin. It does not "use up" revenue losses on non-incremental investment. Therefore, for a given revenue cost it can effect a greater reduction in the cost of financing incremental investment.

Moreover, to the extent that it does provide some windfalls, it provides them only to firms, both profitable and non-profitable (including officially designated non-profit organizations), likely to expand investment, not merely to all profitable firms that engage in any form of investment.

Theoretically, it is more difficult to rank a standard investment tax credit and a shortening of useful tax lives in terms of cost effectiveness. Both are targeted on

[5] It would do so under the assumption that the stimulative effect of the credits outweights the depressing effect of the lengthening of useful tax lives.

both incremental and non-incremental investment. The difference in impact of a dollar's worth of each type or incentive is a function of their relative effect on the cost of capital. A priori, it is impossible to predict which effect is greater.

To summarize, from the above analysis, one would predict the following ranking of the 5 alternative investment tax incentives in terms of their impact on investment per dollar of tax revenue loss: (1) Incremental investment tax credit; (2) The Kennedy proposal; (3) (Standard investment tax credit), (Reduction in useful tax lives); (4) Reduction in corporation surtax exemption.

Implicit in the analysis which gave rise to this hypothesized ranking are two assumptions: (1) that the tax savings arising from each incentive are not shifted to the consumer or to labor, and (2) that the economy is operating at less than full employment. If either assumption is abandoned, the possibility that none of the 5 alternatives would significantly increase the flow of investment must be considered.

If the tax benefits from the alternatives are to be shifted, then they would not necesarily result in an increase in the net rate of return to the kinds of investment to which they are targeted. Based on the assumption that firms are profit maximizers and that labor markets are competitive, the general view is that the burden of business income taxes fall on capital in the short-run. This view is based on the argument that the tax would not change profit-maximizing price and output decisions.

However, labor unions could use their power to preempt some tax benefits in the form of higher wages. Furthermore, some economists have argued that corporations maximize something other than profits, i.e. sales with a profit constraint. Under such conditions, shifting of the tax benefits might occur in the short run. Moreover, in the long-run migration of capital between sectors could lead to a complex pattern of incidence involving some shifting.

If the economy is operating at full capacity, then the initial stimulus to investment provided by the tax incentives might be negated by an increase in the interest rate. Under such conditions, the economy would be incapable of providing a supply of capital sufficient to satisfy investment demand without an increase in the savings rate. In the absence of such an increase and without accommodating monetary expansion, the change in investment demand arising from the tax incentives would bid up the cost of capital in the form of higher interest rates.[6]

This situation would work to the detriment of forms of investment usually financed with debt, such as housing. In the case of changes in the investment tax credit, this bias would compound the discrimination that housing already suffers by virtue of the ineligibility of structures for the credit. (Structures are also ineligible for the ADR option). The ultimate result of the incentives under full-employment conditions, therefore, could be a change in the mix of investment without a real increase in its level.

IV. SUMMARY OF EMPIRICAL ANALYSIS

Through the use of the Data Resources, Incorporated (DRI) quarterly model of the United States economy, the impact of the 5 tax packages were analyzed. The results of the analysis lend support to the ranking of investment tax incentives supported in the theoretical discussion in part II.[7]

In general, none of the tax proposal packages are likely to have a significant impact on overall economic activity and employment. The strongest impact is on the volume and allocative pattern of investment. The benefit to the economy would then be a higher level of potential output and greater capacity in future years. While there might be some minimal increase in inflation through the years studied, any increase in total investment spending would probably lessen inflationary pressures later in the 1980's.

This analysis suggests that with an incremental tax credit a moderate amount of investment could be stimulated without giving rise to a significant increase in inflation. Historically, however, inflation has been one of the weakest "links" of economic model analysis. It is much more certain that, no matter what incentive is used, any expansion of capital investment in durable equipment would be at the expense of investment in residential housing. It is important to note, however, that these results rest on the assumption of no change in policy by the Federal Reserve Board to accommodate the increased economic growth. Any actions taken by the Board either to ease credit conditions or to prevent credit from tightening as a result of the economic expansion would attenuate the impact on housing and promote economic growth.

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[6] The need of the Federal government to bid for funds in order to finance the increase in the deficit resulting from the tax incentive would only aggravate the situation.

[7] More detailed information regarding the results of the analysis are provided in the appendix.

V. APPENDIX: RESULTS OF COMPUTER SIMULATION

A. Impact on investment

1. *18 percent incremental credit.*—This proposal clearly has the greatest impact on the total level of investment. By 1981, total nominal investment[8] exceeds by 8.6 billion dollars, or 2.0 percent, its level under the control situation. This translates into a $4.9 billion boost to real investment.[9]T1 Real investment in non-residential machinery and equipment increases by $4.8 billion, or 4.2 percent. Real residential construction decreases by only $900 million (1.8 percent).

2. *Kennedy proposal.*—This incentive ranks second in its impact on investment. By 1981 nominal total investment increases by $4.8 billion, or 1.1 percent. Real investment increases by $2.5 billion. Real investment in non-residential business machinery and equipment increases by $2.4 billion, or 2.1 percent. Real residential construction decreases by $700 million, or 1.4 percent.

[8] The sum of nominal business fixed investment, nominal residential construction, and nominal inventory investment.

[9] The sum of real business fixed investment and real residential construction.

[10] Personal savings as a percent of disposable income.

3. *9.67 percent standard tax credit.*—This alternative ranks third in its stimulus to investment. By 1981, nominal total investment increases by only $1.7 billion or 0.4 percent. Real investment increases by $1 billion, or 0.4 percent. Real investment in non-residential machinery and equipment increases by $10 billion or 1.0 percent. Real residential construction decreases by $200 million. (.3 percent).

4. *Reduction in useful tax life.*—The impact of this incentive is relatively small, and is not significantly more stimulative than a reduction in the surtax. Total nominal investment increases by $1 billion, roughly 0.2 percent. Real investment increases by $600 million, or 0.3 percent. Real investment in non-residential machinery and equipment increases by $800 million (0.7 percent). Real residential investment decreases by $200 million, or 0.3 percent.

5. *Reduction in corporation income surtax rate.*—This proposal has virtually no discernible impact. Investment increases by only $300 million, or 0.1 percent. Real total investment increases by only $200 million. Real non-residential investment in machinery and equipment and real residential construction do not change by more than $100 million.

A detailed breakdown of the impact of each alternative on key investment variables for the years 1977 through 1981 can be found in Tables 1 through 5.

B. Impact on savings rate

The only proposals which affect the savings rate[10] are the 18 percent incremental investment tax credit and the Kennedy proposal. The former increases it to 0.080, compared with 0.077 under the control situation. The latter increases it to 0.078. The other 3 proposals have no discernible effect on this variable.

[From the June 8, 1976, Issue of the Washington Post]

BUSINESS INVESTMENT PLANS IMPROVE WITH LESS-THAN EXPECTED STRENGTH

(By G. David Wallace)

The investment plans of business showed improvement in a government report issued yesterday, but a Commerce Department economist said he's disappointed at the strength of projected investment growth.

Economists generally have been banking on a lift from business spending later this year to make up for an expected slower growth in the consumer spending which has carried the recovery so far.

Business spending is crucial because it packs a double punch for the economy. It not only creates new jobs and more efficient production for the company, but also generates jobs and income for the firms supplying the goods.

The signals on business investment have been mixed so far, however, and the latest report from the Commerce Department indicated that spending for the year will be virtually flat in terms of the volume of goods and facilities purchased.

"I don't think it's a disaster," said Maynard S. Comiez, acting chief economist for the Commerce Department. "But it's not as strong as I would have expected."

The Commerce survey, taken in April and May, covers business spending plans for the last nine months of the year and actual spending for the first three months.

The survey pegged total spending for the year at $121 billion, up slightly from the $120.1 billion set as spending plans in January survey. But actual spending for the first three months of the year, at an annual rate of $114.7 billion, was 3.4 per cent below expectations from the January survey.

The Commerce report comes after the Conference Board, a business-oriented research group in New York, reported capital appropriations—the money business sets aside for investment—were off by 12 per cent in the first quarter among 1,000 of nation's largest corporations.

The Conference Board projected a 4 per cent growth in capital spending for the year. But if inflation were not included, that, too, would indicate flat spending in volume terms.

The survey findings come despite the fact that corporate cash tills are flush with profits. Commerce had reported earlier a 5.5 per cent jump in corporate after-tax profits in the first quarter. "It's a little puzzling to me," Comiez said.

He said his department's survey indicates business is being cautious despite growth of the economy so far, although he figures an eventual pickup in business spending is inevitable. The pickup now is likely to be later than he expected, he said.

The $121 billion projected by Commerce for capital spending this year represents a 7.3 per cent increase over 1975, when the dollar value of capital spending rose by three-tenths of 1 per cent. The 1975 performance was the worst since 1961, when spending dipped 2.3 per cent in value.

But the erosion of inflation last year meant capital spending was down about 10 per cent in volume. Commerce said the figure of 6.5 per cent inflation at an annual rate for capital goods so far this year would mean real spending this year would be up only eight-tenths of 1 per cent in volume.

The strongest gains expected in the value of investment are in textiles, 32 per cent; the food and beverage industry, 20 per cent; rubber, 19 per cent; paper, 18 per cent; and motor vehicles, 15 per cent. The biggest decreases were projected for the transportation industry, with airline plans off by 26 per cent and railroads down 15 per cent.

Chairman HUMPHREY. Now, we will proceed with our witnesses. I believe the first witness that I called was Mr. Jaicks and so we'll ask you to open up for us, please.

STATEMENT OF FREDERICK G. JAICKS, CHAIRMAN OF THE THE BOARD AND CHIEF EXECUTIVE OFFICER, INLAND STEEL CO., CHICAGO, ILL.

Mr. JAICKS. Thank you, Chairman Humphrey, Senator Fannin, and members of the Joint Economic Committee. I am Fred Jaicks and I am chairman of the Inland Steel Co. Although I am speaking today on behalf of Inland, I am also the immediate past chairman of the American Iron and Steel Institute, a responsibility which provided me with a broad overview of the steel industry and, I hope, qualifies me to speak about one of its principal problems, the generation of capital to finance its long-term expansion. This probem came into prominence in 1973 and 1974 when both steel and capital were in acute short supply

In retrospect, the sharp decline in demand for steel in 1975 can be seen as a temporary recession related phenomenon that has been followed by a sharp rebound. Production of raw steel, which stood at 67 percent of capability utilization last summer has risen to 91.4 percent of capability in the latest week.

For some products, facility utilization is even higher. Production levels are expected to continue upward during the remainder of the year, resulting in shipments for 1976 of 98 million tons. Next year, shipments are forecast to reach approximately 108 million tons which would place them close to the peak levels of 111.4 million in 1973 and 109.5 million tons in 1974.

By now it is well known that the surge in steel demand has been led by the automotive and other consumer-oriented industries. Next year the biggest gains are expected to come from producer durables industries and construction and from the steel service centers who serve these basic industries at the retail level.

My company's forecast of shipments by major market sector for 1976 and 1977 are included in a table in my prepared statement. It shows the breakdown by four of these market areas that are considered to be the largest: Consumer markets, producer durables, construction, and steel service centers, totaling about 98 million tons, and in 1977, 108 million tons.

It shows a slight increase in consumer markets in 1977 versus 1976, but nevertheless a continued high level with the major growth being the 7-percent shipment increase in producer durables in 1977 over 1976, 20 percent in construction, and 18 percent in the service center sector.

[The table referred to follows:]

	Thousands of tons		Percentage of change
	1976	1977	
Consumer markets	30,800	31,600	+2
Producer durable markets	23,200	24,800	+7
Construction markets	14,900	17,900	+20
Steel service centers	16,100	19,000	+18
All other	13,000	14,700	+13
	98,000	108,000	+10

Mr. JAICKS. The outlook as we see it, almost certainly indicates tight steel supply conditions for flat-rolled products later this year. Next year should see a general tightness over the whole range of steel products reminiscent of 1973–74. Not much can be done to increase domestic supply capabilities in the short run since facility expansions in the steel industry are long-term propositions, necessitating from 2 to 5 years to complete. Decisions made by the Congress to increase the availability of capital to industry will influence longer term steel supply conditions. However, the sooner attention is directed to the capital adequacy issue, the sooner the Nation can be assured of steel supply availability.

Chairman HUMPHREY. Could I interrupt?

Mr. JAICKS. Yes, sir.

Chairman HUMPHREY. We won't do this too often, but I was impressed by those figures of 20 percent and 18 percent—construction markets and steel service centers. Those are basically for expanded construction, both items, aren't they?

Mr. JAICKS. Yes, sir. Construction and in the producer durables—that is, the machinery market, both electrical and nonelectrical machinery, Senator.

Chairman HUMPHREY. Most of the models that we have witnessed here or studied in the committee do not indicate that much of a growth and I just wondered what you base those figures on.

Mr. JAICKS. Well, really, it's a composite, Mr. Chairman, of growth and we see considerable growth—in fact, we're already beginning to feel it in the initial stages in the steelplate sector for construction machinery, agricultural implements—producer durables, we call them.

But the other factor is the factor that we now have arrived in almost all of our product lines at a stable level of inventory management in that last year one of the major problems of steel was a tremendous inventory liquidation phase against shipments, total domestic shipments for steel last year, of 80 million tons as against this 98 projected for this year. And it's pretty well in hand—and the highs of 109 and 111 in 1973 and 1974 respectively. To our best estimates, there was an inventory liquidation last year against this 80-million-ton new shipments of about 12 million tons. Now, the reason that these numbers, I would submit, are somewhat higher perhaps than the ones that you see, it really isn't a total reflection of the upturn in demand, but it's the fact that against 1976, when inventory—at least up to now—has been in the liquidation stage, you are now really seeing not only shipments of steel based on the consumption levels, but as we read it, a slight change in the beginning of an inventory accumulation picture, which relates strictly to our shipments.

Chairman HUMPHREY. The McGraw-Hill survey was much more modest, as you know.

Mr. JAICKS. Correct.

Chairman HUMPHREY. And I want us to be optimistic, but I have here the McGraw-Hill survey of business investment intentions.

Mr. JAICKS. We really can't discount this major shift in direction of inventory management.

Chairman HUMPHREY. I see. Well, thank you very much.

Mr. JAICKS. Given the crosscurrent of debate over the future course of the American economy, there is surprising agreement on likely growth in steel requirements among groups that have made serious studies of the the subject. On April 27, 1976, the Council on Wage and Price Stability issued an economic study of the steel industry prepared by Paul Marshall of the Harvard Business School. The study encompasses a wide range of steel industry economic analysis, including steel price behavior, profits, capital requirements, aspects of import competition, future capacity requirements, and demand.

Its purpose was to synthesize the discussion which occurred at the steel symposium conducted by the council last December. Professor Marshall concludes that studies taking different approaches to forecasting are in substantial agreement and substantiate steel industry projections that demand for steel products in the next 8 to 10 years will increase at an annual rate of about 2½ percent.

Current debate over long-run steel requirements revolves about the energy situation and its likely impact on auto size and weight. Our own—and admittedly tentative—estimates of steel usage in the auto industry suggest that steel usage is actually moving up in the latest model year because of a shift in the model mix toward larger cars.

Senator HUMPHREY. If I may interrupt—with regard to cars, I understood that we were slipping off on the market for larger cars. I understood that this was the last year for larger cars.

Mr. JAICKS. Well, I think my comments here, Senator Humphrey, are addressed to your note which really related to 1976–77, so what I've said so far, really, are the facts of life in terms of our supply to Detroit and elsewhere——

Chairman HUMPHREY. This year?

Mr. JAICKS. This year. And the shipments for the small General Motors car are far lower from what they have been estimated at earlier. The shipments to the plants for the intermediate and the large cars are way beyond what we had anticipated as—the automobile people gave us their projections before the model year got very far along.

And as we look at 1977, we are giving effect to know decreases in auto weight, but they are not substantial in the 1977 model year either. There is going to be, obviously, more of the smaller models and newer ones introduced, to which you are referring, but it's not a major change. And, as I pointed out, these have got to be considered to be crude projections because whether or not the consumer is still going to want to stay in the higher end of the range, which has been happening in the 1976 model year, is really something that is only for the future.

But giving effect to our estimates, which tie really close, I think, to Detroit's estimates, and giving some generous allowances for unknown changes in the market picture and making no allowances for further changes in the model mix for the 1976 year or for increase in sales, 1977 over 1976, we come up with automotive demands for next year at about 1 percent plus or minus against what we see going there this year, which is, of course, the great strength of our market in steel this year.

Chairman HUMPHREY. Yes.

Mr. JAICKS. Prospects for increased sales of both autos and trucks lead us to believe that the auto industry will actually require perhaps slightly more steel.

Past experience suggests there will always be engineering design changes in progress that tend to economize on steel and other raw materials. But economic growth and new technologies invariably lead to a net increase in steel or other material requirements. The energy situation presents similar prospects.

One might cite large quantities of steel involved in obtaining more energy from new sources and transporting it and in making this country more self-sufficient. It should also be pointed out that the cost and availability of competing materials to steel, especially aluminum and plastics, may well be more seriously affected by the energy problems than the cost and availability of steel. So steel may rather gain than lose competitively.

It is probably too soon to make any confident judgments regarding the balance of these factors, but at most, only a slight shifting upward or downward of past growth rates seem justified until much more information and experience is available.

All in all, it appears that the consensus forecast of a 2½-percent annual growth in domestic demand for steel is still valid. Studies done at the American Iron and Steel Institute and confirmed by Professor Marshall, indicate that under this conservative steel demand projection, the steel industry will have to install sufficient capacity to provide an additional 30 million tons of raw steel by 1983.

Using this estimate, we can confront our subject of capital adequacy in steel head on. To meet all of its requirements, the steel industry will have to spend, each year, between now and 1983, a minimum of $5 billion applied as follows: About $1.5 billion to install additional

capacity—that is tied to the 2½-percent growth rate annually—about $2 billion annually to maintain existing capacity; about $1 billion annually to meet pollution control requirements; and about $0.5 billion a year for other nonsteel activities, in which the steel companies are involved.

Notwithstanding the severe market conditions of 1975, the steel industry spent $3.2 billion for capital needs, a level almost twice as high as the $1.7 billion average for the years 1963 through 1972, but still considerably short of the needed $5 billion expansion.

Planned expansion programs over the next several years also fall short of the projected need. Through May 1975, steel companies had announced expansions in the range of 20 to 23 million tons. Many of these programs were announced late in 1974 when the prospects for continued improvement in shipping volume and profit margins rendered expansion attractive. The recession which followed caused a number of these announced expansions to be rescheduled. In all likelihood, some will continue to be slowed or deferred until profitability improves to the point that internal cash flow and externally generated capital are sufficient to cover financial requirements.

If profitability and capital availability do not improve, I think the economic consequences are obvious: Scarcities of many steel products and hence of products made from steel; increased steel imports at premium prices; fewer new jobs created and fewer existing jobs maintained; and slower economic growth.

We know that this committee agrees that it is in the national interest to be able to build the facilities, to create the jobs, to produce the needed goods and services in this country. What are the prospects of raising this much capital? The steel industry's record cash flow—that is, reinvested profits plus depreciation—was achieved in 1974, $3.4 billion. If steel companies were to continue to generate cash flow at this record level—and during 1975 the net cash flow was $2.5 billion—and if we were to continue to add new long-term debt of about $600 million a year, maintaining our present debt-equity ratios, steel companies would nevertheless have only about $4 billion available annually toward their $5 billion needs—$1 billion short.

Some additional capital quite likely could be obtained through the sale of new shares. Our own company was successful in raising some equity funds recently, but I share Professor Marshall's view that equity financing will play a rather small role in steel industry expansion over the near term. The principal problem arises from the fact that on average, the steel industry's rate of return on equity has been disappointingly low for over a decade and a half and only equaled the average of all major manufacturing industries—by Mr. Olsen's bank's ratings—in 1974, which was the record year for steel.

Steel companies must offer prospective investors a competitively attractive rate of return over a sustained time period to attract the considerable capital necessary to accomplish their investment objectives.

At the moment, there is just no assurance that the gap between the steel industry's capital needs and capital resources can be filled. Still, the very fact that this invitation to speak before your committee has come is encouraging. Many of the steel industry's problems

originated through Government policies and their solution lies in the same domain. In fact, it would appear that the country as a whole needs a change in its basic Government economic policies to encourage generation of the capital necessary to provide adequate supplies of vital materials and energy and employment.

And there is a close relationship between plant and equipment, investment and jobs. Rising investment means that jobs are created immediately to produce the plant and equipment, to operate and maintain them, and to supply them with necessary materials and services. As to the need for increased capital formation, the question arises as to how this can be brought about. A wide variety of public policies has been suggested over the past year or two. A consensus of these policies would undoubtedly include the following approaches to stimulate capital formation: Permit market forces to operate freely; permit faster capital recovery under the tax laws through shorter depreciation periods for production facilities and first-year writeoff of pollution abatement equipment; and to permanently extend the investment tax credit.

I have just a couple of brief comments on each of these points. It is almost self-evident to us that free markets assure the best allocation of resources, including capital resources. Government controls, especially price controls, interfere with the market, distort market relationships, and reduce economic growth.

As to faster capital recovery under the tax laws, reduced depreciation for productive facilities is particularly key in a capital-intensive industry such as ours. Facility investment represents huge sums of investment capital in steel. Present tax laws unfortunately do not permit an adequate rate of recovery of this investment. Enactment of a simplified and flexible capital recovery system which will permit the cost of all productive investment to be recovered over a period as short as 5 years would provide substantial help in financing steel industry expansion.

On pollution abatement, the steel industry and others required to make heavy expenditures for pollution abatement facilities should, we believe, be able to recover these expenditures as quickly as possible. While pollution abatement facilities produce social objectives, they produce no stream of income—in fact, only further expense—and thus provide no continuing economnic benefit to the company involved.

Accordingly, traditional concepts of capital recovery should not apply. Permitting first-year writeoff of such expenditures would free up more funds for investment in productive facilities. Neither of these measures would reduce the steel industry's tax liabilities. They would, rather, change the payment schedule, making more capital available for reinvestment in the near term when the need is greatest.

The present investment tax credit of 10 percent—11 percent under certain circumstances—provides a substantial incentive to business to make investment in plant and equipment. However, the on-again–off-again character of the investment credit has made it an unreliable factor in facility planning.

Maintaining or increasing this credit and extending it permanently would improve the ability of the steel industry to expand.

The changes I have mentioned above involve the corporate income tax and certainly some changes are in order. Those that we have just discussed involve basic actions that need to be taken if we are to have the investment climate in this country that will enable us to install the steel capacity necessary to meet our Nation's needs.

I suggest a couple of changes in other policy areas. We are working to acheive some modification in environmental control standards which have an enormous financial impact on our industry. There can certainly be no objection to legitimate standards, but many of the future environmental expenditures required by existing laws relate to cosmetics or stem from questionable criteria selection lacking much, if any, semblance of environmental justification.

A reduction of this burden, which is forecast to reach $1 billion annually or 20 percent of the industry's capital investment, would be a great step toward decreasing the industry's capital gap.

I would make one brief comment with respect to trade policy because of its impact on capital formation in steel. We have noted at length to U.S. trade policy officials that other governments tend to maintain employment in their steel sectors at the low end of the business cycle by increasing participation in U.S. markets at prices reflecting less than full costs of production. The effects of such policies on the domestic industry is to aggrevate the already cyclical nature of our business.

Clearly, some form of safeguard against such practices is justified. In addition to the favorable impact on domestic employment, we believe that the improved stability would enhance the industry's ability to attract outside capital.

Mr. Chairman, I have briefly mentioned some of our concerns in the area of capital adequacy to meet requirements for steel industry expansion and have touched upon some public policies which can affect the future domestic supplies of steel.

I appreciate very much my opportunity to present this testimony and assure you that my associates in the industry—and I'll be glad to provide you with more detailed information, if you wish. Thank you very much.

Chairman HUMPHREY. Mr. Jaicks, we do thank you very much. I'll come back to each of you for some questioning. I want you to know that many of your recommendations I find to be very heartening and, quite frankly, I find myself in considerable agreement. I want to come back and visit with you about them.

Mr. O'Connor, you have given us a fine statement here on the utilities. Might I make this suggestion? The statements are all very well documented. If you could abbreviate in order to accommodate the questioning period, I'd appreciate it. You can put the highlights—the entire statement will be in the record.

Mr. O'CONNOR. All right, fine, sir.

Chairman HUMPHREY. I should have told Mr. Jaicks that, but this will move our testimony along. Thank you, Mr. O'Connor.

STATEMENT OF JAMES J. O'CONNOR, EXECUTIVE VICE PRESIDENT, COMMONWEALTH EDISON CO., CHICAGO, ILL.

Mr. O'CONNOR. Thank you very much, Senator Humphrey, and gentlemen. I, too, am pleased to appear on behalf of Commonwealth

Edison Co., an electric power company that serves the northern half of Illinois, roughly 8 million people, and at the same time in my capacity as chairman of the National Association of Electric Companies' tax committee to talk about the important problem of capital formation.

Mr. Chairman, I will follow your advice and try to abbreviate the comments contained in my rather lengthy written statement.

Chairman HUMPHREY. May I make this suggestion. Senator Fannin is going to be back. He went over to vote. We have short rollcalls here today. If you would permit me—I don't want to miss any of these votes—I'll go over and when Senator Fannin comes, you tell him to proceed with the opening of the testimony and you—would you just hold?

Mr. O'CONNOR. Certainly.

Chairman HUMPHREY. We have regrettably arrived at the day in which our schedule around here is a little bit flaky, I'm afraid. Bear with us.

[A short recess was taken.]

Senator FANNIN. The hearing will resume. Mr. O'Connor, will you please proceed? And I'm sorry about the interruption. I'm sure you understand. And Senator Hansen of Wyoming is with us now.

Mr. O'CONNOR. Thank you very much, Senator. I've been asked by Chairman Humphrey to abbreviate my comments, which I'll try to do. I filed a rather lengthy statement with the committee.

Basically my comments this morning center around two areas of activity: First, financial problems of our industry, and second, recommendations which would aid significantly in restoring the financial integrity of our business.

In 1975 the Edison Electric Institute, which is a trade association representing about 99 percent of all of the investor-owned utilities in the country, completed a report on growth in the electric power industry and growth in the country in general. And they came to the conclusion that even with a moderate rate of growth in the years ahead, it is anticipated that the increased growth of the power industry will be on the order of 5.3 to 5.8 percent a year.

Now, this contrasts with the traditional rate of growth in our industry of around 7.5 percent, so it's slightly lower. We base this new estimate largely on the fact that in the next 10 years we're going to have a significant increase in the number of new household formations, roughly 34 percent by the year 1985. As Senator Percy pointed out earlier, we're going to need 19 million more jobs in the labor force in the next 10 years to sustain relatively full employment in the Nation—and the fact that people in the age category of 25 to 34 will be 61 percent greater in 1985 than they are today.

In our industry we've been particularly hard hit by inflation. In the last 10 years the cost of our fuel has increased fourfold. For example, in 1964 the cost of fuel on a million Btu basis was 25 cents; by 1974 it had increased to 95 cents. The cost of construction has also quadrupled during this period. We were able to build a 1-million-kilowatt nuclear powerplant in 1964 for about $150 million. Today the least that you could build a comparable sized plant would be for about $550 to $600 million.

At the same time during this 10-year period, we've seen interest rates more than double—from the 4.5 percent level in 1964 to between 9 and 10 percent in the period 1974–76. During the last 2 years, the bond ratings of 35 of the 50 largest electric power companies in the Nation have been reduced. During the past 2 years we've seen more than half of the 50 largest electric power companies in the country sell equity capital below book value, which resulted in a dilution of existing shareholders' values.

In 1964, just 12 years ago, our companies were able to finance internally about two-thirds of the capital required for new construction expenditures. By 1976, that's dropped down to about 30 to 33 percent. So it has been cut in half. And this is all happening at a time when the requirements and the demands for new capital are greater than they have ever been before.

For example, between now and the year 1990—1976 through 1990, a 15-year period—it's anticipated that the privately owned sector of the electric power industry will require $500 billion in new construction expenditures just to finance a growth rate of about 5.5 percent. This is four times—once again, four times—the amount of new capital that was required during the preceding 15-year period, from 1960 to 1975.

I think it's important to point out also that partly because of the rather sluggish economy, partly because of conservation efforts, partly because of the high costs of raising capital, we've seen in the last 2 years a very significant deferral or reduction in the amount of new capacity additions that have been planned.

For example, between the period of April 1, 1974, through the end of 1975, we witnessed the cancellation or deferral of roughly 181,000 megawatts of new generating capacity. Of this total, about two-thirds or about 125 megawatts was nuclear capacity. To put that into perspective, the amount of new generating capacity that was deferred or canceled during that period represented about 35 percent of all of the presently installed capacity in the country. In terms of jobs, we estimate that this reduction or deferral in the expansion of new capacity cost labor roughly 100,000 jobs per year.

One other point I might make, Senator, is the difficulty that we have in our business is being the most capital-intensive industry in the world. For example, to produce $1 of revenue, we have to spend $4 in new plant. In the automobile industry, on the other hand, to produce $1 of revenue, it must spend only about 55 cents. In the oil industry, which is generally considered to be a capital-intensive industry, in order to produce $1 of revenue, it has to make only $1 of investment.

So, by contrast, our industry has to spend a great deal more—four to eight times as much money—as almost any other industry just to produce $1 in revenue. So our capital requirements are considerably greater.

Clearly the main solution of the problem that we face is adequate and timely rate relief by local regulatory commissions at the State level. And this has been forthcoming in modest amounts in recent years, but not fast enough to keep pace with the inflation that we've been afflicted with the past few years.

Certainly also there are measures that can be taken in the Congress which would help to alleviate our problems and assist us in regaining financial integrity.

We strongly endorse the proposals put forward by the President's Labor Management Committee, which, among other things, call for an increase in the investment tax credit to the level of 12 percent for electric utilities and urge that it be applied indefinitely.

It takes about 5 or 6 years to build a coal-fired or an oil-fired facility. It takes us about 10 years to build a nuclear facility. It's very difficult to plan ahead and determine what sort of capital resources you are going to have and what sort of cash generation you are going to have, if you have an off-again-on-again type of situation which presently exists with the investment tax credit.

So we urge that it be applied indefinitely for our industry so we can take advantage of it for the entire length of time new construction takes. At the same time, we urge removal of the limitation on the use of the investment tax credit, which is scheduled to drop in successive periods back to the 50-percent level by 1981. Finally, with respect to the investment tax credit, we urge that the credit be included on qualified progress expenditures.

One of the principal features of the President's proposal deals with the matter of tax treatment of dividends reinvested. Our industry is going to have to raise roughly $3 million a year in new equity capital in the next 5 years. We're at a point today where industrywide our stocks are selling at about 50 percent of the level that they sold at just 10 years ago.

As I mentioned earlier, the vast majority of our stocks are selling below book value. Dividend reinvestment, that is, the deferral of the tax on dividend income that is reinvested in the business until the time the stock is sold would aid us materially in helping to finance the equity portion of our needs in the years ahead.

We need some things to encourage this acquisition of new equity capital if we're going to have any sort of financial strength. We think that this treatment—deferred treatment—is even less favorable than the treatment presently given stock dividends, which we in our industry are generally unable to take advantage of just because of the very nature of the kind of investors that we have.

The third item in the present proposal, the labor-management proposal, deals with tax depreciation on construction work in progress. As I mentioned a moment ago, it takes between 5 and 10 years to build a plant. We're not presently permitted to take any tax depreciation on that plant until it is placed in service.

In the case of a million-kilowatt nuclear unit, for example, the standard size being built today with a 10-year period of construction, not until that plant is placed in service are we able to take any tax depreciation on those expenditures that are made. So we tie up huge amounts of capital without being able to generate anything internally to bring that money back. Because of the long leadtimes and also because there is no permanent loss to the Treasury involved in permitting tax depreciation on construction work in progress, we urge that consideration be given by the Congress to this important proposal.

Last is a matter that Mr. Jaicks touched on and that deals with the rapid writeoff of pollution control facilities, the 5-year amortization period or even faster, if possible, to encourage industry, including the electric power industry, to make these expenditures, and at the same time, to assist them in making them through rapid writeoff periods.

In concluding, the proposals that have been set forth in the labor-management package involve lost taxes only insofar as the investment tax credit is concerned. All of the other items that we've been talking about in the labor-management package are deferrals and are taxes that will be picked up at a later date.

On balance, adoption of these proposals would provide a very needed "shot in the arm" for the electric power industry and permit us to once again start to plan and build the kinds of capacity additions that are going to be required as we go into the 1980's. Without these additions we're going to face some very serious power shortages throughout the Nation.

Thank you very much.

Senator FANNIN. Well, thank you, Mr. O'Connor, for an excellent statement. As Chairman Humphrey suggested, your entire prepared statement will be printed in the record.

Certainly you brought out the seriousness of the situation in your industry and we will have questions.

[The prepared statement of Mr. O'Connor follows:]

PREPARED STATEMENT OF JAMES J. O'CONNOR

My name is James J. O'Connor. I am Executive Vice President of the Commonwealth Edison Company which provides electricity to Chicago and the northern one-third of Illinois. I appreciate the opportunity to appear here today to discuss capital formation and its importance to the electric utility industry.

CAPITAL NEEDED TO MEET ELECTRIC ENERGY GROWTH DEMANDS

In 1975, the Edison Electric Institute, the major national association of investor-owned companies in our industry, completed a major study which concludes that moderate, continuing economic growth is desirable to improve the "quality of life" and the standard of living of the American people and that growth can be sustained by the United States for the foreseeable future. Improved productivity is essential to growth and this means capital investment—buying more and better tools to produce more per manhour, which effectively curtails inflation, and building new facilities to provide employment for the nation's growing work force. While other factors are important, the key to increased productivity is the formation of capital.

The Institute estimates that under conditions of moderate economic growth electric energy consumption will grow at an average rate of 5.3 to 5.8 percent per year. (In 1975, growth was below the anticipated average due to the depressed condition of the economy. Although residential and commercial sales increased, 6.2 percent and 7.0 percent respectively, industrial sales declined 4.5 percent, resulting in an overall growth of only 2 percent.)

The electric utility industry has encountered difficult problems in raising the capital necessary to finance the power plants and associated facilities required to supply the anticipated growth in electric energy consumption. The problems result from drastically increased costs—particularly the cost of fuel, the cost of new plant facilites, and the cost of capital required to finance the facilities—together with an inability to obtain prompt authorization for increased rates to cover these increased costs. For some companies this has led to inadequate "coverage" of interest and dividends, which, under indenture covenants, limits or prevents the sale of senior securities. Despite improvement during the past year, the market price of many electric utility stocks, including that of my company, are still below book value. Accordingly, as it becomes necessary to sell additional common stock, there is a dilution of the value of existing

shares. Because such a dilution shrinks their earning power, investors become increasingly reluctant to purchase utility equity securities.

In 1964, electric utilities were able to provide about 64 percent of the funds needed for new plant investment with internally generated funds, principally retained earnings, depreciation, and deferred taxes. By 1974, declining earnings and rising prices for the equipment needed to serve utility customers made it possible to finance only 33 percent of capital expenditures in this way.

The electric utility industry is by far the most capital-intensive industry in the country. For every $1 of revenue, about $4 must be invested in plant facilities. In contrast, the oil industry, generally considered to be very capital-intensive, needs only about $1 of investment for every $1 of revenue, and the automobile industry requires only about 50 cents of investment for each $1 of revenue.

In a study concluded in 1975, the Technical Advisory Committee on Finance to the Federal Power Commission estimated that construction expenditures of the electric power industry will increase from an annual rate of $16½ billion in the first half of the 1970's to about $23 billion in the last half. From 1976 through 1989, construction expenditures of the investor-owned utilities are expected to total in excess of $500 billion in current dollars; this is four times the expenditure during the preceding comparable period. (See attached chart showing breakdown by year.) As a result, the need for financing from outside sources will increase more than proportionately, and the investor-owned electric industry will have to raise over $300 billion in the outside market during this time.

Difficulties experienced by most electric utility companies in raising capital have been a major reason for deferrals and cancellations of new generating facilities. Currently, our figures show that between April 1, 1974 and October 1, 1975, a total of 181,000 megawatts of capacity were delayed or removed from the schedule. Of this total, 125,000 megawatts were in nuclear units, most of which were due to be completed in 1980 or later. This is equal to roughly 35 percent of the total present installed generating capacity. It is estimated that the projects deferred or removed involve approximately 100,000 construction jobs annually. Of course, deferrals and removals have an immediate deterring effect on employment and the current economy. Even more important are the implications for the national economy in the future if there is then a significant shortage of electric power. In all likelihood, there will be shortages of electricity if action is not taken promptly to restore the deferred and cancelled projects.

The principal solution to this serious problem is adequate and expeditious authorization for rates to cover increased costs and attract new capital. However, changes in the Internal Revenue Code are a necessary concomitant in the overall capital picture because existing tax laws impose a severe burden on capital investment.

RECOMMENDATIONS OF THE PRESIDENT'S LABOR-MANAGEMENT COMMITTEE

The President's Labor-Management Committee has recommended a number of changes in the Internal Revenue Code that would help to solve our industry's financial problems and thus stimulate construction of urgently needed electric facilities.

We strongly endorse their recommendations and urge early and favorable consideration by the Congress.

INVESTMENT TAX CREDIT

We support the recommendation of the President's Labor-Management Committee that the investment tax credit be increased to 12 percent for electric utilities, that it apply indefinitely and that it be applicable in full to qualified progress expenditures. Also, we urge that normalization accounting and rate treatment be required for additional investment credits under any new legislation.

Since 1962, the investment tax credit has been authorized, suspended, restored, terminated, and then authorized again. Because of the long lead time necessary for the construction of large generating plants and transmission lines, there is a need for assurance that the credit will be allowed for an indefinite period. On the average, it takes over five years to place a coal-fired generating unit in operation and ten or more years for a nuclear facility. Large amounts of capital are tied up during these extended periods, which serves to strain the financial position of utility companies. Allowance of the investment credit at a 12 percent rate would provide important capital funds and significantly ease the strain.

In order to receive full advantage of the increased cash flow resulting from the additional investment credit, the limitation for electric utilities, which is scheduled to fall ten percent per year until it reaches 50% in 1981, should be maintained for

an indefinite period at 100% of an electric utility company's pre-credit income tax liability.

Also, allowing the investment credit on the full amount of qualified progress expenditures without regard to the transitional adjustment should reduce the lag between incurring the expenditure and realizing the credit.

The increase in investment credit should apply to generating facilities in which petroleum products (including natural gas) are to be used where the utility was committed to the construction of the facilities prior to recognition of the energy crisis. Denial of the investment tax credit on such facilities would cause an undue burden on companies which have acted reasonably and in good faith.

Finally, it should be pointed out that provision of the current one percent investment tax credit to finance Employe Stock Ownership Plans (ESOP) should be extended. The proposal of the Labor-Management Committee to increase the present 10 percent investment tax credit to 12 percent does not appear to contemplate a loss of the ESOP credit but does not provide for the extension.

DIVIDEND REINVESTMENT

One of the principal recommendations of the President's Labor-Management Committee concerns the deferral of current income taxes on dividends immediately reinvested by a shareholder of an electric utility company into stock of the paying company under a qualified dividend reinvestment plan.

This proposal is of considerable importance to the industry. Our industry's needs for new common equity financing are expected to be over $3 billion a year during the next five years. These requirements are 50 percent higher than those in each of the past five years.

The dividend reinvestment proposal would assist materially in encouraging investment in utility common stock and aiding in the formation of capital for utility investment. In December, 1975, the average utility stock was trading at about 47 percent of its level ten years earlier. Even with overall market conditions improving in recent months, many utility stocks are still valued below book value and with the financing needs of the industry some means to encourage investment in utility common stocks is essential. We strongly urge this proposal because the primary effect of tax deferral on dividends reinvested would be to provide needed equity capital.

This would merely provide a treatment similar to that now provided conventional stock dividends. Many utility stockholders purchase their stock for the cash yield and it is therefore not practical for utilities to change their dividend policy to provide for lower cash dividends to be supplemented by stock dividends. Under the language previously suggested by the Treasury Department, the proposal results only in a deferral of ordinary income taxes which is even less favorable than the treatment accorded stock dividends.

Taxes will be recouped by the Treasury at ordinary income rates when the stock is disposed of by the shareholder. Hence, there is no permanent loss of tax revenues to the Treasury.

It should be pointed out that the public service obligation of utilities distinguishes our fund-raising needs from those of other industries. Our industry must raise capital on terms that are, at times, highly uneconomical because we must construct required plant to meet customer demand. Common stock is the foundation of our capital structure and, to continue construction, stock must often be sold even when market conditions make such issues uneconomical. Since utilities do not have the investment discretion enjoyed by other industries, the dividend investment proposal offers an important and needed way to make electric utility stock more attractive.

The results of a survey made last spring of Institute members which presently have a dividend reinvestment plan indicate that the deferral of taxation on reinvested dividends primarily would help the small stockholder. The results of the survey are as follows:

	Companies using outstanding shares	Companies using unissued shares
Percent of total common shareholders participating	5.4	9.6
Percent of total common shares held by those participating	1.8	4.9
Average common shares held by those participating	95	125

DEPRECIATION

In view of the long lead time necessary to bring major generation and transmission facilities into operation, we urge that qualified progress expenditures included in the base for ratemaking purposes be eligible for tax depreciation. Normalization accounting and rate treatment should be required in order to obtain this tax benefit. The combined efects of additional tax depreciation and inclusion of qualified progress expenditures in rate base will add materially to the internal cash generation of an electric utility.

Many regulatory commissions have already recognized that some or all construction work in progress (CWIP) should be included in rate base. By allowing qualified progress expenditure property to be eligible for tax depreciation only if the regulatory body allows the utility to include the same property in the rate base and to normalize the tax effect of the depreciation, the internal cash generation problems of electric utilities would be materially alleviated. With major generating plants now taking five to ten or more years to construct, the need for additional internal generation of capital is obvious. With CWIP in the rate base utilities will be replacing bookkeeping earnings with real earnings, and normalization of rate treatment will assure that the cash remains available to the utility for use in acquiring needed facilities. This results in a tax deferral not a permanent loss in taxes to the Treasury.

For the reasons stated above under the investment credit heading and where long standing commitments have already been made, qualified progress expenditures relating to generating facilities in which petroleum products are to be burned should be eligible for tax depreciation when incurred.

AMORTIZATION OF POLLUTION CONTROL AND FUEL CONVERSION GENERATING FACILITIES

The President's Labor-Management Committee recommends extension of the provision for rapid amortization of pollution control facilities and also recommends that rapid amortization of the cost of fuel conversion generating facilities to use fuels other than oil or gas be permitted. Our economic studies show that this proposal would not achieve the goals intended unless the investment tax credit also is available with respect to such facilities. Loss of the investment tax credit would nullify the advantage of rapid amortization because it would be more advantageous for a taxpayer to elect an accelerated method of depreciation, the ADR system, and a 12 percent investment tax credit rather than rapid amortization with no investment tax credit. Of course, the 60-month amortization period would limit the amount of the investment tax credit to two-thirds of the amount otherwise available.

The right to amortize fuel conversion costs should include as eligible costs those associated with conversion from gas to oil. Boilers in plants which were designed to burn natural gas could rarely if ever, be converted to burn coal. Because of the differences in the nature of the two fuels, essentially a new boiler with storage and handling equipment would be required. Because natural gas-fired plants are the least costly to construct, the cost of converting one to burn coal, together with the cost of adding coal handling equipment, would probably be as much as or more than the original cost of the entire gas-fired plant. Further, many natural gas-fired plant sites do not have the physical space to stockpile coal, making an adaptation to coal impossible.

A conversion to burn residual oil would be entirely consistent with the national energy program for the best usage of natural resources. Residual oil (the product existing after refining crude oil into gasoline and distillate oil) has only industrial uses, with the most common being used as industrial boiler fuel. If rapid amortization for the costs of converting a gas-fired plant to burn residual oil is denied, many companies' conversion efforts will be impaired, which would not be in furtherance of the national energy program of the most prudent usage of natural resources.

ESTIMATED TAX REVENUE IMPACT

In recent testimony before the Budget Committee, Assistant Secretary of the Treasury Charles Walker estimated that the enactment of these recommendations would reduce electric utility income tax liabilities in future years.

A breakdown for fiscal year 1977 indicates that a $300 million temporary loss would result from the deferral of taxes under dividend reinvestment, and while the proposal generates cash for the utilities, the tax deferral would be to the benefit of utility company stockholders rather than reducing the electric companies' income tax bill. Also, as previously mentioned, the tax deferral would not be a permanent loss to the Treasury.

Tax savings of $200 million to the electric utilities are attributed to depreciation of qualified progress expenditures. The savings again are only temporary in nature because the total depreciation deductions applicable to such facilities over the lives

of those facilities would be the same as those allowed by current law. The tax benefits are accelerated but not increased.

Consequently, the increase in the investment credit, estimated by Secretary Walker to amount to $70 million in fiscal year 1977, would be the only permanent tax benefit to the electric utilities, assuming that limitations relative to the credit would currently or eventually allow use of the credit.

Additional Tax Proposals—Integration of the Corporate and Individual Income Tax

In recent statements, Treasury Secretary Simon, Ways and Means Chairman Ullman, Securities and Exchange Commission Chairman Hills and others have focused on the growing problem of capital formation in the United States. They agree that our present tax system is biased against capital formation. By taxing corporate profits twice—once at the corporate level and again at the shareholder level—the system inhibits the flow of capital in the economy. Because the capital needs of the electric utility industry are so great, it is particularly affected.

Double taxation obviously encourages the retention of earnings so as to avoid the second tax. But traditionally many purchasers of utility stock have acquired such stocks on the basis of yield and utilities which therefore have a high percentage of earnings are placed at a substantial disadvantage when compared to those corporations which retain a much greater portion of their earnings. Elimination of the second tax would greatly assist utilities in raising equity money.

Many plans have been suggested for alleviating these problems by integrating corporate and individual income taxes. We fully support the underlying principles and objectives of such proposals.

Carryover and carryback modifications

Section 172 of the Internal Revenue Code currently provides for net operating loss carryover and carryback periods for taxpaying businesses of five and three years, respectively. Because those electric utilities currently experiencing the most severe financial problems have little or no taxable income, the granting of additional incentives which further reduce taxable income would have little or no meaning because little or none of such incentives could be utilized within the current statutory carryover and carryback periods. However, these utilities have paid substantial income taxes in the past and will undoubtedly find themselves in this position once again in the future.

We recommend, therefore, that Section 172 of the Code be amended to provide for electric utilities maximum periods of 7 years for carryover and 10 years for carryback of net operating losses, with an increase in the carryback period to be available only if the taxpayer reduces the carryover period by an equal number of years.

Congress has in the past recognized the special needs of particular classes of taxpayers and has provided several modifications to the general rule, such as the 10 year carryback period applicable to "Financial Institutions" and the 7 year carryover period provided for "Regulated Transportation".

Analogous modifications of investment credit carryover and carryback provisions would be similarly helpful to companies that would gain little or nothing from the grant of additional current tax deductions and investment tax credits.

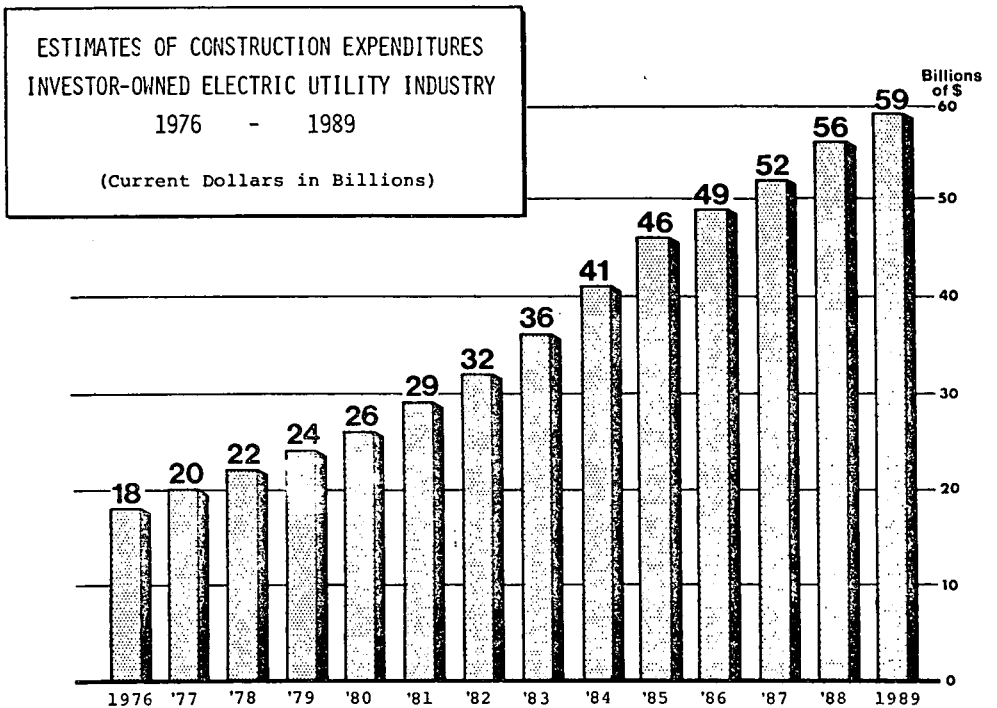
Costs of meeting national environmental standards

The meeting of reasonable national environmental standards, a goal which the electric utility industry fully supports, accounts for a substantial part of the industry's capital needs in coming years. Our latest estimates are that in the years 1976 through 1980 the investor-owned electric companies must invest over $10 billion for this purpose. This is intimately tied in with attainment of national energy goals, since a substantial part of the environmental concerns result from the switch to nuclear and coal from oil and gas as energy sources.

Two particular income tax provisions could be of immense value in helping the industry meet its capital requirements in this area. First, 5-year amortization of all pollution control facilities, not just facilities retrofitted on existing plants, should be permitted. Essential elements of such a provision would be that the investment credit be allowed and that fast amortization not be permitted unless the resulting tax deferral is normalized for rate-making purposes. As previously pointed out allowance of the investment credit is necessary because little, if any, tax advantage results from use of 5-year amortization without the credit instead of accelerated depreciation over asset depreciation range lives with a ten percent or higher credit. Normalization is necessary both because it is sound economically and because if the tax deferrals are flowed through in rates no capital is provided to help finance the required facilities.

Second, there should be incorporated in the tax law provisions which make effective the existing provision of Section 103(c)(4)(F) relating to industrial development bond financing of air or water pollution control facilities. We believe that the Internal Revenue Service and the Treasury Department have largely nullified this provision by means of highly restrictive interpretations and unconscionable delays in responding to requests for ruling. There should be included in the statute a definition of "air or water pollution control facilities" that expressed the intent of Congress specifically enough that Section 103(c)(4)(F) will become truly effective as a means of helping in the financing of pollution control facilities. This is a vitally important matter for at least two reasons. First, because interest rates are lower on tax-exempt than on taxable borrowings, tax-exempt financings exerts a lesser upward, inflationary pressure on electric rates. Second, the market for tax-exempt obligations is in the main, distinct from the market in which most utility debt financing is done, and access to this other market should significantly enhance the industry's ability to raise needed capital.

We suggest as an additional measure to assure that the intent of Congress in enacting Section 103(c)(4)(F) is given effect that it be made possible to sue to obtain a declaratory judgment when IRS acts adversely or fails to act with respect to a request for ruling on a proposed financing. The provision should closely parallel Section 7476, declaratory judgments relating to qualifications of retirement plans, which was enacted as a part of the Pension Reform Act of 1974. Pollution control financings and qualifications of retirement plans have the common attribute that when IRS acts adversely or fails to act, the affected parties are virtually helpless.



Source: 1976-1979 Edison Electric Institute (For these years it is estimated 60% of total funds must be obtained on the open market); 1980-1989 Derived from the National Power Survey Technical Advisory Committee on Finance Report. December 1974.

Senator FANNIN. Mr. Olsen, please proceed.

STATEMENT OF LEIF H. OLSEN, SENIOR VICE PRESIDENT AND ECONOMIST, CITIBANK, N.A., NEW YORK, N.Y.

Mr. OLSEN. Senator Fannin, I want to thank you and other members of the Joint Economic Committee for this opportunity to share with you some of our views on capital formation. I, too, will summarize my remarks. I have endeavored to answer the questions addressed to me in the letter sent to me by Chairman Humphrey on May 25, 1976.

I would also like to ask permission to introduce into the record a speech given by Walter Wriston, chairman of Citicorp, before the 44th International Conference of the Financial Executives Institute, that deals with our tax structure. Because our tax structure, in its various incentive aspects and disincentive aspects allocates capital resources, I feel that this speech has bearing on the discussion of the committee.

Senator FANNIN. The speech will be made a part of the record.

Mr. OLSEN. The title of that speech is, "The Ultimate Loophole—Spend Your Own Money."

[The speech of Mr. Wriston follows:]

THE ULTIMATE LOOPHOLE—SPEND YOUR OWN MONEY

(An address by Walter B. Wriston, Chairman, Citicorp, before the 44th International Conference of the Financial Executives Institute)

Any of you who have observed with sorrow the disappearance of the American handyman have had either to learn some of his skills, or watch many of the mechanical devices in and around your homes break down. In acquiring handyman skills, you come to realize that a badly designed machine can never be fixed even by an expert at tinkering. Something more radical is required—redesign. This principle applies to many patchwork legislative solutions to social and economic problems which have been pasted together over the years.

The ultimate insult used to be to say something looked as if it had been designed by a committee. To the extent that we can use the word designed, our tax laws actually fit that description. They were patched together by a multitude of committees over many years. All too often changes were made without reference to what existed before. Since the beginning of time, no tax structure has ever won the plaudits of the citizens, but there are few instances in history where all shades of political opinion have agreed unanimously that our tax laws are unfair, unclear, indeed, beyond understanding. It is literally true that no one in the world knows for sure what the tax law means. No policeman can read you your rights.

It is a maxim of cryptology that what one man can devise, another can unravel. This principle keeps armies of tax lawyers and accountants employed, but adds nothing to our national productivity. The distortions in our society caused by the quirks of the law beggar the imagination: companies that have lost money may be more valuable than others which make money. People with equal incomes pay unequal taxes. Often the heaviest burden falls on the working man or woman.

The blue-collar worker who has struggled hard to support his family, educate his children, and save his money suffers. His is the only group in our society that gets a plethora of kind words from Congress but laws which catch him in a double bind. Inflation pushes him into higher tax brackets while cutting deep into his purchasing power. His savings melt under the heat of inflation, while the interest on his proposed mortgage rises beyond his reach. Meanwhile Congress increases the payments to the non-worker so that subsidies of the idle rise to meet the shrinking rewards of thrift and industry.

Now we can fairly charge, as did our forebears in the Declaration of Independence, that taxes are "imposed without our consent." Today, again, we have taxation without representation, because it is impossible to have your point of view fairly represented in a matter so complex that no one understands it. This lack of understanding is

not limited to the ordinary person trying to pay his tax in accordance with what someone tells him the law requires. It is a pervasive malaise extending to our representatives in the Congress who vote the laws. At a closed hearing on the tax bill last spring, several Senators complained that they did not understand for what they were being asked to vote. The Chairman of the Senate Finance Committee is reported to have said: "If every man insists on knowing what he's voting for before he votes, we're not going to get a bill reported out by Monday." Monday clearly had priority over clarity.

The Constitution says that Congress is to provide for the "general welfare." Instead Congress pays more attention to special interests. Hundreds of bills are introduced to amend some part of the tax code. Many of the bills seek to benefit some sector of our society which has persuaded a Congressman that it needs help. Change is then effected by amending a section of the law, often referring to another section which itself refers to still another. A recent "simple" amendment to the tax reduction bill was "read by title." The title consisted of one sentence containing 69 words. Nestled among them was a key phrase "and for other purposes," which meant anything with which Congress chose to fill what came to be called "the Easter basket."

No Congressman, no lawyer, no accountant can tell the taxpayer his rights with any certainty. No one even bothers to try to make a case that the present laws are equitable. Any law which cannot be understood is, by definition, an assault on democracy. Whenever a legislator, hard-pressed for a headline, needs a little free publicity, he or she announces in a tone of outrage one or another of the legitimate consequences of the law. The results are often so bizarre that each new announcement merely reinforces the public awareness that the Congress has legislated a ripoff.

Each year one of the hallowed rites of spring is a legislator peering earnestly out of the television screen and bewailing the fact that some people pay no income tax. What they say is true. In 1973, for example, the IRS said there were seven persons with incomes in excess of a million dollars who paid no federal income tax. Yet no one can assert that they did not obey the law. They did no more than their Congesss mandated. Obviously such a result makes no sense, and I do not think anyone should go tax free. The fault, however, is not with those who pay no taxes but with those who turned taxation into a puzzle. You can be sure that some IRS officer built a government career auditing the returns of these non-taxpayers. A law which produces this result is obviously wrong. In place of holding up these few wealthy people to obloquy, the legislators should examine their own conscience in writing a law so complex that they did not know what they were doing. That is the very essence of legislative irresponsibility. Their acts lessen respect for all law and are disruptive of our society.

Since no one believes the present laws are fair, it is worthwhile inquiring how we got into this mess. An economist, Adam Smith, writing in the year our nation was founded laid down basic principles. Taxes should be "certain, and not arbitrary . . . clear and plain to the contributer, and to every other person." Today taxes are uncertain, arbitrary and unclear; common sense has been stood on its head. We have arrived at our present absurd position because the original purpose of taxes as defined by Article I of the Constitution has been forgotten or ignored. The Constitution gave power to Congress "to lay and collect taxes" in order "to pay the debts and provide for the common defense and general welfare."

No mention is made in the Constitution in any form of what was called social engineering during the Roosevelt era. The original idea was to raise money to pay the costs of government. It was a straightforward concept. Limiting taxes as a safeguard for individual liberty was much in the minds of the founding fathers. They knew that the power to tax was the power to destroy. They understood with great clarity that when the government takes a part of our income, it is commandeering the fruits of our labor.

As early as 1753 Benjamin Franklin suggested a standard. He wrote: "It would be thought a hard government that should tax its people one-tenth of their time, to be employed in its service." The fundamental principle laid down by our founding fathers has now been reversed. Today, the part of your income you succeed in keeping for yourselves is denounced as a "loophole." The ultimate logic of that assumption is that everything you earn belongs to the state. The benevolent Congress may permit you to keep a little, not as a right, but only as a benefit.

Levying taxes to pay the government's bills is a sound idea. From the very start of our country, however, our toleration of taxes has always been tempered by a well-founded public awareness that government expenditures tend to be too high and to keep rising. When Thomas Jefferson won election as President in 1800, his campaign promise was to roll back taxes. George Washington was portrayed as a big spender

since he had a Federal budget of about 2 percent of the national income. The budget was then financed without income taxes. The well-to-do paid a tax on imported goods, but taxation in America remained light until an income tax was levied to help finance the Civil War. That income tax was repealed in 1872. The Supreme Court found the income tax of 1894 unconstitutional.

It took a Constitutional amendment in 1913 to bring the income tax back into being. Even so, as late as 1935 only one out of 60 citizens was required to pay any income tax at all. To bear the cost of the New Deal and of World War II, one out of every three—or just about every working adult—began turning a portion of his income over to the government.

No one has to remind you that today, federal, state and local taxes take more than a third of the money Americans earn. While the proportion is large and growing, the point I want to make is that the tax burden does not fall upon people with any semblance of equity. The principal reason that this is so is because tax laws have not been used primarily to raise revenue. Rather, the purpose was to allocate private resources to achieve what were deemed at the time to be social priorities.

Tax policy aimed at social engineering, instead of raising revenue, inevitably provided individuals and organizations with a patchwork of deductions, exemptions, credits and variable rates of such complexity as to boggle the mind. In moving along this path, Congress stretched the Constitution which speaks only of the "general welfare." Far from looking to the general welfare, the tax laws help develop special interests and privileges. Doubtless, at the time they were enacted into law, each gimmick seemed like a good idea.

But our value systems constantly change; what was once thought to be good is now denounced. The result is that today's social priorities will inevitably become tomorrow's tax loopholes. Examples abound: the oil depletion allowance was designed to induce people to engage in the financially risky search for petroleum because America needed supplies of energy. When Congress adopted a concurrent resolution in 1945 to allow a deduction for intangible drilling and development costs, the resolution was introduced with the words, "That in the public interest Congress hereby declares . . ." The Arab oil price increase blanked out Congressional memories and turned on a spate of oratory which denounced profits as "obscene" and depletion as a "loophole." The list of special cases includes just about every category of business, labor or voluntary organization and grows longer with every legislative tinkering. But the point is simple: when the unpleasant job of raising revenue is superseded by government allocation of resources through subsidies, exemptions, loopholes and deductions, we have tax laws which not only can be understood by no one, but with good reason are perceived to be unfair to every sector of our society.

When a democratic consensus believes something is wrong, it is time for reform. Laws which are not only unfair but unintelligible should be repealed before social damage becomes irreparable.

In the words of the Declaration of Independence the government "has erected a multitude of new offices and sent hither swarms of officers to harass our people, and eat out their substance." That phrase from the pen of Thomas Jefferson sounds like someone who has just heard that the manuals on which IRS agents must rely have grown to an incredible 40,000 pages.

We have arrived at the point where it has been proven the tax machine has been so badly designed that no tinkering can help. It is time to throw the machine away and return to the people the decision on how they wish to spend their own money.

Just as no-fault auto insurance, despite its deficiencies, leveled premiums for motorists and cut down on endless litigation in the courts, a no-fault tax policy would restore taxation to its original Constitutional purpose of raising revenue and providing for the general welfare. There is much to be said for abolishing the whole complex of laws we now have, and replacing it with a simple graduated rate with no deductions except for taxes paid to other political jurisdictions to avoid paying taxes on taxes. A top tax rate of 20–30 percent for individuals and corporations alike would produce as much revenue as the government now collects. Some have estimated a flat rate of 13 percent would do the job. The exact rate is not as important as the fact that it would make the law clear, certain and fair. It would eliminate loopholes that now make tax laws resemble a sieve.

Since only people pay taxes, the present policy of differentiating between corporate and personal income taxes makes absolutely no sense. In reality corporate and personal taxes are one and the same. A large percentage of the population has a stake in corporations by either owning shares directly or relying on life insurance and pension funds which make the investments. In fact, the greatest asset the working man has is a claim on his pension fund in the future. Directly or indirectly, the retired worker

must rely on corporate payments for his pension. The majority of jobs in this country are provided by corporations. Whether or not we work for a corporation, we are all consumers, and in the end the consumers pay the corporate tax. If the tax is too high, the buyer pays more for the product of the corporation. If the buyer refrains from buying, the shareholder's dividend declines or evaporates, the working man's paycheck shrinks or disappears. Since it is a truism that no country can be richer than what it can produce, income can be divided but not multiplied through tax laws.

If the tax rate were the same for corporations and individuals, the shareholder and the working man would have more money to spend, not as the government decides, but as they choose for themselves. Free people making free choices in a free marketplace form the wellspring of our economy. Business would be spurred to research, investment, and development. As a consequence it would hire, compete and produce more and more at less and less cost. This program would answer the fears of a capital shortage, because capital is nothing more than stored up labor: to the extent all people can keep more of the fruits of their labors—more capital is available to increase production and the quality of life.

This simple but fundamental truth has not been observed by those who determine our tax policy. Voted in response to populist pressure to tap the corporate exchequer, negative sanctions on saving and investment have depleted the public's pocketbook, thrown people out of work, and weakened the economy.

The cold fact is that the Congress, business, labor and individuals have come to have a vested interest in the complexity of the law. The beneficiaries of tax breaks have come to regard them as constitutional rights. Their proponents in the Congress use them as a means to court their constituents and ensure reelection. Out of habit the homeowner thinks that his deduction for mortgage interest is all that stands between him and foreclosure. The businessman insists that the investment tax credit is the only thing that stands between progress and stagnation. Doctors and lawyers, farmers and laborers, young and old, rich and poor, all tend to be seduced by "the psychology of entitlement." They have become habituated to look to government to subsidize, directly or indirectly, their education, their homes, their food, their medical care and their retirement. Each person regards the other man's loophole as evil, but his own as essential. Congress, instead of placing a tax reduction under public scrutiny, all too often prefers obscure subsidies and loopholes with complex credits, deductions, tax carrybacks; they fill the law with these and other riddles. As long as handouts to rich and poor alike are buried in the maze of our tax structure, public confidence in the fairness of the rule of law will continue to decline.

At a time when people grow cynical about all institutions which promise more then can be delivered, it is time for reform. What is needed is a simple, clear tax law, understandable to all, to reduce bias and restore balance. It is time to recognize that freedom and incentives—not tax dodges or loopholes—are what inspire people to work, to save and to invest. Let us return these decisions to the people by eliminating our present maze of laws and putting in a simple graduated rate unencumbered by exemptions, deductions, deferrals, loopholes, incentives or disincentives. Perhaps then we can begin to repair the social fabric.

Freedom can be as effectively destroyed by a tax policy designed to allocate resources, as by the repeal of the 1st Amendment. When business and personal decisions are made not on economic grounds, but are shaped by tax consequences, which may or may not make any economic sense, our American system of economic and political freedom is in jeopardy. The framers of our Constitution were well aware of this danger as they were the recipients of discriminatory tax acts promulgated from across the seas. Governments have not mended their ways anymore than human nature has changed. Using tax policy to either force or induce people to do what the government wants, and not what the citizen exercising his free choice wants, is based on the assumption that government knows best. It reflects a distrust of freedom.

A paternal government permitting some favored section of our population to benefit more from the results of their labor than some other section illustrates a point made by the great Justice Louis Brandeis when he wrote: "Experience should teach us to be most on our guard to protect liberty when the Government's purposes are beneficent . . . The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding." Our tax laws are written by men of zeal, and it is equally true that they surpass all understanding

Mr. OLSEN. I'd like to just begin by briefly giving you conclusions on certain aspects of the capital formation discussion. A decline in the share of total output allotted to capital formation will, over time,

result in a deterioration in the standard of living. An increase in the ratio of capital formation to total output will enhance our standard of living, including our ability to cope with improvements in our environment, our energy needs, and the general quality of life.

An increase in capital formation will not prevent inflation, however. We can always print money faster than we can build new plants and equipment. The pervasive shortages and bottlenecks that occurred in 1973–74, both in the United States and in many other countries, were caused by an overwhelming acceleration in demand emanating from an explosion in world money growth in 1971–72.

In addition, the adoption of price-wage controls and the devaluation of the dollar in the United States further aggravated the situation in this country. Capital investment lags economic trends. It is one of the last sectors of the economy to turn down in recessions and to turn up in recoveries. While expected capacity utilization and rates of return in individual industries determine changes in levels in investment, capital investment is basically caused by economic growth and not the other way around.

Therefore, monetary and fiscal policies that foster economic growth will encourage overall investment spending.

Increases in interest rates are primarily the function of inflation. Recognizing the link between capital formation and the country's standard of living, we should also recognize that capital, that is, wealth, is privately owned in our economic system. There are those in our society who are offended by the private ownership and accumulation of private capital and wealth and propose policies to penalize or discourage wealth and capital accumulation.

Consequently, we should recognize that such proposals strike at the capital base of the Nation and the means by which our standards of living rise or fall.

There exists today a pervasive belief that the shortages and bottlenecks in American industry, accompanied by double digit inflation similar to the events of 1973–74, will occur again in the next few years. What is the probability that this will happen again?

Now, I'd like to summarize the next couple of pages of my remarks by simply saying that in the analysis that we have done on the events of 1973–74, we have concluded that while there was much slower increase in new additions to capacity from 1970 to 1973, that this slowdown in new additions to capacity alone is not sufficient to explain the rather extraordinary events of 1973–74.

We have, in past periods, reached full capacity utilization. We have in past periods had rapid increases in inflation, as markets cleared the excess demand. But we had not previously experienced the bottlenecks and shortages, the nonprice allocation that occurred in 1973 and 1974 in many industries, particularly in the basic materials industries where customers were placed on a quota allocation basis.

It's our conclusion that excessively expansionary monetary and fiscal policies worldwide, together with the introduction of price controls—particularly the phasing-out of price controls in 1973 and 1974, which led to anticipation of higher prices with the phasing out—led to extraordinary inventory demands, creating bottlenecks and shortages.

While capital formation is essential—and I have emphasized this again and again, particularly for increases in our standard of living—it's also important to recognize that stable monetary and fiscal policies are equally essential in avoiding the kinds of conditions that occurred in 1973–74 and in avoiding double-digit inflation disruptions in the capital markets.

The evidence strongly supports a conclusion that the events of 1973–74 were not the product of insufficient capacity, but rather the extraordinary demand, heightened by monetary and fiscal policies and price controls. The fact is that any given quantity of capacity can be swamped by printing enough new money and creating a speculatory demand based on the assumption that prices will rise indefinitely. When that happens, prices increase faster than money and income growth precipitating a decline in real income and recession.

Once a recession has ended, increases in consumption spending typically characterize the recovery period and that has been true in this recovery. Investment spending comes later as orders move back through stages of processing, increasing capacity utilization and corporate profits. After a period of time it varies industry by industry. Corporate managements extrapolate the growth trend into the future with somewhat greater confidence. This leads to decisions to increase capital investment expenditures, even before capacity is fully utilized.

Unless real economic growth is unusually anemic because monetary and fiscal policies are excessively restraining, such increases in capital investment typically begin about one to two quarters after the end of a recession—in the case of national income data—and somewhat longer in terms of the capital spending survey data.

We expect capital investment to accelerate in 1977 in response to economic growth, rising capacity utilization, and improved profits. Increases in capital investment as a percent of total output are not essential over time in raising total employment. Countries with low-capital investment ratios may have relatively little unemployment. For example, a country that builds highways with millions of manual laborers breaking stones by hand may have little unemployment, but very low productivity and very low per capita real income and low standards of living compared to, say, the United States which builds highways with thousands of workers employing heavy machinery and equipment.

Now, if I may, Senator, I'd like to ask permission to amend my prepared statement at this particular point, because this question of the impact of capital formation on employment is somewhat complex. And in the case of the United States, a decline in the capital to output ratio over time would unquestionably lead and dislocate in labor allocation because the process would, by necessity, involve a reallocation of labor and there would be periods of time in which labor might be unwilling to take jobs at essentially lower real income, so that we could very well have higher levels of unemployment as a consequence of such a decline, even though, in theory, you can have low capital to output ratios and still have a full employment.

Senator FANNIN. Mr. Olsen, your prepared statement will be made a part of the record, with the amendment included as you have requested, at the conclusion of your oral statement.

Mr. OLSEN. Thank you, Senator Fannin.

With a more productive economy we can enjoy a much higher standard of living, and for the individual American citizen, this is the critical aspect of increases in capital formation. Moreover, declines in standards of living that occur because of less capital formation occur rather deceptively over time. They may not be as apparent in the 1st year as they are in the 10th or the 15th year. The same, of course, is true of increases in capital formation.

The lists of capital needs that have been prominent in the discussion of capital shortages imply a desired standard of living. The extent to which we achieve those investment goals will determine the degree to which we have maintained or improved our standards of living. This includes transportation, housing, heat and light, the products that flow from energy, the quality and quantity of our food, as well as the quality of our air and water.

Concern over capital adequacy typically springs forth during periods of historically high interest rates because inflation stimulates strong bidding for available funds necessarily squeezing out a large number of potential borrowers. Capital is perceived to be in short supply and the condition is extrapolated into the indefinite future.

When inflation accelerates rapidly, departing from its expected trends, borrowers with short-term needs such as those who roll over inventories, bid aggressively. They can afford to pay rates of interest equal to the expected short-run rate of inflation plus a real rate of about 2½ percent.

Long-term borrowers, on the other hand, expecting inflation to be higher over the long-term life of their investment than they did at an earlier date, do not expect that it will be as high as in the year in which it is actually accelerating, however. Consequently, these borrowers step back from the credit market as they are outbid by short-term borrowers. Among those who are outbid are home buyers, corporate issuers of long-term bonds and States and municipalities.

Long-term borrowers adjust their inflationary expectations more slowly. Their long-term inflationary expectations are a function of the actual rate of inflation over the previous 5 years. Hence a 5-year moving average approximates the inflation premium on a long-term bond. The difference between 4½-percent bond rates in the early 1960's and the more than 10-percent bond rate we witnessed in the summer of 1974 represented changes in inflationary expectations. The real rate of interest that runs about 3½ percent remained relatively unchanged.

If I may just make a comment here apart to show you the effect that inflation has on the rate of return to savers. A 9-percent bond is taxed at the nominal rate and at a 50-percent tax bracket, this yields a 4½ percent-after-tax rate of return. If inflation is running at 6 percent, it provides a negative 1½-percent rate of return to the bondholder, penalizing him as a saver. It would require, in fact, something in the neighborhood of a 19-percent rate on a bond in order to provide an after-tax, after-inflation 3½-percent real rate of return to a saver.

Now, we've asked the question: Why do people continue to buy bonds if that is the case? And while it's difficult to come up with the answer, one answer is that there are no alternatives because on the equity side, turning to equity investment, the investor or the

saver finds that here the double taxation of dividend extracts an even greater penalty.

Hence, as the owner of the business he is taxed once before the dividends are paid and then once again after the dividends are paid.

Chairman HUMPHREY. Well, unless he has a good stock that has a very good growth factor.

Mr. OLSEN. Yes.

Chairman HUMPHREY. I know that some stocks, even with the double taxation on dividends and so on—splits three or four times in a period of 4 or 5 years.

Mr. OLSEN. In extreme cases of extraordinary rate of return or productivity, but even still there, obviously, the yield would be even more attractive to the saver had the double taxation not been in effect.

Chairman HUMPHREY. When you've got capital gains tax structure, for example, as compared to regular taxation, which helps.

Mr. OLSEN. If we want to avoid congestion in the credit markets in the future, we should avoid inflationary monetary and fiscal policies. The problems for housing and other long-term borrowers are caused not by tight monetary policies but by overly expansive monetary policies that start the inflationary wave moving.

Attempting to estimate corporate resources for investment is an interesting exercise, and this has been done at great length in many discussions on the question of capital formation. But the actual allocation of funds will be determined largely by whether we have stable economic growth or whether we have a recurrence of the inflationary turbulence that we witnessed in 1973 and 1974.

In conclusion, I would emphasize the desirability of encouraging higher levels of capital formation because herein lies the fundamental determination of our economic, social, and political well-being. When expectations are frustrated, we can usually expect public unrest. There is irony in attempting to satisfy public desires for a better quality of life through more consumption at the expense of less capital formation.

The result is short-run satisfaction with longer run disillusionment. We have many policies today that penalize the saver and encourage consumption. When Government runs larger full employment deficits or when States and municipalities find it necessary to borrow in order to cover operating deficits, we tend to shift resources from potential savers to consumption.

As a nation, we should understand that taxation that discourages capital formation by lowering rates of return, such as double taxation of dividends, capital gains taxes, and confiscatory inheritance taxes, extracts a social cost over time that may far exceed the putative short-run advantages obtained from the higher Government revenues.

Thank you.

Chairman HUMPHREY. Thank you very much, Mr. Olsen—and Mr. O'Connor—I regret missing your analysis and the summary of your statement, but you were kind enough to provide us with a copy of your prepared statement so we're somewhat familiar with what you have had to say.

Mr. O'CONNOR. Thank you, sir.

Chairman HUMPHREY. Also, it will be inserted in the hearing record.

[The prepared statement of Mr. Olsen follows:]

Prepared Statement of Leif H. Olsen

Mr. Chairman, I want to thank you and the other members of the Joint Economic Committee for this opportunity to share with you some of our views on capital formation.

I would like to begin by giving you very briefly our conclusions on certain aspects of the capital formation discussion.

(1) A decline in the share of total output allotted to capital formation will over time result in a deterioration in the standard of living; an increase in the ratio of capital formation to total output will enhance our standard of living including our ability to cope with improvements in our environment, our energy needs and the general quality of life.

(2) An increase in capital formation will not prevent future inflation; we can always print money faster than we can build new plants and equipment.

(3) The pervasive shortages and bottlenecks that occurred in 1973–74 both in the United States and in many other countries were caused by an overwhelming acceleration in demand emanating from an explosion in world money growth in 1971 and 1972. The adoption of price-wage controls and the devaluation of the dollar further aggravated the situation in this country.

(4) Capital investment lags economc trends. It is one of the last sectors of the economy to turn down in recessions and to turn up in recoveries. While expected capacity utilization and rates of return in individual industries determine changes in levels in investment, capital investment is basically caused by economic growth and not the other way around. Therefore, monetary and fiscal policies that foster economic growth will encourage overall investment spending.

(5) Increases in interest rates are primarily the function of inflation.

(6) Recognizing the link between capital formation and the country's standard of living, we should also recognize that capital, i.e., wealth, is privately owned in our economic system. There are those in our society who are offended by the private ownership and accumulation of private capital and wealth and propose policies to penalize or discourage wealth and capital accumulation. Consequently, we should recognize that such proposals strike at the capital base of the nation and the means by which our standards of living rise or fall.

There exists today a belief that pervasive shortages and bottlenecks in American industry, accompanied by double-digit inflation similar to the events of 1973–74, will occur again in the next few years. What is the probability that this will happen?

For the answer it might be helpful to analyze the probable causes of the events of 1973 and 1974. Did the extraordinary inflation and the shortages and bottlenecks emanate from inadequate capacity or from excessive demands?

The most common explanation tends to emphasize the role of inadequate capacity growth in recent years. This conclusion is not without some substance if you look at increases in manufacturing capacity that grew only 2 percent a year between 1969 and 1973 in contrast to an average of 5 percent between 1954 and 1969. This reflects in part withdrawals of capacity that became uneconomic as a result of required pollution control expenditures. But more importantly, it reflects a slowdown in real capital investment to only 3½ percent a year between 1969 and 1973 in contrast to a 4.9 percent average annual rate between 1954 and 1969. While the rate of increase in investment during this period appears to be somewhat low compared to earlier cyclical slowdowns in capital investment, it is not so remarkable as to suggest some fundamental shift in the composition and timing of capital investment.

Over a long period of time we observe that capital investment tends to move in cycles covering spans as long as seven or eight years. Investment tends to rise overall in response to improved rates of return and decline with diminishing rates of return. What is more, the presence of excess or unutilized capacity tends to produce relatively poor rates of return on capital investment. As a result of unusually rapid growth in investment—and in capacity—during the 1965–69 Vietnam war period—capacity utilization in manufacturing was somewhat low in the early 1970s. Thus, rates of return were not particularly conducive to continued strong investment growth. In other words, two factors were acting in a manner that had previously slowed the rise in capital investment. Consequently, we have some plausible reasons why new additions to capacity were growing more slowly in the early 1970's, but another basic question remains: Why did capacity utilization rise so rapidly between 1973 and 1974?

There exists another line of reasoning that offers a far better explanation of the traumatic events of 1973 and 1974. We begin with the imposition of price controls and devaluation of the dollar in the summer of 1971. Theory based on past evidence tells us that when prices are not permitted to rise and perform the critical task of clearing markets of excess demand, demand continues to mount and there is nonprice

allocation of goods and services. This means suppliers place customers on a quota system. Shipments and delivery dates stretch out interminably and new customers are turned away. The conditions that prevailed in 1973–74 are exactly the conditions that theory would lead you to expect as a result of price controls.

We had experienced previous slowdowns in capacity additions in basic materials industries as well as in manufacturing as a whole previously. We had experienced previous high levels of capacity utilization in earlier periods. And we had experienced previously a rise in prices to clear markets of excess demands in earlier periods. But we had not previously experienced the absence of orderly clearing between supply and demand to such a degree as to necessitate pervasive allocation and quota programs. What then caused this remarkable phenomenon to occur? Everything points to price controls.

Nineteen seventy one was a recovery year from the recession of 1969–70. The imposition of price controls in the summer of 1971 caught many basic materials industries with cyclically low prices. This is not true of finsihed goods prices, however. As a result, under the controls period, basic materials prices were low relative to finished goods prices. This tended to increase the demand for basic materials. In other words, stronger final demand for finished goods as a result of the combined stimulative money growth on the one hand and price controls on the other created extraordinary demand for commodities. Here is what followed: The average annual growth rate of sales in basic materials industries ran substantially higher than their long-run historic experience. For example, from 1955 to 1971, the average annual growth rate of sales for the steel industry was 1.3 percent, from 1972 to 1973 it was 9.3 percent; for copper it was 1.7 percent in the earlier period, and 6.4 percent under controls; for aluminum it was 5.7 percent in the earlier period, and 17.6 percent during price controls; and for paper it was 3.6 percent compared to 6 percent.

During the final period of price controls late in 1973 and early 1974, you may recall that controls were eased gradually. This led to widespread expectations of price increases once decontrol occurred and encouraged inventory hedging against those price increases. National policies from 1971 to 1974 concocted the most disruptive circumstances. this further ballooned the already extraordinary demand leading to the widespread imposition of quotas and nonprice allocation.

Another event occurred in this country as well as internationally that helps to explain the extraordinary explosion of spending throughout the world. In 1971 and 1972, the rate of growth of the money stock for the United States accelerated sharply following the recession of 1969–70. This alone would have contributed to U.S. final demand and GNP growth. But in 1971 and 1972 the fixed exchange rate system was in its terminal phase. In an effort to continue to maintain fixed exchange rates, foreign central banks paid out large amounts of their own currencies in a futile effort to support the dollar exchange rates and this—in conjunction with other forces—accelerated the growth of the world's money stock to a rate of growth nearly double that of our long-run historic experience. The surge in new money creation and, consequently, income led to a worldwide buying spree that encompassed the spectrum from beef to automobiles, and the demand pressures in final products were then manifested back through stages of processing to the basic materials. This boom touched off a wave of speculative inventory buying that added more high powered fuel for price inflation.

The devaluation of the dollar, coupled with price controls and an expansionary monetary policy, pushed U.S. prices down below those of the rest of the world, and that added substantially to the demands for U.S. products and basic raw materials.

The evidence strongly supports a conclusion that the events of 1973 and 1974 were not the product of insufficient capacity but rather the extraordinary demand heightened by price controls and the anticipated end of those controls—industry-by-industry—that encouraged extraordinary inventory accumulation. The fact is that any given quantity of capacity can be swamped by printing enough new money and creating a speculatory demand based on the assumption that prices will rise indefinitely. And when that happens, price increases exceed money and income growth precipitating recession.

Once a recession has ended increases in consumption spending typically characterize the recovery period. Investment spending comes later as orders move back through stages of processing increasing capacity utilization and corporate profits. After a period of time that varies industry by industry, corporate managers extrapolate the growth trend into the future with somewhat greater confidence. This leads to decisions to increase capital investment expenditures even before capacity is fully utilized. Unless real economic growth is unusually anemic because monetary and fiscal policies are excessively restraining, such increases in capital investment typically begin about one

to two quarters after the end of a recession in the case of national income data and somewhat longer in terms of capital spending survey data. We expect capital investment to accelerate in 1977 in response to economic growth, rising capacity utilization and improved profits.

[A lower rate of capital accumulation implies a lower real wage rate than would be the case if more resources had been invested and less assigned to current consumption. A worker who is provided with machinery can produce much more than one who does not have machinery. The higher productivity makes it possible for him to enjoy a much higher real wage than the worker who does not have machinery at his disposal.

[The real wage rate may not fall if capital investment grows more slowly in the future, but it will not be as high as it would be if investment ran higher. In the period when real wages are rising more slowly than workers expect, there may be some increase in voluntary unemployment as workers refuse to accept jobs that are available and hold out for wage rates that employers cannot pay because productivity growth is slower than would be the case with more investment. As workers adjust over time, however, to the slower growth in real wages employment will be restored. But the transition period could be quite difficult causing unemployment to be unacceptably higher than would be the case with higher capital formation. Such an unacceptably slow improvement in unemployment could add to pressure for more expansive monetary and fiscal policies which could in time prove to be destabilizing.]

Increases in the long-term trend of capital investment to total output are not essential in raising total employment. Countries with low capital investment ratios may have relatively little unemployment. For example, a country that builds highways with millions of manual laborers breaking stones by hand may have little unemployment but very low productivity and very low per capita real income and low standards of living compared to, say, the United States which builds highways with thousands of workers employing heavy machinery and equipment. With a more productive economy we can enjoy a much higher standard of living, and for the individual American citizen this is the critical aspect of increases in capital formation. Moreover, declines in standards of living that occur because of less capital formation occur rather deceptively over time. They may not be as apparent in the first year as they are in the tenth or fifteenth year. The same, of course, is true of increases in capital formation. The lists of capital needs that have been prominent in the discussion of capital shortages represent implicitly a desired standard of living. The extent to which we achieve those investment goals will determine the degree to which we have maintained or improved our standards of living. This includes transportation, housing, heat and light, the products that flow from energy, the quality and quantity of our food, as well as the quality of our air and water.

Concern over capital adequacy typically springs forth during periods of historically high interest rates because inflation stimulates strong bidding for available funds necessarily squeezing out a large number of potential borrowers. Capital is perceived to be in short supply and the condition is extrapolated into the indefinite future. When inflation accelerates rapidly, departing from its expected trends, borrowers with short-term needs such as those who roll over inventories bid aggressively. They can afford to pay rates of interest equal to the expected short-run rate of inflation plus a real rate of about 2½ percent.

Long-term borrowers on the other hand, expecting inflation to be higher over the long-term life of their investment than they did at an earlier date, do not expect that it will be as high as in the year in which it accelerates. Consequently, these borrowers step back from the credit market as they are outbid by short-term borrowers. Among those who are outbid are housing, corporate issuers of long-term bonds and states and municipalities.

Long-term borrowers adjust their inflationary expectations more slowly. Their long-term inflationary expectations are a function of the actual rate of inflation over the previous five years. Hence a five year moving average approximates the inflation premium on a long-term bond. The difference between 4½ percent bond rate in the early 1960s and the more than 10 percent bond rate we witnessed in the summer of 1974 represented changes in inflationary expectations. The real rate of interest that runs about 3½ percent remained relatively unchanged.

If we want to avoid congestion in the credit markets in the future, we should avoid inflationary monetary and fiscal policies. The problems for housing and other long-term borrowers are caused not by tight monetary policies but by overly expansive monetary policies that start the inflationary wave moving.

Attempting to estimate corporate resources for investment is an interesting exercise, but the actual allocation of funds will be determined largely by whether we have

stable economic growth or whether we have a reoccurrence of the inflationary turbulence that we witnessed in 1973–74.

In conclusion, I would emphasize the desirability of encouraging higher levels of capital formation because herein lies the fundamental determination of our economic, social and political well being. When expectations are frustrated, we can usually expect public unrest. There is irony in attempting to satisfy public desires for a better quality of life through more consumption at the expense of less capital formation. The result is short-run satisfaction with longer-run disillusionment. We have many policies today that penalize the saver and encourage consumption. When government runs larger full employment deficits or when states and municipalities find it necessary to borrow in order to cover operating deficits, we tend to shift resources from potential savers to consumption. As a nation, we should understand that taxation that discourages capital formation by lowering rates of return—i.e., double taxation of dividends, capital gains taxes, and confiscatory inheritance taxes—extracts a social cost over time that may far exceed the putative short-run advantages obtained from the higher government revenues. As a country that espouses private property ownership as not only a virtue but the main element that distinguished it from that of Eastern Europe, Russia and China, we cannot at the same time penalize accumulated private wealth and capital or discourage those who seek such accumulation. We should encourage and reward the efficient management of capital. We should support those government policies that enhance such efficiency while eliminating those that do not.

Senator PERCY. Mr. Chairman.

Chairman HUMPHREY. Yes, Senator Percy.

Senator PERCY. Unfortunately, the committee hearing that I'm chairing upstairs is under a restraint that we must adjourn by 11:30 a.m.

Chairman HUMPHREY. Yes, Senator.

Senator PERCY. So I have to go back up. Could I just put two questions to the witnesses?

Chairman HUMPHREY. You go right ahead. There's no protocol here. We just get the thing done.

Senator PERCY. I'm very appreciative of that. I have just two questions that I would appreciate a very brief answer on, or if you'd like to supplement it for the record, we can hold the record open for you.

I have cosponsored legislation introduced by Senator Bentsen and I originally put in a similar proposal years ago to provide what we call a "human investment tax credit." I believe that Senator Fannin has been supportive of this also—to provide incentive for the private sector to hire people who are unemployed who could not get a job otherwise and who may require training. There are certain restrictions on it.

Do you, in general, favor that kind of an approach as a means of providing incentive to hire the unemployed and bring them into the private sector? And secondly, the President proposed earlier this year rapid amortization on new plant and equipment in areas in excess of 7 percent unemployment. You are familiar with the provisions of that. Do you support that principal and would you recommend that the Congress enact legislation in these areas? Mr. Olsen, would you care to answer first?

Mr. OLSEN. Well, on your first question on the investment tax credit to provide incentive to hire the unemployed—the chairman put it into the record—a speech which Mr. Wriston, chairman of Citicorp, provided last year to simplify the tax structure. And essentially I would prefer to see the tax structure simplified by the elimination of a lot of the tax credits, deferrals, et cetera, that we now employ. And this would somewhat move in the other direction.

I recognize, of course, that there are times when politically there are some things that are just impossible to achieve and others that may be doable. And something like this might have somewhat more appeal and could be adopted and would have some advantage in helping to reduce the unemployment rate.

And in this regard, I would favor it. But I would also point out that the inherent economic reasoning behind this is the same kind of reasoning that exists with regards to the existence of the minimum wage law. If a tax credit acts as an incentive to an employer to hire people because he can undertake in that case a reduction in productivity, by the same token, a legislative increase in the minimum wage law encourages an employer to increase productivity by, in effect, reducing his labor force by *x* amount. And sometimes, in making a proposal like this, it's good to recognize the kind of laws that already exist that often work in the opposite direction of what you're attempting to achieve with this kind of proposal.

Senator PERCY. Thank you very much. Now, Mr. O'Connor, please.

Mr. O'CONNOR. Well, Senator, I think there are a number of ways to approach the problem. And we certainly don't oppose any that you suggested. On the other hand, we do think that if we can restore the financial integrity of, in our case, the electric power industry, that much of the employment problem that we're facing today will be solved.

In my comments I mentioned, for example, that the reduction and deferral of new construction by our industry has cost labor about 100,000 jobs a year or put in terms of total dollars about $7 billion in wages lost. And a good reason for this is the fact that the utilities are not healthy today and they're not going to, in many cases, take on an uncertain capital risk. So as a consequence, they have cut back on construction.

Now, the financial strength of our industry can be restored, construction will continue and the jobs will follow. So I think while you are proposing certainly a very excellent avenue, I think at the same time the traditional approach, which is to reward investment through the tax credit, will also produce the same sort of effect that you're attempting to achieve through the human incentive.

Senator PERCY. Mr. Jaicks, could you specifically comment on the President's proposal on providing additional incentive for capital investment, plant investment, in areas of high unemployment?

Mr. JAICKS. Yes, Senator Percy. I would support it. I think that while we are here, I think, as a group, perhaps we're trying to recognize and articulate views which relate to the need for this economy to provide more tools on a total basis, that there is logic and soundness in attempting to perhaps earmark those areas where some of those tools—the type of provision where the 7-percent unemployment is involved—could very well be directed and I would support it.

Senator PERCY. I want to thank all of you very much, indeed. Mr. Olsen, please.

Mr. OLSEN. If I may amend my remarks by adding to them that I also felt that there are some problems in the execution of that tax credit for employment. Also, I'd like to add a paragraph to my final testimony.

Senator PERCY. Fine. Without objection, then, that can be done. Thank you very much, Mr. Chairman.

[The amended remarks of Mr. Olsen were subsequently supplied for the record:]

There are difficulties in auditing an employment tax credit. A business that is going to expand employment in any event could seek to qualify for the employment tax credit. In other cases, a business planning to hire new employees may find candidates that have been unemployed for, say, just short of the maximum time to qualify for the tax credit, but delayed the hiring for a week or two in order to qualify. Does such hiring, then, represent a *bona fide* benefit produced by the program? A business willing to expand employment at this point may well do it for a far smaller tax credit or for none at all.

Chairman HUMPHREY. Thank you, Senator Percy. I appreciate your coming back here with us.

Mr. Jaicks, I want to first of all say that, as I indicated to you, that I found in your recommendations some very constructive proposals. For example, you said "To permit faster capital recovery under the tax laws through the shorter depreciation periods for production facilities, first-year write-off for pollution abatement equipment."

I think that's right. The accelerated depreciation schedule doesn't ultimately lose the Treasury any money. It's just a matter of being able to use your money in a timely fashion to improve the productivity, which, in turn, can hopefully reduce human costs and can provide increased capacity.

I liked what you had to say where, if you recall you said—"It would permit the cost of all productive investment to be recovered over a period as short as 5 years and it provides substantial help in financing steel industry expansion."

I am correct, am I not, that this would not ultimately result in any revenue loss, but would accommodate the financing needs of industry?

Mr. JAICKS. Well, yes. I think that's the way it should be considered. I'm aware of the fact that there are those who say that it really is perhaps an anomaly in the sense that if continued investment under those more favorable conditions went on, then it's a long-time deferral or perhaps even until total investment, to plateau or to stop—and it certainly would have that effect. As we view our needs here of releasing funds that are tied down in investment for further investment—which we are totally convinced in our industry that it's going to be needed, needed perhaps for an unusual reason in that we do see a contrast with the period of the 1960's and early 1970's, where most of the steel growth in this economy was siphoned off by foreign producers—we recognize for a number of reasons, including the change in international currencies, the more adverse impact on the advanced foreign steel producers, the EEC countries and Japan of the effect of OPEC on energy, a more adverse impact than on the domestic steel industry, that after a decade of surplus there's going to be growth needs in the domestic industry, whereas there had been virtually none over that period of time.

Chairman HUMPHREY. The danger in the accelerated depreciation rate—that is, in what we would call this limited period for write-offs—is if you've got a growing industry, you can sort of pyramid it. That's one of the possibilities. But you could have a tax law written to have this type of more rapid depreciation allowance for a limited period of time to accelerate your investment, to modernize

your equipment, and to get your productive capacity up to where you want it.

I think it's one of the ideas that I find much more attractive. Second, on the write-off for pollution abatement equipment, I don't think it's quite understood yet in this country that the pollution abatement laws that we have do impose a very heavy cost on industry. And you can go down and scold industry and say they should have done it before, but that's true of a lot of things that we should have done before. The real truth is that it is a high cost and it has to be translated either into an increased cost in product or you have to use your tax laws as a way to achieve a social objective in a rather rapid way.

It's again timing. The question here is: How fast do you want to proceed? And I'm familiar with your industry enough to know that we have some serious problems. We have some of them in our State, as you know, right now. And we're having to wrestle with those problems relating to environmental protection, on the one hand, and jobs on the other

I have always supported the investment tax credit and, again, I know that you can write a story of horror about it and how it is abused—and it has been abused. But basically I think it's a sound procedure and I endorse the idea of its permanency—the idea of an investment tax credit on a hit-and-miss basis, I think, loses much of its effectiveness.

So that in those areas I want to say that I find myself pleased with your recommendations—not that that means too much to you, I'm sure——

Mr. JAICKS. I'm sure it does, sir.

Chairman HUMPHREY. I think that your proposals ought to be very carefully scrutinized and we're going to see that they get to the Finance Committee.

Mr. JAICKS. Thank you. It seems to me on one of the proposals, Senator, that of the utilization of depreciation changes, as against other possible tax relief approaches, that it really goes to the fact that it's only available to those who actually reinvest.

Chairman HUMPHREY. Correct. It's not a speculative proposition. It relates to real investment.

Now, there are some matters here in the steel industry that I want to get to. I think I'm going to move along to some of our other—how do you do, Congressman.

Representative BROWN of Ohio. How are you, sir?

Chairman HUMPHREY. Glad to have you here. It's a pleasure. Congressman Brown is with us and we've had three good witnesses here, Congressman. Let me just see. Oh, yes. Mr. O'Connor, you state in your testimony that 181,000 megawatts of plant capacity were delayed or removed from the construction schedule during 1974–75 and that there will be shortages of electricity if action is not taken to restore them.

What proportion of the total plant capacity additions does this compromise?

Mr. O'CONNOR. If we took it on a current-day basis, Senator, it represents about 35 percent of the total installed capacity that is now in existence in this country.

Now, looking forward, we anticipate no serious threat to the power supply between now and the year 1979. Where the shoe starts to pinch is in 1980 and beyond. And that's our problem because it takes us 5 to 10 years to build a plant.

Chairman HUMPHREY. That's the point that has to be emphasized there.

Mr. O'CONNOR. Yes. The decisions we make today are going to have a dramatic effect on our ability to provide power in the 1980's.

Chairman HUMPHREY. What proportion of the delayed or canceled projects were actually canceled?

Mr. O'CONNOR. Of the total, about a third were actually canceled. The others were set back or put on the back burner until a later date. And it's kind of like trying to hit a shifting target because three components entered into the decisions to either defer or cancel: Conservation efforts that took place in the latter part of 1974 and 1975; an economy which slipped into low gear during that period; and figuring very prominently was inflation and the very heavy costs of new capital needed to finance expansion.

Chairman HUMPHREY. Do you find the investment tax credit helpful to you?

Mr. O'CONNOR. Extremely helpful, Mr. Chairman. And we certainly subscribe to your view that it should be available on a permanent basis.

Chairman HUMPHREY. And particularly in an industry such as yours, if we only had investment tax credit extended for a couple of years, for example, it wouldn't do you very much good; would it?

Mr. O'CONNOR. No, sir. It would not.

Chairman HUMPHREY. Now, the energy crisis has caused a reduction in power consumption somewhat. I think you alluded to that in your testimony and this, I'm sure, has set back the growth of power consumption estimates that you had. And with the rising power costs and all, have these setbacks affected the projected level of power consumption, let's say, in 1985? If so, would this permit the deferral of some of the delayed projects?

Mr. O'CONNOR. To a degree, it would permit the deferral, Senator. In the text of my statement, I indicated that our industry conducted a rather elaborate study to try to determine the growth rate that we would experience in the years forward.

With a very careful look at it, we tried to determine what the growth rate might be through the 1980's into the year 1990. It was determined that it would be somewhere on the order of 5.3 percent to 5.8 percent, which is below the traditional rate of 7.5 percent. And we arrived at the projection in a couple of ways. We looked first of all at the new households that are going to be formed and the rate of economic activity and of productivity, and second, we looked at the substitution effect that substantial amounts of electric power will have in meeting for conventional uses that have traditionally been served by gas and oil.

Chairman HUMPHREY. Like home heating?

Mr. O'CONNOR. That's right. Yet, home heating is a small piece of the total. What we're really talking about here is commercial and industrial uses, which represent about two-thirds of our total usage in the country.Today, about 78 percent of our energy in raw form

comes from liquid fuels—gas and oil. Yet these fuels represent only 6 percent of our domestic reserves. On the other hand, our vast reserves of coal and uranium are being used in a very small way. As we continue to have these supplies of the liquid fuel depleted, we're going to have to rely more and more on the much larger supply of coal and uranium.

So we anticipate in our industry that a substantial portion of the increased need for new power-producing facilities is going to come about from the substitution of coal and uranium-based energy for oil and gas.

Chairman HUMPHREY. I agree. And do you contemplate the installation of solar heating and cooling systems as well?

Mr. O'CONNOR. We do, sir, but not to have any real dramatic effect until after the year 2000. For example, it has been estimated that if 70 percent of all of the new homes that were to be started between now and the year 2000 were to be heated with solar energy, it would represent only 1 percent of the total energy consumption in the Nation.

Chairman HUMPHREY. Well, it's hard to get it in perspective. I agree. We think of the heating and the cooling of homes—in fact, it's a minimal amount, isn't it, of the total energy consumption.

Mr. O'CONNOR. It is today. Senator, it could serve a modest amount in certain portions of the country of the home heating or water heating requirements. In Arizona, for example, Senator Fannin's constituents might wish to make some modest use of it. But in Minnesota, Senator, I doubt very much that----

Chairman HUMPHREY. Oh, we figure we've got pretty good possibilities from solar energy up there—believe it or not.

Mr. O'CONNOR. As a percentage of total energy?

Chairman HUMPHREY. Not large.

Mr. O'CONNOR. Not very large. And from the standpoint of central power station production—even more.

Chairman HUMPHREY. Well, I agree with that. Well, here I come to the man I really wanted to get at and I have to go down and cast a vote. You know how I feel about interest rates, Mr. Olsen, you'll recall my prejudices. And it's the story of my life. Just as I get ready for what I really want to hear in coming today, here I have to leave.

But I am interested in your comment on interest rates, because I notice that Mr. Wriston, the chairman of Citicorp, predicted that the prime rate would rise to 8 percent by the end of 1976 from its present level of 7 percent. What does it assume about the development of business investment? What will an 8-percent prime rate mean for mortgage interest rates in residential construction?

What are we going to have happen to us here again? If you've got a prime rate of 8 percent, how is some poor old Swede out there in Minnesota going to build a home out there at Delano?

Mr. OLSEN. Well, actually I don't anticipate that the mortgage rate will rise at the same—either in the same proportion—or, for that matter, that it may rise nationally. We're predicting a decline in the long-term bond rate, at any rate, with which the mortgage rate has greater sympathy over the next 2 years.

And this is due to a cooling off of the inflation. And, as I mentioned in my testimony, since the inflation premium contained in an interest rate, a long-term interest rate, is a product of a 5-year moving average, it moves down more slowly, while the short-term rate is far more volatile.

Now, the increase in the prime rate—in our prime rate—or the increase in short-term interest rates in the marketplace is a function of the recovery of the economy.

Chairman HUMPHREY. Listen, I'm going to have to let you tell this to Paul Fannin. He agrees with you more than I do.

Mr. OLSEN. All right, fine.

Chairman HUMPHREY. This is a terrible thing that's happening to me——

Mr. OLSEN. That's all right.

Chairman HUMPHREY. May I say to you, Senator Fannin, if they are through with the panel, put the other panel on. I'd like to come back to you, Mr. Olsen, but I may want to write you a letter and ask you a couple of questions here.

Mr. OLSEN. Very good.

Chairman HUMPHREY. I'll do that. We have Senator Fannin here, who will take up for me. Ideologically we're not exactly on the same——

Mr. OLSEN. I'll look forward to your letter.

Chairman HUMPHREY. OK, thank you.

Senator FANNIN. Thank you, Mr. Chairman. Will Mr. Olsen just continue on, then? I know we have variances of opinion; I wouldn't always say difference of opinion. But I notice in your testimony that you talked about 1973–74 extensively and that was really a combination of events, actions that perhaps will not come about again. Is that true? Now, we may get into shortages; we may have problems. But the chance of that happening are, we hope, remote. Is that correct?

Mr. OLSEN. I think the chances of it happening are rather remote, which is not to say, however, that we may not have shortages in particular product lines or in particular industries. But there's a great distinction between the shortages that may develop in specific industries and in specific product lines and the pervasive shortages that existed throughout the major materials industries, particularly in 1973–74.

Senator FANNIN. You talked about a stable economic policy and of course we all naturally hope for that continuously. But in your analyzation of capital, if we let capital find its own in our economic system—I understand you have changed your position somewhat—will capital formation be of sufficient level to provide enough jobs and economic growth for our country?

Mr. OLSEN. I believe that we should change our tax laws in order to encourage a higher level of capital formation than is likely to occur without such a change. I subscribe to the estimates, for example, made by the Council of Economic Advisers, that we need better than a 12-percent capital investment level——

Senator FANNIN. Investment tax credit?

Mr. OLSEN. No. This is the level of investment as a percent of total output over this next 5 years.

Senator FANNIN. Yes. I see.

Mr. OLSEN. And I think that we should seek to encourage that through changes in our tax laws that encourage a higher level of capital formation.

Senator FANNIN. When you said 12 percent, I thought you were getting back on the investment tax credit.

Mr. OLSEN. No, not investment tax credit.

Senator FANNIN. I understand what you are referring to. But let's talk about the investment tax credit for a moment. This on-again-off-again on investment tax credit has been quite a burden on industry; do you agree?

Mr. OLSEN. Oh, there's no question about it. And in addition to that, it has a perverse effect because turning it on and off, industry begins to anticipate such action and obviously at the very time that it's expected that the investment tax credit may be taken off, for example, is a time when industry will then speed up its capital investment, which is a time that you may least want to have those kinds of excessive demands. And, of course, the reverse is true: That when there's an anticipation that it may be reimposed, industries like this slow down in anticipation of that reintroduction of the tax credit. So that it should be left permanently in place.

Senator FANNIN. I wholeheartedly agree, but we are having a difficult time in obtaining that goal. As Mr. O'Connor brought out, here in the most capital-intensive industry we had our lowest investment tax credit for years. And now we have been able to get it up to where it's on a common ground with other industries. But here we have not supported the very industry that is basic in our overall economy—of course, we know that steel is basic. But, then, steel without power is a lost cause.

Perhaps I should direct my questions on the tax proposals to Mr. O'Connor, as I do feel that in an important sense we do have this tax bill before us. And we say "tax reform bill." Maybe it's not a reform. It depends on how we're looking at it. But it's certainly a tax-changing bill.

Mr. O'Connor, how will the tax proposals that you set forth alleviate the unemployment problem in the construction industry?

Mr. O'CONNOR. Well, the unemployment in the building trades part of the construction industry presently stands at about 21 percent of the skilled labor force. If all of those who were reduced in employment because of the deferral or the complete cancellation of capacity were to be reemployed, that number would be 9 percent instead of 21 percent. So it's a very significant addition that would be made to the payrolls through renewed construction programs in our industry.

As I mentioned in my prepared statement, we anticipate that the number of jobs lost for the 5-year period is roughly 520,000 jobs, which roughs out to about 100,000 or 105,00 jobs per year.

Senator FANNIN. In your industry, has it been like it has been in some of these utilities, such as the telephone, where they have dismissed a great number of employees because the cutbacks were necessary—because of the economic conditions that prevailed—now go forward with the programs that we hope can succeed? That, as I understand you, would help alleviate this problem?

Mr. O'CONNOR. It would have a great impact, Senator, not so much from the standpoint of our individual electric companies because we

haven't reduced the employment levels, but those who are building contractors for us have certainly felt the decreases most dramatically. A large powerplant, for example, at the peak of construction would have about 2,500 skilled workmen at the site. And when you take that out of construction, you have a serious impact on the labor market.

Senator FANNIN. Now, just strictly from the standpoint of employment, here we take almost double in time to build a nuclear powerplant than they take in Japan or in some of the other countries of the world. How about employment? By taking twice as long, how does that affect employment? Does that increase the employment or is it just a slowdown?

Mr. O'CONNOR. It increases the employment somewhat, Senator. You have a build-up period in the first 3 or 4 years where you're preparing the site under present conditions and you reach this peak at about 2,500 in the fourth year and this stays with you until about the seventh or eighth year and then you go down.

Now, in terms of total number of people who would be working on a site, it remains relatively the same, although the construction period in the United States is considerably longer than it is, as you say, in Japan or in most every other country in the world.

Senator FANNIN. That's what I was wondering. But, of course, you pay a great premium for that extra time that's involved. And, of course, you're talking about the interest and all of the other costs that are stretched out because of the long time period.

Mr. O'CONNOR. Right.

Senator FANNIN. And I would certainly agree with you that it's equitable to accommodate the industry as you have suggested. I think it's essential.

Will existing generating facilities and those presently being constructed be sufficient to prevent brownouts or blackouts?

Mr. O'CONNOR. Well, I think we can see our way through to the beginning of the 1980's and that's probably the turning point for us. We come into this summer with a nationwide reserve capacity of about 25 to 30 percent. This is above the 20-percent level that is recommended by the Federal Power Commission in terms of reserve. But we know that if we have any sort of growth in energy usage in the next 5 years—and we anticipate quite a lot—that we're going to nibble away at this reserve capacity and find ourselves in a very serious situation in the 1980's.

And the plant that we're designing and announcing today will not be in service until at least 1985, if it happens to be a nuclear unit. If it happens to be a fossil fuel unit, it will be 1981 before we can use it on line. So it is terribly important that decisions be made today to provide for growth which we think is definitely going to be there to meet the demands of our consumers in the 1980's and beyond.

Senator FANNIN. We have a little good news from California.

Mr. O'CONNOR. Yes, sir; we certainly do.

Senator FANNIN. One of the great problems that we have is convincing the people that we do need nuclear plants, you do need the coal plants. So many, I know—Senator Humphrey was covering the solar energy and I am very strong for solar energy and I think you

will agree with me that there is many places in which solar energy could be a great factor. In the isolated areas, I think it offers tremendous opportunities. We have cases in which, even with your utility industry, you have a need for it.

And I think that we have to take into consideration its tremendous importance to us, but we don't want to mislead the public that that's going to replace the other types of equipment such as the nuclear or coal facilities. We also have geothermal, which I think that you'd agree must go forward.

Now, we need to give incentives to them. Do you feel that the proposals we have, as far as our tax bill is concerned, that we do have incentives? Do you feel that they are sufficient to assist in that program?

Mr. O'CONNOR. Yes, sir; I do. I think there will be a great inducement to go forward on all of these areas and particularly the two that you mentioned—geothermal and solar. And it's fairly important we learn more about the technology and do something to make the economics more favorable than they presently appear.

And I think the incentives that have been provided for in the Senate Finance Committee will assist materially in letting that happen.

Senator FANNIN. Do you know about the loan guarantee programs that have been advocated by the administration, also that we have in some of our legislation and some that have been approved?

Mr. O'CONNOR. Yes, sir.

Senator FANNIN. Are you in agreement that we do need some loan guarantee programs to assist in energy development?

Mr. O'CONNOR. Yes. I am in agreement that we move ahead, particularly in the more exotic areas of power generation and energy production.

Senator FANNIN. Don't you agree that this would assist in getting smaller companies involved in some of these exotic programs that you speak about?

Mr. O'CONNOR. Yes, sir.

Senator FANNIN. One of our great problems is to get the solar energy program underway at a scale that we'd like and also to develop the geothermal outlet. My time is up, so we'll go to Congressman Brown.

Representative BROWN of Ohio. Did he want to respond to your question?

Senator FANNIN. Did you?

Mr. O'CONNOR. No, just to say that I agreed.

Senator FANNIN. Fine, thank you.

Representative BROWN of Ohio. Thank you, Mr. Chairman. I want to ask Mr. Olsen a couple of questions and then we'll come back and ask Mr. O'Connor and Mr. Jaicks. Tax reform is generally approached as a political matter now rather than an economic matter. And we seem dead set on trying to take away the tax benefits that a lot of individual Americans enjoy for reasons that have been apparently obscured by the length of time those tax benefits have been on the books, such as the mortgage deduction, interest on the mortgage of a homeowner, and the municipal bonds which both encourage investment. And I think most of the tax benefits or tax preferences are designed for that purpose. First, I ought to ask if

that disturbs you, that the Congress seems deaf on approaching that as a political matter rather than an economic matter? And then, second, if you have any recommendations about how we could modify our tax structure in the United States so that it can be more designed to stimulate investment in productive capacity to increase the standard of living.

Now, that's the question, but I want to go back and worry a little bit about whether I'm going to get the right answer from you, because you say in your prepared statement, "Therefore, monetary and fiscal policies that foster economic growth will encourage overall investment spending." That seems to be almost a consumer demand kind of philosophy, that the only reason that we have plant expansion is that it is led entirely by consumer demand. And I'm not sure I agree with you on that. But let me see what kind of answer you give and maybe we can argue over it.

Mr. OLSEN. Well, if I may answer in the reverse, taking up the last item you mentioned, the reason I have this statement in here is really in response to a question that was contained in a letter by Senator Humphrey to me in which he asked about the need for capital formation or the role in investment spending in sustaining the economic upswing. It had to do with the cyclical recovery in the economy and not with a secular trend in capital investment.

And this is why I made the statement here that the recovery of capital spending in the economy from the depressed levels of last year will be a product of the overall rate of economic growth in the recovery period.

Representative BROWN of Ohio. Yes. That tends always to be true in the cyclical end of things.

Mr. OLSEN. That's right.

Representative BROWN of Ohio. But what I'm asking is a broader question than that, and it is: Do we have any endemic factors built into out tax system which discourage capital investment? Now, we have some that encourage capital investment. They are the mortgage deduction, and as I said, the municipal bond exemption.

I would ask you about, for instance, an increase in the exemption on the taxation of estates—corporate taxes and dividend taxes—and whether or not we ought to have some kind of an exemption increase there and whether or not we ought to have a deduction for education costs, for instance, because I think you made reference or somebody does, to the human plant investment, in other words, the investment in human capacity.

And then there is the question the President has suggested to the Congress and the Congress has yawned about and that is the increase in the personal exemption from $750 to $1,000 to stimulate consumption. Could you respond to what we might do to our tax system to get a base for increased investment?

Mr. OLSEN. Well, first, many of the tax credits and tax exemptions that have taken place over time that are popularly referred to as "tax loopholes" have developed along with the increases in the tax rates and that they have, obviously, had the effect also of encouraging certain kinds of allocation of resources.

And they are deeply rooted in our economic system. So the changes in these—the elimination or changes in these tax credits, tax incentives

or tax disincentives, should be viewed against the background of how they have caused the allocation of resources to occur, including individual homeownership, incidentally, with regards to the tax exemption of the interest payment on mortgage loans.

Again, as I have indicated by introducing Mr. Wriston's speech into the record, I would prefer a significant simplification of our tax structure. I feel, as does Mr. Wriston, that the tax law has become so complex that the average citizen simply cannot understand it.

The introduction of additional tax credits of one kind or another—for example, for education or for human development of human capital—simply makes the tax structure even more complex, complex to understand and even more complex to try to determine how equitable it is.

Now, the simplification of the tax law, to a very large extent, should be accompanied by a reduction in the tax rates, using the elimination of what is referred to as the "tax expenditure function," not to increase Government revenues, but to reduce the overall tax burden for all taxpayers, through the reduction of the tax rates.

Now, with regards to capital formation, I would also prefer to see an integration of the tax system between the corporate tax and the personal tax.

Representative BROWN of Ohio. What does that mean? That's a fancy phrase.

Mr. OLSEN. There exists now differences of opinion, to be sure, among economists as to what the effect of the tax—of the corporate income taxes. There are those that insist that it is passed on directly in the form of higher prices than would otherwise be the case if you did not have corporate tax payment. Some say that it is shared equally between lower profits and higher prices.

But in any event, what you recognize is that the corporate tax payment is not paid by a corporate entity. A corporation is not anthropomorphic. It is paid by people. And in recognizing that it's paid by people, we should determine who the people are that are paying it. In many cases, it's consumers that are paying it; in many cases, it's savers that are paying it or investors that are paying it. And by integrating the tax system, I think it would be more efficient and you would also improve the rate of return on capital and you would encourage capital formation and saving through this device.

Representative BROWN of Ohio. Are you suggesting that you'd eliminate the corporate tax and apply it to dividends and salaries as a means of encouraging people to make an investment in a business?

Mr. OLSEN. Yes. And you also enhance, of course, the retained earnings in corporations through this act.

Representative BROWN of Ohio. See, the difference is we've had our moment in the television, I guess. If we were having a hearing to attack those people that are benefiting from the loopholes or to suggest that the corporate taxes ought to bear a bigger portion of our Federal tax bill, we'd have all kinds of cameras here and all kinds of public attention and the press and everything else.

Chairman HUMPHREY. All they're just interested in is the election results.

Representative BROWN of Ohio. But when we talk about what is a longer range problem and that is, whether or not we're going to have the capital to produce for American citizens—nobody bothers to show up because it isn't all that sexy of a problem.

Let me ask you another question about the recovery rate of individual nations from the current recession. It has varied and apparently the United States has had a pretty good recovery rate—that is, we've been one of the early recovering nations, if I am right in that.

Does this mean our plant expansion, which follows on with this recovery of consumer confidence in purchases, that our plant expansion and modernization will put us ahead in the international competition for markets and economic productive capacity?

Mr. OLSEN. Well, I think it's too early to be able to reach a conclusion on that. It wouldn't be clear necessarily that that would flow from the more rapid recovery that the United States has enjoyed against other countries.

What is significant—and this is already, I believe, in the record of the Joint Economic Committee hearings from earlier periods—that the United States has been actually gathering some advantage over recent years by virtue of a much slower increase in unit wage costs as opposed to other industrial countries in the world.

That is evident in the decisions being made, in fact, by a number of foreign companies to locate manufacturing facilities in this country. And I think that in this regard the United States will continue to enjoy that advantage of a lower increase in unit labor costs as opposed to other industrial countries——

Representative BROWN of Ohio. Why are we experiencing that?

Mr. OLSEN. Largely because the rates of inflation have been much higher in other countries aboard and, second, the devaluation of the dollar and the fact that we're on a floating exchange rate system has also helped because this analysis includes an adjustment for the change in the exchange rates which have occurred.

Representative BROWN of Ohio. Is that likely to continue, that relative wage position, as a long-term trend?

Mr. OLSEN. Yes.

Representative BROWN of Ohio. It seems to me that with the population zero and the increase of social costs in the United States—everything from social security to antipollution devices—that that is not likely to continue to offer us an advantage in the future.

Mr. OLSEN. No. Right at this time I don't see what will occur to markedly change the trend of a slower rate of increase in unit wage cost to the United States than in other industrial countries. Their propensity to inflate is greater than ours. The fact that we will not have—without the fixed exchange rate system—that they will not be able to peg their exchange rates against us in such a way as to gain advantages. In fact, other countries recognize today that the United States, in the policies that it is pursuing now as we are emerging from recovery is likey to pursue less inflationary policies than those that are being adopted in other industrial countries.

Representative BROWN of Ohio. As long as we do that, we're in pretty good shape?

Mr. OLSEN. That's right.

Representative BROWN of Ohio. Mr. Chairman, my time is up.

Chairman HUMPHREY. Thank you. Mr. Jaicks, the President has proposed some kind of a quota system here the other day on steel imports, certain specialty steels, I recognize. The Iron Age magazine had something at the same time that indicated that there was the possibility of pressure on our capacity for steel production. I think I had the piece here—yes, here it is.

It says, "With steel demand expected to increase in the second half of the year, the question is whether the mills will be able to handle the upsurge," Iron Age magazine reported on June 8. And at the same time, on June 8, President Ford told a campaign audience in Middletown, Ohio, that he had signed documents which restrict the amount of specialty steels, such as stainless, that foreign producers can sell in the United States in competition with domestically made steel. Now, I understand the differences in steel somewhat. I know specialty steels are a separate item. Would you make some comment just very briefly?

Mr. JAICKS. Yes, sir. The President's action, of course, followed an action by the International Trade Commission of some months ago, the first—in fact, the only one where a finding of potential injury to a domestic industry as a result of the Trade Act of 1975, or 1974, I guess, has been made by the International Trade Commission.

It advised the President that there was injury in this segment of the steel industry. Now, it's a small segment, as you suggest. In terms of the volume, it's less than 10 percent, although in terms of revenue—because of the values of the stainless and the high alloy steels—it represents quite a bit more of the total steel revenues.

And it has had quite a different experience vis-a-vis foreign producers than the tonnage steel, the more garden variety, if you will—the lower alloy products, the steels that go into farm implements, that go into automobiles, that go into highways and buildings and so forth. And the specialties are the steels that go into the nosecones—the exotic type, such as the ones that go into missiles. They go into the high temperature alloys that are used in exhaust systems and that sort of thing.

Chairman HUMPHREY. Yes. I understand that.

Mr. JAICKS. And the case that the specialty steel industry made was, under the new Trade Act, that the strategies followed by the foreign producers were causing injury in a sense that they were inhibiting seriously the growth potential of that segment of the domestic industry by unfair trade policies and, in fact, were really penetrating this market at a significantly higher rate, up to as high as 40 percent in some products in 1975, whereas the penetration in the carbon industry was more on the order of 13 to 15 percent, about a traditional level over the last few years.

The statement that I believe that you made reference to in Iron Age refers more to the tonnage steels, to the carbon steels.

Chairman HUMPHREY. Yes. I gathered that. I just wanted to set the record straight on that.

Mr. JAICKS. I'm aware also of statements that have been made by industry leadership people that we can be heading into a shortage and I did include a comment in my own presentation that we're getting up close, as we envision 1977, to the upper reaches of what the industry's capacity will be.

There's a significant difference when you talk about shortages. I think people make reference to the period that Mr. Olsen has made reference to—the 1973–74 period—where steel was in a very acute short supply. I think the situation, as I view it for 1977, won't be anywhere like that by virtue of the fact that the same offshore carbon steel industry is not going to be nearly as committed because of the slowness of recovery of the markets in those countries as they were committed during 1973–74 in their own markets—when there was a peaking of the world's demand for steel and when there was a withdrawal of penetration by the foreign producers from this market which really further exacerbated the problem in 1973–74.

I don't envision that in 1977. And on that basis, looking at it somewhat parochially, I would say that this is the way I would hope it would happen, that we will see foreign trade in steel up ahead occur in this country, which is that the foreign producers will be supplementing pretty much the maximum efforts of our domestic industry. And I see that as a strong possibility to alleviate any serious shortages in 1977.

Chairman HUMPHREY. Thank you, Mr. Jaicks, Mr. O'Connor, and Mr. Olsen. Does any member have any more questions?

Senator FANNIN. Just one question of Mr. Jaicks, if——

Chairman HUMPHREY. Yes. I wanted to get our next panel on. Go ahead.

Senator FANNIN. Just one question, Mr. Jaicks. With the perhaps turn-down in the consumption of steel by the automotive industry, if they do go more to the compact side, won't we have a great need in the energy field—for instance, the Alaska pipeline. I mean, if we have a gas pipeline, if we have the building of the facilities such as the railroad cars, an estimated doubling of the railroad cars—don't we see a tremendous potential ahead in the steel industry in that respect?

Mr. JAICKS. Your views match ours very closely, sir. It's hard to predict because of the question that prevails in lots of people's minds as to whether the Congress is going to hold the auto industry to these energy efficiency levels—27.5 miles per gallon by some date early in the 1980's. If those were to hold—and, of course, the automobile people say that they run into major problems with some of their markets in that the largest car that General Motors could make would be the Nova and most of the cars would be down in the Chevette range and there would be some real difficulty in terms of their demand by people who really want those cars—older people that need more space in a car and large families, et cetera.

But if those laws would prevail, why, no doubt there would be a slippage, but it would be well offset, as you suggest, by energy requirements. Just as an example, we looked at some numbers on the growth in coal in this country. One of the major requirements, in addition to actually mining coal, is bringing it to market. And if we were to meet the national objective of doubling our coal supplies to this economy, we'd need about five times as many railroad hopper cars to bring that coal to market as were built in 1973. A major user of steel, of course, is the railroad-car-building industry. So that's just one example. You've named one—the additional pipelines, et cetera. There's no question about it. And that's one reason, while

it was difficult for us to envision the kind of growth expected over the next 10 years, as we see it, you'd have a very minor tilting upward or downward as a result of any major change—shrinkage in demand by automobiles—because of these other needs that could very well escalate significantly.

Senator FANNIN. Thank you, sir.

Chairman HUMPHREY. Gentlemen, we thank you. We really appreciate you coming to us and sharing your counsel with us. Thank you very much.

Our next panel will be Mr. Peter L. Bernstein, president of Peter L. Bernstein, Inc., New York, Mr. Norman B. Ture, president of Norman B. Ture, Inc., Washington, and Mr. Robert Eisner, professor of economics, Northwestern University. We'll proceed in that order: Mr. Bernstein, Mr. Ture, and Mr. Eisner. And, gentlemen, you see the time. I know you have prepared statements and if you would kindly give us a synopsis of the key points and then permit us some questions.

Mr. Bernstein, we welcome you.

Mr. BERNSTEIN. Thank you, sir.

Chairman HUMPHREY. We have your excellent prepared statement. We appreciate it very much.

Mr. BERNSTEIN. Thank you. It's nice to be here and deliver it in person.

STATEMENT OF PETER L. BERNSTEIN, PRESIDENT, PETER L. BERNSTEIN, INC., NEW YORK, N.Y.

Mr. BERNSTEIN. I will try to be very succinct. It's tempting, after hearing so many interesting things from the first panel—one wants to expand rather than contract. But very profound policy implications emerge from how one views this problem: As to whether this country really has a sufficiently high propensity to save to provide adequate resources for capital formation; as to whether the deterioration in profitability in recent years is something profound and lasting and secular or cyclical and temporary; and in fact, regardless of how much better the long-run things may look in the future, whether we face a capacity shortage in the immediate future.

I come down strongly on the optimistic side on these issues. I have great confidence in the ability of our economy to make adjustments to the trouble that it frequently gets itself into, so that I would be reluctant to see major changes in policy, particularly tax policy, that would tilt our present tax structure in some way different from what it is now, unless there were reasons other than this particular reason to do so.

I think that probably I could summarize my whole position by saying that I'm in substantial agreement with Leif Olsen's observation that Congressman Brown questioned him about—that a growing economy with stable prices is the basic way to achieve a high rate of capital formation, that the businessman's decision to expand a plant is not based only on how much he is going to have to pay in taxes if he makes a profit, but whether he is going to make a profit at all.

That decision on expanding his capacity to produce or to improve his capabilities in world markets will depend ultimately on what he

thinks the size of those markets is going to be and how long they're likely to continue to expand. So that really the general environment, a healthy general environment, is far more important than specific measures aimed to help the business sector.

As I look at the history of the last 20 to 25 years—and I'm going to try to skip over the numbers, since they are in my prepared statement—I find no secular tendency for our savings rate to decline, no secular tendency for our investment rate to decline. Indeed, if we take 1975, which was the worst recession that we had since the 1930's, the percentage of our gross national product that we plowed back into real investment was higher than in any year from 1958 to 1964, which included some good years, and in fact, was equal to the 1956–57 peak. In other words, in a very depressed year, we still plowed back a substantial amount of our total output into real investment.

Yet complicated questions arise here and I hope I might have a minute to dwell on them——

Chairman HUMPHREY. Yes.

Mr. BERNSTEIN [continuing]. As to which direction—where is cause and where is effect in this whole matter? If we look at the ratio of investment to gross national product over a long period of time, it averages out to just about 10 percent. About 10 percent of our gross national product goes back into business investment.

This ratio has been extraordinarily steady—what we call in statistics—the standard deviation has been only 0.3 of a percentage point. In other words, in at least two-thirds of the years, the range has been just a little above 10 percent and a little below 10 percent, but very narrow.

This suggests to me, as a lot of the other data suggest, the point that Leif Olsen made; namely, that investment is responsive to the general rate of economic growth. It will slow down when economic growth slows down; it will pick up when economic growth picks up. The focus should be on the general economy rather than on this specific thing.

Let me just make some brief comments about corporate profitability and capacity shortage and then I'm done. There is no question, if we look at corporate rates of profitability by any measurement—share of income, rates of return, rates of return on sales or on capital—that the experience in recent years has been bad. And it is particularly bad if we look at it in relation to the experience in the middle to late 1960's when everything was marvelous. One can read from this that we have been doing everything wrong in terms of public policy since, say, 1968 or whatever, but as some point in there things did seem to begin to go downhill in terms of corporate profitability.

Or one can take a different position, and, as a man who spends his time in the investment world, I'm very persuaded by this case; namely, that what developed in the middle to late 1960's was, as a result of a whole number of things, unsustainably high rates of profit in the corporate sector.

Business was not only very good, in many ways it was probably so good that it was unsustainably good. Very high rates of profit, combined with low-interest rates and high common stock prices, led businessmen to invest in every direction that you can think of and

not only to overinvest but to misinvest—there was a major misallocation of resources as risk premiums diminished and as businessmen became increasingly euphoric and optimistic.

Those of us in the stock market were willing to go overboard at that point and I think that in the real economy precisely the same process was going on.

Representative BROWN of Ohio. The bankers did the same thing in some places like New York.

Mr. BERNSTEIN. The whole thing was extremely euphoric and while we are all out to have good business, I think that it's fair to say that the consequences of that period were classic and come right out of an elementary economic textbook in that very high rates of profit lead businessmen to overexpand and lead to low rates of profit.

And this is the problem with which we have been wrestling in recent years, but the trends during 1975 and so far this year indicate that we are well on the road back to health in terms of profitability, that rates of return are improving, and are very creditable at this point when we're still operating well below full capacity.

Now, this process had something very real to do—here I take issue with Leif Olsen and am not in the same camp—had something very pertinent to do with the capacity shortages that developed during 1973 and 1974, in that an excessive amount of capital expenditures during the late 1960's went into downstream projects—residential buildings, commercial buildings, and finished goods rather than into the basic materials areas.

Consequently, capacity in the basic materials area was far behind the rest of the economy as we moved into the 1970's. As we look at the patterns of capacity change and plant utilization rates since 1973, and we look at the distribution of plant and equipment expenditures since 1973, and as we listen to the gentlemen who where sitting here this morning, it's clear to me that many of those problems have been eliminated, that the imbalance that existed between the downstream finished goods sector of the economy and the upstream basic materials sector of the economy has been substantially improved.

I'd like to stop my remarks here in the interest of time, but look forward to later responding to questions.

Representative BROWN of Ohio. Mr. Bernstein, thank you very much.

[The prepared statement of Mr. Bernstein follows:]

PREPARED STATEMENT OF PETER L. BERNSTEIN

IS U.S. CAPITAL FORMATION ADEQUATE?

The capital shortage controversy essentially revolves around three issues:

1. Does the U.S. economy have a sufficiently high propensity to save to provide the resources we need for our longer term capital requirements and thus to provide enough jobs for all who seek employment?

2. Since a substantial part of our annual saving depends upon a rising cash flow in the corporate sector, is the clear deterioration in corporate profitability in recent years a symptom of a secular loss of forward momentum and capacity for future growth, or is it rather a cyclical and temporary phenomenon?

3. Even if our savings rate is adequate over the long run and even if corporate profitability may soon improve, has capital formation in recent years been so inadequate that critical capacity shortages loom just ahead once again?

These are complex issues. Furthermore, the implications for public policy in this controversy will differ widely depending upon how we answer them. One set of answers suggests an early outbreak of renewed inflationary pressures, exploding interest rates,

and an economic environment characterized by persistent stagflation; the other set of answers supports a more optimistic assessment in which fundamental economic forces left to their own will provide solutions to these problems. Consequently, the more pessimistic set of answers argues strongly for major changes in our tax structure and government spending policies, while the optimistic set of answers favors only minor adjustments in public policy, or, indeed, none at all.

I am pleased and honored to be able to present my own views on these issues to this Committee, as I have devoted a large amount of my research into these very questions over the past year or so. In brief, I come down stongly on the side of the optimists. I therefore hope that Congress will refrain from enacting any major changes in the present tilt of our tax structure unless justified by elements and arguments other than those under consideration here.

In the discussion that follows, I attempt to provide answers to the three questions posed at the outset. These answers lead to the following conclusions:

I fail to find any tendency at all for the proportion of resources devoted to private capital formation in this country to shrink relative to our total productive efforts. On the contrary, our investment performance during the worst recession since the 1930's was substantially better than during earlier recessions that were smaller in magnitude than this one. Furthermore, both theoretical and empirical considerations suggest that radical steps to increase our propensity to save may be counterproductive, in that they may result in less rather than more capital formation in the long run.

While the brutal inflation of the past ten years and public policy errors have clearly had an unfavorable impact on corporate profitability, that is only part—and not necessarily the largest part—of the story. In retrospect, much of the decline in corporate profitability in recent years appears to be a normal cyclical response to unsustainably high rates of return and unsustainably high rates of capacity expansion in the mid-to-late 1960's. The dramatic revival in corporate rates of return now under way substantiates the validity of this hypothesis.

Too much of the capital formation that took place during the euphoria of the mid-1960's was in the finished goods area of the economy and too little went into "upstream" or basic materials. This imbalance was primarily responsible for many of our troubles in 1973. Since 1973, however, the pattern of capacity expansion has been precisely the opposite, so that the ability of the basic materials sector to meet the needs of the finished goods sector is now far better matched than it was three or four years ago.

I am attaching to this paper as an Appendix some observations about international comparisons, reprinted from an article that appeared in Challenge magazine.[1] Here, too, I attempt to show that most of these comparisons are specious and distorted and that the U.S. stands in much better position than the pessimists on these issues would have us believe.

In short, while a student of American economic history must always be distressed at the ability of our free enterprise system to get into trouble, he must be equally impressed with its ability to find its way out of trouble. American businessmen know what to do when the going is rough, and they know how to respond when the going is smooth. At this time, I see every reason to believe that the steps the businessmen is taking on his own will go further than anything the government can do to restore the process of capital formation in our economy. The thread that runs through my testimony, in fact, is an effort to demonstrate how well the private sector is taking care of itself. This is a testimonial to its own resiliency—but also to the probability that the current posture of public policy is more likely to be in the right direction than the wrong one.

DO WE INVEST TOO LITTLE AND CONSUME TOO MUCH?

Much of the discussion about a capital shortage in the United States rests upon broad statements designed to warn us that we are "eating our seed corn," that we favor consumption excessively at the expense of investment, that our tax structure penalizes savers, and that our government spending policies are eating away at the roots of our productivity.

These warnings, however disturbing they may be, find little verification when we look at the facts. Furthermore, they raise complex theoretical questions about the process of saving and investment in a free enterprise economy, to which they offer dangerously oversimplified answers.

Now it is perfectly true that private saving as a percentage of GNP has averaged about one percentage point lower since 1968 than during the four years 1964–67. Total saving, which includes the public sector—a frequent dissaver—shows a slightly

[1] "Capital Shortage: Cyclical or Secular?", November–December 1975.

larger drop in average savings rates as a percentage of GNP. This comparison, however, is with a period in which savings rates may have been unsustainably high (as we shall see in greater detail in the following section on corporate profitability). Indeed, both private and total savings as a percentage of GNP since 1968 have averaged almost precisely the same as during the ten years 1954–63—for private sector savings, 15.7 percent from 1968 to 1975 v. 15.5 percent from 1954 to 1963; for total savings, 14.8 percent v. 15.1 percent. As a matter of fact, our savings rate at cyclical peaks has shown no tendency to decline and, indeed, was higher at the 1973 peak than at earlier peaks:

	As a percentage of GNP	
	Private savings	Total saving
1953	15.0	13.1
1957	16.2	16.4
1969	14.6	15.8
1973	16.4	16.8

The analysis is further complicated by efforts to interpret *ex post* savings figures in terms of *ex ante* expectations. We have just seen that savings rates since 1968 have been substantially equal on the average to the decade 1954–63 but were nevertheless lower than from 1963 to 1968. It just so happens that real economic growth during the 1963–68 period averaged nearly 5 percent a year, while it averaged only about 3 percent a year during 1953–63 and during 1968–73. Was the higher rate of economic growth from 1963 to 1968 a cause or a result of the higher savings rate? Although we can never find the answer to that question, the efforts of government to reduce the tax burden on the private sector and the declining tendency of the personal savings rate during those years suggests that the overall rise in the economy's savings proclivities during 1963–68 (primarily in the form of expanding corporate profitability) was a result rather than a cause of the high rate of growth. This suggests, in short, that the more subdued savings rates of recent years may equally be the result of more subdued growth than a downward shift in the long-run propensity to save—a conclusion supported by the historically high aggregate savings rate achieved in 1973.

Furthermore, production of capital goods relative to consumer goods shows no tendency to decline. In fact, capital goods production held up remarkably well relative to consumer goods during the 1975 recession, even though excess productive capacity was much greater than it had been in any previous postwar recession and even though complaints about inadequate rates of profit were widespread. The Federal Reserve shows this relationship in a ratio broken out of their index of industrial production: they divide the index of production of business equipment by the index of production of consumer goods, taking 1967 as 100. An examination of this ratio since 1953 shows that:

It touched highs of 100 in 1953 and 1957, and reached 102 in 1966 and in 1974—thus, no sign of a declining trend in recent years when examined on a peak-to-peak basis.

It touched lows of 80 or below in 1955, 1958, and 1962–64. The 1971 low was at 82, or higher than in previous depressed periods. But, even more significant, the low point in this ratio in 1975 was 90, or ten percentage points above earlier lows; since the beginning of 1976, it has been moving upward.

In corresponding fashion, nonresidential fixed investment shows no tendency to decline as a percentage of total GNP, and, in fact, also held up better in this recession than on earlier occasions. It was equal to 9.6 percent of GNP at the 1956–57 peak, to 10.8 percent in 1966, to 10.6 percent in 1969 and again in 1973. In 1975, this ratio was 9.4 percent, down only 1.2 percentage points from the 1973 peak and only 0.3 percentage points below 1970 despite a much steeper business recession. The 1975 figure was higher than every year from 1958 through 1964, and just about equal to the 1956–57 peak.

But if the dire warnings about eating our seed corn thus fail to hold up against a cold examination of the facts, these data also raise serious questions about the theoretical assumptions on which these warnings so frequently rest. To put the issue succinctly, we must ask whether increasing the incentive to save is the most effective way to increase the incentive to invest in real capital formation. In other words, if the consumer or the government is induced to demand a smaller proportion of

current production, will the business sector automatically employ those released resources to create greater productive capacity?

This is an argument that has bedeviled economists for more than two hundred years. On the one hand, capital formation is possible only if consumers and government do release resources. On the other hand, the businessman must expect to sell profitably the increased output that his capital formation will provide: he can justify taking the risks of that capital formation only if he believes that consumers and government are willing to buy more, not less. Thus, saving is a necessary condition for capital formation, but it is not a sufficient condition. Growing markets for final demand are also a necessary condition for capital formation in a free enterprise, profit-oriented economy.

In this connection, the remarkable stability of the ratio of nonresidential fixed investent to total GNP is a significant indicator of the tricky character of these interrelationships. Nonresidential fixed investment in constant dollar terms averaged precisely 10.0% of total GNP from 1953 to 1975. The spread between the low in 1958 (8.7%) and the high in 1966 (10.8%) was only just over two percentage points, but the standard deviation was only 0.31 percentage points through more than twenty years of tremendously varied economic conditions.

Since we know intuitively that investment is likely to be more volatile than total economic activity, why should this ratio have been so stable?

The answer to this question must lie in the mutual interrelationships between these two magnitudes. Rising investmnent contributes to an increase in total business activity just as falling investment contributes to recessions—but the stability of the ratio also suggests that rising business activity encourages additional investment and that falling business activity discourages investment. If investment were likely to move independently of the trend in overall business activity, as it would if it responded more to the propensity to save than to the propensity to consume, the ratio of capital formation to total GNP would tend to rise when consumer and government demand receded and to shrink when consumer and government demand expanded, which would make for much more volatility in the ratio than it has in fact exhibited.

In other words, efforts to tilt our tax structure in such a way as to favor saving and profits at the expense of the consumer or even to increase the budget surplus the federal government would run at full employment might have a positive impact on investment in the very short run; since, however, these efforts would also reduce the ultimate level of final demand for goods and services, the new investments undertaken under those conditions might well turn out to be unprofitable. In the long run, therefore, such measures seems likely to lead to less rather than more capital formation in the United States.

The following sections on corporate profitability and on capacity requirements will further substantiate this hypothesis; the Appendix on international comparisons will substantiate it as well.

IS CORPORATE PROFITABILITY IN A SECULAR DECLINE?

At first glance, the answer to this question appears to be a resounding YES! Here are just a few pieces of evidence pointing in that direction:

Corporate profits after taxes accounted for 5.9% of GNP in 1957 and 6.2% of GNP at the next cyclical peak in 1966, but for only 4.7 percent of GNP in the relatively healthy year 1972 and for a pathetic 4.2 percent of GNP in the cyclical trough during the first quarter of 1975.

Pretax profits adjusted for windfalls from inventory gains and for underdepreciation of fixed assets accounted for 9.5 percent of GNP in 1957 and for 11.0 percent in 1966. In 1972, this ratio was down to 7.9 percent—but, even worse, in the year of record reported profits, 1974, this ratio was only 6.5 percent. It was a mere 5.5 percent in the first quarter of 1975.

Perhaps more relevant for this discussion, rates of return on equipment and structures of American corporation show an equally dismal performance. Reported profits after taxes in 1974 were only 5.4 percent of gross stocks of fixed assets compared with an average of 6.6 percent from 1964 to 1967. After inventory and capital consumption adjustments (but before taxes), these rates of return deteriorated even more drastically—from around 12 percent in the mid-1960's to only 6.2 percent in 1974.

As a consequence of this decline in profitability, the growth in our stocks of capital goods—structures and equipment—began to slow down as well. In physical terms, the annual growth rate in our stock of fixed corporate capital from 1970 to 1975 was 17 percent below the annual rate of growth from 1965 to 1970.

The crucial question is whether this unmistakable deterioration in profitability was purely the consequence of a malevolent economic environment—in which case public

policy is the villain and must make the primary accommodation—or whether it was the consequence of judgments and decisions made by the corpoate sector itself—in which case a more laissez-faire attitude may be preferable.

While no one would argue with the unfavorable impact of the stagflation of recent years on corporate performance, I believe that one could argue with equal vigor that many decisions made by corporate anagements in the late 1960's contributed at least a significant share of the problems they have faced since then. These difficulties appear to be a natural result of unsustainably high rates of profitability during the mid-1960's in a generally euphoric environment during which capital costs were low and risk premiums virtually nonexistent. This set of conditions led to an equally unsustainably rapid growth in fixed capital—much of it in the wrong place. This was a massive waste of precious resources on assets that turned out to be essentially nonproductive. If valid, this hypothesis leads to a much more optimistic outlook for the years immediately ahead.

Table 1, which follows, shows the historical record to support this viewpoint. There we see corporate profits—both after taxes as reported and pretax with inventory and capital consumption adjustments—as a percentage of current dollar values of corporate gross stocks of fixed assets from 1953 to 1975.[2] The table also shows the ratio of new nonresidential fixed investment each year to the stocks of fixed capital at the end of the preceding year, with both calculated this time in 1972 dollars to show the physical rate of capital additions.

In studying the trends in this table, we note the following significant patterns:

Rates of return move in cyclical waves. Thus, the high rates of the years 1953–57 are followed by lower rates for about four years, after which profitability then builds strongly and steadily until after 1966, when decline again sets in.

Nonresidential fixed investment shows similar cyclical patterns, but with a lagged response to the variations in profitability. Thus, profitability peaked in 1955, but capital additions slowed down only after 1957. Profitability turned strong in 1962, but investment really got going only after 1964. Profitability peaked again in 1965–66, but additions to the capital stock remained at an extraordinarily high level for another three to four years.

These interrelationships are in fact precisely what economic theory has demonstrated all the way from Adam Smith to John Maynard Keynes. High profits induce a high level of investment; investment moves sequentially from the most profitable to less profitable opportunities; increased investment leads to decisions to make fewer investments; as the capital stock grows more slowly, profitability begins to pick up again; and so on.

During the capital spending boom of the latter half of the 1960's, gross stocks of fixed assets held by corporations grew in constant dollar terms at an annual rate of 4.79%—far higher than in any other five-year segment of our postwar history, exceeding even the giant rebuilding program of 1945–50, when the growth rate was 4.02 percent.[3] This was a natural response to the high rates of return that developed from the slow-growth period that preceded it—from 1955 to 1965, the physical growth in corporate fixed assets had averaged only 3.09 percent a year. In addition, long-term interest rates in the mid-1960's were remarkably stable at only around 4.5 percent, corporate balance sheets still showed only moderate debt levels, common stocks sold at an average of more than 16 times earnings, and confidence in government's ability to eradicate major variations in business activity was widespread. No wonder, then, that real investment boomed—and no wonder that profitability subsequently slumped as the most profitable opportunities were exhausted and as growing disregard for risk led businessmen into unwise and ultimately unproductive investments.

[2] These assets, in other words, are shown at replacement rather than original cost.

[3] It is worth noting from the Table that the growth in fixed assets from 1970 to 1975 was greater than in any five-year period other than 1965–1970.

TABLE I.—PROFITABILITY AND GROWTH RATES OF GROSS STOCKS OF FIXED NONRESIDENTIAL CAPITAL OF CORPORATIONS, 1953–75

(Billions of dollars)

Year	Fixed capital stocks		Corporate profits [1]				Nonresidential fixed investment	
			Dollars		As percent of fixed assets			
	Current dollars, or replacement cost	Constant dollars, or physical measurement	A	B	A	B	1972 dollars	Percent of fixed assets in previous year
1953	335	565	20	36	6.0	10.7	56	10.3
1954	351	583	21	35	6.0	10.0	55	9.7
1955	383	604	26	45	6.8	11.7	61	10.5
1956	423	627	27	43	6.4	10.2	65	10.8
1957	453	650	26	42	5.7	9.3	66	10.5
1958	470	665	22	38	4.7	8.1	59	9.1
1959	486	681	28	48	5.8	9.9	63	9.5
1960	500	699	26	47	5.2	9.4	66	9.7
1961	512	716	26	47	5.1	9.2	66	9.4
1962	528	737	30	55	5.7	10.4	71	9.9
1963	545	758	32	60	5.9	11.0	74	10.0
1964	570	783	37	67	6.5	11.8	81	10.7
1965	610	819	44	77	7.2	12.6	96	12.3
1966	663	862	47	83	7.1	12.5	106	12.9
1967	720	903	45	79	6.3	11.0	104	12.1
1968	792	946	46	86	5.8	10.9	108	12.0
1969	883	993	44	81	5.0	9.2	114	12.1
1970	974	1035	37	68	3.8	7.0	110	11.1
1971	1058	1074	44	77	4.2	7.3	108	10.4
1972	1154	1118	55	92	4.8	8.0	117	10.9
1973	1291	1170	69	100	5.3	7.7	131	11.7
1974	1475	1220	80	91	5.4	6.2	128	10.9
1975	1664	1258	73	102	4.4	6.1	112	9.2

[1] A = After taxes, as reported. B = Pretax, with inventory and capital consumption adjustments.

Source: "Survey of Current Business", April 1976 and "Economic Report of The President".

The carcasses of that euphoric period are still around us, although many of them have at great cost been written off the corporate balance sheets that so proudly reflected them when they were installed. Massive overexpansion in commercial real estate and retailing is only the most apparent and painful heritage of that period. We can also point to the ill-fated ventures of RCA and Xerox into the highly capital-intensive field of computers, the entire conglomerate madness, the movement of chemical companies into the oil business (an extremely expensive move that was bailed out only by the totally unpredictable decision of the OPEC countries to quadruple the price of oil—at a moment when some of the chemical companies either had just, or were attempting to, unwind their ventures into oil producing), automobile industry miscalculations about the nature of the market for their product, and so on.

Seen from this vantage point, much of the data on investment activity in the late 1960's is spurious: it should be included in current consumption rather than formation of capital. As a consequence, I believe it is fair to assume that a much higher proportion of capital spending will be productive in the current environment, when risk premiums are high, rates of return are still depressed, long-term interest rates are flirting with 9 percent, and price/earnings ratios for common stocks average only about 10X. In other words, the odds are that one percent of GNP going to nonresidential fixed investment today is likely to be significantly more productive in the future than one percent of GNP was in 1968 or 1969.

This possibility takes a good deal of the edge off the argument that pollution abatement expenditures dilute the significance of current levels of capital expenditures. Commerce Department estimates suggest that business capital outlays for pollution abatement now amount to about 4 percent of total expenditures for plant and equipment, or less than $5 billion. Although quantification is obviously difficult, the magnitude of unproductive investment undertaken during the second half of the 1960's would seem to have been at least as great as 4 percent of the total, and probably higher than that.

Furthermore, a major change now appears to be taking place in corporate profitability—a change that probably began in 1973 but that became fully apparent only during 1975. Inflation has finally come through to the bottom line, as rising prices, expanding output, and long-delayed improvements in productivity all begin to bear fruit.

We can find a striking demonstration of this in the data for the gross domestic product of nonfinancial corporations during the first quarter of 1976, when the annual rate of real output of these corporations was almost precisely equal to output in the cyclical peak year of 1973. Table II shows the improvement in profitability over this period:

TABLE II.—PROFITABILITY OF NONFINANCIAL CORPORATIONS 1973 AND 1Q76 (AT ANNUAL RATES)

(Billions of dollars)

	Year 1973	1Q76 (SAAR)
Gross domestic product, 1972 dollars	717.7	715.0
Profits before tax as reported	92.8	117.0
Undistributed profits	29.2	40.9
Profits before tax but after inventory valuation and capital consumption adjustments	75.9	98.9

These results for early 1976 suggest that, for the year as a whole, rates of return as a percentage of gross fixed assets will compare favorably with 1972–73. Perhaps more significantly, they will come through comfortably above 1970, when capacity utilization rates were substantially higher and unemployment rates markedly lower than they are at the present time.

In short, corporate management has done an outstanding job in rectifying the errors and overexuberance of the late 1960's. The quality of both the investment expenditures and the profits now being achieved is markedly higher than it has been, with every indication that these favorable trends still have a long way to go. Hence, although the temptation is great to help business along with additional types of tax incentives, the conclusions reached in the preceding section together with such impressive evidence that the worst of profitability performance is behind us both argue against major changes in our current tax structure.

IS A CAPACITY SHORTAGE IMMINENT?

Concerns about a capacity shortage in the near future relate much more to shortages in specific areas than to a generalized shortage of capacity. Whether measured by the unemployment rate, the gap between actual and potential output, or by the capacity utilization rate for total manufacturing, the economy in mid-1976 clearly has much more slack than it had in the past at cyclical peaks and in 1973 in particular; in fact, it still has more slack today by these measurements than it had at the previous business cycle trough in 1970.

I have developed my own capacity utilization measurement for this purpose that shows both the current degree of slack and also provides a basis for forecasting future investment requirements. This concept differs from the usual industrial-production-capacity-utilization-rate concepts by providing broader coverage, but it is also more closely related to business capacity than the usual concepts of GNP gap or overall unemployment rates.

TABLE III.—OUTPUT/CAPITAL RATIO 1953–75

(Billions of dollars)

Year	Fixed capital stocks of corporations (constant dollars)	Nonfarm business gross domestic product (constant dollars)	Output as percent of fixed capital stocks
1953	565	483	85
1954	583	475	81
1955	604	514	85
1956	627	530	85
1957	650	538	83
1958	665	530	80
1959	681	573	84
1960	699	583	83
1961	716	594	83
1962	737	629	85
1963	758	657	87
1964	783	698	89
1965	819	745	91
1966	862	790	92
1967	903	808	89
1968	946	850	90
1969	993	875	88
1970	1,035	869	84
1971	1,074	893	83
1972	1,118	956	86
1973	1,170	1,016	87
1974	1,220	994	81
1975	1,258	966	77

Source: Survey of Current Business, April 1976 and Economic Report of The President.

My measurement calculates nonfarm business gross domestic product in dollars of 1972 purchasing power as a percentage of gross corporate stocks of structures and equipment also expressed in dollars of 1972 purchasing power. It is, in other words, an output/capital ratio, or production function, for the nonfarm business sector.[1] Table III shows the path of this ratio from 1953 to 1975. This ratio shows that the business sector of the economy may well have been under greater generalized capacity strain during 1965–68 than it was during 1973, but that the amount of excess capacity during 1975 was far greater than anything else experienced during the 23 years covered in the table.

While an examination of specific segments of the economy does show that capacity strains in the basic materials, or advanced processing, sectors were much greater in 1973 than in the finished goods sectors, more recent data indicates that these imbalances have been substantially eliminated and should cause no serious problems in the foreseeable future:

The Federal Reserve series of capacity utilization rates for basic materials and for total industrial production shows that capacity growth in the basic materials sector from 1954 to 1966 averaged 4.0 percent a year, almost identical with the 4.1 percent annual average for manufacturing production as a whole. From 1966 to 1973, however, these paths diverged dramatically—basic materials capacity grew 4.4 percent a year, while the total grew much faster at 5.6 percent a year.

[1] It is inaccurate to the extent that output includes noncorporate firms, but this should have no significant impact on year-to-year trends in this ratio.

Consequently, even though capacity utilization rates in the basic area had been almost precisely the same as in total manufacturing from 1954 to 1966, a major difference was apparent at the 1970 trough, when the rate for total manufacturing was only 75 percent while basic materials were still at 86 percent. At the 1973 peak, this gap had widened to 13 percentage points, or 80 percent for the total and 93 percent for the basic materials.

Since 1973, on the other hand, capacity growth has been significantly greater in the basic materials area. From the end of 1973 to the first quarter of 1976, the annual rate of growth in the basic materials sector has been 4.6 percent; for total manufacturing, it has been only 2.5 percent. As a result of this disparity in growth rates since 1973, growth rates measured from 1966 to early 1976 have been substantially even—4.2 percent for basic materials and 4.6 percent for total manufacturing.

Indeed, 1973 output of basic materials would utilize only 83 percent of current capacity—or ten percentage points less than it used in fact during 1973.

The Commerce Department's Bureau of Economic Analysis also has developed measurements of capacity utilization in manufacturing and separates them into so-called advanced-processed goods and primary-processed goods; the latter essentially correspond to the Federal Reserve's definition of basic materials. The BEA series begins at the end of 1965.

From the end of 1965 to the end of 1972, capacity utilization rates in the primary-processed goods area averaged two to three percentage points higher than in the advanced-processed goods area. The two rates were the same in late 1968, late 1971, and early 1972, but the "upstream" sector's utilization rate never fell below the "downstream" sector's utilization rate during this period.

In late 1973, the gap widened to a maximum of seven percentage points (89 percent primary and 82 percent advanced).

By the end of 1974, however, the gap had narrowed to only two percentage points; by the second quarter of 1975, the primary-processed sector was operating three percentage points below the finished goods sector, for the first time in the history of this series.

Latest available data are for the final quarter of 1975 and still show the primary group one percentage point below the advanced group, despite a substantial pick-up in industrial production since the early part of the year. Furthermore, the primary group was operating at only 82 percent of its preferred operating rate—as compared with 89 percent of its preferred operating rate at the 1973 peak.

The data on utilization rates are confirmed by the concentration of capital spending since 1973 in the basic materials area:

Actual results for 1975 and the latest projections for 1976 show that expenditures for plant and equipment manufacturers of primary metals, paper, chemicals and petroleum currently account for 23 percent of such outlays by all manufacturing industries, up from only 15 percent in 1972–73; at the same time, manufacturing as a whole has risen from less than 37 percent to more than 43 percent of all business outlays on plant and equipment.

In absolute dollar terms, plant and equipment expenditures by these four basic materials industries in 1976 will be just about double the 1972–73 average, compared with a rise of less than 40 percent for all manufacturing and less than 30 percent for all business.

Expenditures for pollution abatement accounts for about 12 percent of outlays by the four basic materials industries, but this ratio in 1976 will be no higher than it was in 1974. If we deduct these outlays from total planned capital outlays for 1976 for these four industries, the absolute dollar increase from the 1972–73 average would still be in excess of 70 percent.

If, as I believe, the capacity utilization rate measurements and the plant and equipment expenditure data indicate that the disparity between basic materials capacity and total manufacturing capacity is rapidly being overcome, a second look at the data in Table III provides the basis for an interesting calculation of capital requirements in the future.

Let us assume that the gross domestic product of nonfarm business grows as rapidly from 1975 to 1980 as it grew from 1960 to 1965, or 5.0 percent a year: this is as optimistic an assumption about the growth in demand as most people would be likely to make. Let us assume further that the constant dollar value of that output should run no higher than 85 percent of the constant dollar value of corporate gross stocks of structures and equipment, in order to avoid inflationary demand-pull pressures—even though it ran above that ratio from 1963 through 1969 and again during 1972–73.

Table III shows us that domestic output of nonfarm business in 1975 was $966 billion in 1972 purchasing power. Growth of 5.0 percent a year for five years from that level projects 1980 output at $1,233 billion in 1972 purchasing power. That would be equal to 85 percent of $1,451 billion in 1972 purchasing power, which is what our desired volume of gross fixed assets should be. This in turn is only 15 percent above the 1975 estimate for gross fixed assets, implying necessary real growth of less than 3 percent a year in our fixed corporate capital. This would be the lowest rate for any five-year period since World War II, except for 1955–60, when it was precisely 3.0 percent a year.

Consequently, even if we assume that capital outlays in the more capital intensive industires such as energy may have to outpace the rest of the economy during this period, even if we assume that some capital assets still on the books are obsolete, and even if we assume further that pollution abatement requirements may necessitate additional expenditures, the sums required to fund sufficient capacity expansion to meet our foreseeable needs surely seem modest and attainable without fears of strain or urgent needs for substantial revamping of our tax structure.

[APPENDIX]

[Reprinted from Challenge]

CAPITAL SHORTAGE: CYCLICAL OR SECULAR

(By Peter L. Bernstein)

INTERNATIONAL COMPARISONS

But if all of this analysis is reassuring, in the sense that it demonstrates both the probable adequacy of our current capital stock and the normal impact of fundamental economic forces on investment (rather than the malign impact of public policy), the concern over international comparisons still remains, for the percentage of GNP plowed back into private business capital formation in the U.S. is indeed lower than in Germany, Japan, and France. While we plow back some 10–11 percent of our GNP for that purpose, Germany uses 20 percent of its GNP for investment, France uses 18 percent, and Japan uses an almost unbelievable 30 percent. In fact, all of the European countries, with the exception of Great Britain, devote a larger share of GNP to investment than we do and, at the same time, have achieved more rapid improvement in productivity as measured by the rate of growth in output per hour worked.

While these facts are unquestionably disturbing at first glance, their significance fails to hold up under more careful examination. On the one hand, they exclude certain other relevant and important facts; on the other hand, exclusive reliance upon them leads to economic oversimplification.

In the first place, none of these countries maintains a defense establishment anywhere near as large as ours, either absolutely or relative to their GNP. Since 1954, defense has taken an average of 7.5 percent of our GNP (7.3 percent if we exclude the Vietnam buildup of 1965–67). These are real resources that are unavailable to satisfy either the investment or consumption needs of the civilian sector, which means that our savings rate must therefore be high enough to cover them. At the same time, the other economies not only do not carry this burden, but, indeed, the very size of our defense umbrella makes it unnecessary for them to carry it.

Consequently, they are in effect receiving a subsidy from us, which enables them either to sustain a higher investment rate or to enjoy a lower savings rate than they would if our foreign and strategic policies were different. Thus, when we consider that the U.S. must save an extra 6–7 percent of its income for this purpose, the ability of other countries to invest just about that much more of their GNP each year than we do hardly suggests that we are soft and flabby while they are the personification of the Protestant Ethic. (The Japanese performance is admittedly an outstanding exception, well above ours. On the other hand, their defense effort is truly negligible, even in comparison to that of the Europeans.)

Furthermore, our absolute leadership over the rest of the world continues to be wide, not only in the magnitude of our capital formation but also in the level of our output per manhour. We still produce 25 percent more per employed civilian than the French or the Germans and at least 50 percent more than the Japanese and the Italians.

Of course, all four of these countries have been gaining on us at an accelerated rate since 1965, at which time we were 50 percent ahead of the French and Germans and produced three times as much per employed civilian as the Japanese. Let us remember, however, that that was the period of the overvalued dollar, which created

a major fillip to economic growth and investment opportunities for Western Europe and Japan.

But now the shoe is very much on the other foot, as the dollar is no longer endemically overvalued and our rate of inflation compares favorably with inflation rates abroad. But there is more. Can one today properly measure productivity only in relation to labor input or even capital input? Raw materials and energy may well be the limiting factors of production for the foreseeable future—and here our international advantage is overwhelming in terms of ready access to, and lower costs of, abundant supplies of raw materials and energy.

EXPORTS CAN RESOLVE A DILEMMA

But there is one final element to this picture that the conventional wisdom (even when espoused by professional economists) fails to take into account. It is an element that once again finds verification in theory and that is essential to an understanding of differences (a) in savings/investment rates among nations and (b) in public policies that move these rates in one direction or the other.

Businessmen sink money into fixed structures and equipment only when they expect to be able to sell the output of those capital goods at a profit. At the same time, however, they can acquire the resources to build those capital goods only when consumers are willing to refrain from consumption and, thus, to release those resources to the capital formation sector. But here we bump into the familiar and age-old paradox of capitalist economics: how can businessmen sell the additional output at a profit when consumers are abstaining from spending a larger part of their incomes? Or, indeed, how can they profitably sell the additional output when employment and incomes tend to decline after the investment process is accomplished and the new equipment is installed and on stream?

One way to resolve this dilemma is to export that new output. Under those conditions, deteriorating purchasing power in the home market is no obstacle to profitable investments. This is in fact precisely what many American corporations discovered to their delight in 1973–74. Exports rose 50 percent, or some $50 billion, from the second quarter of 1973 to the third quarter of 1974, more than offsetting the increasing weakness in consumer spending. Seen in this light, the persistent strength of investment in capital goods and inventories in 1973–74 in the face of steadily deteriorating consumer purchasing power can hardly be considered surprising.

While this was a special opportunity for us, less integrated economies like Germany and Japan must export industrial products if they are to acquire the food, energy, and raw materials that they need to sustain employment, turn the wheels of industry, and feed and clothe their people. In these export-oriented economies, policies designed to restrain consumption at home—in other words, encourage saving—and to stimulate investment are likely to be highly successful.

We should note, however, that these policies can work in some countries only if other countries continue to have expanding domestic markets that can absorb a rising volume of imports; such policies pursued by all industrialized countries simultaneously would be doomed to failure. Indeed, had we pursued the same savings-oriented policies as the Germans and the Japanese over the past ten years, their achievements would have been far less spectacular than they turned out to be.

But—and this is the key point—perhaps ours would have turned out less favorably as well! While the 1960s were admittedly a period of rising investment activity and while the Kennedy-Johnson policies included explicit incentives for new investment, it was also a period of vigorously growing consumer and government demands and policies that included explicit inventives to consumers as well. Without these expanding markets, would businessmen have earned such high profits and responded as positively as they did respond to the investment incentives the government gave them? And, to set the question against the current scene, after recession began to develop aborad during 1974 and consumers at home had no choice but to tighten their belts when living costs zoomed ahead of their incomes, should we be surprised that capital formation has fallen off during 1975?

These are in many ways the most basic, but also the most simple, questions that the economist can ask. Saving is necessary for investment to be possible, but expanding markets are necessary somewhere if the additional production made possible by the new investment is to find a profitable outlet.

Hence, all things considered, the American economy has neither been a disaster nor does it appear to be moving headlong into disaster because of inadequate capital formation. Before we rush to tinker with its complex processes of adjustment and its responsiveness to fundamental economic forces, we would do well to study the experience of the past twenty years with more care than is usually the case.

Representative BROWN of Ohio. With this great acquisition of power, I now turn the microphone over to Mr. Ture.

STATEMENT OF NORMAN B. TURE, PRESIDENT, NORMAN B. TURE, INC., WASHINGTON, D.C.

Mr. TURE. Thank you, Congressman. I think the committee is to be commended for undertaking these hearings on a subject which will significantly influence the course of public policy for many years to come. That subject is whether the rate of capital formation will be adequate to meet the economy's capital requirements over the next decade or longer.

In my judgment, virtually all of the other major issues with which public policymakers are concerned turn out to turn on this central problem of capital adequacy. I know that you gentlemen have heard a great deal on the subject of capital requirements and the capital shortage, but at the risk of redundancy, I'd like to delineate the way in which, I believe, these phrases should be construed.

To begin with, the term "capital requirements" does not mean that there is some specific amount of capital that must be on hand at some future time. As individual or decisionmakers, we want additional capital in order to increase our income. The amount of additional income we seek to acquire depends on how much additional income we can obtain from any additional amount of capital and how much it costs us to get it. Since neither of these factors is fixed, neither is the amount of capital that we want. Any very much the same should be said for the economy as a whole. There is one respect, however, in which the economy's total capital requirements should be seen in a somewhat different light. While there is no unique absolute amount of capital that the economy must have at any given time, insofar as public policy sets certain broad goals for the economy, it may, by that very token, set requirements for the amount of capital the economy must have if these goals are to be attained.

The public policy concerned with capital requirements makes sense only in relation to other things: Primarily, the contribution of additional capital to greater output, employment, productivity, and real wage rates. These contributions of additions to the Nation's stock of real capital derives from a law of economics known at the University of Chicago as the law of variable proportions and elsewhere as the law of diminishing returns.

According to this law, an increase in the quantity of one production input, used in combination with unchanged quantities of other production resources, increases total output, although the rate of increase in output diminishes relative to the rate of increase in the production input.

At the same time, the productivity of other production input increases. For example, an increase in the amount of capital used in the production with a given amount of labor services increases total output, and at the same time, increases the productivity of labor.

In a free market economy, this increase in the productivity of labor resulting from an increase in the ratio of capital to labor and production, has two major consequences: No. 1, it increases the demand for labor services; and No. 2, it increases real wage rates.

How much of the effect of an increase in the capital labor ratio will be increases in jobs and how much will be increases in wage rates depends on the conditions of supply of labor services. In general, both employment and real wage rates increase.

It's instructive to examine the post-war record of the business sector of the U.S. economy in this light. Our preliminary estimates, based on the recently-revised national income and product accounts data shows that from 1947 through 1973, the number of full-time equivalent employees in the private business sector of the economy increased at an average annual rate of about 1½ percent a year.

When you make certain adjustments for changes in hours of work per week and other factors, the average annual rate of the increase of labor services was about 1.7 percent a year. Over the same period, the net stock of capital in the business sector increased at an average annual rate of about 3½ percent. The capital-labor ratio, therefore, increased at a trend rate of about 1.8 percent.

This increase in the capital-labor ratio, in turn, contributed to an average annual rate of increase of 2.9 percent in labor's productivity and real wage rate. Further analysis of that record also reveals that real output originating in the business sector increased at an average annual rate of about 3.6 percent. Of this increase, we estimate that about 28 percent is accounted for by the increase in capital; 33 percent by the increase in labor services; and 39 percent by technical progress, advances in the state of the industrial arts and their implementation in production processes.

The major conclusion, for purposes of public policy, which emerges from this sort of an analysis is that the rate of increase in the capital-labor ratio is an essential factor determining the pace of advance in employment and in real wage rates. Public policy measures to reduce the existing impediments to private saving and capital formation should be given top priority if the employment targets and other goals of public policy are to be achieved.

With this in mind we can begin to estimate the Nation's capital requirements in a meaningful way. We do this by estimating projected increases in the labor force. Given this projection, it is possible to estimate by how much the net stock of capital must grow if the capital-labor ratio is to grow at least as fast as the average rate of the post-war period, and therefore to maintain the trend rate of increase in labor productivity in real wage rate.

Our estimate is that, assuming no changes in the general level of prices between now and 1985, we will have to add $443 billion to the net stock of business capital for this purpose alone. That implies capital outlays totaling about $2¼ trillion, again measured in constant 1975 dollars over that period.

But this does not exhaust required capital outlays. We must add the amount of additional capital and the capital outlays to acquire it at least to extend the post-war trend rate of increase in the Nation's stock of housing. We must also add the capital that business will have to acquire not merely or even principally to increase its capacity to produce goods and services that people want to buy, but to meet public policy mandates with respect to the environment, occupational health and safety, a wide array of product quality standards, energy self sufficiency, and so forth.

Virtually none of this Government-mandated capital which a business must acquire generates an increase in its total income. Such capital, therefore, cannot be financed by business out of the insignificant additional cash flow, if any, that generates. And since it reduces the rate of return on business' total capital, the business faces increasing difficulty in external financing of its capital additions.

The amount of capital outlays business will have to make over the next 10 years just to meet the environmental control and OSHA requirements, on the basis of very conservative assumptions, comes to at least $353 billion, again measured in constant 1975 dollars.

For every dollar of these capital outlays, there has to be a dollar of savings; gross private investment must be matched by gross national saving. Gross national saving is the sum of gross private saving plus Government surpluses or minus Government deficits. In most of the post-war years, the Government sector has been in deficit, hence has reduced rather than augumented gross national saving.

The burden of financing the Nation's capital requirements, therefore, falls on the private sector and gross private saving. If it is assumed that Government deficits average no more than $10 billion a year over the next decade—an extremely conservative assumption in view of recent experience and near-term prospects—the Nation's total private saving will have to aggregate $3.8 trillion in constant 1975 dollars, through 1985.

If you assume, more realistically, inflation at, say, 3 percent a year, these total saving requirements aggregate not less than $4.5 trillion, and at a 5-percent inflation rate, the total increases to $5.1 trillion.

If gross private saving as a fraction of GNP continues over the next decade at the post-war average rate of 15.5 percent, the total of such saving through 1985 will fall $744 billion short of estimated requirements, measured in constant 1975 dollars. At a 3-percent inflation rate, the gap rises to $893 billion. With inflation at 5 percent, the gap increases to $1 trillion. Closing this gap between capital requirements and private saving will require an increase in the total private sector saving rate from the 15.5 percent post-war average to 19.25 percent. I summarize these estimates in tables 1, 2, and 3 in my prepared statement.

There is no assurance—in fact, there is no reason whatever to believe—that total private saving will continue at the post-war average rate, let alone that it will increase by the indicated amount. Some economists dismiss this problem by asserting that if the private saving rate were inadequate, the market rates of interest would rise and private saving would, therefore, increase. But this answer confuses cause and effect. The rise in interest rates would be the result of the shortfall, as I've attempted to define it, in saving and in capital formation. It would reflect the greater relative scarcity of capital, hence, the higher price the economy would have to pay for the services of capital in production. To be sure, the market would clear, but there is no reason to assume that the market-clearing amount of saving and capital formation would be adequate to maintain the trend rate of increase in the capital-labor ratio and to satisfy the Government mandated demands for capital as well.

Another answer to the prospective shortfall in saving which some economists offer is for the Federal Government to achieve budget

surpluses instead of deficits. As noted, a Government budget surplus is a plus in gross national saving while a deficit is a minus. Whether this prescription would solve the problem, however, depends on how the surplus is achieved.

A slowdown in the growth of Government expenditure relative to tax revenues at existing tax rates, allowing revenues to catch up and overtake expenditures, would certainly contribute to expanding the Nation's total saving. Desirable as this sort of fiscal development would be, it does not appear to me, at any rate, to be a realistic prospect.

The alternative means that is often proposed for shifting from deficit to surplus is to increase tax revenues at a faster rate than provided by the growth of economic activity, that is, either by increasing tax rates or by eliminating or reducing the so-called tax expenditures or by adding new taxes.

None of these approaches is likely, however, to contribute much to closing the saving-capital formation gap. Each is likely to increase the cost of private saving, hence, to reduce its amount. Raising taxes, therefore, would transfer saving from the private to the public sector; it would not necessarily or even likely increase total saving by any material amount.

I've indicated in one of these tables what the consequences will be if we fail to close this saving gap. We estimate that at current saving rates, the shortfall in saving in 1985—therefore, in capital formation—will be something of the order of $100 billion. This would be almost 22 percent of the estimated amount of the capital formation needed to maintain the trend rate of increase in the capital-labor ratio.

The adverse impact of a shortfall of this magnitude on labor's productivity and real wage rate clearly would be enormous. I hope it is clear that the problem we face is one of reducing the existing bias against private saving. The capital shortage confronting the Nation, in truth, is a saving shortage.

A major source of the bias against saving is the present tax system. That bias results from the fact that, with few exceptions, taxes are imposed both on the amount of current saving and on the future returns to such saving, whereas the tax falls only once on income used for consumption. Since the amount we save today is the capitalized value of income we will receive in the future, we currently tax the same future income stream at least twice.

More realistically, we tax saving over and over again. The tax on capital gains, the corporation income tax, the State and local income taxes, property taxes, estate, gift, and inheritance taxes, and on and on, all substantially add to the aggregate tax burden on saving relative to the tax burden on consumption.

Saving uses of income are taxed far more heavily than anything else we know. Our tax system thereby increases the cost of saving and capital formation relative to the cost of consumption.

The foremost challenge facing the Congress is to deal realistically with the urgent requirement for a higher rate of private saving. If this challenge cannot be met, one or more of the high priority objectives of economic policy will have to bear the brunt of that failure.

I have suggested, in my prepared statement, some tax changes—some of them draconian; some of them of a more modest

dimension—which I think would contribute to reducing the existing tax bias against saving and capital formation and which, therefore, would contribute to closing the estimated saving-capital formation gap. I won't bother to detail them at this point, but I'd be happy to be responsive to any questions about them.

In conclusion, I'd like to offer the following observation. The U.S. economy faces serious challenges as far into the future as our data and analytical skills allow us to project. Successfully dealing with these challenges will provide enormous rewards for all Americans. Whether we deal successfully with them will depend in large part on the future thrust of public policy, which in turn, will largely depend on decisions made now and in the near future.

This committee, I am sure, has noted the tendency to treat each new problem presented to public policymakers as evidence of the failure of the private market system. An objective examination of the evidence, however, suggests that our unhappy economic record of recent years is the outcome of excessive and inept governmental intrusion in the operation of the economy, accelerating over the years.

The decisions this Congress makes about the basic content of economic policy will have a major bearing on whether the economy thrives, whether individual freedom, responsibility, self-reliance, and initiative will be encouraged and enhanced, on the one hand, or whether the economy and all its participants will become increasingly wards of the Federal, State, and local governments.

In the field of public finance, the first course of action calls for a tight rein on Government spending and tax revisions aimed at making the tax system less repressive of effort, of saving, and of investment. The latter course of action calls for an expansionary expenditure policy, larger deficits, hence greater displacement of private saving and capital formation, Government planning of economic activity, and increasing Government employment. Hopefully, we will soon see a turn toward the first course. Thank you.

Senator FANNIN. Thank you, Mr. Ture. That's an excellent statement. Incidentally, I want to express thanks to you for being here today and also for your appearance before the Finance Committee. Chairman Long has expressed his thanks to you and has stated to our committee how impressed he was with what you had to say and how helpful your remarks were to all of us in the formation of our program on our tax bill.

Now, I don't say that we've been able to follow your recommendations explicitly, but it certainly has been very helpful to have the suggestions you have made—the benefits that would accrue if they were adopted and the detrimental effects of some of the programs that we have adopted. So we are doubly thankful to you, Mr. Ture.

Mr. TURE. Thank you for your comment.

[The prepared statement of Mr. Ture follows:]

PREPARED STATEMENT OF NORMAN B. TURE

Capital Formation: The Public Policy Issues

I am Norman Ture, President of Norman B. Ture, Inc., Economic Consultants in Washington, D.C. The views presented in this discussion are my own. While I hope that others will subscribe to them, they are the product of my own analysis and conclusions and should not necessarily be ascribed to any of my past or present clients.

I appreciate the Committee's invitation to present these views. The Committee is to be commended for undertaking these hearings on a subject which, whether we are aware of it or not, will significantly influence public policy for many years to come. If the growth in the Nation's production capability fails to keep pace with the rapidly increasing demands placed upon it, the political decisions as to the amount of that capability to be allocated to meeting public policy mandates will become increasingly a source of tension and unrest; both public and private aspirations will be increasingly frustrated. Your concern with the adequacy of capital formation in the private sector reflects a wholesome awareness of the importance of shifting the focus of public policy to the concerns of the Nation's long-run progress.

CAPITAL ADEQUACY: THE BASIC CHALLENGE FOR PUBLIC POLICY

A central economic problem facing the United States is whether the rate of capital formation will be adequate to meet the economy's capital requirements over the next decade and longer. Virtually all of the other major issues with which public policy makers are concerned turn on this central problem of capital adequacy. Whether the focus is on attaining energy self-sufficiency, protection of the environment, improving and expanding mass transit systems, raising the housing standards of low and middle-income individuals, otherwise supplementing the income of the poor, providing safer and healthier working conditions, providing the growth in income to sustain rising levels of consumption, and so on, a basic constraint on achieving these goals is how much real capital will be available to meet the growing and varied demands of the U.S. economy. The less rapidly we add to our production capability, the more severely will pursuit of any of these objectives limit success in achieving other public and private goals.

The appropriate public policy focus on capital formation is long run. In my judgement public policy concern with such matters as the amount of capital outlays "needed" to sustain econcomic recovery and the prospect of "shortages" of capacity in particular sectors is substantially misplaced. Public policy which aims at strengthening the free market system will be concerned with removing impediments to the efficient functioning of the system, not with substituting political judgments as to the "right" or "needed" amounts of any type of spending to sustain economic recovery or the "right" allocation of capital among industries. Public policy so oriented recognizes that "shortages" are the results of contraints on the performance of markets, such as government-imposed price controls, in any of their varied forms, or other types of allocation constraints. The "shortages" that appeared in 1973 were not reflections of market failure but of the distortions imposed by the government wage and price controls initiated in late summer 1971 and reinstituted under the "freeze" of 1973. Similarly, the more persistent shortages of electrical energy cannot be attributed to inherent imperfections in private markets but to the effects of public regulation. Insofar as public policy is to focus on sectoral"shortages" of capacity, it should direct its attention to determining and eliminating the impediments to efficient performance by the free private market system of its allocative functions.

NATURE OF THE CAPITAL SHORTAGE

It is in this context that the question of the adequacy of private capital formation should be examined. The Congress has heard much on the subject of capital "requirements" and the capital "shortage." At the risk of redundancy, I'd like to delineate the way in which these phrases should be construed.

To begin with, the term capital "requirements" does not mean that there is some specific amount of capital that must be on hand at some future time. As individual or business decision-makers, we want additional capital in order to increase our incomes; the amount of additional capital we week to acquire depends on how much additional income we can obtain from the capital and how much it costs us to get it. Since neither of these factors is fixed, neither is the amount of capital we want.

Very much the same must be said for the economy as a whole. In one respect, however, the economy's total capital "requirements" should be seen in a somewhat different light. While there is no unique amount of capital that the economy must have at any given time, insofar as public policy sets certain broad goals for the economy it may, by that very token, set requirements for the amount of capital the economy "must" have if those goals are to be attained. Thus, it makes sense to talk about capital additions and requirements only in relation to other things, primarily the contribution of additional capital to greater output, employment, productivity, and real wage rates.

These contribution of additions to the Nation's stock of real capital derives from a law of economics, popularly known as the law of diminishing returns. According

to this law, an increase in the quantity of one production input used in combination with an unchanging quantity of other production resources increases total output, although the rate of increase in output diminishes relative to the rate of increase in the production input; at the same time, the productivity of the other production inputs increases. Thus, an increase in the amount of capital used in production with a given amount of labor services increases total output and at the same time increases the productivity of labor.

In a free market economy, this increase in the productivity of labor resulting from an increase in the ratio of capital to labor in production has two major consequences: (1) it increases the demand for labor services and (2) it increases real wage rates. How much of the effect of an increase in the capital:labor ratio will be increases in jobs and how much will be increases in wage rates depends on the conditions of supply of labor services; in general, both employment and real wage rates increase.

It is instructive to examine the postwar record of the business sector of the U.S. economy in this light. Our preliminary estimates, based on the recently revised National Income and Product Accounts data, show that from 1947 through 1973, the number of full-time equivalent employees in the private business sector of the economy increased at an average annual rate of 1.5 percent a year. Adjusting for changes in average hours of work per week and certain other factors, the average annual rate of increase of labor services was 1.7 percent. Over the same period, the net stock of capital in the business sector increased at an average annual rate of 3.5 percent. The capital:labor ratio, hence, increased at a trend rate of 1.8 percent. This increase in the capital:labor ratio, in turn, contributed to an average annual rate of increase of 2.9 percent in labor's productivity and real wage rates.

Further analysis of the postwar record also reveals that real output originating in the business sector increased at an average annual rate of 3.6 percent from 1947 through 1973. Of this increase, we estimate that 28 percent is accounted for by the increase in capital, 33 percent by the increase in labor services, and 39 percent by technical progress—advances in the state of the industrial arts and their implementation in production processes.

The major conclusion, for purposes of public policy, which emerges from this analysis is that the rate of increase in the capital:labor ratio is an essential factor determining the pace of advance in employment and in real wage rates; public policy measures to reduce the existing impediments to private saving and capital formation should be given top priority if the employment targets and other goals of public policy are to be achieved.

ESTIMATING CAPITAL REQUIREMENTS

With this in mind, we can begin to estimate the Nation's capital "requirements" in a meaningful way. First, we begin with a projection of the growth in the labor force; we estimate that for the next decade, the average annual rate of increase will be the same—1.5 percent—as in the postwar period to date. Given this projection, it is possible to estimate by how much the net stock of capital must grow if the capital:labor ratio is to increase at least as fast as the average rate of the postwar period. To repeat, if the rate of increase in this ratio slows, so too will the rate of increase in employment and real wages rates. Projecting the postwar trends in employment and in the capital:labor ratio through 1985, we shall have to add $443.2 billion to the net stock of business capital, measured in constant 1975 dollars. Assuming no change in the rate at which business replaces fixed capital, this will require capital outlays totaling $2.236 trillion dollars, again measured in constant 1975 dollars.

This does not exhaust required capital outlays, however. We must add the amount of additional capital—and the capital outlays to acquire it—at least to extend the postwar trend rate of increase in the Nation's stock of housing. We must also add the capital that business will have to acquire not merely or even principally to increase its capacity to produce goods and services people want to buy, but to meet public policy mandates with respect to the environment, occupational health and safety, a wide array of product quality standards, energy self sufficiency, and so on.

Much of this government-mandated capital which a business must acquire generates no increase in its total income. As a consequence, the business making these investments can obtain no return on such capital, hence cannot provide rewards for the private saving which must be channeled into such capital formation. The household or business customer doesn't go into the market to buy cleaner air or water; it's not easy to persuade the customer that a given amount of groceries are worth more because food processors and distributors produced less air or water pollutants. In other words, much of this type of capital makes only a negligible contribution to the market value

of the products customers buy. Aggregate sales proceeds for a given amount of output, are not likely to increase by an amount equal to the additional costs of the public-mandated capital. Such capital, therefore, cannot be financed by business out of the insignificant additional cash flow, if any, it generates. And since it reduces the rate of return on the business' total capital, the business faces increasing difficulty in external financing of its capital additions. Unless the aggregate flow of saving, generated internally by business or available in the capital markets, increases substantially, we face a serious shortfall in the capacity of business to finance the increases in capital used to produce the goods and services people buy—the capital that does contribute directly to increases in output, employment and real wage rates. This drain must somehow be offset by additional saving. This is not to suggest that these government-mandated capital outlays are not warranted or that the goals they seek are inappropriate. But it must be recognized that such capital formation cannot be had for free and that it adds substantially to the total requirements for capital.

The amount of the capital outlays business will have to make over the next 10 years just to meet the environmental control and OSHA requirements, on the basis of very conservative assumptions, comes to at least $353 billion, in constant 1975 dollars.

PRIVATE SAVING REQUIREMENTS

For every dollar of these capital outlays, there must be a dollar of saving; gross private investment must be matched by gross national saving. Gross national saving is the sum of gross private saving plus government surpluses or minus government deficits. In most of the postwar years, the government sector has been in deficit, hence has reduced rather than augmented gross national saving. The burden of financing the Nation's capital requirements, therefore, falls on gross private saving. If it assumed that government deficits average no more than $10 billion per year over the next decade—an extremely conservative assumption in view of recent experience and near-term prospects—the Nation's total private saving will have to aggregate $3.82 trillion in constant 1975 dollars, through 1985.

The aggregate saving requirements are substantially larger if, more realistically, we take account of some continuing inflation. If the price level rises on the average by 3 percent a year through 1985, total requirements aggregate not less than $4.55 trillion. At a 5 percent inflation rate, this total increases to $5.13 trillion.

If gross private saving as a fraction of GNP continues over the next decade at the postwar average rate of 15.51 percent, the total of such saving through 1985 will fall $744 billion short of estimated requirements, measured in constant 1975 dollars. At a 3 percent inflation rate, the gap, conservatively estimated, is $893 billion; with inflation at 5 percent, the gap increases to $1008 billion.

Closing this gap between capital requirements and private saving will require an increase in the total private sector saving rate from the 15.51 percent postwar average to 19.26 percent, if we assume a zero inflation rate through 1985. At a 3 percent inflation rate, total private sector saving would have to increase to 19.29 percent of GNP. And if inflation is at 5 percent, the private saving rate will have to increase to 19.30 percent.[1] These estimates are summarized in Table I, II, and III.

There is no assurance that total private saving will continue at the postwar average rate, let alone that it will increase by the indicated amount. Some economists dismiss this problem by asserting that if the private saving rate were inadequate, the market rate of interest would rise and private saving would, therefore, increase. But this answer confuses cause and effect: the rise in interest rates would be the result of the shortfall, as I've attempted to define it, in saving and in capital formation. It would reflect a greater relative scarcity of capital, hence the higher price the economy would have to pay for the services of capital in production. To be sure, the market would clear, but there is no reason to assume that the market-clearing amount of saving and capital formation would be adequate to maintain the trend rate of increase in the capital-labor ratio and to satisfy the government mandated demands for capital as well.

Another answer to the prospective shortfall in saving which some economists offer is for the Federal government to achieve budget surpluses instead of deficits. As noted,

[1] The estimated required saving rates in the inflation cases err significantly on the low side. The estimated amounts of private saving do not include downward inventory valuation adjustments which would reduce business saving under the 3 percent and 5 percent inflation cases. Moreover, the estimated saving implicity assumes that capital recovery allowances would increase above the annual zero inflation amounts in the same proportion as the inflation rate. Since capital recovery allowances are based on historical rather than replacement costs, this assumption overstates the amount of this component of private saving under the 3 percent and 5 percent inflation cases.

a government budget surplus is a plus in gross national saving while a deficit is a minus. Whether this prescription would solve the problem, however, depends on how the surplus is achieved. A slowdown in the growth of government spending, allowing revenues at present tax rates to catch up and overtake expenditures, would certainly contribute to expanding the Nation's total saving. Desirable as this sort of fiscal development would be, it does not appear to be a realistic prospect.

TABLE I.—ESTIMATED CAPITAL REQUIREMENTS AND PRIVATE SAVING, 1976–85, ZERO INFLATION

(Billions of 1975 dollars)

Year	Capital requirements				
	Nonresidential fixed investment plus inventory accumulation	Other capital outlays, including Government deficits	Total	Gross private saving	Saving gap
1976	205.7	110.6	316.3	261.3	55.0
1977	213.0	115.8	328.8	270.6	58.2
1978	220.5	121.4	341.9	280.3	61.6
1979	228.1	127.5	355.6	290.3	65.3
1980	236.3	134.2	370.5	300.7	69.8
1981	244.5	141.4	385.9	311.5	74.4
1982	253.0	149.5	402.5	322.7	79.8
1983	261.9	158.3	420.2	334.2	86.0
1984	271.1	168.0	439.1	346.2	92.9
1985	280.6	178.6	459.2	358.6	100.6
Total	2,414.7	1,405.3	3,820.0	3,076.4	743.6

TABLE II.—ESTIMATED CAPITAL REQUIREMENTS AND PRIVATE SAVING, 1976–85, 3 PERCENT INFLATION

(Billions of dollars)

Year	Capital requirements	Gross private saving	Saving gap
1976	325.8	269.1	56.7
1977	348.8	287.1	61.7
1978	373.6	306.3	67.3
1979	400.2	326.8	73.4
1980	429.5	348.6	80.9
1981	460.8	371.9	88.9
1982	495.0	396.8	98.2
1983	532.3	423.3	109.0
1984	572.9	451.7	121.2
1985	617.1	481.9	135.2
Total	4,556.0	3,663.5	892.5

TABLE III.—ESTIMATED CAPITAL REQUIREMENTS AND PRIVATE SAVING, 1976–85, 5 PERCENT INFLATION

(Billions of dollars)

Year	Capital requirements	Gross private saving	Saving gap
1976	332.1	274.4	57.7
1977	362.5	298.4	64.1
1978	395.8	324.5	71.3
1979	432.2	353.0	79.2
1980	472.9	383.9	89.0
1981	517.1	417.5	99.6
1982	566.4	454.1	112.3
1983	620.8	493.8	127.0
1984	681.2	537.1	144.1
1985	748.0	584.1	163.9
Total	5,129.0	4,120.8	1,008.2

The alternative means for shifting from deficit to surplus is to increase tax revenues at a faster rate than provided by the growth of economic activity, that is, by increasing tax rates, by eliminating or reducing so-called "tax-expenditures", or by adding new

taxes. None of these approaches is likely, however, to contribute much to closing the saving-capital formation gap. Each is likely to increase the cost of private saving, hence to reduce its amount. Raising taxes, therefore, would transfer saving from the private to the public sector; it would not necessarily or even likely increase total saving by any material amount.

Particular caution should be attached to the recommendations to raise additional tax revenues by reducing tax "expenditures". Apart from the fact that the estimates of the additional revenues to be obtained thereby are woefully unrealistic (because they are based on the assumption that the affected taxpayers would be completely unresponsive to the increases in their taxes), the principal flaw in this approach is that the increase in taxes would almost entirely represent additional taxes on the return to private saving, thereby accentuating the existing anti-saving tax bias. At best, private saving might be expected to fall by no more than the estimated increase in revenues; more realistically, the decline in private saving would probably exceed any ultimately realized increase in Federal tax revenues.

Whatever one's view about the desirability of reducing tax "expenditures", it is mere wishful thinking to project any increase in the Nation's total saving from doing so. All things considered, achieving a higher total saving rate from government surpluses is not a realistic solution.

CONSEQUENCES OF A PRIVATE SAVING SHORTFALL

What will happen if actual saving falls short of these "requirements"? In all likelihood, the capital formation shortfall would be largely in the investment in the machinery, equipment, plants, working capital, etc., which increase the real output of marketable goods and services. If the private saving rate were to continue only at the postwar average rate, the saving shortfall, in 1985, assuming no increase in the price level, would be $100 billion. This would be almost 22 percent of the estimated amount of the capital formation needed to maintain the trend rate of increase in the capital-labor ratio. The adverse impact of a shortfall of this magnitude on labor's productivity and real wages clearly would be enormous.

It is clear, I hope, that the problem we face is one of reducing the existing bias against saving. The capital shortage confronting the Nation is, in truth, a saving shortage.

THE TAX BIAS AGAINST SAVING

A major source of the bias against saving is the present tax systems. That bias results from the fact that, with few exceptions, taxes are imposed both on the amount of current saving and on the future returns to such saving, whereas the tax falls only once on income used for consumption. Since the amount we save today is the capitalized value of income we will receive in the future, we currently tax the same future income stream at least twice. More realistically, we tax saving over and over again: the tax on capital gains, the corporation income tax, State and local income taxes, property taxes, estate, gift, and inheritance taxes—all substantially add to the aggregate tax burden on savings. Saving uses of income are taxed far more heavily than anything else.[1]

The foremost challenge facing the Congress is to deal realistically with the urgent requirement for a higher rate of private saving. If this challenge cannot be met, one or more of the high priority objectives of economic policy will have to bear the brunt of the failure.

TAX CHANGES TO EASE THE CAPITAL SHORTAGE

It is highly encouraging that many members of the Congress have become aware of the prospective capital shortfall, have perceived the potential of changes in the tax structure to deal with the problem, and have attempted to develop programs for constructive tax revisions to this end. Particularly promising, in my judgment, are those tax programs which address the problem with a variety of proposals, aimed at expanding saving by individuals and business alike. This approach recognizes that no one form of saving is superior to others, that all additional saving will find its way into the capital market where it will be allocated to the myriad capital formation uses, by and large on the basis of which of the market participants can make the most productive use of additional capital. No one tax change of limited scope is the best revision for purposes of reducing the existing tax bias against saving and

[1] I've attempted to detail the elements of the tax system which contribute to this anti-saving bias and to illustrate their impact in testimony presented to the Committee on Ways and Means, *Panel Discussions on General Tax Reforms*, 93rd Congress, First Session, February 5, 1973, pp. 153 ff. and in "Tax Treatment of Savings and Capital Recovery", *The George Washington Law Review*, Symposium on Tax Policy, March 1974, Volume 42, Number 3, pp. 501 ff.

investment. A variety of such measures are called for if everyone is to be allowed to have a piece of the action—to get in on the act of accelerating the expansion of the Nation's production capability, its total output, employment, and income.

There is, regrettably, a serious impediment to legislation to deal effectively with the capital shortage. Promising proposals to this end appear to oppose the interests of the affluent against the poor, of business against labor, and of consumers against producers and sellers. Such appearances are grossly deceiving. They arise from a regrettable proclivity to look only at the initial impact of tax changes—at the estimated initial changes in tax liabilities, rather than carefully examining how taxpayers will respond to changes in taxes and determining what the ultimate effects will be. The current tax reform legislation affords an excellent example. By closing "loopholes" or shutting down "tax shelters", it ostensibly promises to increase Treasury revenues. Common sense, happily fortified by economic analysis, however, insists that many of these provisions will result in revenue losses for the Treasury—not revenue gains—as the affected taxpayers change their activities to avoid the additional tax liabilities. In doing so, these taxpayers will reduce their investments and production, thereby cutting back on employment, in the affected activities. These responses, obviously, will reduce the tax base in the affected areas of activity. To be sure, some of the investment will be allocated to other areas, but the capital market will operate to reduce the aggregate volume of saving and investment, compared to the amount that would otherwise occur. Thus, when the adjustments that will be made in the market place are taken into account, the effects of changes in the tax laws are often quite different in character from those one might expect from examining only the initial impact change in the amount and distribution of tax liabilities.

Tax changes to reduce the existing tax bias against saving and capital formation offer important cases in point. When one objectively examines the ultimate effect of such tax changes, most if not all of the apparent opposition of interest disappears. Tax changes to mitigate the capital shortage are not exactions from the poor, from consumers, from labor. On the contrary, their prospects for a better tomorrow depend critically on such constructive tax measures.

Decades of adversary positions are not going to be legislated away in a single revenue act, but a start toward broader and fuller understanding of the importance of and benefits from removing the tax barriers to a higher saving rate can be made by tax legislation which eases the excessive tax burden on all taxpayer's saving.

The draconian solution, which I believe warrants close consideration, would be to eliminate entirely the present income tax—on individuals and corporations alike—and to replace it with a so-called "expenditure" tax. The base of this tax, payable by individuals, would exclude current saving but include the full amount of the returns to saving, including the gross proceeds from the sale or other disposition of assets. Corporate earnings would be fully attributable to individual shareholders and taxed only to them. A number of adjustments would have to be made in the measurement of the earnings to be attributed to shareholders. For one thing, since saving would be deductible, conventional earnings per share would have to be adjusted by deducting corporate retentions. By the same token, conventional measures of corporate earnings would have to be increased by amounts now allowed as deductions for depreciation, depletion, or any other form of capital consumption. Such allowances would be meaningless where, in effect, all capital outlays (equal savings) are expensed by virtue of the deduction for saving. Similarly, all proceeds—not merely gains—from the sale or other disposition by the corporation of any of its assets would be added to the conventionally measured earnings to be attributed to shareholders.

Capital gains and losses would simply disappear entirely from tax reckoning under this tax. With the elimination of the corporate income tax, the complete attribution of corporate earnings to shareholders, the complete deductibility of current saving, and the complete taxation of the returns to saving, including the full proceeds, net of disposition costs, from the disposition of assets, any additional tax on gains—or offset for losses—would be wholly unwarranted. In this system, continuing to tax gains would fully reveal the tax for what it is even now; an additional, heavy penalty on saving.

Short of this basic revision, there are a number of tax changes which would contribute to reducing the present tax bias against saving.

One such tax change would be to provide a universally available tax credit for individual taxpayers based on the amount of the net increase in their savings during the taxable year. The credit might be allowed at a rate of, say 10 percent, with an upper limit of, say, $1,000 per return ($2,000 on a joint return).

Relief of some form from the present incremental tax on capital gains is also urgently needed. The present deduction for one half of realized capital gains is widely identified

by tax "reformers" as one of the principal "loopholes" in the income tax. In fact, however, any tax on capital gains is an additional tax on the returns to saving; it is a negative "loophole" which should be eliminated by excluding capital gains and losses entirely from the calculation of taxable income. Short of this drastic step, some measure, perhaps fully excluding the first $1,000 of capital gains each year, provided the proceeds from the disposition of capital assets are fully reinvested in others, is highly desirable.

A long overdue tax revision is to replace our archaic depreciation system with a capital recovery system, based on short, standard recovery periods for all machinery and equipment and business structures. Also highly desirable would be to make the investment tax credit permanent and uniformly applicable to all classes of property and taxpayers, preferably at a substantially higher rate than at present.

There is a growing consensus that the corporation income tax should be eliminated. This tax is a differential and very heavy excise on saving invested in corporate equity capital. As such, it contributes significantly to distortion of corporate capitalization. Far more important, its adverse effects are diffused, through the operation of the capital market, to all capital, depressing the overall private saving and investment rate. Useful initial steps toward the elimination of this tax would be reduction in the normal and surtax rates, an increase in the surtax exemptions and elimination of the present double tax on distributed corporate earnings.

Proposals of this sort are opposed by some on the basis that they would result in excessively large revenue losses for the Treasury and by others on the basis that they would not be effective. Neither view, in my judgment, is well taken.

The kind of tax revision briefly described above would reduce the cost of saving, i.e., it would take less pretax current income than at present to acquire a given amount of after-tax future income. This reduction in the cost of acquiring future income would certainly result in an increase in the amount people would save out of their current disposable incomes. This increase in saving would be matched by an increase in capital formation. The expansion of capital formation above the levels that would otherwise occur would add immediately to total production activity, to the extent that existing production capability could be more intensively utilized or that more individuals would be indeued to enter the labor force; over the longer term, the expanded stock of capital would increase aggregate production capability, total output, hence total income. The tax base, therefore, would expand more rapidly than otherwise. The net effect on Federal tax revenues, accordingly, would be far different from the misleading initial impact revenue estimates customarily provided—estimates which unrealistically assume that taxpayers are completely inert and unresponsive to changes in tax provisions. Indeed, many tax proposals which appear to be revenue losers when only the initial impact revenue effects are considered turn out to be revenue gainers when their effects on economic behavior are realistically analyzed.

CONCLUSION

The U.S. economy faces serious challenges as far into the future as our data and analytical skills allow us to project. Successfully dealing with these challenges will provide enormous rewards for all Americans. Whether we deal successfully with them will depend in large part on the future thrust of public policy, which in turn will largely depend on decisions made now and in the near future.

This Committee, I am sure, has noted the tendency to treat each new problem presented to public policy makers as evidence of the failure of the private market system. An objective examination of the evidence, however, urges that our unhappy economic record of recent years is the outcome of excessive and inept governmental intrusion in the operation of the economy, accelerating over the years.

The decisions this Congress makes about the basic content of economic policy will have a major bearing on whether the economy thrives, whether individual freedom, responsbility, self-reliance, and initiative will be encouraged and enhanced, on the one hand, or whether the economy and all its participants will become increasingly wards of the Federal, State, and local governments. In the field of public finance, the first course of action calls for a tight rein on government spending and tax revisions aimed at making the tax system less repressive of effort, of saving, and of investment. The latter course of action calls for an expansionary expenditure policy, larger deficits, hence greater displacement of private saving and capital formation, government planning of economic activity, and increasing government employment. Hopefully, we will soon see a turn toward the first course.

Senator FANNIN. Mr. Eisner, would you be next, please.

STATEMENT OF ROBERT EISNER, WILLIAM R. KENAN PROFESSOR AND CHAIRMAN, DEPARTMENT OF ECONOMICS, NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

Mr. EISNER. Thank you, Senator Fannin. I am very happy to be here. I will dispense with my prepared statement, which is submitted for the record.

Senator FANNIN. Your prepared statement will be made a part of the record, please proceed as you desire.

Mr. EISNER. I would like to make some remarks which I hope do not seem disrespectful or unduly provocative, but I find myself in some lack of sympathy with the essential premise apparently of much of the discussion, while welcoming the remarks by a number of the people who have testified.

To begin with, I start with the belief that I thought that most of us share, a belief essentially in a free enterprise system, a notion that businesses should spend, should invest where they find it profitable. Throughout the discussion and remarks of respected members of the committee comes the notion that there is a certain amount of investment that should be undertaken, that there are certain capital requirements, and that we should have more capital investment.

I don't believe we tell businesses we should have more aluminum or more wood or more bricks and less steel. There is no reason to start telling business how it is economically best to produce. Businesses will hire labor, will use plant, will use equipment, will invest in research and development and new methods and managerial skills in accordance with what appears to be profitable.

In fact, business investment has two essential roles and functions. One of them is as a component of aggregate demand and there are other components of aggregate demand. We have cause to believe—most of us—that what determines how much is produced in an economy such as ours, with not a commissar or somebody else telling what should be produced, is that businessmen will produce when they can sell what they have to produce. And what they can sell depends upon the cost and the demand from purchases.

That demand can come from other businesses in the form of investment, but it can also come from Government, from consumers, and foreigners. If we believe that there is insufficient demand, there's no reason to say that we have to have investment to create that demand. There's no reason to say that we have to have additional jobs created by going ahead and building new plants and equipment, because you can just as well have additional jobs in producing more automobiles and having more teachers working, more stenographers, more scientists—more of anything.

The second major function of investment is presumably to contribute to growth. We have the correct notion that production comes from the inputs of factors of production. The more you have of them, the more you can have in the way of output. That means that in order to have more output in the future than now, with the capacity to produce more output, we have to be able to have more of the facilities that do produce output.

But those facilities, again, need not be only business plants and equipment. They can be Government facilities; they can be facilities in households and nonprofit institutions; and essentially they can be all of the human capital that goes to produce output.

If we are really interested in investment, what we should bear in mind very simply is that the single greatest detriment, the great depressant of business investment is the lack of full employment, the lack of output. Just a few very simple figures from the current situation. We had from the fourth quarter of 1973 to the first quarter of 1975 a decline of 6.6 percent in real output, or gross national product in constant dollars.

In roughly that same period, from the fourth quarter of 1973 to the second quarter of 1975, we had a decline of 25.1 percent, essentially one-fourth in investment, that is, fixed investment in constant dollars. All of the members of this committee, I submit—businessmen and others concerned about business investment—should recognize that the one thing that kills business investment is recession, excess capacity, unemployment. The one healthy economic way to stimulate investment is to bring about prosperity and a full employment economy.

Now, we have many proposals that come forth for giving credits, for aiding homeowners, for aiding business, aiding this group or that. There seems to be a general forgetfulness of the fact that if there are to be, let's say, $350 billion of taxes or taxes levied, if you cut taxes in one place, you're going to raise them somewhere else, unless the members of this committee are recommending that we have an increased budget deficit.

As a matter of fact, I'm one of those that frequently does recommend an increased budget deficit, because, as I've indicated earlier, the prime problem we have is inadequate aggregate demand, and therefore, inadequate employment. If you want to go that route, fine. But if you don't, let's then face up to it. If you talk about cutting taxes by increasing the investment tax credit, where do you mean to raise them?

I would submit, by the way, on the investment tax credit—contrary to what is apparently becoming perhaps by general acquiesence a widely agreed-upon proposal—there is really no reason to have a subsidy in favor of business investment in equipment and that's what you have in your incentives of 10 percent.

How has Congress been able to decide—or anybody—that business can produce more efficiently with more equipment? How do you know they couldn't produce more efficiently with more buildings? How do you know they couldn't produce more efficiently with more research and development, with hiring better workers? Why this subsidy for equipment? I've been joking with my good friend and colleague, Norm Ture here, why not a credit for hiring economists for research with consulting firms? Why should Congress perhaps not decide that that's the better way to increase productivity?

What about the time-honored notion that we have a free enterprise system and business decides how to invest? Now, it's also popular to say that, "Well, we don't like this on-again, off-again credit." In fact, and I don't know quite how far he'd go, but Arthur Burns, I know, has indicated some of this. There is a good argument in favor of an on-again, off-again credit.

There is a good argument against a general subsidy to spending for equipment because there's no reason to bias the economy in favor of business expenditures for equipment. But if you do want

to try to influence, the economy should be stable. Then there is a good reason to say that the one place the free economy falls down is that it is subject to recessions, to fluctuations of economic activity. The one essential role of Government is not to tell business how to produce, not to tell it to use more equipment rather than less, but to see to it that there's a climate of adequate aggregate demand to create full employment. And that may mean that in periods of recession you do want to stimulate spending, not only equipment spending, but other kinds of spending, which means you should give a big tax credit and a big credit on marginal investment in a period of recession and then take it away in a period of prosperity.

But the notion of having a permanent tax credit for equipment and an even larger one than we normally have had is simply, it seems to me, an additional tax preference, an additional loophole, which I know it seems to be hard to protest—there seems to be a very widespread agreement, I regret to say, on both sides of the aisle. But this is something, apparently, which, I can only reason, they must feel is politically unopposable. I don't but it; I don't get it; I don't get it particularly in the fact that with all of the emphasis on reform, on improving the tax structure, the Joint Economic Committee gave this long list of tax expenditures and then as soon as somebody comes along with proposals for more tax expenditures and business representatives come up and say, "We want an equipment credit to go to 12 percent" or "We want it to be permanent," everybody caves in and agrees.

Everybody can have his pet proposals to help his particular company or his particular industry. I think it's up to the Congress to recognize that for the economy as a whole, what you're giving in one place, you may be taking away in the other.

Now, the general way to go, I would say, on taxes is to eliminate preferences, to eliminate the special advantages in one place or another. I would agree with the proposal that Leif Olsen endorsed. I made the proposal, in fact. I think I've put in the record in some previous hearings a Business Week article I have on the subject—for eliminating the corporate profits tax.

That's not to give special privileges to business and it isn't, by my way of thinking, to encourage business investment. The corporate profits tax is sort of a monstrosity. We don't know on whom it falls. It tends to encourage businesses to incur expenses, whether for expense account living or for conferences abroad that it has no particular business doing.

What we should well do is tax individuals on their share of corporate earnings. There's not just dividends, of course, but all corporate earnings. I might add that there seems to be a widespread notion, which Norm Ture has unfortunately, to my impression and to my view encouraged, that the tax structure currently discourages saving and investment.

That is very far from clear. There have been a good number of professional articles that have challenged that. I might suggest that the one big place that the committees in Congress seem to ignore—two big places really—where the tax structure is heavily biased in favor of business investment is overwhelmingly in the matter of capital gains. The fact is that most people save and most people

invest not anticipating their interest return and they're not anticipating their dividend return. People put their money in the stock market; people buy land; people go into a corporation because they expect its value to go up. And that gain in value we don't tax. In fact, we don't tax it 1 penny unless the gains are so-called realized and even when they are realized we tax only the proportion—the amount of the gains realized—the amount of the realizations that involve gains, which are a small proportion, usually, of the total gain.

You have the astonishing loophole at death and in estates. So with that, you really have a major encouragement to those kinds of investments where people can make capital gains. Further, a major amount of business investment is financed by borrowing, borrowing and paying interest and, of course, the interest costs are deductible.

So what it comes down to is that there is really no clear bias against saving, against business investment certainly. There is a considerable discouragement of all kinds of other investment, investment in human capital, and human capital in particular, because of the nature of capital markets and because of the nature of our tax structure. The fact is that business can borrow to invest and an individual cannot very well borrow on his own credit, saying, "Well, I expect to become a great scientist or a great business manager and why don't you give me $50,000 for my education?" There's hardly a banker in the country, I guess, that would dream of considering that to be a sane proposition.

On the other hand, however, we keep talking about taxes discouraging business investment. We have taxes on working people which begin from the very first moment they get a job—the payroll taxes which keep going up, which I think are outrageously distorted against those that begin work early instead of those that begin work after they get a Ph. D., perhaps, at the age of 25 or so.

So you have a situation where employers are discouraged by the amount of this tax from hiring employees and giving them the initial training that would prevent them from being unemployed, out of the labor force, and a lost generation that so many of our youthful unemployed are likely to become.

I might just repeat, before I close, to remind Chairman Humphrey, whom I'm glad to see back here again, that the best way to encourage investment is really to encourage a prosperous full employment economy. Mr. Chairman, with all due respect, I would warmly agree with you on the Humphrey-Hawkins bill and I would strongly disagree with you on saying we should have a 10-percent permanent investment tax credit.

Chairman HUMPHREY. I want to come to you about that. We'll talk about that.

Mr. EISNER. Yes. But I might then just close by perhaps referring to the last paragraph or two of my prepared statement again. There is no justification for biasing the economy in favor of more investing or use of saying by the business sector. Business should be expected to invest, where, without Government handouts, it finds investment sufficiently profitable. It should not be expected to invest where it does not clearly find it profitable.

Government should look first to distortions in resource allocations that it has fostered by tax loopholes and tax expenditures, as well

as regulatory interventions. But then Government should be prepared to take action to promote more vigorous competition in freer markets for capital and goods, nationally and internationally. And we should not have quotas on steel and we should see to it that we can promote the freest possible international trade.

Along with this should go attention to improving what is probably the most imperfect market in our economy, the market for human capital. It is here that we suffer most from costly waste of capacity and of investment for the future. A major beginning should be a commitment and initiation of plans and programs to achieve full employment for all those who desire to work. That would go further than anything else to achieve not only maximum output and growth, but the best and fullest measure of all types of capital formation.

Thank you.

Chairman HUMPHREY. Thank you. Mr. Eisner, your prepared statement will be placed in the hearing record.

[The prepared statement of Mr. Eisner follows:]

PREPARED STATEMENT OF ROBERT EISNER

Issues Regarding Capital Formation

Capital formation has two fundamental roles. First, the very act of investment or production of capital goods is a contribution to current demand, output and employment. Second, in the longer run, economic growth or the ability to increase our rate of output stems from investment or capital formation in excess of our using up of existing means of production.

Modern theories of economic fluctuations rest heavily on the notion that production in a profit-oriented economy depends essentially upon aggregate demand. That demand can be viewed as coming from consumers or consumption, from government purchases of goods and services, from net exports, that is the excess of what we sell over what we purchase abroad, and from gross private domestic investment, which consists of business purchases of plant and equipment, additions to business inventories, and residential housing construction. Deficiencies in aggregate demand may hence be viewed as deficiencies in investment. They may also be viewed obviously as deficiencies in consumption, in government purchases of goods and services, or in the surplus of our exports over our imports.

Business investment spending has historically been relatively volatile and there are good analytical reasons for expecting such volatility. Investment involves the current flow of additions to a relatively large capital stock. Changes in the rate of demand for output in particular, but other factors as well, may cause relatively small percentage changes in desired capital stock which involve large relative changes in the current flow of investment.

Recessions in the rate of output hence entail major shortfalls in investment, and the current recession has been no exception. While gross national product in constant (1972) dollars declined 6.6 percent, from $1240.9 billion in the fourth quarter of 1973 to $1158.6 billion in the first quarter of 1975, gross private domestic investment in similar constant dollars declined 41.6 percent, from $212.6 billion to a low of $124.1 billion in the second quarter of 1975. The drop in fixed investment was 25.1 percent, from $193.2 billion in the first quarter of 1973 to $144.8 billion.

A high and increasing rate of investment spending would certainly be a major contribution to sustaining an economic upswing. Paradoxically, however, a high rate of investment spending itself depends very largely upon an economic upswing and the expectation that it will continue.

An issue has been raised of "the need for capacity expansion to accompany new jobs in step with the labor force." I believe that this is a false issue, at least for Congressional concern. The prime function of government policy in a market-oriented economy such as our own is to see to it that fiscal and monetary policy lay the basis for adequate aggregate demand. Adequate aggregate demand must mean demand sufficient to purchase all the output that a fully employed growing labor force can produce. given that demand, it is to be expected that private industry will decide for itself upon the optimum mix of capacity expansion and more intensive use of existing capacity.

The belief that industry will not supply the appropriate amount of capacity expansion can be sustained only by a fundamental indictment of our economic system or by pointing to particular inefficiencies or imperfections in the market mechanism which require correction. Some of the latter may indeed exist in the way of monopolistic restraints which find operation more profitable with less capacity, or imperfections in capital markets. I should be happy to see such particular impediments to free market competition removed. They may include certain distortions in the tax structure, such as loopholes regarding capital gains, which encourage firms to retain earnings regardless of the relative need for capital in their own and other companies.

I see no justification for governmental interferences in the economy to spur capacity expansion beyond that which a free economy would undertake. And I doubt that any fundamental indictment of our economic system is on the agenda at this time.

My reactions to questions regarding "the adequacy of the capital-goods industries to accommodate substantial increases in investment demand" follow along similar lines. I do not have any first-hand knowledge of such "adequacy" or inadequacy. Our economy, however, has substantial ability to adapt to changing situations. There is no reason to believe that the capital-goods industries could not, left to themselves, adjust to whatever increases in investment demand might come in the normal operation of the economy. Increases in investment demand, themselves, would adjust in the short run to the supply of capital goods. In the longer run we should expect that supply to adjust to investment demand. All this is as it should be, again without governmental interference.

Regarding the financing of corporate investment, I may refer to the paper I have submitted to the Joint Economic Committee on "The Corporate Role in Financing Future Investment Needs." There I point out that gross undistributed earnings, that is the sum of capital consumption allowances and profits net of taxes and dividends, have not uniformly been below plant and equipment expenditures. If we include dividends in the available cash flow, the consequent total of gross profits has generally been more than business fixed investment. There has been an increase in the ratio of bonds to equity financing and this trend is expected to continue. Much of the projected acquisition of funds externally, however, goes to support the accumulation of financial assets.

Of more potential concern for corporate investment than issues of financing is evidence of a declining rate of return. This is quite notable in the decade from 1965, when proper adjustment is made for inventory inflation and the increased replacement costs of depreciating assets. Capital losses to bondholders have been matched, however, by capital gains to at least some holders of equity, so that the reward may not have fallen as sharply, if at all, to the prime decision-makers in business investment. There is also evidence of a new current upsurge in corporate profits. To the extent that there has been a decline in rates of return to capital it may be attributable to tax incentives for investment. These may not have brought about a great deal of additional investment but may have caused enough "deepening" of capital to lower its rate of return significantly.

Moving more closely to the question of financing, we may note, in Table 1, projections by Bosworth, Duesenberry and Carron as to proportions of business investment. It does become apparent that the proportion of business investment to be financed externally was expected to grow in the 1974–80 period to over one-quarter as compared to little over 10 percent in the 1961–75 period. What is more, the proportion of external funds raised by corporate bonds as opposed to corporate stock is expected to rise again after relative decline in the early 1970's.

Looking more narrowly at the total sources and uses of funds by non-financial corporate business, as estimated by Friedman, we may note in Table 2, that of $301 billion per year of net funds projected to be taken by corporate business in 1977–81 some two-thirds would go to plant and equipment investment but about one-sixth would go to financial investment, building up liquid assets and in particular extending trade credit to firms with less ready access to money markets.

TABLE 1.—INVESTMENT, FINANCING, AND ASSETS OF THE BUSINESS SECTOR,[1] SELECTED PERIODS, 1961–1980

(Billions of dollars, annual averages)

Description	1961–65	1966–70	1971–73	[2]1974–80
Business Investment: [3]				
Internal financing	64.6	86.5	112.6	186.9
External financing	7.7	24.1	33.9	64.6
Total	72.3	110.6	146.5	251.5
External funds raised:				
Long-term	14.4	28.0	54.3	75.3
Corporate bonds	5.7	15.4	18.4	33.2
Corporate stock	0.8	2.8	10.4	12.3
Commercial mortgages	4.4	5.6	13.8	15.3
Residential mortgages	3.5	4.3	11.7	14.5
Short-term	8.0	14.8	25.5	35.5
Bank loans	6.8	10.3	23.0	28.9
Open market paper	1.2	4.7	2.5	6.6
Assets accumulated: [4]				
Liquid	3.1	2.3	11.9	6.0
Consumer credit	2.9	2.4	5.9	7.3
Residual [5]	8.7	14.2	27.9	32.9

[1] The business sector includes all nonfinancial business and finance companies.
[2] Projected.
[3] Investment and internal financing follow the definition of BDC, table 2–13, with the addition of direct foreign investment.
[4] Total external financing minus assets equals external financing needed.
[5] Residual assets include net trade credit, residual financial asset items, and statistical discrepancy.

Source: Barry Bosworth, James S. Duesenberry, Andrew S. Carron (BDC), Capital Needs in the Seventies, Brookings, 1975, table 3–3, p. 60.

TABLE 2.—NONFINANCIAL CORPORATE BUSINESS, SOURCES AND USES OF FUNDS

(Average annual net flows—billions of current dollars)

	1970–74	1977–81
Total sources	$146.9	$301.0
Internal funds	74.4	155.1
Undistributed profits	21.6	44.2
Profits before tax	80.1	163.0
Profits tax accruals	−35.3	72.7
Net dividends paid	−23.3	46.1
Repatriated foreign earnings	4.0	11.5
Inventory valuation adjustment	−14.0	−19.6
Capital consumption allowances	62.9	119.0
External funds	72.5	145.9
Equity issues	7.8	12.0
Corporate bonds	15.8	32.0
Mortgages	11.8	23.5
Commercial	9.3	19.5
Other	2.6	4.0
Bank loans	16.3	36.5
Trade debt	13.4	26.0
Open market paper	1.1	4.5
Other sources	6.3	11.4

TABLE 2.—NONFINANCIAL CORPORATE BUSINESS, SOURCES AND USES OF FUNDS—Continued

(Average annual net flows—billions of current dollars)

	1970–74	1977–81
Total uses	135.2	282.0
Physical investment	104.2	222.5
Plant and equipment	91.0	198.0
Residential construction	4.5	9.0
Inventory accumulation	8.7	15.5
Financial investment	31.0	59.5
Liquid assets	6.6	14.0
Trade credit	17.2	33.5
Other financial	7.2	12.0
Sector discrepancy	11.7	19.0
Total uses and discrepancy	146.9	301.0

Source: Benjamin M. Friedman, "Financing the Next Five Years of Fixed Investments," Sloan Management Review, Spring 1975, tables 6 and 70, pp. 70, 72.

If we turn to sources of funds, we note that Friedman's projections for 1977–81 suggest a continuation of the large role of external funds. As in 1970–74 they would come to close to half of the total, a considerably larger proportion than in earlier years. Corporate bonds and bank loans are projected to rise somewhat more than proportionately, equity issues somewhat less. Among internal funds, there is an increase in the relatively small share attributable to repatriated foreign earnings, with undistributed profits and the major item of capital consumption allowances roughly keeping pace. Were capital consumption allowances revised to allow for replacement cost but not for accelerated depreciation related to tax advantages, as in the new national income accounts, capital consumption allowances would be larger, at the expense of undistributed profits, but the total would of course be the same.

Probably of more moment than the distribution of financing as between internal and external funds and debt and equity is the rate of return on capital. A study by William Nordhaus, "The Falling Share of Profits," Brookings Papers on Economic activities, I: 1974, suggests a drop in the genuine rate of return on nonfinancial corporate capital. It fell fairly steadily from its high of 10.0 percent in 1965 to a plateau of around 5½ percent in the 1970's, before the current or recent recession, as shown in table 3. This genuine rate of return involves a depreciation adjustment akin to that now incorporated in the national income accounts and the inclusion of net interest in the numerator and the total value of nonfinancial corporate capital rather than net worth in the denominator.

TABLE 3.—NOMINAL RATES OF RETURN ON NONFINANCIAL CORPORATE CAPITAL, BEFORE AND AFTER TAXES, 1948–73

Year	Percent per year, genuine rate of return	
	Before tax (r_1)	After tax (r_2)
1948	17.3	9.7
1949	14.5	8.8
1950	16.7	7.5
1951	16.5	6.4
1952	13.8	6.0
1953	13.3	5.5
1954	12.5	6.2
1955	15.5	7.9
1956	13.4	6.5
1957	12.2	6.1
1958	10.4	5.4
1959	13.0	6.8
1960	12.0	6.3
1961	11.8	6.3
1962	13.5	7.9
1963	14.0	8.1
1964	15.0	9.1
1965	16.3	10.0
1966	16.1	9.9
1967	14.0	8.8
1968	14.0	8.1
1969	11.6	6.4
1970	9.1	5.3
1971	9.6	5.7
1972	9.9	5.6
1973	10.5	5.4

Source: William D. Nordhaus, "The Falling Rate of Profit," Brookings Papers on Economic Activity, I: 1974. Table 5, p. 180. The genuine rate of return is the genuine capital income, including net interest and depreciation adjustment, divided by the net stock of capital. All values are undeflated. The denominator for all calculations is the net stocks of all nonfinancial corporate capital, including an adjustment for valuation of Government surplus assets, in current prices; the data are from John A. Gorman, "Nonfinancial Corporations: New Measures of Output and Input," Survey of Current Business, vol. 52 (March 1972), table 3.

Part of the decline in the rate of return may be attributed to an increase in the effective rate of corporate taxation on genuine income. For while the widening of tax loopholes, particularly accelerated depreciation and the equipment tax credit, tended to reduce the nominal tax rate on corporate income, the effect of inflation was to add to taxes a large share of inventory appreciation not included in genuine profits.

Inflation also had the effect of increasing the attractiveness to business of debt financing. The higher interest rates associated with inflation meant increased deductions from taxable income while the erosion of real value of principal, a major loss to bondholders, contributed to a capital gain on the part of holders of business equity.

Evidence of a secularly declining rate of return on nonfinancial corporate capital may be questioned. The 1973 rate was still by Nordhaus's calculations approximately equal to the returns for 1953 and 1958, both recession years. The rapid upsurge of corporate profits in 1976 may, however, be signaling a new boom in the rate of return on capital, following upon some years of recession and prerecession sluggishness. Further, what may be most relevant to investment decisions is the expected rate of return on equity. For many highly levered corporations real losses to owners of corporate bonds corresponded to substantial capital gains on equity.

To the extent that the rate of return on capital has been declining, however, it may well relate to the "deepening" of capital brought on by a tax structure which, contrary to views expressed by some business spokesmen, has been heavily weighted in recent years in favor of business investment in plant and equipment. For one thing, beginning in a major way with the introduction of sum-of-years digit and double-rate declining balance in the tax code in 1954 and extending through guideline depreciation, asset depreciation range "liberalization," general shortening of lives, and introduction of the equipment tax credit beginning in 1962 and recently increased to 10 percent, there have been substantial new tax incentives for business investment. In addition, interest costs have continued to be tax deductible and capital gains exclusions have proved relatively more attractive with higher nominal individual income tax rates associated with inflation.

There has been considerable dispute as to the effectiveness of the equipment tax credit and accelerated depreciation in stimulating business investment. If the demand for additional capital has in fact been relatively inelastic, even modest increases in investment might have in a relatively short period created an oversupply of capital which would lower its rate of return.

On the matter of effective tax rates of big and small firms, what may appropriately be of most particular concern to small business is that the equipment tax credit and other business investment tax preferences are of disproportionate advantage to large business, with small business figuratively picking up the crumbs from the table. A major reason for this is simply that it is big business that tends to be most capital intensive and uses not only the largest amounts but the largest proportions of equipment in the productive process. Hence tax benefits for the purchase of business equipment are a much more substantial boon to large business than to small business, both absolutely and relatively. The consequence is not only that small business gets less relative benefit. There may also be a backwash in this instance which leaves small business altogether worse off. Aside from the fact that an alternative to reducing business taxes in a manner that gives peculiarly large benefits to big business might be a reduction in taxes of another form which would be of more benefit to small business, there are certain real and monetary effects of a tax credit and other investment tax subsidies which indirectly injure small business. First, to the extent that large business does take advantage of the tax credit to invest more it puts added pressure on the supply of machinery, thus raising machinery prices which all business, including small business, must pay. Second, added business investment by large concerns may further tighten credit markets, raising interest rates and making credit more difficult to obtain by small business. The net gain to small business from these incentives would thus clearly be less than the apparent gross gain which seems so attractive, and may even possibly be negative.

There is in fact a third manner in which the equipment tax credit and accelerated depreciation allowances are likely to be of less relative benefit to small than to large business. This relates to the rather obvious fact that the tax credits and increased tax depreciation deductions are essentially benefits to firms that are already making profits. With limited provision for loss offset, small firms and new firms which are showing little or nothing in the way of taxable profits hardly benefit from tax advantages which would reduce their profits tax liabilities.

The objections to direct business investment tax subsidies suggest other kinds of tax relief which might be more in order for the economy in general and small business in particular. I have recommended elimination of the corporate income tax, with attribution of corporate earnings to individual stockholders in proportion to their equity. By thus taxing corporate earnings directly at individual income tax rates, regardless of whether they are distributed or not, we would improve capital markets by encouraging distribution of earnings along with out discouragement of tax deductible expenditures by business. But this is of course a considerable proposal on which I do not mean to dwell now. It might be kept in mind, however, while we are considering such adjustments to the current tax law as raising the figure at which the corporate tax surcharge becomes effective, thus possibly significantly reducing the rate of business taxation on small corporations while having relatively little effect on large ones. Such a measure might be deemed reasonable merely in terms of compensating for the erosion by inflation of this tax benefit to small corporations.

There is another tax reduction which I proposed in another context that might be of special benefit to small business and even have some peculiar justification in terms of small business. This would involve what might be considered a real job development credit, a direct reduction in taxes on employment. Without attributing evil motives to all those who have used the term, I must express my personal feeling that application of the "job development" term to a business equipment tax credit was one of the more dastardly actions of an administration that had elevated to high purpose the deception of the public in the interest of international and domestic policy. For to all of the arguments advanced against the equipment tax credit we may add another to those concerned with increasing employment. A tax credit for purchase of machinery can have only an indirect effect of stimulating employment by stimulating the economy, an effect which endows it with no advantages over any other tax cut or stimulus to the economy. But a credit for the purchase of equipment has a direct effect of making it more profitable for firms to substitute machinery for labor. That can hardly increase employment. Where the tax advantage induces firms to acquire equipment which without the tax subsidy could not pay for itself, it is essentially bringing about the substitution of less productive machinery for more productive labor.

If we wish to encourage directly the employment of labor, the obvious approach is to reduce the taxes on that employment, which have now risen to 11.7 percent on the great bulk of wage earners' income. I have proposed that for the young, let us say, those under 21 years of age, this tax be reduced, eliminated, suspended or defrayed out of general Treasury revenues. Such action would encourage what

is probably the most important and productive investment that we can undertake, investment in human capital. An increasing body of economic research in the last decade or so has strengthened a view which many of us may have long had, that the major and perhaps the dominant component in economic progress is a well-trained, well-motivated, growing and creative labor force, from lowest paid workers up to top management. Workers learn by doing. Their skills improve when they have jobs. The idleness of our youth, the large proportions of women and minorities unemployed or out of the labor force because they despair of finding decent jobs represent not only a current loss but a huge loss in productive capacity in output for years and decades ahead. Many who do not find good jobs now and develop the habits or skills to make them permanently productive members of society may drift into chronic idleness and dependence on welfare or criminal activity for survival. A tax advantage for giving a youth or other marginal member of the labor force a job is likely to do far more for employment and for economic growth than a tax advantage to buy machinery which would not otherwise seem profitable.

Some form of exemption or rebate on employment taxes might be of special benefit to small business. For a variety of reasons, small business has tended to pay lower wages and hire more marginal workers than many of our largest corporate enterprises. Increases in minimum wage requirements may then strike small business particularly hard. I do not share the view of those who see in reduction or elimination of minimum wage requirements solutions to problems of large unemployment among youth and minorities and overwhelming unemployment among young blacks. In general it should be feasible for a nation as productive as ours to see to it that enough is invested in all of our workers and potential workers so that they can enjoy an adequate wage. But we undoubtedly create a problem for those employers who might be ready to hire inexperienced workers if we insist that in addition to bearing the costs and risk of their training they must pay mounting employer payroll taxes as well as take out of employees' relatively meager wages a so-called employee contribution.

I may close by setting forth a few premises which should guide Government policy. First, there is no justification for biasing the economy in favor of more investing or use of saving by the business sector. Business should be expected to invest where, without Government handouts, it finds investment sufficiently profitable. It should not be expected to invest where it does not clearly find it profitable.

Government should look first to distortions in resource allocations that it has fostered by tax loopholes and tax expenditures as well as regulatory interventions. But then Government should be prepared to take action to promote more vigorous competition in freer markets for capital and goods, nationally and internationally. Along with this should go attention to improving what is probably the most imperfect market in our economy, the market for human capital. It is here that we suffer most from costly waste of capacity and of investment for the future. A major beginning should be a commitment and initiation of plans and programs to achieve full employment for all those who desire to work. That would go further than anything else to achieve not only maximum output and growth but the best and fullest measure of all types of capital formation.

Chairman HUMPHREY. We are being besieged by what is known as the media. About every 2 minutes I get another flash here.

Mr. EISNER. I always find your testimony not only interesting, but brilliant. I say that in very great sincerity. I wonder about just a couple of things. Under the investment tax credit, what I really was getting at is I think that investment tax credit, if it's authorized for just a year or two, is not very productive. I think that really is kind of a ripoff.

I believe that if you have investment tax credit, you at least ought to authorize it over a period of time that has some relationship to the kind of investments that you're making. For example, investment tax credit to utilities—we know that it takes 5 to 8 years for them to place a nuclear reactor, for example, or to create a new system of electrical energy generation using coal instead of gas or oil. I think, therefore, you need some continuity. That's all. Maybe the word "permanent" is wrong.

I want at least some time. I've been very critical of the administration and what I consider to be its flippancy, that anybody that could invest under the climate that we've had of late is a brave man or a damn fool—one or the other—because you never knew what the rules of the game were going to be. There's no way anybody could ever know what the rules of the game are going to be.

As a matter of fact, every day I pick up an economic journal, the Federal Reserve Board is changing the rules of the game. I suppose they think that's their business. Sometimes I think they're on a make-work program, the sort of an official WPA with elitism involved in there, because they're always tinkering around with the money. If everybody tinkered with their automobile as much as these people tinkered with the money, we'd never get out of the garage.

But maybe they have to. Maybe it's just my ignorance of the situation, but I doubt it. I doubt it really. So that's my No. 1 observation.

Second, on borrowing, I notice that the witness has come in and taken note of the fact that corporations have been borrowing more from the banks than they have in terms of financing in the market. Well, I think you've hit on one of the reasons interest is deductible. So that there is somewhat of a premium on borrowing, and quite frankly you'd be a nut not to.

You don't make money by working. You make money by using other peoples' money. I was taught that a long time ago. A working man is never going to make any money. All he does is work and gets enough money to survive. The people that make money are the people that handle the money, other peoples' money; borrow other peoples' money, get the interest deduction, and then make money for themselves off other peoples' money. Everybody knows that. I mean, they don't want to admit it, but that's the way it is all done. Most of the people that I know that have made a fortune have borrowed the money. If they thought they had a good thing to borrow on, they ran the risk and they found a banker or somebody that would loan it to them. They didn't have the money. They wouldn't have had enought money to open up a chicken coop. But they got in the chicken business—borrowed all of their money—and then either made it or didn't make it, but in the meantime their interest was deductible.

I'm not being critical of that. I'm just simply saying that I don't like somebody to come around and try to teach me the things that are sort of fictional things in mythology. There are certain facts that I think we have to understand.

So there may be the fact that the interest deductibility has caused the use of bank credits rather than equity capital or going into the stock market. I happen to also believe that the basic health of the economy is what produces investment and what encourages investment. Anybody that runs a little business, when you're out there, let's say in Minnesota right now and you're got a crop failure on your hands and you're got a big one—the whole trade territory is facing a crop failure.

You can go around and have all the tax laws and everything else. But when you look around and see that our farmers are going to go broke, you've really got to ask yourself, "Is this the year it would be best?" Well, you may be a good big gambler and say, "Well,

next year is going to be good and the odds are on our side," but if you're like my old grandpa, he said that these weather systems run in cycles and it may be 5 or 6 or 7 years—between 5 and 7 years—and this is not the year it would be best. I'm speaking parochially. Therefore, the investment capital is generally available for those items that look like they're going to yield a return. That's where people put their money.

I thought that what was said here by one of our witnesses in reference to the prosperity in the 1960's where it just got so good that you could just run your money off in anything. I used to hear these people come around. They had all of these funds that they'd have—Bahamas and, you know, they had all of these investments.

It was just like a great big crap game. It didn't have any relationship to business. It didn't have any relationship to production. It was all gambling, just gambling on moneys. Now, I am rather a strict constructionist. I believe in tax laws that encourage building something, creating something, such as something that you can sell, that you can use, that you can produce.

I don't have much use for tax laws that permit people to roll the dice, play the big card game and call it business. Out in Las Vegas, they call it gambling. How we straighten that out is one of the big problems that we have today.

I've a couple of additional questions. Mr. Bernstein, I want to get to you first. You make the point in your prepared statement that profitability in investment rates are cyclical. I guess that's what I was trying to say here a moment ago--that the high rates in the 1960's may have sown the seeds of our later downturn.

Does this also imply that boosting investment incentives now, when profits are already rising sharply, may prove to be destabilizing by raising returns and investments to unsustainable levels?

Mr. BERNSTEIN. Yes, sir. I think that's possible.

Chairman HUMPHREY. Is it probable?

Mr. BERNSTEIN. Yes. I would say it is probable. I make this statement on this basis. The profitability at this point, although by no means back to where it was in the late 1960's, is clearly on the way up. In my prepared statement I pointed out that in the first quarter of this year, 1976, the real output of the business sector was approximately the same as during the year 1973, but the profits earned were 25 to 30 percent bigger.

In other words, our return per unit of output, profit per unit of output, is already substantially bigger and hopefully our output is going to be higher over the next few years than it was in 1973. I hope we're going to keep going up.

There's a Brookings study of this by Charlie Schultze called "The Full Employment Profit Level," which develops the same concept as the full employment surplus. That also indicates, given the present price level and given productivity improvement and given higher levels of output, the profit rates are going to be very satisfactory.

Some calculations that I have done that were not in my prepared statement would indicate that the corporate sector is likely to generate sufficient profitability to be able to finance internally a lot of the capital spending that's necessary.

So, yes, sir. I would be reluctant to see any further encouragement to business, other than what we have already.

Chairman HUMPHREY. In other words, your feeling is that as the general economy improves, as the plant capacity is utilized, as productivity improves, you feel that the investment capital that is needed for more jobs, is generally----

Mr. BERNSTEIN. Will come along and that, yes, if we're given too much of a push we may overdo it again.

Chairman HUMPHREY. Yes.

Mr. BERNSTEIN. Just a further point about this. We should look back on the experience of the 1960's and the terrible misallocation of capital resources that did take place in that time—the carcasses of unfilled office buildings and condominiums and God knows what else—and many serious corporate decisions such as General Electric and RCA going into the computer business and then finding it to be a disappointment. It was so easy to make an investment decision in that environment.

But in this more difficult environment, when interest rates are high and when stock prices are relatively low and when businessmen have some degree of uncertainty about what they're doing, I would venture to guess that 1 percent of GNP invested in capital formation at this moment is likely to be a lot more productive for us than 1 percent of GNP invested in capital formation in the late 1960's. Because the arithmetic that you have to do, as you suggest, sir, where the risks are high—the arithmetic that you have to do to justify the investment must be done a lot more carefully now than it was then.

Therefore, I would think that a given dollar of investment today would be more productive and more of what we need than what we had in the late 1960's.

Chairman HUMPHREY. Did you want to ask a question?

Senator FANNIN. Well, I did have some oral questions and Senator Taft has some written questions. I trust that we could submit these to the witnesses.

Chairman HUMPHREY. Yes. If you will be good enough, to submit them in writing.

Senator FANNIN. They will be submitted to each of you and how long will the record be kept open?

Chairman HUMPHREY. We'll keep it open for whatever period of time is necessary.

Senator FANNIN. Fine. Just a few quick questions, then. Mr. Ture, despite the improvement in profits over the last year, has the longrun trend in profits over the past 10 years been down?

Mr. TURE. Yes; it has.

Senator FANNIN. What sources can we look to for capital investment apart from retained earnings that we've all been talking about?

Mr. TURE. Well if, in fact, people are to be expected, whether they are in a business entity making decisions on the part of the people who own that business or in the household trying to decide about how to invest their savings, if they are to be expected to invest they have to look forward to an adequate return on the investments they are asked to commit.

If profitability is too low or is expected to be on the downslide, trending downward, you've simply got to expect that the volume of saving, therefore, of investment will tend as well to decline. If you can't see anything in the relatively near future that's going to reduce

the cost of the individual as a member of the household or as a businessman, you reduce the cost to them of saving by asking people not to consume but rather to defer their consumption, to use some part of their income to increase the production capacity of the Nation. You've got to be able to promise them returns which they require, which they deem to be adequate, to compensate for their deferral of consumption.

As matters stand now, the way in which we have projected through the year 1985, unless there is some change in the institutional environment, something that reduces the enormous incremental cost of saving relative to consumption, which the present tax system imposes, I think it would be not optimism, but sheer fantasy to assume that there's going to be any significant increase in the saving rate for the Nation as a whole. And indeed, I doubt that it will maintain at the average postwar rate.

Senator FANNIN. You talked about changes in tax laws and what the great loss would be to the Treasury. How large a revenue loss do you estimate will result from your proposals, if any loss would result?

Mr. TURE. Senator Fannin, I'd like to defer answering that question until we've had a chance, on the basis of the revised data, to make new estimates.

Senator FANNIN. Mr. Bernstein, don't you agree that the productivity over the last 20 years has lagged compared to our competitors abroad and isn't the chief reason for this the fact that we have invested less per worker?

Mr. BERNSTEIN. I have to agree that our productivity improvement has lagged behind our competitors; that's a fact that no one can differ with. As to the meaning of it, however, or the implication of what you said, sir, I would respectfully differ. The base upon which they started was very much lower than ours and therefore it would be very logical to expect them to come forward faster than we did. They are in many ways younger economies in terms of their capital equipment. That's No. 1.

No. 2, we still maintain a very substantial absolute lead. Output per worker in the United States is about 25 percent bigger than in France and Germany—even today it's 50 percent bigger than in Japan. Beyond that, we gave them, in a sense, a bonanza during the period of the overvalued dollar, in which we made it highly profitable for them to expand and to develop laborsaving equipment and then to dump merchandise here, which is no longer possible.

Finally, sir, I think one aspect in this whole labor productivity thing is lost sight of, but is true of the world in which we live today that's different from the past—is the whole raw material and energy situation. When we talk of productivity as the output per worker, we're always talking about labor as the limiting resource of production—factor of production—when, in fact, in many ways raw materials today are more of a limiting resource than labor is and energy in particular, but other things, too.

From this point of view, the United States stands in an infinitely stronger position than our major trade competitors, the Japanese especially, but also Western Europe. Therefore, in terms of competitive position, I would feel very hopeful and positive about the outlook

for the United States. And that issue, I think I would feel no concerns at all.

Senator FANNIN. Mr. Chairman, Senator Taft would like to have his opening statement put into the record.

Chairman HUMPHREY. We'll have the staff see that is done.

[The opening statement of Senator Taft, with attachments, follows:]

OPENING STATEMENT OF SENATOR TAFT

I am very pleased that the Joint Economic Committee has at long last gotten down to specifics as to actual policy steps we can take to solve the unemployment and budget problems which we have been holding hearings about since last October.

This hearing is on capital formation. Let me say straight out that I am not interested in capital formation—not for its own sake. It is only a means to an end. That end is rapid economic growth, with its accompanying low unemployment, higher real wages, higher living standards, and an easing of the tax burden (as a percent of a taxpayer's income) needed for the solution of the problem of poverty. I want to know what policy steps we must take to get this country's growth rate up from its long term trend rate of 2 percent to 4 percent, to a rate of between 4 percent and 6 percent in real terms, on a sustained basis.

The higher growth rates I want to see for this country have been achieved elsewhere in the free world. In 1950, the U.S. had roughly twice the peer capita income of Sweden and Switzerland. In 1974, both of these nations surpassed us in per capita inome. At present rates of growth, France, Germany, Belgium, and even Japan will not be far behind. These nations are not primitive, or starting from next to nothing and growing from a small base. They are mature economies, yet they continue to grow more rapidly than the U.S., and to do so without our abundance of natural resources. How?

What are the determinants of economic growth? They are: (1) The accumulation of physical capital, such as plant and equipment; (2) The accumulation of human capital, in the form of education, training, and skills; (3) Technological advancement, which means getting more out of available resources; and (4) The discovery and development of new lands and resources. In my opinion, this hearing on capital formation should be just the first of a series of hearings on economic expansion.

We have learned two things from our lengthy hearings on S. 50, the Full Employment and Balanced Growth, Act. First, that we need economic expansion because of the severe problems of unemployment and inflation that have plagued the economy in recent years; and second, that S. 50 is a wholly inadequate response to these problems. I should like to have inserted in the hearing record an attached article on S. 50 by Charles L. Schultze of the Brookings Institution, and an accompanying editorial from the Washington Post.

We must go beyond S. 50 to attack the problem of inadequate growth head-on.

I hope that our witnesses today can shed some light on the figures on the relationship between investment as a percent of GNP and the rate of increase in output per man-hour, and in real wages, across countries. It seems clear to me that those countries with higher rates of savings and investment have higher rates of growth in real wages and output than those with less savings and investment. I should like to have inserted in the hearing record two attached tables to illustrate this point.

I hope that we can learn from these hearings just what the government can do, either through reductions in controls and red tape, reductions in taxes, or reductions in government competition for scarce capital, to encourage saving and investment, both by the public and by corporations.

I hope that we can get suggestions as to what other determinants of economic growth this committee ought to investigate, as well.

If we are to solve the unemployment problem in this country, and the crisis in social security, without sending taxes through the roof, and if we are to maintain our position, and our security, in the world, we must get this country growing again.

Attachments.

[From the Washington Post, June 7, 1976]

Employment and Inflation

(By Charles L. Schultze)

(Dr. Schultze, an economist at the Brookings Institution, was director of the U.S. Budget Bureau in the Johnson administration. This article is excerpted from his testimony last month before the Senate Subcommittee on Unemployment.)

The Full Employment and Balanced Growth Act of 1976, S. 50, addresses the most important domestic problem of this decade—high and persistent unemployment. The chief obstacle to overcoming that problem, both politically and economically, is inflation. I believe that S. 50 does not sufficiently recognize that fact, and hence needs to be changed in a number of important respects. Moreover, the combination of the "employer-of-last-resort" provisions in this bill and the wage standards that go with it threatens to make the inflation problem worse. These sections, particularly, need extensive reworking.

The emphasis that S. 50 puts upon the goal of full employment is, in my view, quite proper. We are a society in which not only economic rewards but status, dignity, and respect depend heavily on a person's place in the work force. The single most important contribution toward solving the major social problems of this generation—deteriorating inner cities, inequality among the races and between the sexes, high and still rising crime rates, poverty, insecurity, and hardship for a minority of our citizens—would be a high level of employment and a tight labor market.

However valuable some of the federal government's manpower training and other social programs may be, they cannot hold a candle to the efficacy of a tight labor market. Necessity is the mother of invention. When 4 million business firms are scrambling for labor in a highly prosperous economy, it suddenly turns out that the unemployable become employable and the untrainable trainable; discrimination against blacks or women becomes unprofitable. In World War II, to choose a dramatic example, we pushed the unemployment rate below 2 per cent. And the result of that tight labor market was revolutionary. Black-white income differentials shrank faster than in any subsequent period; the income distribution became sharply more equal; employers scoured the back-country farm areas and turned poor and untrained sharecroppers into productive industrial workers, whose sons and daughters became the high school graduates of the 1950s and whose grandchildren will shortly begin to enter college in droves.

The importance that S. 50 attaches to high employment, therefore, is not misplaced. The nation cannot afford over the next decade to settle for a relatively sluggish economy and a high unemployment rate.

What stands in the way of full employment?

The basic problem with achieving and maintaining full employment is not that we lack the economic tools to generate increased employment. The traditional weapons for stimulating economic activity—easy money, tax cuts, and government spending for worthwhile purposes—are perfectly capable of generating an increased demand for public and private goods and services, thereby inducing employers to hire more workers. Moreover, we do not need to have the government hire people directly on special programs of public service employment as a long run device to reduce unemployment. The real problem is that every time we push the rate of unemployment toward acceptably low levels, by whatever means, we set off a new inflation. And, in turn, both the political and the economic consequences of inflation make it impossible to achieve full employment or, once having achieved it, to keep the economy there.

With unemployment now at 7.5 per cent, the problem is not an immediate one. A rapid recovery could continue for the next year and a half or so, pushing the unemployment rate down steadily, without setting off a new inflation. But experience in the postwar period to date strongly suggests that once the overall rate of unemployment edges below 5.5 per cent or so, and the rate of adult unemployment gets much below 4.5 per cent, inflation will begin to accelerate.

Inflation can occur for other reasons—as it did from crop shortages and oil price hikes in 1973. And inflation, once started, can persist stubbornly for a while even when unemployment has risen sharply. Despite these complications, it is still highly likely that pushing the adult unemployment rate to the 3 per cent target of S. 50 would generate substantial inflation in the absence of major new tools for inflation control.

There is, among economists, a division of opinion about whether the resultant inflation would be a high but steady rate or an ever-accelerating rate. If the latter view is correct, then keeping employment to the 3 per cent target would eventually become

impossible, since no economy could stand an ever increasing rate of inflation. One of the reasons we do not know the answer to this controversy is that the political consequences of inflation have been such that the nation has never persisted in holding adult unemployment to 3 per cent for many years running.

I believe, therefore, that a realistic view of both the economics and the politics of inflation and unemployment lead to one central conclusion: The stumbling block to low unemployment is inflation; the supporter of a full employment policy must of necessity become a searcher for ways to reduce the inflation that accompanies full employment.

The central problem is that when the overall unemployment rate gets down into the neighborhood of 5 per cent, the job market for experienced prime age workers becomes very tight. There are many unfilled job vacancies and not many unemployed in this age group. The large number of younger unemployed workers do not move in to fill these vacancies. As a consequence, wages are bid up sharply and prices begin to rise, even though the overall unemployment rate is still high.

One approach to this problem lies in the whole panoply of job counseling, training and placement services for youth. Federal efforts in this direction should be continued and expanded. And a carefully structured public service program for youth could also contribute. (Strangely, the "employer-of-last-resort" program in S. 50 is restricted to adult workers.) But in all honesty, the record of recent years does not warrant a confident hope that such programs can be the principal solution to the problem.

Sec. 206(d) of S. 50 establishes a major new policy—the federal government is pledged to become the employer-of-last-resort for those who cannot find work elsewhere. Sec. 206(e)(4) provides that a person shall be eligible for a employment opportunity under this section if, among other things, he or she has not refused to accept a job that pays whichever is the *highest* of either the prevailing wage for that job or the wage paid in the government-created "employer-of-last-resort" job. In turn, Sec. 402 sets up a standard for wages in the "last-resort" jobs that is bound to be highly inflationary.

Under Sec. 402(c)(i), for example, the wage paid for a "last-resort" job in which a state or local government is the employing agent must be equal to that paid by the same government for people in the same occupation. But in states or cities with union agreements for municipal employees, and in many cases even without union agreements, the wage for a low-skill or semi-skilled municipal job is often higher than the wage paid for the same jobs in private industry. Given the provisions of Sec. 206(d), a person can turn down a private industry job and still be eligible for a "last-resort" job, so long as the latter pays more than the former, and in many cases it will. An unskilled laborer earning, say $2.50 an hour in private industry can afford to quit, remain unemployed for four to six weeks (or whatever time might be needed to be eligible), then claim a "last-resort" job paying (on municipal wage scales) $3.50 to $4.50 an hour, and come out way ahead.

This would show up in heightened form in any "last-resort" jobs created in construction work, since Sec. 402 requires Davis-Bacon wages, which in practice are set at the construction union wage scale in the nearest large city.

It is clear that in any area where municipalities or non-profit institutions pay higher scales for relatively unskilled or semi-skilled labor than does private industry, the wage scales in private industry will quickly be driven up to the higher level. Otherwise there would be a steady drain of labor away from private industry into "last-resort" jobs. A new and much higher set of minimum wages would be created!

The direct and indirect effects of this on the inflationary problem would be extremely serious, once the bill was in full operation. Labor would become very scarce over a broad range of semi-skilled and unskilled jobs in private industry. Wage rates would rise sharply and prices would follow; the size of the government's job programs would grow rapidly, as workers left lower paying private jobs for the higher wages stipulated in Sec. 402.

Once you begin to ask how to correct this problem, the dilemma of any "government-as-employer-of-last-resort" provision becomes clear. When the unemployment rate is below 5 or 5.5 per cent, most unemployment is *not* long term. Among adult males, unemployment often consists of a period of four to eight weeks after a layoff before a new job is found. Among many teenagers unemployment in such times is not a steady thing, but a period between two relatively low paying jobs. What wages do you pay in the "last-resort" jobs? If you pay low enough wages so as not to attract many people from their existing jobs, you have a very unattractive program. Many private jobs are low-paying, and the only way to avoid attracting people from private industry is to set the "last-resort" wages very low indeed. But then, except in periods of high unemployment, when even very low paying jobs aren't available, who wants

the program? If you set the wage somewhat higher—even if not absolutely high—it will still exceed the wages of many people with a current job in private industry. If so, it will begin to cause an exodus from private industry, and drive up wages and prices.

Special public service employment during periods of recession is a useful tool of counter-cyclical policy. Government-financed summer employment for school age youths makes sense. And, in good times, public service employment, paid at unemployment compensation rates, may be the most appropriate way to provide for that relatively small number who have exhausted their unemployment compensation. (This would, however, imply unequal pay for equal work.) But the concept of government as employer of last resort is not a workable method of pushing the overall unemployment rate down to very low levels.

I think that there would be merit in reorganizing the bill so that it jointly addressed the inflation and unemployment problems, and explicitly pointed in the direction of preventing the inflation acceleration that goes with low unemployment.

[Editorial from the Washington Post, June 7, 1976]

JOBS AND THE JOBLESS

The unemployment rate fell a bit last month another welcome sign that things are moving in the right direction. But they are moving slowly. There are still 6.9 million people out of work. Nothing has happened to change basically the expectation that unemployment will remain over 6 percent for the next couple of years. Unemployment is bad for people. What's the remedy?

A good many Democrats in Congress argue that the remedy is the Humphrey-Hawkins bill, which is intended to pull the adult rate down to 3 percent within four years. If "adult" means everybody over 16, as it does in the version reported in the House, that means a lower rate than the country has ever had except in wartime. All of the Democratic presidential candidates have blessed the bill, although with varying degrees of enthusiasm. It is very likely to become a campaign issue. As we have observed before the bill is a mixture of noble intentions and unworkable means to pursue them. In recent weeks we have published responses from both of the bill's authors, Sen. Hubert H. Humphrey (D-Minn.) and Rep. Augustus F. Hawkins (D-Calif.). Today we print on the opposite page an analysis by Charles L. Schultze, taken from his testimony before a Senate subcommittee. This testimony has had an unusual impact on the debate over the month since it was delivered, and it offers readers an opportunity to see for themselves what is involved here.

Dr. Schultze is altogether persuasive when he argues that this attempt to make the federal government the employer of last resort would prove, in practice, intolerably inflationary. He also warns that the country will not sustain employment policies that push the inflation rate sharply upward. After the past two years' experience, can anyone doubt that he is right? Ask yourself what you would have thought if someone had told you, in 1973, that the unemployment rate was going to rise to 8.9 percent—and, as a result, the country would turn slightly to the right in its politics. It happened, of course, because of the fierce inflation rate that had preceded the recession and helped to cause it.

The central danger in this bill is that it offers the hope—a false hope, sadly—that one walloping good-hearted bill can eliminate permanently the plague of unemployment from American society. Nothing in this bill is more disquieting than the nature of the defense that the bill's architects offer. What if it turns out to cost a great deal more than they estimate? They reply that Congress could simply refuse to appropriate further funds. That escape does not sit square with the unqualified promise that the bill itself makes. In the House version, it declares the right of all Americans over 16 to opportunities for useful paid employment, and states that the President shall provide those opportunities if the private economy does not.

This country had a good deal of unhappy experience in the 1960's under the Johnson administration with ambitious social legislation that never kept its promises. There was the promise that poverty would be eliminated in 10 years. The 10 years are gone, but poverty is not. The Model Cities program was going to rebuild the American slums, but here in Washington the corridors of riot destruction are now growing their ninth annual crop of weeds. One of the great lessons of the 1960's was that simply legislating a goal does not guarantee success. Another great lesson was that if the country legislates goals and then abandons them, the effect is deeply harmful in the cynicism and distrust that it generates among those people who need help most.

The test of social legislation is not merely whether its intentions are pure and good. The test is also whether it seems likely to work effectively in practice. Dr. Schultze and others have also made a highly interesting proposal for agreements between labor and government to hold down wage increases but hold up workers' purchasing power when labor markets get tight. There are many other kinds of legislation that need to be explored—especially those focused where the unemployment is greatest, among young people and among blacks. Perhaps the time has come to begin experimenting with subsidized wages for inexperienced workers. It is important not to let the unemployment debate become polarized between the people who want an instant solution and the people who are prepared to tolerate a 6 percent rate indefinitely. Congress cannot abolish unemployment by passing this one bill. But it has many more realistic alternatives to speed up the present painfully slow descent of the unemployment rate.

Country	1965–75 percent change in real wages and fringe benefits [1]	Investment as percent of GNP averages 1960–73	
		Total	Total minus homebuilding
United States	15.7	17.5	13.6
Canada	48.5	21.8	17.4
Japan	137.9	35.0	29.0
Belgium	103.8	.....	.....
France	77.4	24.5	18.2
Germany	78.1	25.8	20.0
Italy	116.4	20.5	14.4
Sweden	68.8	.....	.....
United Kingdom	53.9	18.5	15.2
Switzerland	55.1	.....	.....

[1] Includes pension programs and other fringe benefits.
Source: BLS.

COMPARATIVE REAL GROSS DOMESTIC PRODUCT, REAL GDP PER CAPITA, AND REAL GDP PER EMPLOYED CIVILIAN, 6 COUNTRIES, 1950–75[1]

(U.S. = 100)

Year	Gross domestic product per capita							
	Sweden	Switzerland	Canada	Japan	France	Germany	Italy	United Kingdom
1950	59.0	62.7	76.0	17.8	49.4	39.3	26.0	57.2
1955	.....	.....	76.1	22.7	51.6	52.2	29.9	58.4
1960	77.0	84.4	78.8	31.6	60.9	65.6	36.6	62.4
1965	96.2	98.0	81.2	41.6	64.8	67.8	39.1	60.8
1967	.....	.....	81.3	47.3	66.4	64.3	41.0	59.1
1970	112.2	111.5	85.7	61.5	75.0	74.7	45.8	60.3
1971	.....	.....	88.0	64.0	77.0	75.3	45.4	60.5
1972	.....	.....	87.8	65.6	76.8	73.7	44.3	59.0
1973	.....	.....	88.7	68.1	77.0	73.8	44.7	59.5
1974	123.4	122.2	92.1	68.4	81.4	76.0	47.0	61.1
1975	123.5	114.3	93.5	71.0	81.6	75.8	45.8	61.9

[1] Output based on international price weights.

Chairman HUMPHREY. I have one or two quick questions here and we still have just a few moments—both to Mr. Bernstein and Mr. Eisner.

Mr. Ture made some painstaking estimates of the capital requirements in his prepared statement and on capital shortages for the future. Do you have any comments on his method of approach, Mr. Eisner, and do you, Mr. Bernstein? Do you consider these saving shortages to be plausible?

Mr. EISNER. I haven't examined the particular figures, but as I indicated earlier, I object to the basic approach of saying that there

are certain capital requirements that we would have to have. In fact, Mr. Ture, I think, has adequately put in his prepared statement the basic economic notions of variable proportions and diminishing returns.

The fact is that the American people should be left free to decide how much they want to save, how much they want to consume. We should try to establish a situation where there'll be an opportunity for everybody who wants to work, to work, to produce as much as he feels like producing and is able to produce with the tools that are made available.

Given that, there is really no meaning in talking about a capital shortage because Government can do certain things which may not be the will of the people. I would suggest two ways in which Government will depress investment: One, of course, as I said several times now, is to have a situation where there is underemployment and then the figures, the information are completely clear. You have tremendous drops in investment. But the second way is the Government taking unto itself resources which could otherwise be used to produce either consumer goods or private capital goods.

Now, this is not social security. It's not the usual kind of welfare payments which simply transfer. This means taking real resources, whether to produce highways, which are also a form of investment, or to produce B–1 bombers, which are not considered a form of investment. If the Government from a full employment economy takes resources away, then there'll be less left for consumption and private investment. Whatever the Government takes away, there will be an adjustment, and people, given that, will decide freely if we let them, how much the consumer invests and the amount of investment will be such that there will be no shortage—markets will clear.

It always seems to me presumptuous for somebody to decide—whether an economist or a Government official—we have to have more investment. Who are they to say we have to have more investment?

Chairman HUMPHREY. We'll go to Mr. Bernstein and we'll give you a double-barrel rebuttal, Mr. Ture.

Mr. BERNSTEIN. I'm in substantial agreement with what Mr. Eisner has said, but I want to add a further point about the kind of "all other things being equal assumption" that underlies Mr. Ture's observations. It may—I can't question his numbers—be true that at full employment we will need x amount of capital and that to achieve that capital we may have to save more than we have been saving.

But this implies that if we reduce the consumption sector in order to be able to save more, then we will, in fact, have that investment take place. Anything that is designed to increase the propensity to save, the amount of saving that the economy would make out of any given level of income, does indeed release resources for capital formation, but that does not guarantee the use of those resources for capital formation.

If consumers are going to take a smaller proportion of the total output or if the Government is going to spend less and take a smaller proportion of the total output, that investment may never take place because it may not look to be profitable.

Chairman HUMPHREY. I've got to cut you off here, I'm afraid. I have to give Mr. Ture 1 minute. I've got just a minute to get down there.

Mr. TURE. Senator Humphrey, as a technical analyst, I would be perfectly willing to accept any free market outcome, provided that market were, in fact, free of distortion. So, I would very strongly urge that what we try to do is to make our tax system as neutral as it possibly can be in terms of its relative weight on savings and consumption, on effort and leisure and so forth. We should look at every other kind of public policy in exactly the same light. Then I'd say, "Let's see what the results will be." It may very well be that the rate of increase in labor's productivity in real wage rates that would fall out of that would be something that labor would not accept and public policy would not accept.

What I'm saying is when you want to look at capital requirements, you have to look at the matter in the context of public policy. You are the coauthor of a very important piece of legislation, which targets a 3-percent unemployment rate for adults. It will not fall out of a free market where that market, in fact, is distorted by other governmental policies which will preclude additions to the capital stock adequate to sustain that level of unemployment.

Chairman HUMPHREY. I wish we could stay here for another hour because you're just opening up all of these interesting subject matters. Maybe we'll get you back again. We thank you. All of you have been very helpful. Some of you have been with us before. We thank you very much.

The full texts of the statements, of course, are put into the record. Mr. Eisner, Mr. Ture, and Mr. Bernstein, thank you very much.

The hearing record will remain open for additional written questions and comments.

[The following questions and answers, and comments were subsequently supplied for the record:]

RESPONSE OF PETER L. BERNSTEIN TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BROWN OF OHIO

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., June 11, 1976.

Mr. PETER L. BERNSTEIN,
New York, N.Y.

DEAR MR. BERNSTEIN: Representative Clarence J. Brown has requested that the following questions be submitted to you. They, along with your answers, will be included in the record of the hearings on capital formation which were held on June 9th.

1. You view the increased rate of savings in the 1960's as a result, and not a cause, of the economic euphoria of that decade. On the other hand, individuals tend to save a greater percentage of their incomes during recessions as well. Do you view the causes of increase in savings as different in these two situations? What exactly is the cause and the euphoria that sparks high savings rates?

2. You say that the economy is not doing any worse than it has over the last thirty years. The point is, we want it to do better. What steps can the government take to increase our rate of growth? You mention defense cuts. Are there other ways?

3. You say that we could not sell our output if we save and invest more and consume less. We are not talking about a society straining at full employment, or facing even a rigid ceiling on the potential rate of economic growth, as you imply. Why couldn't a tax cut, and proper demand management let us save and consume more simultaneously out of a more rapidly growing GNP?

We would appreciate your reply as soon as possible in order to insert the answers in the final transcript.

Thank you for your attention to this matter.

Sincerely,

JOHN R. STARK,
Executive Director.

PETER L. BERNSTEIN, INC.,
New York, N.Y., June 16, 1976.

Mr. JOHN R. STARK,
Executive Director, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR MR. STARK: I am pleased to reply to your letter of June eleventh, containing three questions submitted by Representative Clarence J. Brown.

In response to the first question, I do indeed view the increased rate of savings in the 1960's as a result, rather than a cause, of economic conditions. I view this increased savings rate, however, as a consequence of economic growth, rather than of economic euphoria. The economic euphoria to which I referred in my prepared statement was the cause of an unsustainably high rate of investment and misallocation of investment resources, rather than the cause of a high rate of savings.

Indeed, personal savings tended to decline as a percentage of income during the 1960's. The increase in private savings during the 1960's, therefore, came from the business sector, where capital consumption allowances and undistributed profits were both expanding faster than the total level of business activity. That was, in fact, the source of the expanding—and ultimately excessive—level of real investment.

Personal savings rates show no consistent cyclical pattern, in contrast to business savings, which are obviously much more sensitive to changes in the level of business activity. As a general statement, we can say that personal savings rates have been small when households felt confident about the future and have tended to rise when households were anxious about the future. The major source of fluctuation in personal savings rates has been the willingness of households to incur debt rather than fluctuations in the flow of money into savings institutions or into the security markets.

The second question relates to the steps that government can take to increase our rate of economic growth. I would think that considerations of public policy should relate to the stability of the rate of growth in the economy as much as to its absolute magnitude. Thus, I believe that the rate of growth in the mid-1960's became unsustainably high and led to a pack of troubles afterwards. Excessive stimulation to increase the rate of growth in 1972 had similar results.

The ultimate objective of economic policy, I suppose, is to assure business of expanding markets but at the same time to avoid stimulating the economy to a point where insufficient resources are available for business to expand capacity to meet the growing demands of its customers. This is a maddeningly narrow path to follow: I believe that it requires maximum flexibility in public policy, particularly in the process of setting government expenditure and in determining appropriate tax rates. Thus, I would favor zero-based budgeting and some discretionary tax power for the President. At the same time, I would hope that we could begin to view many of the activities of government as sources of rising productivity rather than as deadweight expenditures—for example, education, transportation, and health care.

While I am opposed to any sort of special tax benefits for business, particularly those that benefit the inefficient user of resources (such as rapid depreciation and the investment tax credit), I would favor a gradual reduction in the corporate income tax rate and, in particular, expensing of pollution abatement expenditures. I strongly favor all pollution abatement programs, but, since the benefits of those programs are essentially social in nature, their cost should be carried essentially by the taxpayer rather than by the corporation and its customers.

The final question relates to the desirability of a tax cut and "proper demand management," which would permit us to both save and consume more out of a more rapidly growing GNP. I would favor those steps if I had any doubts about the ability of the economy to move ahead under current circumstances. Everything I see, however, points to an adequate rate of growth to reduce our unemployment rate and to stimulate new capacity expansion by businessmen.

My concerns about further stimulus along the lines you suggest relate more to the psychology and folklore of the business sector than to the fundamental economics

on which you have based your suggestion. A high degree of anxiety about inflation persists in both the financial markets and the industrial economy. People automatically associate government spending or tax cuts with inflationary pressures—whether justified or not. Consequently, I am afraid that measures that might be justified on the basis of cold economics would be counter-productive because of the responses they would induce in the private sector.

Once again, I want to express my appreciation for the opportunity to express these views before the Committee and thank you for the gracious attention that they have received.

Sincerely,

PETER L. BERNSTEIN.

RESPONSE OF PETER L. BERNSTEIN TO ADDITIONAL WRITTEN QUESTIONS POSED BY SENATOR TAFT

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., June 18, 1976.

Mr. PETER L. BERNSTEIN,
New York, N.Y.

DEAR MR. BERNSTEIN: Senator Taft has requested that the enclosed questions be sent to you. They, along with your answers, will be included in the record of the hearings on capital formation which were held on June 9th.

We would appreciate your reply as soon as possible in order to insert the answers in the final transcript.

Thank you for your attention to this matter.

Sincerely,

JOHN R. STARK,
Executive Director.

Enclosures:

1. You say that the economy is not doing any worse than it has over the last thirty years. The point is, we want it to do better. The industrial revolution in Britain only raised her per capita income growth rate from 1% a year to 2% a year, yet in 50 years it made her the world's undisputed major power. At the end of that period, the U.S. and Japan began to industrialize with growth rates per capita of 4% and 7% respectively. The U.S. soon surpassed Britain because of the differential and our relatively high starting point. Since World War Two, Western Europe and Japan have been growing at 5% to 7%, compared to our usual 4%. They are getting the edge on us, just as Britain once did with a slim 1% per year advantage over the rest of the world. How do we go about squeezing an extra 2% growth rate out of the economy? Can we do it without more investment in physical and human capital?

2. You say that we could not sell our output if we save and invest more, and consume less. We are not talking about a society straining at full employment, or facing even a rigid ceiling on the potential rate of economic growth, as you imply. Why couldn't a tax cut, and proper demand management, let us save and consume more simultaneously out of a more rapidly growing GNP?

3. On the profitability of investment and lack of demand for the product, wouldn't tax cut encourage more saving, even at lower interest rates? Wouldn't this increase in the percent of GNP saved lower the cost of borrowing, thereby solving this profitability of investment problem?

4. Wasn't the basic purpose in the Keynesian revolution to correct the aggregate demand in the economy so that we would consume or invest at the economy's capacity to produce? Why couldn't we use tax cuts and other means of demand management to avoid this problem you mention on p. 6, that more investment would mean insufficient demand for the output? Aren't you assuming not only some God-given ceiling on the potential rate of growth of physical output, but also on the rate of growth of nominal demand for that output? You have just repealed Keynes's General Theory!

5. The real rate of return on investment in this country, both on human and physical capital, is between 15% and 20%. That is the social benefit derived from investment and education. But after taxes, this return drops to 3% or 5%, or thereabout. The government is signalling the potential investor that these activities are of small benefit to society, and we invest accordingly. Therefore, we give up on projects of great social usefulness, because a tax wedge has been driven between what the society would gain, and what the investor or student will receive. Doesn't this lower our

growth rate? Isn't a project of 12% to 14% return to society also worth doing? Shouldn't we lower taxes so that these projects will be undertaken, and isn't this the only way to raise the real wage, according to the "law of variable proportions?"

PETER L. BERNSTEIN, INC.,
New York, N.Y., June 22, 1976.

Mr. JOHN R. STARK,
Executive Director, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR MR. STARK: I am pleased to reply to your letter of June eighteenth, concerning three questions submitted by Senator Robert Taft, Jr. Incidentally, I hope that you will be good enough to convey to Senator Taft my enthusiastic support for his efforts yesterday to sustain the Congressional budget process in the face of the tax reform group—more power to him!

The first question relates to how we can increase the U.S. economic growth rate.

This question may beg more profound questions about the desirability of trying to increase the growth rate. I see no reason to do so simply because other economies are growing faster than we are. For one thing, they start from a much lower base and therefore their more rapid growth is a logical outcome.

Second, the larger their economies are, the better customers they are for us. We do a lot more business with Western Europe and Japan than, say, with India. Indeed, I can find no evidence to suggest that Western Europe and Japan have in any way suffered because we were larger than they: on the contrary, the sheer size of the U.S. economy gave them an enormous market in which to sell and consequently justified the economies of scale that have resulted in their impressive achievements in productivity. Now, however, that they are larger relative to the U.S. than they used to be, and now that the dollar exchange rate is closer to reflecting reality, these significant advantages on the other side are beginning to diminish and move in our favor.

Finally, we still maintain a substantial absolute lead—at current exchange rates, our Gross National Product exceeds the total of France, Germany, and Japan. Our inflation rate is lower than theirs. Our share of world exports has recently been increasing and is still the largest for any single country. Our output per man-hour is 25% bigger than in Japan.

The primary argument for a faster rate of economic growth in the United States is that it would help us overcome the large and stubborn pockets of poverty that persist in this country (and the rest of the world) without taking anything away from the more affluent members of our society. It is tragic to see this economy operate so far below potential while so many needs remain unfulfilled. The problem, however, is that we are operating below potential—in other words, that we are suffering a cyclical decline—rather than that our secular growth rate may be too low.

This therefore points clearly in the desirability of a *stable* growth rate as perhaps more important than the absolute size of it. Indeed, our potential is unlikely to grow at an adequate rate unless businessmen have confidence in the future, which means that the simple and most important objective of policy should be to provide more stability than the American economy has shown in recent years.

I take the liberty now of referring you at this point to the second page of my reply to the questions addressed to me by Representative Brown, which in effect continue this discussion and also reply to questions 2 through 5 in Senator Taft's letter.

Many thanks for giving me an opportunity to expand my comments in this fashion.

Sincerely,

PETER L. BERNSTEIN.

RESPONSE OF NORMAN B. TURE TO ADDITIONAL WRITTEN QUESTIONS POSED BY SENATOR TAFT

Question 1. I am intrigued by the "law of variable proportions". Is the increase in real wages in Western Europe and Japan due to human and physical capital formation and the working of this law?

Is this why real wages in Sweden and Switzerland are now higher than in the U.S., and rising faster?

Answer. The increase in real wage rates in any country in which a market mechanism works at least reasonably well reflects the increase in the marginal productivity of labor. The sources of this increase, broadly speaking, are the increase in the capital:labor ratio and technical progress. The latter term usually is used to mean principally advances in the state of the industrial arts as implemented in production. It may very well include, for the countries alluded to, the increases in efficiency—hence labor's marginal productivity—resulting from expansion of trade, since one set of efficiency gains therefrom is the reduction in indivisibilities which may be associated with increases in the scale of economic activity.

The capital:labor ratios in the countries alluded to in the question have been lower than that in the United States. Any given real amount of additions to the stock of capital of those countries, other things being equal, will have resulted in a greater proportionate increase in labor's marginal productivity than in the United States. For a detailed explanation with numerical illustrations, please refer to my Tax Policy, Capital Formation, and Productivity, a study prepared for the Committee on Taxation, National Association of Manufacturers, January, 1973, pp. 12–19.

Question 2. Getting to the consideration of what makes a country grow, would you say that the basic determinants of growth are capital accumulation (both physical and human) technological advance, and discovery of new resources? Which of these could be stimulated by tax cuts, either specific or across the board?

Answer. As the answer to question 1 indicates, increasing the capital:labor ratio and technological advance may be thought of as the principal determinants of growth. Tax revisions which reduce the cost of saving uses of current income, hence capital formation uses of existing production capability would contribute to accelerating growth. Since much of the activity which comprises the processes of technological advance involves saving and investment, tax changes which reduce the cost of saving should contribute to a faster pace of technological progress as well as to more rapid accumulation of physical capital. Such tax changes may also contribute to more rapid additions to the stock of human capital, although to serve this objective, specific tax revisions to mitigate the present law's huge bias against investment in human capital are required. More important, probably would be efforts to increase the efficiency and quality of educational services, from the elementary grades through the most advanced training, including that on the job. Greater reliance on the private sector and the market mechanism would certainly be a constructive change in this respect.

Question 3. On the question of investment in human capital, what is the rate of return on a medical education? Isn't it a good deal higher for the society than for the physician, after taxes? How many doctors do we fail to train each year because of the tax wedge between what he gives society and what he gets to keep?

Question 4. Doesn't the same sort of gap between social gain and private return occur in other areas, including investment in plant and equipment?

The real rate of return on investment in this country, both on human and physical capital, is between 15% and 20%. That is the social benefit derived from investment and education. But after taxes, this return drops to 3% or 5%, or thereabout. The government is signalling the potential investor that these activities are of small benefit to society, and we invest accordingly. Therefore, we give up on projects of great social usefulness, because a tax wedge has been driven between what the society would gain, and what the investor or student will receive. Doesn't this lower our growth rate? Isn't a project of 12% to 14% return to society also worth doing? Shouldn't we lower taxes so that these projects will be undertaken, and isn't this the only way to raise the real wage, according to the "law of variable proportions?"

Answer to questions 3 and 4: I have not researched the subject to which question 3 is directed and can supply no quantitative information in response. The answer to question 4 is "precisely so." The present tax system weighs far more heavily on saving than on consumption, raising the cost of the former enormously compared with the latter. Since households and businesses alike make their saving and investment choices on the basis of net-of-tax returns and costs, the pretax return on capital at any time will exceed the after-tax return. The greater the relative tax burden on saving, hence the greater the relative cost of saving compared with consumption, the smaller the stock of capital and the larger the gap between "social" and private returns thereupon.

The appropriate guide to tax revisions, however, does not hinge on validating any specific "social" rate of return on capital. The proper guide in neutrality, i.e., equal proportionate effects of the tax system on the costs of saving and of consumption. Insofar as public policy mandates capital additions in excess of those that would be forthcoming under a neutral tax system in an efficiently operating market, however, this guide will require modification.

Question 5. The increase in Federal, State, and Local government spending from 21% of GNP in 1950 to 35% in 1975 must surely have some impact on incentives in the private sector. As the tax bite rises, don't we discourage labor from earning taxable income, and investors from investing at the same old rates of return?

Answer. Then in a choice between stimulating demand with a spending increase and a tax cut, shouldn't we be favoring tax cuts?

The answer to the first question clearly depends on which tax bite increases; similarly, the answer to the second question depends on which taxes should be cut.

For example, suppose we were to replace the entire Federal tax system with a single flat-rate expenditure tax or a flat-rate value-added tax so specified as to have no initial impact on total Federal revenues. The tax substitution would be a huge step toward tax neutrality so far as saving vs. consumption is concerned and would surely result in a higher rate of saving, capital formation, growth of total output, labor productivity, employment, and real wage rates. The effect of the substitution on the effort-leisure choice would be less pronounced, but certainly in the right direction. By far the preponderant part of the total increase in government tax revenues over the past 25 years has been derived from taxes which disproportionately burden saving and investing compared with consumption and effort compared with leisure. As a practical matter, slowing the rise in these disproportionately heavy tax loads, let alone reversing their direction, requires slowing the expansion of government spending.

RESPONSE OF NORMAN B. TURE TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BROWN OF OHIO

Question 1. What have been the trends in productivity of capital? If it is down, what is the cause and what is the cure?

Answer. We estimate a 0.5 percent—not percentage point—per annum trend rate of decrease in the marginal productivity of capital in the business sector of the U.S. economy in the period 1948–1974. This time trend for the entire business sector is due in some part to changes in the composition of business sector output, e.g., from manufacturing to services.

No "cure" is called for as a matter of public policy other than to remove impediments to technological progress and its implementation in production. Certainly one of the major barriers is the present tax system which is heavily biased against saving and investment, risk-taking and entrepreneurship. Greater tax neutrality in these respects would accelerate the pace of technological progress to the extent that it depends on these activities. Assuming a neutral tax environment in this respect and an efficiently operating market system, any down trend in the productivity of capital would reflect shifting preferences as to the saving-consumption choice. Any such changes in preferences under these circumstances, should not be the concern of public policy, except insofar as it sets objectives which are not likely to be achieved through the performance of the market system. For example, if public policy mandates substantial amounts of capital formation by business which would not be undertaken in the absence of such mandates, it is appropriate for public policy to focus on the economic consequences of the actions business will have to take to comply.

Question 2. In your testimony, you refer to government-mandated capital with respect to pollution control expenditures, health and safety, etc. as a "dead weight" in determining a return on business capital. This "dead weight" you estimate at $353 billion over the next 10 years. Mr. Bernstein on page 15 of his testimony does not portray these expenditures as constituting a significant part of investment—that is, a ratio of 12 percent of outlays for the four basic material industries in 1976. Could you place the figures you gave in a ratio to total business investment as well as comment on Mr. Bernstein's observations?

Answer. Our current, revised estimates of private capital outlays to comply only with environmental control and OSHA standards show that these will come to 9.1 percent of total estimated capital requirements in the 10 years 1976–1985. If a constructive, nonpunitive energy policy emerges in the near future, it is likely to involve a substantially larger amount of capital outlays for energy producing industries than is included in our revised estimates of business capital spending needed to maintain the postwar trend rate of increase in the capital:labor ratio. We have been unable to estimate the amount—possibly quite large—of capital outlays business will be required to make to meet government-mandated product quality standards. Nor have we been able to estimate business expenditures to comply with the ever-increasing regulatory requirements. Such expenditures may not be classified conventionally as capital outlays, but they are very much the same as mandated capital expenditures in that they generate

no cash flow other than tax deductions. In the aggregate, all such government-mandated outlays are likely to exceed 12 percent.

Even 12 percent is not properly regarded as insignificant. Such outlays must be financed in real terms by an equal increase in saving if other capital outlays are not to be reduced in equal amount. A 12 percent reduction in business capital formation of the sort that contributes to greater marketable output has obvious significant, adverse implications for the rate of increase in labor's productivity, employment, and real wage rates.

Question 3. Could you comment on Mr. Bernstein's analysis that some of the high rate of business spending was devoted to speculative unproductive investment and now that the recession has cleared out some of the excesses, investment coming on stream will be far more sound and productive?

Answer. I haven't the remotest idea about the analysis Mr. Bernstein used as a basis for his conclusion that "some of the high rate of business spending was devoted to speculative unproductive investment" nor for his notion that "the recession has cleared out some of the excesses." All of this sounds much like the Marxist notions that capitalist economies tend inevitably to "overinvest" and "require" recessions or depressions to correct the overinvestment. Is Mr. Bernstein suggesting that had the recession been avoided there would nevertheless have been "too much" capital?

Of the $69.1 billion (constand 1972 dollars) decrease in gross private domestic investment between 1973 and 1975, $50 billion consists of the reduction in business inventories and in residential fixed investment. Both may be associated in significant part to the extraordinary increases in interest rates in 1974, in turn attributable to the extraordinary inflation in that year, in turn attributable to the excessive increase in the stock of money in 1972 and 1973.

RESPONSE OF ROBERT EISNER TO ADDITIONAL WRITTEN QUESTIONS POSED BY REPRESENTATIVE BROWN OF OHIO

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., June 10, 1976.

Prof. ROBERT EISNER,
Department of Economics, Northwestern University, Evanston, Ill.

DEAR PROFESSOR EISNER: Congressman Clarence J. Brown has requested that the following questions be submitted to you. They, along with your answers, will be included in the record of the hearings on capital formation which were held on June 9th.

1. Isn't your analysis that capital investment depends on demand for output rather incomplete and shortsighted? What about the need for investment for pollution abatement equipment, occupational safety and health equipment, mass transportation, energy requirements, and government mandated investment which is quite apart from output demand?

2. Aren't you putting too much emphasis on the cyclical situation when in fact the real problem in capital formation is a long-run problem looking ahead over the next two or three decades? Some studies have put our aggregate needs for new plants and equipment at several trillion dollars. The New York Stock Exchange puts the figure at $4.7 trillion. What percent of projected GNP would have to go for business investment to meet these needs?

3. How can we increase the propensity to save? If our goal is more rapid economic expansion, which basic factors must we change, and how?

We would appreciate your reply as soon as possible in order to insert the answers in the final transcript.

Thank you for your attention to this matter.

Sincerely,

JOHN R. STARK,
Executive Director.

NORTHWESTERN UNIVERSITY,
DEPARTMENT OF ECONOMICS,
Evanston, Ill., June 18, 1976.

Mr. JOHN R. STARK,
Executive Director, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR JOHN: My responseś to the questions raised by Congressman Clarence J. Brown are as follows:

1. It takes capital to produce output. To produce more output business generally needs more capital. The acquisition of additional capital is investment. Historically, the bulk of investment has been associated with increasing the stock of capital that goes with additional labor to produce more output.

Investment has certainly also taken place to meet changing compositions of demand and to accommodate changing methods of production. Currently, as the question points out, some considerable investment is being undertaken because of changing methods of production which are mandated by government requirements in the area of pollution abatement, occupational safety and health. There is also some public investment in transportation, most conspicuously in the construction of highways, as well as public and private investment in mass transportation to direct government demand or demand induced by tax subsidies.

2. In my paper, "The Corporate Role in Financing Future Investment Needs," prepared for the Joint Economic Committee's U.S. Economic Growth 1975–1985: Prospects, Problems and Patterns, I have considered long-run issues in capital formation and have taken note of estimates from New York Stock Exchange studies and others. I believe that many of these projections of "needs" are arbitrary and tend in some instances to be self-serving.

Projections of the percentage of GNP to go for business investment vary. They should in fact vary with projections of output being produced by business and the most efficient manners in which business finds it profitable to produce that output.

It is difficult for me to see why in a free enterprise economy any of this can be looked upon as a "real problem." Is there some reason why either the Congress or New York Stock Exchange has set itself above the market as authority on how much investment should be undertaken? I should have thought that it is of the essence of our economy that government make certain decisions, democratically arrived at, as to public goods to be produced, whether for defense or education or highways or the like, that government also sets certain standards regarding pollution and the like in the public interest, that all of us as individuals decide how much we want to work and what we want to buy. Competitive business then meets all the demands, subject to the limited government constraints, in the way that is most profitable to it, which can also be the way that is economically most efficient. If the most efficient and most profitable production involves more plant and equipment it will be forthcoming. Otherwise it will not.

3. Tax policy can be used to increase the propensity to save, particularly by putting a tax on consumption. I fail to see why it should be government policy to increase the propensity to save. Again, in a free economy, we should expect people to save as much as they wish.

Saving means sacrificing current consumption in order to offer greater future consumption to ourselves or our heirs. We are somewhat guided in that decision by the return to saving, that is how much additional consumption either we or our heirs can enjoy in the future as a result of each dollar of consumption that we sacrifice now.

Is there any reason why the American people must be told or forced to sacrifice more now in order to provide more for the future? Is there any knowledge that government or the New York Stock Exchange has, that the rest of us do not have, indicating that the true return to saving is greater than most of see it to be in the market? Or is there any reason government has to force us to provide for more consumption later in our old age rather than now in our youth, or more consumption for our children or our grandchildren than we were otherwise planning, at the expense of our own consumption?

I am not one to argue that government should never intervene in the economy or influence private decisions. The area of pollution abatement is one that all economic analysis and experience indicates clearly can not be left to a free market, although even here it must be recognized that the extent of government intervention should be guided by sober cost-benefit analysis. But I fail to see why the government should look for ways to "increase the propensity to save" and continue to be startled by

so many in government and in business who believe themselves dedicated to free enterprise and free choice, yet consider this a legitimate matter for government control.

I do not believe that our goal should be more rapid economic expansion per se. I believe that we should remove all impediments to whatever rate of economic expansion people may prefer. Involuntary unemployment is one of the most important and serious impediments to economic expansion. Government fiscal and monetary policy should be directed above all to eliminating involuntary unemployment. Full employment and general prosperity would be by far the greatest possible stimulus to saving, investment and economic expansion.

Sincerely,

ROBERT EISNER.

RESPONSE OF ROBERT EISNER TO ADDITIONAL WRITTEN QUESTIONS POSED BY SENATOR TAFT

Question 1. I am intrigued by the "law of variable proportions". Is the increase in real wages in Western Europe and Japan due to human and physical capital formation and the working of this law?

Is this why real wages in Sweden and Switzerland are now higher than in the U.S., and rising faster?

Answer. The "law of variable proportions" relates to the possibilities of producing with different relative quantities of the various factors of production. It is usually accepted with the law of diminishing returns which indicates that additions of more and more of one factor of production lead to less and less addition to output per additional unit of input of that varying factor. It also is usually associated with the view that more of one factor of production tends to raise the average and probably the marginal product of other factors of production.

Increases in real wage in Western Europe and Japan are undoubtedly due to the accumulation of physical and human capital. As to Sweden and Switzerland I would be cautious in any conclusion that real wages there are higher than in the United States. The rash of statistics pointing in this direction seem generally to be based upon simplistic applications of rates of exchange which may not be accurate measures of domestic purchasing power of respective currencies. It should be observed, however, that both Sweden and Switzerland operate very close to full and maximum employment, indeed with large numbers of "imported" foreign workers, particularly in Switzerland. Much human capital is accumulated by working, as well as in education. In both regards, Sweden and Switzerland rank high.

Question 2. Getting to the consideration of what makes a country grow, would you say that the basic determinants of growth are capital accumulation (both physical and human) technological advance, and discovery of new resources? Which of these could be stimulated by tax cuts, either specific or across the board?

Answer. I agree that basic determinants of growth are capital accumulation, both physical and human, technological advance and discovery of new resources. I would stimulate all of these by tax cuts sufficient, given optimal government expenditures of public goods and services, to create sufficient aggregate demand for full employment. I would advocate specific tax cuts only in instances where free markets cannot be expected to operate appropriately. And there, in principle, I would prefer overt subsidies.

It is generally in the area of human capital accumulation that free markets break down, because humans are unable to offer themselves as collateral for borrowing and investment. Human beings are also sometimes constrained in their investment opportunities by risk and aversion to risk as well as imperfect information. These are the areas for government intervention.

Government might also intervene in encouraging technological advance to the extent that this depends upon research and development involving externalities, that is advantageous to society or to the economy as a whole greater than those accruing to the individual firms that might undertake them.

Question 3. On the question of investment in human capital, what is the rate of return on a medical education? Isn't it a good deal higher for the society than for the physician, after taxes? How many doctors do we fail to train each year because of the tax wedge between what he gives society and what he gets to keep?

Answer. I do not see anything special in the effect of taxes upon income of physicians. I believe there is currently substantial subsidy of medical education which would warrant higher taxes on those individuals fortunate enough to receive the benefits of medical education. The matter of health care is much broader than that of physicians. I suspect

that physicians have controlled medical services too much in their own financial interest with too little concern for a broader social investment in all forms of health services, probably including medical education which would increase the supply of physicians.

Question 4. Doesn't the same sort of gap between social gain and private return occur in other areas, including investment in plant and equipment?

The real rate of return on investment in this country, both on human and physical capital, is between 15 percent and 20 percent. That is the social benefit derived from investment and education. But after taxes, this return drops to 3 percent or 5 percent, or thereabout. The government is signalling the potential investor that these activities are of small benefit to society, and we invest accordingly. Therefore, we give up on projects of great social usefulness, because a tax wedge has been driven between what the society would gain, and what the investor or student will receive. Doesn't this lower our growth rate? Isn't a project of 12 percent to 14 percent return to society also worth doing? Shouldn't we lower taxes so that these projects will be undertaken, and isn't this the only way to raise the real wage, according to the "law of variable proportions?"

Answer. There is not a presumption of the same gap between social gain and private return in the areas of investment in plant and equipment. It is not clear that the net effect of business income taxation, with deductibility of interest payments, general avoidance of taxation on capital gains, accelerated depreciation for tax purposes and equipment tax credits, results in any governmental discouragement of business investment in plant and equipment. If anything, we may have brought about a situation where there is too much investment in plant and equipment, that is the social return is less than the private return.

There is a real question of how to calculate rates of return in regard to taxes. To the extent that taxes are paying for services necessary to production, including the production of human and physical capital, it may be quite incorrect to presume that the return to capital should be calculated gross of taxes.

Question 5. The increase in Federal, State, and Local government spending from 21 percent of GNP in 1950 to 35 percent in 1975 must surely have some impact on incentives in the private sector. As the tax bite rises, don't we discourage labor from earning taxable income, and investors from investing at the same old rates of return?

Then in a choice between stimulating demand with a spending increase and a tax cut, shouldn't we be favoring tax cuts?

Answer. Increases in government spending and taxes cannot be divorced from their nature. Much of the increase in "spending" is essentially and increase in transfer payments involving social insurance. Insurance of any kind, whether public or private, tends to dampen incentives. Wherever one is guaranteed an income in the event of a certain contingency, the incentive to avoid that contingency is reduced.

There are some kinds of taxes that have more disincentive effects on earning income than others. I object in particular to financing so great a proportion of social security by the payroll tax, particularly a payroll tax on very young workers. This creates an added burden among a group suffering very high unemployment and marginal employability to employers looking for skilled, experienced workers.

The other side of the coin of government spending and taxation involves governmental purchases of goods and services. These, unlike transfer payments, actually take the resources from the private sector of the economy and hence leave less available for private consumption and investment. Some forms of government purchases of goods and services, such as for education, research and development and various categories of public investment, may actually add to private rates of return. The great bulk of Federal expenditures for goods and services are for military purposes. These clearly do not add to private rates of return. It always strikes me as curious that many who express the greatest concern for high Federal spending seem most opposed to curbing what accounts for roughly two-thirds and often more of the total Federal take of productive resources.

One cannot choose between a spending increase and a tax cut without specifying the nature of the spending increase. If one is in favor of the B–1 bomber and wants to increase spending for that one presumably would favor it as against a tax cut. If one is in favor of spending for training programs, employment services, aid to education and other measures which might involve investment in human capital, one might prefer spending for that. Conversely, those interested in stimulating demand but opposed to the particular form of spending which may seem likely should prefer a tax cut.

CITIBANK,
New York, N.Y., July 13, 1976.

Hon. HUBERT H. HUMPHREY,
U.S. Senate, Washington, D.C.

DEAR SENATOR HUMPHREY: I have reviewed the Library of Congress report on "Comparative Cost-Effectiveness of Alternative Investment Tax Incentives."

The results in favor of replacing the present system with an incremental investment credit proposed by Senator Kennedy depend on the output of only one model—the DRI macro model. The results will be sensitive as to the specification of the investment equations used in the model.

My main objection to this type of analysis is that it considers only one type of investment—investment in physical capital. It neglects investment in human capital and technology, areas which contribute as much as physical capital to growth in income.

It is not clear that subsidizing only one type of capital investment will lead to any long-term substantial increase in the total capital stock defined to include physical as well as human capital and technology.

It is, of course, reasonable to assume that programs which seek to subsidize only investments that would not otherwise have occurred will be more successful than those programs that would seek to subsidize all investments. The rationale is that it is unnecessary to subsidize capital investment that already benefits from high rates of return and profitability. It is correct that available funds will be more effective if concentrated on those decisions that are at the margin. The problem in this approach is to identify those investments that are marginal. In this regard, a base-year approach tends to penalize old firms at the expense of new firms and to encourage various forms of subterfuge.

In conclusion, I remain skeptical about the long-term efficacy of using government subsidies to stimulate capital investment generally. The best approach is to improve the rate of return on capital by the elimination of those taxes and regulatory restraints that now impede the efficiency of capital utilization and retard increases in rates of return. An improvement in the rate of return would induce less consumption and stimulate larger savings to the benefit of the entire capital stock.

I want to thank you for this opportunity to comment on the Congressional study.

Sincerely yours,

LEIF H. OLSEN,
Senior Vice President and Economist.

AMERICAN SOCIETY OF CIVIL ENGINEERS,
Washington, D.C., June 8, 1976.

Hon. HUBERT H. HUMPHREY
Chairman, Joint Economic Committee,
Dirksen Senate Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: In connection with your planned hearings on capital formation needs in U.S. industry, I am pleased to be able to provide you with a resolution on capital needs and national growth adopted by the Board of Direction of the American Society of Civil Engineers (ASCE) in San Diego on April 3 and 4.

It would be appreciated by the ASCE Board if this resolution could be considered by the Committee and included in the hearing record. If ASCE can provide additional information or assist in any way with the work of your committee we should be pleased to attempt to do so.

Sincerely yours,

LOUIS L. MEIER,
Washington Counsel.

Enclosure:

AMERICAN SOCIETY OF CIVIL ENGINEERS

RESOLUTION ON CAPITAL NEEDS AND NATIONAL GROWTH

In the decade 1955–64 about $760 billion was spent in the U.S. to provide the structures, equipment and other capital goods demanded by the "American Way of Life". This amount more than doubled in 1965–74 to $1.6 trillion. To restore the historic real annual national growth rate of 4 percent in the next decade will require a total capital commitment of $4.5 trillion, almost thrice the capital requirement in the decade past!

At present growth rates, the construction industry alone will require $1.9 trillion in the next 10 years. Energy needs come to $900 billion, and agriculture will require $400 billion.

An economically stable society, if it is to grow, must produce a profit in order to provide the capital needed to finance new production capacity. Thus, the enormous need for new capital in the period 1975–84 must be fulfilled entirely from (1) the savings of the American people, and (2) the profits accruing from American business.

It is imperative that the importance, magnitude and complexity of this vital fiscal resource be fully recognized by our national leadership, and that necessary measures be implemented early enough to insure the capability of the national economy to generate adequate capital to restore the nation's growth and prosperity. Failure to take such measures will, at the least, result in erosion of our standard of living; at worst the American system of free enterprise may be at stake. Therefore be it

Resolved: That the American Society of Civil Engineers, in advocacy of the public interest, endorses the fundamental concept that "Capital is the cornerstone of increased productivity, of higher real wages, of greater job opportunities, of a stronger competitive position internationally, and of holding down the rate of inflation"; be it further

Resolved: That it shall be the policy of the Society to support the principle that a real annual growth rate of 4 percent is a reasonable guideline, and that all segments of the economy should unite in generating the capital required to maintain such growth; be it further

Resolved: That the Society proposes the following recommendations with regard to the attitudes and actions of the federal Administration and the Congress in order to utilize fully the capital generation capacity of the American people and American business:

1. Adoption and rigorous pursuance of federal policy to reduce government spending at all levels to the end that balanced budgets will be restored and maintained; only through reduction in government spending can private investment be increased as a part of the gross national product.

2. Modification of federal tax and credit policies toward the aim of increasing the cash flow to business and industry, which is the only way that real prosperity and highest employment can be achieved. It is especially important that a supportive tax policy be adopted to insure the continuing health of those industries that are basic to the economy, such as energy, construction, agriculture, manufacturing for exports, etc. Conversely, tax and credit policies which adversely affect private cash flow are self-defeating, even though they may be politically popular.

3. Review and amendment of current welfare and related social programs as necessary to insure that only those truly in need of such assistance are served, and that all such programs are efficiently administered.

4. Enactment of legislation designed to encourage savings and capital investment, such as the measure already proposed that would eliminate the present inequitable and illogical "double taxation" of corporate income and corporate dividends. Exemption of all or part of the present tax on interest from savings accounts would be similarly beneficial.

5. Redefinition of environmental quality goals, to eliminate diversion of capital to costly crash programs not justified by present or reasonably prospective environmental conditions, with the establishment by competent specialists of rational environmental standards to be achieved in a time frame that will enable both public and private agencies to plan and execute sound environmental quality control projects.

6. Encouragement of environmental quality improvement expenditures without curtailment of capital available for production capacity through legislation that would allow depreciation of the full costs of environment protection facilities in the year in which such costs are incurred.

7. Reduction of the substantial demands upon industry by government agencies for repetitive and unnecessary data and reports, through coordination and evaluation of the usefulness of such information.

8. Adoption of policy and enactment of legislation designed to encourage the investment of venture capital in areas in which there is a high priority need for new technology, i.e., energy conservation and development, housing, railroad rehabilitation, agricultural production, environmental protection, etc. Some tax exemption of investments or of profits during the early years of such innovative ventures might provide the desired incentive. Be it further

Resolved: That the American Society of Civil Engineers will extend its best efforts toward enhancement of public awareness of the critical need for a national campaign to develop capital formation, and toward the encouragement of government policies that will enable the free market system to function in fuller accord with its potential.

Chairman HUMPHREY. The committee stands adjourned.

[Whereupon, at 1:15 p.m., the committee adjourned, subject to the call of the Chair.]

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