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...E ECONOMY AND FISCAL POLICY, 1974

HEARINGS

BEFORE THE

COMMITTEE ON THE BUDGET
UNITED STATES SENATE

NINETY-THIRD CONGRESS

SECOND SESSION

DECEMBER 11, 12, 17, 18, AND 19, 1974

Printed for the use of the Committee on the Budget

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
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THE ECONOMY AND FISCAL POLICY, 1974

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THE ECONOMY AND FISCAL POLICY, 1974

WEDNESDAY, DECEMBER 11, 1974

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to notice, at 10:05 a.m., in room 1114, Dirksen Senate Office Building, Senator Edmund S. Muskie, chairman, presiding.

Present: Senators Muskie, Moss, Mondale, Cranston, Chiles, and Biden.

Also present: Douglas J. Bennet, Jr., staff director; John T. McEvoy, chief counsel; Marc Lackritz, deputy chief counsel; Robert Bohan, minority counsel; Maria P. Durelli, chief clerk; Arnold Packer, chief economist; Bert Carp, task force investigator for Senator Mondale; James Wood, professional staff member to Senator Moss; Harold Gross, task force investigator for Senator Cranston; Susan Kinsman, research assistant for Senator Cranston; Colin Bradford, professional staff member to Senator Chiles; Alan Chvotkin, professional staff member to Senator Abourezk, and Richard Andrews, task force investigator for Senator Biden.

The CHAIRMAN. The committee will be in order.

I have an opening statement to set this hearing in context. It is the second set of hearings this committee has held.

OPENING STATEMENT OF HON. EDMUND S. MUSKIE, A U.S. SENATOR FROM THE STATE OF MAINE, CHAIRMAN, COMMITTEE ON THE BUDGET

The Senate Committee on the Budget and the entire new congressional budget process have come into being at a critical moment.

The economic situation is rapidly deteriorating. The right answers are not obvious. The public is waiting for the Federal Government to respond.

And it is clear that Congress and this committee must assume a major share of responsibility for making the Government's policies the right ones.

The stakes are now extremely high—for workers now facing prolonged layoffs, for our leadership as a nation in the world, and for the structure and resilience of American society.

These hearings before the Budget Committee during the next 2 weeks are, in a sense, a continuation of hearings held by this committee last August into the impact of the Federal budget on the economy.

Then the paramount problem appeared to be inflation. The committee heard testimony from leading administration spokesmen and

policymakers who advocated fiscal restraint—large cuts in Federal spending and a balanced budget for fiscal 1976—as the main remedy.

Four months have passed. President Ford has offered us his economic program—one consistent with the policy of fiscal restraint advocated by his advisers. That program includes a number of budgetary rescission and deferrals that would cut Federal outlays by almost $5 billion for fiscal 1975 and would result in greater cuts for fiscal 1976.

President Ford has repeatedly called upon the Congress to enact his economic and budget proposals.

Even in August some of us on this committee raised questions about another threat, rescission. Now that threat is plainly evident. The Nation faces a prolonged and deepening recession with millions of Americans thrown out of work and at the same time inflation continues at unacceptable levels.

In the month of November, the unemployment rate reached 6.5 percent and now appears to be steadily climbing toward as much as 8 percent during the next year. That will mean over 7 million workers unemployed, the highest rate of unemployment since World War II.

In the automobile industry alone, nearly one-third of the total work force is either furloughed or on notice for furlough—and the effects there are about to spill over into the industrial sectors that supply the automobile industry.

The consumer price index showed a third quarter increase of almost 13 percent. And it is now projected that for this last quarter of 1974, real GNP will decline by more than 7 percent.

These hearings must concentrate on a number of serious and far-reaching issues as we prepare to act on the rescissions and deferrals President Ford has proposed and on the proposed fiscal 1976 budget.

First, we need an update on the economic picture, to determine how it has changed—how we got where we now are and what are the new forecasts.

Second, we need to examine the budget proposals made by President Ford and analyze their impact on the economy. What is the overall effect on the economy of recinding or deferring $5 billion of outlays in Fiscal 1975? Does the administration still favor a 5 percent surtax, or has policy shifted to favor a tax cut as some recent reports have indicated? Has the administration changed its policy direction from fiscal restraint to stimulus?

Third, we hope to investigate some of the ways in which energy policy alternatives relate to overall fiscal policy in the Federal Government.

And, finally, we need to begin to develop a comprehensive policy for the peculiar set of economic problems that now faces the country—recession, inflation, and an energy crisis.

I doubt that any of us has simple answers for our economic woes. I am just as certain that both Congress and the administration must now come together on a consistent and orderly program which can enjoy the confidence of the public. The purpose of these hearings is to help the process forward, as we prepare at the same time to deal with the forthcoming fiscal 1976 budget.

We are honored this morning to hear testimony from a distinguished panel of economists—Dr. Otto Eckstein, professor of economics at

Harvard University and president of Data Resources, Inc.; Dr. Arthur Okun, senior fellow of the Brookings Institution and former chairman of the Council of Economic Advisors, and Dr. Murray Weidenbaum, professor of economics at Washington University and past Assistant Secretary of the Treasury for Economic Policy.

With that to set the stage, may I invite my colleagues to make such comments as they would like to make.

Senator MONDALE. No comment.

Senator CRANSTON. You said it all.

The CHAIRMAN. Thank you very much. Senator Biden's opening remarks will be inserted in the record at this point.

OPENING STATEMENT OF HON. JOSEPH R. BIDEN, JR., A U.S. SENATOR FROM THE STATE OF DELAWARE

Senator BIDEN. I want to both thank and commend our chairman for setting up this series of five hearings which will examine the present and probable future condition of our economy, and the appropriate use of the Federal budget under prevailing conditions. Without trying to prejudge the results of these hearings, I am terribly concerned that we are reaching the point where the recession is feeding upon itself. In perhaps oversimplified terms, everytime we have layoffs, we have less consumer purchasing power, which in turn leads to more layoffs. And so it goes on.

Last Saturday in Delaware I convened a meeting of leaders in the fields of housing and general construction, representatives of the various types of financial institutions, labor leaders, and representatives of groups that speak for those people who are most seriously hurt by our present conditions—the poor, the minorities, and the elderly. It was a most instructive session for me, because it gave me insights into the particular problems in Delaware, and put them in the perspective of our national problems. In the process of my education about dealing with our economic problems, this meeting this morning will be a most useful followup to my Delaware gathering.

While there were a great many proposals made at the conference in Delaware, most of which we are all familiar with, the feeling of most of the participants seemed to be pretty well summed up by a representative of organized labor, who said that the answer was "jobs, Senator, more jobs." Clearly it is easier to say that than to do it. It is also clear that we must take other measures. But I hope that we will keep in mind that what we are really talking about here is people and their needs for jobs to support their families.

Mr. Chairman, I made some remarks to that group that I think fairly well sum up my feelings as of now. I would like to ask unanimous consent that the remarks that I delivered last Saturday be inserted in the record of this hearing at this point.

Senator MUSKIE. Without objection it is so ordered.

[The remarks of Senator Biden, referred to, follow:]

REMARKS BY SENATOR JOSEPH R. BIDEN, JR. AT THE CONFERENCE ON HOUSING AND CONSTRUCTION IN DELAWARE, HELD AT WILMINGTON, DEL., DECEMBER 7, 1974

As many of you know, I attended a conference similar to this in Atlanta in September to consider the problems of the housing and general construction in-

dustries. At that time, it seemed to me that it would be useful to have a similar program in Delaware to acquaint myself with the specific problems that exist here. If the Delaware problems are different from the national ones, I need to know that, too.

Since that time, some very significant changes in the economy as a whole have made it seem even more urgent that we be brought up to date on your problems as they relate to today's most serious economic problems.

I want to make clear to you that the purpose of this meeting is to help me act on Delaware's problems. We did not invite an audience because I wanted a healthy, informal discussion. But the meeting is on the record and I expect to use what I learn here today.

At the conference in Atlanta, the emphasis in terms of the general economy was inflation and how to combat it. This was looked upon as the primary economic problem facing the country. While some were concerned that unemployment was on the increase, most of the people failed to estimate the rapidity with which it would rise. In retrospect, it seems strange that more attention was not given to the possibility of a recession throughout the economy, and not just to the specialized one which was severely affecting your industries. Certainly many economists prior to that meeting had already warned that we were heading for recession. Many had warned us of the danger of over-utilizing fiscal and monetary control which might spur a recession. The gross national product was on a decline. And yet most of the discussion centered around meeting the problems of the housing and construction industries in the face of a basically inflationary economy.

To put our meeting today into perspective, I would like to review some of the conclusions and recommendations that came from the Atlanta conference. The first of these was that inflation would undoubtedly get worse. Some thought it might run as high as 15 to 18 percent in 1975. Actually, there are already some tentative indications that the rate of inflation may subside as the recession spreads. It was generally anticipated at Atlanta that unemployment might exceed six percent in 1975, but few predicted that it would reach six percent in October, 1974, as it did. In the area of housing, there was a prediction of an annual rate of housing starts of 1.3 million in the fourth quarter of this year. In the first month of the fourth quarter, the annual rate of starts is only slightly in excess of 1.1 million.

Among the recommendations coming from the Atlanta conference were that the Federal budget be cut or revenues increased in order to combat inflation. While this is still an important goal, the President's advisors now doubt their ability to balance the budget next year due to the state of the economy: There were recommendations for easing monetary policy, which has since been done. However, we have yet to see much benefit to the individual home-buyer in mortgage rates. A number of people called for some form of wage and price monitoring or control.

In terms of policies to assist the housing industry, there were a number of proposals which I will describe briefly. There was a proposal for direct Federal national mortgage assistance to stimulate housing construction. This proposal has since been carried forward with the authorization of $7.5 billion for the Government National Mortgage Corporation to purchase mortgages.

Proposals were made for tax exemptions on interest paid on deposits in thrift institutions. A bill has been reported by the Ways and Means Committee excluding the first $500 for individuals and the first $1,000 for couples. However, it is not yet clear whether Congress will act on this in the current session.

There were proposals that the minimum denomination on treasury obligations be raised from $1,000 to $10,000, and this has now been done.

There were proposals to increase the Federal deposit insurance offered by FDIC and FSLIC. This amount has now been raised by Congress from $20,000 to $40,000.

Finally, there was a feeling that there was a need to restructure our financial institutions, to rationalize them and to make them a more useful part of a healthy economy in the future. There was, however, some disagreement as to exactly how they should be restructured.

In the general construction industry, there were suggestions to relax such governmental restrictions as those on environmental quality and safety, as well as the Davis-Bacon Act. There was also a suggestion that certain Federal funds amounting to almost $20 billion that had been impounded for sewer and highway

construction should be made available to provide employment. As of the moment, President Ford still proposes that these funds be impounded.

What is the general economic picture now, based on the latest figures available to us?

In terms of the cost of living, the consumer price index rose .9 of one percent in October. One important element of that index—food—rose 1.3 percent. However, all increases in the various components of the index were less in October than they were in September. A similar picture prevails in the wholesale price index, which rose a relatively low 2.3 percent in October. In particular, the industrial portion of the wholesale index dropped significantly.

While it is certainly too early to predict that we have inflation under control, I think it is clear that we must shift our emphasis in trying to cure our economic ills.

The gross national product stated in real dollars has now declined for three quarters in a row. I don't know whether this meets the technical requirements of the National Bureau of Economic Research for a recession, but I do know that it satisfies mine.

My feelings are further strengthened when I look at the seasonally adjusted unemployment figures, which indicate that in October we reached six percent unemployment, the highest in three years. When we met in Atlanta in September, we were talking about a 5.4 percent figure. This is really a phenomenal raise in a short period of time. We have now reached the point at which Arthur Burns, the Chairman of the Federal Reserve Board, suggested that a program of public service jobs should be inaugurated. I hope the Congress will proceed to act on such legislation promptly.

Further emphasis is given to the problem of unemployment by the fact that the percentage of unemployed persons covered by unemployment insurance increased from 3.4 percent in September to 3.7 percent in October; the highest rate since mid-1972.

While I suppose you all know how bad your business is without my telling you, let me just try to put our discussions into the national statistical perspective. Housing starts in October were a little over 1.1 million units, or 33 percent below the figure of a year ago. The issuance of new building permits holds out little hope for the immediate future, having fallen in October of this year to 802,000 from a figure a year ago of 1,379,000 units.

The picture in the general construction industry is not quite so bad, but it is far from bright. The total dollar value of contracts let in September, 1974, was at an annual rate of $93.7 million, as compared with $95.7 million the month before. Actually, this is the lowest figure since 1972. Employment among workers on private construction contracts was down from 3.7 million in October, 1973, to 3.5 million in October, 1974.

In the financial area, while money is not so tight and prime interest rates have fallen, this does not seem to be reflected in financing a home. There are reports nationally that the net outflow of funds seems to be reversing, but not significantly as yet.

Now let's look for a few minutes at what can be done. The economic picture is certainly far from good. When we were in Atlanta, we hoped to find solutions to the recession that had already hit the housing and construction industries, but had not spread yet to the whole economy. Since that time, we have seen it spread rapidly until it now affects most aspects of our economic life. So to some extent solving the problems facing your industries now becomes a part of solving the overall problem, although there are certainly things that we can do or have done to help you directly. Fortunately, we are now beginning to recognize what the real problem is, and therefore are in a better position to deal with it.

I would personally like to see a balanced budget next year. I think the best means to that goal is some reform of our tax system which will bring in additional revenues. We should amend the minimum tax to make it really work. We should phase out the oil depletion allowance and the foreign tax credits that have been so misused by the foreign based oil companies. In my judgment, these actions represent a more fair and equitable method of striving to balance the budget, while dealing with a recessionary economy, than President Ford's proposed five percent surcharge.

I was pleased by the President's proposal to create public service jobs in order to help the more than five million Americans who are unemployed. But I don't think that we can wait for these programs to be enacted into law, and to get

the administrative machinery set up. We've got to put people to work now. What we can do is to free up the more than $19 billion that has been impounded by the Executive for construction projects, primarily in the area of sewage treatment and highways. We don't have to create work. There are many jobs available now if we use these funds which Congress has already authorized for these construction programs.

In the area of housing, we have already provided funds for the purchase of mortgages. Whether this program, combined with some other actions to encourage the flow of money into our savings and loans, will be sufficient, is not clear. I hope to learn something about that today. We must also move to implement rapidly the Housing and Community Development Act adopted by Congress this year. However, more needs to be done. I will certainly support additional legislation to encourage housing production.

The President has proposed a study of regulatory agencies and I support that idea. In August of last year, I cosponsored a Resolution with Senator Humphrey to study the impact of these agencies on the economy. These agencies were originally established to stimulate competition and protect the consumer. More often, however, they have ended up protecting the industries they regulate, and by increasing costs have contributed to inflation. Our regulatory agencies do need to be reformed, but this is no short-term cure for our problems.

I think almost everyone agrees that the four-fold increase in the cost of crude oil represents one of our major economic problems. Prices of oil and gas and related items from plastics to fertilizers have increased correspondingly. These cost increases represent a serious problem for your industries as well as others. In addition, the international financial ramifications of present oil prices are most serious. We must have effective programs to reduce our dependence on foreign imports of fuel, and to try to reduce the cost of better use of our fuel. We must have effective conservation measures. We cannot rely on just turning down the thermostat. We must go to where the major savings can be made—to industry, to commercial establishments, and to the automobile. It may very well be that some kind of mandatory allocation programs will be necesary to achieve the President's modest goal of reducing imports by one million barrels a day.

I do support a program of expanding unemployment benefits to mitigate the hardships of unemployment during this period of recession.

Other actions that Congress might take are currently receiving active consideration in Washington. I would like to have your reactions to them. One proposal is to establish credit procedures so as to allocate credit on a priority basis in the light of the Nation's critical needs. In the past, Chairman Burns of the Federal Reserve Board has opposed such allocations, feeling that the Federal Reserve Board can accomplish them on a voluntary basis. I would be interested in knowing how well you think that such voluntary credit allocations are working, and what your feelings are with regard to a more formal mandatory system.

Also under consideration are other more drastic measures than I have already mentioned to conserve fuel, including the rationing of our energy resources. In fact, Senator Jackson has just introduced a bill to provide stand-by authority for the President to inaugurate such a rationing program.

Many people feel that our policies with regard to prices, wages, rents, profits, and high interest rates need to be changed or at least clarified. Proposals range all the way from simply strengthening the authority of the existing Council on Wage and Price Stability to total controls. I, for one, certainly hope that we can avoid the latter, and I'm not even sure that it is what we need now. But again, I would welcome your informed judgment on this.

There are also proposals to assist those most seriously hurt by this recession, and to put more purchasing power into their hands by tax reductions. The two most talked about proposals are either some form of income tax reduction for lower-income families, or a reduction in some way of the highly regressive payroll tax.

All of these things and more are currently under consideration, and I think that you can look for action shortly after the first of the year.

I hope that this morning we will not only have an opportunity to discuss your problems, but also to advise me as to what you consider to be equitable solutions to the economic problems which now face not only your industries, but the whole Nation. I hope that our talking here this morning will be a significant contribution toward that goal.

Senator MUSKIE. We will ask Dr. Eckstein to begin this morning.

STATEMENT OF DR. OTTO ECKSTEIN, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. ECKSTEIN. Thank you, Mr. Chairman and members of the committee. The time is at hand to reverse our economic policies. Whether the fight against inflation is won or lost, the risk of recession degenerating into near-depression has now reached the point where common prudence requires stimulus.

In the last 3 months, the economic outlook has deteriorated so badly that unemployment persisting in the 8 to 10 percent area becomes a real possibility. There is no way to tell what such an experience would do to the American people's attitudes toward our economic system or toward each other. It would not be a depression like the 1930's, but it would be a setback not soon forgotten. In narrow, economic terms, it would disrupt the process of economic development, the investment plans designed to break the capacity bottlenecks would surely be disrupted.

More than 3 million heads of households would be unemployed, demoralizing millions of families. Large corporations would face the danger of financial collapse. The economies of our trading partners would suffer even greater risks. I cannot see how a responsible government could, with open eyes, let the economy sink into such a situation.

The process of defining new policies of reflation is complicated by the persistence of the inflation as well as the sheer size of the fiscal magnitudes required for meaningful action.

My testimony today seeks to sort out these matters and to report some policy experiments that we have run using the 900-equation Data Resources econometric model.

The recent statistical evidence clearly shows that the economy is sinking rapidly. Domestic automobile sales in November were 5.5 million units, the worst month, except for the 1970 automobile strike months, since 1961.

Other retail sales, according to the weekly data for November, were up only 7 percent, year-over-year, implying at least a 5-percent real decline. And even these meager figures are bloated by the large nominal increases in sales by food stores and gasoline stations.

The dollar sales of department stores and other general merchandise outlets have flattened, year-over-year, indicating a massive real decline.

Business fixed investment still provides the most support for the economy, reflecting the enormous underlying strength of capital goods demand. This strength is predicated on our long-term needs to expand capacity, break bottlenecks, find new energy sources, and modernize our industry. But the new commerce plant and equipment survey does imply a continuation of significant declines in real business fixed investment, and supports the DRI forecast of a 1975 drop of 3½ percent. This is a long way from the 6 percent real growth that represents the long-term needs of the country.

The business inventory situation has also deteriorated. Until this past summer, business inventory planning was generally cautious and was based on correct assumptions about economy-wide developments.

The persistence of commodity shortages also helped to keep inventories low. But a second, unexpected intensification of tight monetary policy drove housing down once more and the postcontrol burst of inflation demoralized consumers, producing a false set of inventory plans which has left most businesses with some unwanted inventories.

The Census Bureau survey of inventory conditions for manufacturers shows this effect.

In 1972 and 1973, only 15 percent of manufacturers thought their inventories were high. By mid-1974, 30 percent took this view, and the figure has surely risen since then.

The housing industry does not yet see signs of recovery and will be fortunate to escape a drop in starts below the 1-million unit level.

During the prolonged credit squeeze of the last 2 years, some thrift institutions became illiquid while others pursued more cautious lending policies.

As a result, there will be some delays, perhaps 3 to 6 months, from the time that savings flows return to the thrift institutions until they are once more vigorously making mortgage loans.

The labor market is also signalling a continuing sharp economic decline.

Employment, as recorded in the household survey, dropped by nearly 800,000 individuals in November, a figure that may be slightly exaggerated by the shortfall of the usual seasonal hiring of temporary help by retail chains.

Nonetheless, it was the second largest decline in employment in any month in the postwar period. And the survey was taken before the effects of the coal strike could get into the figures. New unemployment insurance claims, a very reliable leading indicator of coming developments in the labor market, rose to peak recession levels in November, at an estimated seasonally adjusted rate of 436,000 people, and the figure was rising sharply through the month.

The current evidence makes it abundantly clear that a large further decline in production and employment is still ahead. Starting from the diminished base created by the energy phase of the current recession, the economy is now going through all the classic manifestations of a generalized recession, complete with rapidly rising unemployment, falling production, and reduced spending plans by households and business. As a result, unemployment is likely to reach 8 percent, profits will be down 15 to 20 percent, and the Government deficit will exceed $20 billion because of lost revenues. This much is inevitable even if we succeed in reversing the decline before 1975 is over.

Is an early comeback possible? The Data Resources forecast calls for the beginning of fairly healthy recovery during the second half of 1975. This is the probable path for the economy in the ordinary course of events. It grows out of the intrinsically cyclical characteristics in the behavior of the major demand components of the economy and it would take some further negative developments to abort this pattern. The recovery is based on four elements:

1. The inventory correction is over by next summer;

2. With an easier monetary policy and declining short-term interest rates, mortgage funds become ample and housing responds;

3. The recession and a moratorium on other disasters produce an improvement in the inflation rate into the 7 to 8 percent range;

4. Demand management policies will turn toward stimulus in the next few months, helping to assure a substantial beneficial effect by late 1975 and in 1976.

Of course, there are risks in each of these points. But all previous inventory corrections have run their course in the space of 3 to 9 months and there is no reason to expect a different experience in this episode.

The recovery of housing after a credit crunch is also a highly likely development. Even the inflation improvement looks credible at this time, with raw industrial prices down by 20 percent since their April peak and agricultural prices having fallen back to the level of a year earlier.

So the private economy is providing the underpinning for recovery.

At this time, Government policy is the principal risk to recovery. We have performed a series of simulation studies with the Data Resources quarterly model to see how various monetary and fiscal policies affect unemployment and inflation. The principal conclusions are these:

If we continue to follow present monetary and fiscal policies, with money growth kept at 5 to 6 percent and the Federal budget near the current targets, the economy would sink very low indeed. In order to produce a 7.7-percent unemployment rate in 1975 and 8 percent in 1976, M1 growth would be 6.3 percent and 8.5 percent during the next 2 years.

A $25 billion fiscal stimulus, combined with an increase in money supply growth averaging near 9 percent for the next 2 years, would make for a substantially better 1976 economy. Unemployment would average 7.1 percent, but would be down to 6.8 percent at year end. The inflation rate would be higher by a large fraction of a point, but would still show continuing improvement.

We interpret present fiscal policies to aim for a unified budget total of $305 billion in fiscal 1975, followed by $337 billion in 1976. Taxes are assumed unchanged, that is, we assume the proposed 5 percent surtax to be dead.

In economic terms, this budget policy would imply that the real level of Federal Government spending would be virtually unchanged over the next three quarters and would then begin a 3.5-percent rate of growth.

The increased Federal spending would be in transfer payments, social security, welfare, and unemployment insurance. Much of this increase would be an automatic response to the weakening economy.

The budget deficit under this policy would be approximately $15 billion in fiscal 1975 and $30 billion in fiscal 1976 on NIA.

The full employment budget, admittedly a concept that does not reflect the presence of bottlenecks other than labor, would show rising surpluses, reaching $30 billion in fiscal 1976 despite the substantial recession-induced actual deficits.

On the monetary policy side, the present policies are assumed to aim at an increase in the narrowly defined money supply of approximately 6 percent in 1975. This rate of increase would be consistent with a monetarist approach to controlling inflation. If markets were flexible and responded properly to excess supplies, such a strategy might succeed. But when imposed on the stubborn inflationary mechanism with which we are now confronted, that rate of increase in the money supply becomes a major obstacle to recovery.

In the near term, the quick achievement of a 6- to 7-percent rate of increase in the money supply would be a major accomplishment for the Federal Reserve. With inventories decumulating and real demands sinking, the demand for money is not strong. The recent experience also shows much lower rates of monetary growth.

Since June, the narrowly defined money supply is up by only 2.8 percent, but much of this increase is simply due to larger public holdings of currency. Demand deposits have grown by less than 1 percent over this interval.

As a result of the current combination of policies, recovery is retarded despite the inherent private sector elements of demand strength.

If no other disasters befall us, there would still be a partial housing recovery, and the inventory correction would complete itself.

But the economy would not achieve the strength to begin to drive the unemployment rate down significantly.

Table 1 summarizes the present policies case.

[Tables 1 and 2 follow:]

43-891—75——2

Table 1
RESULTS OF THE PRESENT POLICIES SIMULATION

	YEARS			END OF YEAR CONDITIONS	
	74	75	76	75:4	76:4
ANNUAL RATES OF CHANGE					
REAL GNP	-2.1	-2.5	4.7	5.9	3.7
REAL BUSINESS FIXED INVESTMENT	0.5	-5.0	-1.1	-3.1	1.6
REAL CONSUMPTION	-1.6	0.1	3.9	3.3	3.5
AFTER TAX PROFITS	15.2	-21.9	10.9	17.6	12.6
RETAIL CAR SALES (MIL. UNITS)	9.1	8.3	9.1	8.5	9.3
HOUSING STARTS (MIL. UNITS)	1.4	1.4	1.9	1.7	1.9
NET EXPORTS	0.4	-6.2	-5.9	-7.4	-4.0
UNEMPLOYMENT RATE (PERCENT)	5.5	7.7	8.0	8.3	7.9
INFLATION RATE (CPI,PERCENT CHANGE)	11.1	8.9	6.7	7.0	6.2

MONETARY POLICY

	QUARTERS									YEARS		
	74:4	75:1	75:2	75:3	75:4	76:1	76:2	76:3	76:4	74	75	76
ANNUAL RATES OF CHANGE												
MONEY (M1)	2.9	7.3	7.7	8.1	9.3	8.7	7.9	8.4	8.1	5.6	6.3	8.4
NONBORROWED BANK RESERVES	20.7	9.8	7.7	3.9	3.9	2.3	4.9	4.5	5.9	8.9	8.2	4.1
INTEREST RATES (PERCENT)												
FEDERAL FUNDS	9.21	7.68	6.79	6.33	6.45	6.85	6.91	6.95	7.01	10.47	6.81	6.93
PRIME	10.27	8.56	7.57	7.03	7.15	7.36	7.58	7.61	7.61	10.61	7.58	7.54
NEW HIGH GRADE BONDS	8.96	8.92	8.78	8.54	8.58	8.60	8.63	8.72	8.84	8.94	8.71	8.70

FISCAL POLICY

NATIONAL INCOME ACCOUNTS BASIS (BILLIONS OF DOLLARS)

	FY75	FY76
EXPENDITURES	313.7	350.2
RECEIPTS	298.5	319.5
DEFICIT	-15.2	-30.8

Table 2
RESULTS OF THE "STIMULUS" SIMULATION

	YEARS			END OF YEAR CONDITIONS	
	74	75	76	75:4	76:4
ANNUAL RATES OF CHANGE					
REAL GNP	-2.0	-1.6	6.6	8.4	4.8
REAL BUSINESS FIXED INVESTMENT	0.5	-4.4	2.2	0.1	4.2
REAL CONSUMPTION	-1.6	1.1	5.5	5.2	4.7
AFTER TAX PROFITS	15.4	-14.8	21.6	36.6	15.9
RETAIL CAR SALES (MIL. UNITS)	9.1	8.6	9.6	9.3	10.0
HOUSING STARTS (MIL. UNITS)	1.4	1.5	2.0	1.8	2.0
NET EXPORTS	0.4	-6.0	-6.4	-6.7	-5.8
UNEMPLOYMENT RATE (PERCENT)	5.5	7.5	7.1	7.8	6.8
INFLATION RATE (CPI,PERCENT CHANGE)	11.1	9.0	7.0	7.3	6.7

MONETARY POLICY

	QUARTERS									YEARS		
	74:4	75:1	75:2	75:3	75:4	76:1	76:2	76:3	76:4	74	75	76
ANNUAL RATES OF CHANGE												
MONEY (M1)	3.4	8.0	8.7	11.5	10.8	10.2	9.3	9.8	9.5	5.6	7.3	10.1
NONBORROWED BANK RESERVES	19.7	14.8	9.9	2.8	3.6	5.2	8.6	8.7	7.9	8.8	9.5	6.2
INTEREST RATES (PERCENT)												
FEDERAL FUNDS	9.29	7.51	6.56	6.34	6.70	7.10	7.10	7.04	7.13	10.49	6.78	7.09
PRIME	10.31	8.51	7.43	6.98	7.25	7.53	7.74	7.71	7.69	10.62	7.54	7.67
NEW HIGH GRADE BONDS	8.97	8.84	8.69	8.43	8.53	8.52	8.56	8.66	8.93	8.94	8.62	8.65

FISCAL POLICY

NATIONAL INCOME ACCOUNTS BASIS (BILLIONS OF DOLLARS)

	FY75	FY76
EXPENDITURES	316.6	357.3
RECEIPTS	299.1	315.1
DEFICIT	-17.5	-42.2

The reflation program summarized in table 2 makes the economy behave in the more usual recession pattern. The decline in the first half of 1975 is little affected. But thereafter, the stimulus growing out of the Government budget and an increased supply of money makes it possible for the economy to gather sufficient strength so that the normal healing processes occur.

The principal obstacle to a policy of stimulus is the fear that it would quickly renew the inflation. We have now paid the price of recession to bring the inflation under control and one would surely not wish to throw that benefit away at this late point.

A careful examination of the nature of the inflationary process leads me to the conclusion that this is not the decisive risk at this time. There are several technical and factual matters that must be considered.

First, the nature of the inflationary process makes it unlikely that even the most severe policy of deflation will really bring an end to the inflationary process over a short period of time.

Prices can be grouped into three categories: Leading prices that move early in the business cycle, such as raw commodity prices traded on speculative markets; coincident prices such as a large share of raw finished goods prices; and third, lagging prices such as the prices of regulated industries including electricity, telephone, health insurance rates, as well as other service prices such as rents.

The leading prices have already gone a long way toward stability. The coincident prices have, in largest part, already reflected the raw material and energy price increases of the last few years. But the lagging prices, which have a discouragingly large proportion in the Consumer Price Index, have much of their rise still ahead.

This element alone provides a considerable floor to the projected rate of price increase for next year. In addition, a partial catchup of wages from the 5 percent real declines of the past year is very likely.

We are very fortunate that American labor has not pushed the rate of wage increase to the kinds of levels that prevail in Japan or the United Kingdom.

A rate of wage increase of 10 to 11 percent is highly likely and may even be good for the sense of well-being of our consumers.

These wage increases do imply a rise in unit labor cost of nearly the same magnitude because productivity cannot do well in a year of recession. With this large element of cost rising near 10 percent, finished goods prices will increase by 7 percent or more.

While the hope for a dramatic end to the inflation is unrealistic, a renewed deterioration in such a weak economy is also unrealistic. There are already ample signs that the weakness of current markets is forcing businesses in many industries to rethink their pricing strategy. Even if the rate of growth of output were to return once more to a rate above the long-term trend, an absolute necessity if unemployment is ever to drop, the relation between supply and demand would still be extremely loose.

The excess demands from which we suffered in recent years coincided with far lower unemployment rates, far higher utilization rates, and a sustained rate of increase of real GNP both here and around the world that are far different from any reasonable economic prospect now ahead.

This is not to say that we can be certain that the inflation will abate. There are various other risks, as those of us who attempt to forecast prices have found in recent years. There is no practical way, at this time, to come to a serious forecast of food prices for the next two years. We cannot assess the ability of the would-be "OPECs" to drive up the prices of a variety of industrial raw materials beyond oil. And of course, we do not know what to assume about the possibilities of a second oil embargo.

But these risks are virtually irrelevant to the policy choice now before us. Whether unemployment is 7 percent or 8 percent will not have a significant impact on the odds of another disaster on food, oil, or other commodity prices. It will take an altogether different set of policies to move us toward a greater degree of security on this range of matters.

In my testimony today, I do not wish to deal with all the other open issues of economic policy. But let me make just a few comments, relating them to the general question of the economy and the macroeconomic policy.

1. The question of controls: Public opinion polls still show wide support for reinstituting wage and price controls, and there appears also to be considerable congressional sentiment.

I would only remind you that there is no assurance that they would be as effective in 1975 as they were, at least for some months, in 1971 and 1972. By now, business has discovered that the controls are not seriously enforced, and that they are not administered uniformly. Unless a full World War II-like apparatus is created to administer and enforce them, the controls may well prove to be a colossal failure. At least, any new set of controls should be highly selective, and confined to large companies with real market power.

And even in that limited sector, they would have to be administered in a fashion which recognizes that prices and costs in general are still shifting rapidly, and that we are operating in a world economy where prices, costs and supplies flow readily across frontiers.

2. Public service employment: With the economy sliding into deep recession, an expansion of public service employment is clearly highly desirable. It is better to keep the unemployed working in public service jobs than to keep them in an unemployed status with its morale and skill losses.

We should clearly understand that public service employment is only a palliative, and that it is not a substitute for a policy of reflation. The magnitudes will inevitably be far too small to have a major impact on the overall developments. Further, it makes little sense to pursue a Draconian policy of budget restraint on the well-established grant-in-aid programs which support our traditional public activities, and then to throw money at the States and localities for temporary programs with a much lesser scrutiny of merit through this new vehicle.

3. Energy policy: We appear near a new set of energy initiatives designed to achieve a more secure conservation program.

This is a vital long-term matter and already overdue. But from the point of view of the economy's short-run behavior, it is important that the new energy measures help to rebuild consumer and business confidence rather than to create new uncertainties.

In my judgment, a 20- or 30-cents gasoline tax, fully rebated through the income tax withholding mechanism, or some other perhaps broader based energy tax, would accomplish the conservation goals without serious upset to confidence. On the other hand a new program of import limitations to be effective through administrative allocation mechanisms leaves the matter in a very uncertain state.

Allocations neither produce additional supplies nor reduce any final user's demand. If allocations become meaningful they inevitably produce gasoline waiting lines, industrial disruptions, or shortages of home heating oil.

From the economy's point of view, it would be better to resolve the issue in a fundamental way.

The instabilities of recent years have demonstrated that the business cycle is very much alive and that its current amplitude is very sharp.

In the last business cycle, a policy of stimulus was grossly overdone all over the industrial world. We now confront the risks that governments, both here and elsewhere, will overdo the policy of restraint. The time to shift direction is before the full effect of past policies can be seen. By now, there is no risk that demand will remain excessive, only the realistic recognition that the process of disinflation will take time. The benefits of converting a severe recession into near-depression are dubious, and the costs could be very large.

It will take leadership by the President and/or the Congress to explain to the public that the time for reflation is at hand. I hope this hearing will contribute to this process.

The CHAIRMAN. Thank you, Dr. Eckstein. I think that it would be well to receive all of the statements first, and then we can get involved in the question period.

So, Dr. Okun, I wonder if you would proceed. Do you have a prepared statement?

Mr. OKUN. Yes.

STATEMENT OF DR. ARTHUR OKUN, SENIOR FELLOW, BROOKINGS INSTITUTION [1]

In this brief statement, I shall touch on a large number of important economic problems, stating my diagnosis and my preferred prescriptions, without offering the detailed evidence necessary to justify them.

In response to your questions, I should be pleased to explain my position on any of these issues in much greater detail.

THE OUTLOOK FOR ECONOMIC ACTIVITY

In the past few months, the Nation's economy has been deteriorating at a rapid rate that, to me, in all candor, is frightening. It simply has no parallel in my professional career. History offers no reliable guide in gauging the probable depth and duration of the decline, much less in assessing the timing and strength of the subsequent recovery. The current recession will clearly be the longest in our postwar experi-

[1] The views expressed are those of Dr. Okun and are not necessarily those of the officers, trustees, or other staff members of the Brookings Institution.

ence, and it will probably be the deepest unless prompt and substantial measures are taken to support the economy. In the absence of such policy shifts, I would expect the unemployment rate to reach 8 percent next summer or fall, and would fear the possibility that it might go much higher.

The recent surprises in the speed of the deterioration illustrate the dangerous plunge that can occur in our economy when it develops downward momentum. Last week, we learned that firms are now cutting back employment and the workweek in nearly all industries. We learned that business capital spending, the one sector that had been showing reassuring strength, has now joined all the others on the recessionary bandwagon; and there it is likely to remain for some time after the other sectors get off.

Every group in this country will pay a huge toll for this recession. In addition to the sharp rise in unemployment, workers will bear further burdens in the form of shorter hours, job insecurity, and inability to move up career ladders. Business will probably suffer the sharpest year-to-year decline in profits in the postwar era. The growth of our capital stock, so important to our productive capability for the next period of prosperity, will be much reduced.

THE INFLATION OUTLOOK

Now do I have much confidence that the recession will effect a dramatic cure for the inflation in 1975. I do expect a marked improvement in the prices of many raw materials—other than food and fuel—that respond rapidly to shifts in supply and demand conditions. These items have a large weight in the industrial wholesale price index, and it should register good news. But these flexible items have only a small weight in the comprehensive and more meaningful measures of overall prices—the consumer price index and the GNP deflator. The overall behavior is likely to reflect continued rapid inflation in food prices and in wages in the months ahead. Assuming unchanged policies, I would be surprised—pleasantly—if the inflation rate were much below 8 percent during the second half of 1975. Throwing people out of their jobs is not likely to be effective as a way of holding down wages.

Wages have been lagging behind the cost of living by about 3 percentage points a year during both 1973 and 1974. Given that background, employers and employees alike see a clear rationale for rapid wage increases to alleviate the cruel squeeze on the budget of the American worker. The trouble is that the losses of the worker have not been profit gains for the typical American employer, but rather for grain, oil, and sugar producers at home and abroad. With a few exceptions, employers can pay larger increases only by passing the costs on to their customers. Thus the American working family will find that most of the relief it gets in the form of higher wages will be frittered away in higher prices.

THE URGENT CHALLENGE TO POLICY

The American people will not tolerate—and should not tolerate—a combination of 8 percent unemployment and 8 percent inflation. In fact, Federal policies will have to be adapted to the hard facts of the

emerging situation. And I am confident that they will. Unless my judgment of the economy and of our political process is extremely wide of the mark, fiscal, monetary, and wage-price policies will be overhauled in the months ahead. But how much longer must we wait for those urgent adjustments? What further evidence is needed to prove that current policy is misdirected?

Our present fiscal-monetary policies are still essentially geared to an inflationary boom. To be sure, interest rates have declined in the last few months, as credit needs have diminished along with business volume.

The Federal Reserve has been cushioning and stretching out, rather than promoting, that decline in interest rates. Recent monetary policy has not been generous in providing liquidity to our sagging economy.

Meanwhile, the Nation has had the tightest fiscal policy since 1960. In the third quarter, the Federal deficit rate—as measured in the national accounts—was $1.1 billion. A budget nearly in balance in the face of so weak an economy is far too tight. The mistakes made on the side of excessive fiscal stimulus in 1972 and part of 1973 are being compounded, not rectified, by mistakes of excessive restraint now. The present stance of fiscal policy provides a marked contrast to the antirecessionary programs adopted on a bipartisan basis during previous recessions. For example, under President Eisenhower, the Federal deficit—national income accounts basis—in 1958 amounted to 2.3 percent of GNP. And, while that aid to recovery was provided, inflation was being eliminated in 1958 and 1959. In today's economy, a fiscal program of the same scale would imply a deficit of about $35 billion for 1975.

CORRECTING FISCAL POLICY FOR 1975

The time has come to fight the recession vigorously with fiscal and monetary policies. In my judgment, Federal expenditure programs have only a limited role to play in the battle against recession. A prompt improvement in unemployment compensation and the enactment of a public service employment program can help a little. But proposals for public service jobs should recognize realistically the imitations on speed and scope encountered in our past experience.

Finally, I see no case whatsoever, any longer, for cutting back productive Federal outlays as an antiinflation measure.

I would urge this committee to maintain firm expenditure control with proper attention to priorities and to avoid any action that would create large builtin increases in Federal outlays that might be inappropriate as the economy recovers during 1976 and 1977. The main weapon against recession should be a substantial net addition to consumer purchasing power in the neighborhood of $15 billion for calendar 1975. I would urge a thorough and open-minded exploration of innovative fiscal measures that could hold down both unemployment and inflation. For example, both goals would be furthered by a special revenue-sharing program under which the Federal Government encouraged States and localities to lower their sales taxes during 1975 by defraying the resulting revenue loss. Consumers would get a full and immediate aid to purchasing power in the form of a lower cost of living. Similarly, the inflation and the recession would be curbed

alike by the introduction of temporary Federal subsidies on food necessities, a technique that has been used productively in other nations and that is equivalent to a progressive tax cut for lower-middle and middle income families.

Instead of, or in addition to, these measures, income tax cuts for working American families could also help bolster the economy and to aid those who have been most squeezed by inflation.

WAGE-PRICE POLICIES

There is no way to eliminate fully the squeeze of fuel and food inflation on real wages. But tax cuts can help workers to some extent, while more rapid wage increases will not help them at all as a group. Hence, I favor the coupling of these tax cuts with the explicit adoption of a national wage guidepost that would seek to limit most wage increases to 7 percent in 1975. I have outlined the workings of this proposal and some ways of achieving equity and flexibility in other papers that I can make available to this committee.

To achieve equity for workers and success in curbing inflation, important legislative and executive actions should be taken to hold down prices directly in 1975. First, agricultural exports to industrial countries should be monitored stringently in an effort to maintain an adequate supply of farm products for American consumers at reasonable prices. Our sales abroad should meet our obligations to the hungry in poor countries and to regular past customers in industrial countries. But they now go to nonpoor, nonregular customers as well. Second, the existing $5.25 ceiling price on "old" oil should be extended for at least 2 years by act of Congress. That action is essential to ensure against a $10 billion extra burden on petroleum consumers that would worsen both inflation and unemployment. Third, cases where any major industry raises prices in the face of evident downward market pressures should be publicly investigated by the Council on Wage and Price Stability.

Finally, and more generally, I would favor the legislative enactment of authority for selective price controls in order to convey a bipartisan verdict that direct measures are necessary. But I do not favor the resumption of comprehensive price controls that would seek to regulate areas that are trivial and ones that are realistically uncontrollable by the Federal Government. Indeed, I believe that a 1975 model of phase II might divert attention from the much larger issues affecting prices in the area of energy and food.

ENERGY

The need for action on energy goes to the heart of our national will and determination, and far beyond the considerations affecting the short-run economic outlook. The President's goal of a 1-million barrel per day reduction in imports should be legislated in the form of an explicit import quota to be administered by the Federal Government on the basis of sealed bids from individual foreign suppliers. That quota should be accompanied by a much more intensive program of fostering voluntary conservation with explicit requests for cutbacks that people can understand and comply with readily.

It should also be accompanied by an urgent effort to increase the supply of domestic petroleum at once; that effort should include required public reporting by crude oil producers on their output of old and new oil, an investigation of the rationale for the currently large number of shut-in wells, and a thorough review of all Government regulations that limit the amount of production out of any well or field. If these conservation and supply measures should prove inadequate, then it will be necessary to consider whether some form of rationing or some form of taxation is the lesser evil.

Meanwhile, remaining tax incentives for U.S. oil companies to invest funds abroad rather than domestically should be eliminated and indeed reversed. Furthermore, oil companies should be asked to pay their fair share of taxes through removal of depletion above original cost. But they should not be subjected to any special punitive taxes that would infringe on their incentive to expand domestic productive capacity. More generally, I believe that the review of oil taxation should be only the first step in a thoroughgoing national tax reform that improves the justice and equity of our tax system.

In conclusion, I should like to emphasize that I am fundamentally optimistic. If no legislation, no leadership, no adaptation of policy is forthcoming to meet the economic deterioration of recent months, then the outlook would be bleak for 1975 and 1976. But there are remedies within our grasp. And they permit us both to promote a needed recovery and to curb an agonizing inflation.

The CHAIRMAN. Thank you very much. I will now ask Dr. Weidenbaum to present his statement, and then the entire panel will be subject to questions.

STATEMENT OF PROF. MURRAY WEIDENBAUM, MALLINCKRODT DISTINGUISHED UNIVERSITY PROFESSOR, WASHINGTON UNIVERSITY

Mr. WEIDENBAUM. Thank you, Mr. Chairman and members of the committee. It is a great pleasure to be invited back to the committee. You might say I am returning to the scene of the crime. I am here to urge a change in policy.

Frankly, my testimony is prepared for your committee's consideration but it is also aimed at my former colleagues in the administration.

I would tell them the test of a good management is the ability to make difficult decisions promptly and here is my rationale.

Because of the inevitable lag between the time economic decisions are made and the action is felt by the economy, economic policy should not be geared to today's situation alone, but to the future environment in which that policy will be carried out. This is a difficult course of action to follow during a period of change. It literally means firing before you see the whites of their eyes. But it is the only way to avoid what has been the perennial shortcoming in our national economic policy—doing too much too late.

Although I advocate a needed mid-course correction in economic policy, I want to emphasize the point that the existing policy of economic restraint has been appropriate for the extremely inflationary times that we have just gone through. The problem now is not one of changing our minds but of adjusting to a changing situation.

Recent economic trends and forecasts all point to a weaker economy in 1975 than had been envisioned by most economists just a few months ago.

The current recession seems likely to be longer and deeper than had been anticipated. Unemployment thus will be rising more rapidly than previously projected, while the prospects for reduced rates of inflation are brighter.

In preparing for this hearing, I examined a large number of forecasts for 1975 by experienced economic forecasters. The composite—the new standard forecast—is $1,508 billion GNP for 1975; 8.7 percent inflation for the year and a decline of 0.8 percent in real growth.

That is not good news, but it also does not mean that we should now press the panic button. Let's not yet get out the sandwich board that proclaims the end of the world.

The recent turn of events had led some economists to suggest that it is now safe to abandon the battle against inflation and set in motion very expansionary economic policies.

A second group of economists does not see this as a propitious time to change policy.

I find it very disconcerting that each of the two groups has adopted analyses which support their value judgments. The first group, who in general are more liberal in their views, contend that under present conditions stimulating policies such as larger budget deficits will increase output and employment, without significant worsening of inflation. The second group, who are more conservative, believe that greater deficit spending now will lead to more inflation without any significant increases in output or employment. But deficit spending is going to be just as expansionary or inflationary whether it's advocated by Republicans or Democrats.

Ultimately, of course, it is the Congress' value judgments that will be controlling. I have great reluctance to read the political tea leaves. Nevertheless, it is my understanding that the prevailing view in the Congress is to give more weight to fighting unemployment than has been the case during the past year.

Under the circumstances, I consider it useful for an economist to advise the Congress that if it adopts a more expansionary economic policy the result will be both more inflation and less unemployment than we would otherwise experience. Hence, it will be important to seek out policies which will do the most good on the employment front with the least damage on the inflation front.

We should try to learn from past experience and avoid the usual pattern of reaction whereby the antirecessionary policies followed at one point in time generate the seeds of the ensuing inflation.

In that spirit, I would like to offer the following principles to guide the committee in its current deliberations:

1. Move promptly in adjusting policy to impending changes in the economic environment. As Shakespeare wrote in a different context, "If it were done when 'tis done, then 'twere well it were done quickly." In the economic sphere, it is helpful in avoiding "overkill"—waiting too long and then overreacting, as in 1966 and 1971—In a spirit of nonpartisanship, I cite both Democratic and Republican goofs.

2. Choose actions that will help in creating jobs in the next 3 to 6 months. Avoid voting for large new public works projects, for ex-

ample, that would take a year to get going, and would have their major economic impact in 1976 or even later.

A temporary public service employment program can be an effective way of creating jobs for those who are unemployed because of the current recession. Such a program should focus on adults who are family heads. No incentive should be given to younger persons to drop out or stay out of school.

A carefully directed program geared to putting unemployed people to productive work will be far less inflationary than a generalized effort to reduce unemployment by merely pumping up the economy via large increases in aggregate demand.

It is important to specify that such an effort be temporary, in order to avoid a long-term expansion in the size of the public sector.

3. Choose actions that can be limited to the current recession. Avoid putting a permanent commitment into the budget to deal with a temporary problem. All sorts of special pleaders will be descending on the Congress with spending proposals. It is necessary to look two or more moves ahead on the economic chessboard. A new, long-term expenditure commitment may help overcome today's recession. But it will make the job of Congress that much more difficult when it will be facing the inevitable inflationary pressures that will accompany the next economic recovery.

Choose antirecessionary policies that will "self-destruct" with the end of the recession. A temporary liberalization of unemployment compensation is a good example of the approach that should be followed.

4. Keep in mind the underlying strength of the American economy. The built-in stabilizers will be generating recovery forces without any additional legislation.

The Federal budget will be recording rising deficits in the period ahead of us. Compared to the modest $3.5 billion deficit in fiscal 1974, the current year's deficit will exceed $15 billion and the fiscal 1976 deficit could well be over $25 billion, without any deliberate action by the Congress. This is in addition to the substantial stimulus that I expect and I hope is forthcoming from Federal Reserve policy. The money supply should be increased much more rapidly than it now is. The time for tight money has passed.

In an effort to deal with the unemployment problem, it is important to avoid taking actions that would reduce the basic ability of the private economy to generate future growth in output and employment.

If anything is done on the tax side, an increase in the investment tax credit would help to generate the new capacity needed to avoid future shortages. It would also strengthen the sagging capital goods boom and create jobs.

5. Do not forget about the need to reduce the barriers to a more efficient economy. We still very much need to reduce the myriad of Government rules, regulations, and restrictions that interfere with the effective functioning of the economy and give it an inflationary bias.

Such an effort must be evenhanded, extending to all sectors of the economy—import quotas for farmers, Davis-Bacon restrictions for labor, Jones Act subsidies for business, and credit subsidies in the financial area.

In dealing with the important subject of energy, it is essential to avoid legislating new subsidies and interferences. There is no substitute for helping or letting the market work. I don't know why it has taken the Congress more than a year to make the obviously needed changes in the taxation of income from overseas oil activities.

A posture of prompt and sensible, but not showy or overambitious, action on the part of the Federal Government can go a long way to restoring the confidence of the American public. But to succeed it will have to be a program of action geared to reasonable targets and not to unattainable expectations.

There is no magic formula for totally preventing a rise in unemployment in the year ahead. But the steps that I have outlined can and should be taken to slow down the rise in unemployment and set the stage for a period of healthy recovery in 1976.

On the other hand, we must acknowledge that events simply have overtaken the President's earlier recommendations for an income tax surcharge and budget cuts. Those proposals should quietly be filed away for another day. I hope that the five principles presented here and the accompanying analysis will be helpful to the committee in its important task.

Thank you.

The CHAIRMAN. Thank you very much, gentlemen.

I am delighted that there are so many members of the committee present this morning, and in order to accommodate them, as well as the panel, I would invoke, if there is no objection, a 10-minute rule.

Hopefully there will be more than one round of questions from the Senators who are present.

I would like to begin with some perhaps obvious questions that may to some extent recapitulate what you have already said to us in order to supply emphasis and perhaps assure our understanding of what it is that you have been saying to us.

First, with respect to the budget, since that is our principal responsibility—and I would like each of you to respond—what is your view of the action the Congress should take from a macroeconomic point of view with respect to the rescissions and deferrals that President Ford has submitted to us?

Mr. ECKSTEIN. Mr. Chairman, in the light of the current economy, there is no case for any budget reduction justified by overall economic circumstances. That is not to say that all considerations of efficiency should be thrown out the window, but on macroeconomic grounds this is not the time to reduce, the only dispute is to what extent you should scramble to increase spending.

Mr. OKUN. All I can say is "Amen."

Mr. WEIDENBAUM. I think that if you have room in your file cabinet, Mr. Chairman, I suggest proposals for rescissions be filed in the appropriate file drawer.

The CHAIRMAN. You can handle rescissions that way, but you cannot handle deferrals that way, unfortunately.

But in any case, I'm glad to dispose of that economic policy that quickly.

Let me pick one item out of that package of deferrals for special attention.

On the job creating front, the day before yesterday, Henry Ford suggested releasing the funds that had been impounded in the water pollution control program as a stimulus to the creation of jobs.

Now, in this area, the impoundments I think have had the effect of piling up blueprints of projects ready to move ahead immediately.

Do you think that this is a useful way to contribute to public employment as compared to, say, the public service employment proposals?

Mr. WEIDENBAUM. I would say I am a little skeptical, with due reference to the gentleman from Michigan, having an automobile company urging an increase in the road-building program.

The CHAIRMAN. I was more interested in the water pollution program, frankly.

I don't think he is particularly interested in that.

Mr. WEIDENBAUM. I must say that I am a little rusty on that. My understanding was that at least on some earlier occasion there was a capacity problem, that is, what was the maximum sustainable rate at which the sewage treatment facilities could be constructed? Hence, what was an economic limit, not really a budget limit, on the feasibility of spending the appropriated funds this year? If the industries that are building the facilities are operating at capacity, increasing spending would just result in price increases rather than capacity expansion.

I must say I am a bit skeptical because very frankly my recollection is the Congress was extremely generous in its assumption as to how rapidly these facilities could be constructed.

Senator Moss. Just interjecting there, since the highway building would come out of the trust fund and money is now residing in the trust fund, would that affect your decision any as to whether or not releasing the trust impounded money would create the employment that would help ease the problem?

Mr. WEIDENBAUM. As an economic matter, Senator, it really does not make any difference whether the Government is going to spend the trust fund receipts or general fund receipts. There is no economic difference.

The CHAIRMAN. Of course the construction industry is down for some work, and to the extent that it is involved in the construction of these facilities, I would assume it could move ahead rather rapidly.

In my State, for example, I think at the time of the impoundment by President Nixon, there were some 40 projects which had reached the point where they could be put out to bid and started in time to meet the deadlines established in the Clean Water Act of 1972 for completion.

So there is a lot of that.

I do not know whether or not we could put everything on line immediately but there is some backup in projects that could go into actual construction fairly soon.

I don't have the numbers on that. But it would seem to me, that it would be a useful way to create jobs that would also contribute to a long term public problem.

Mr. WEIDENBAUM. Yes, sir.

The CHAIRMAN. Would the others want to respond to that?

Mr. ECKSTEIN. Mr. Chairman, the real volume of private nonresidential construction has been falling rapidly all year. Now, in the last few months the real volume of public construction is also falling very rapidly.

One of the novelties in the current recession, and there are a lot of them, is that this is really the first one where State and local governments are affected in a way rather similar to private business. All of a sudden real growth of State and local spending, which had been one of the main props of our post-war expansion, is gone.

In 1975 there will be virtually no real growth of State and local spending as a whole and probably a significant decline of construction elements.

So I think, of course, obviously you do not want to build inefficient projects but from a general point of view the construction industry can use all the help it can get.

Mr. OKUN. The best kind of action to take on Federal expenditures is one that increases job creation in the near term and actually reduces a commitment in the future. The worst kind to take is one that adds very little to 1975 and commits us to a lot of spending in 1977 and 1978, when we don't know what the economic situation will be.

Obviously there will be room in the Federal budget to do some things in any given year but I think it is important to look at the time shape of the spending that is being released.

I think the mistakes that we have made in the past in moving on antirecessionary programs have been of the sort that Dr. Weidenbaum pointed out—committing ourselves over the long term to added expenditures which often had their biggest impact precisely in the next boom rather than during the recession or early stages of recovery when the programs would be constructive in taking people and machines that would at best be idle and putting them to productive work.

So without knowing the details of this, what we can point to is the right question, which is, what is the state of the industry that would be doing the job here? First, is there a capacity to do it not by putting pressure on that industry, but by putting otherwise idle resources to work, and second, are you making a commitment for the long run that you would rather not make at the present time?

The CHAIRMAN. Dr. Eckstein, when do you expect an upturn under current policies?

Mr. ECKSTEIN. Well, there would be a small upturn if nothing else goes wrong, no new embargo, no new totally unforeseeable events, you would have an upturn in the final quarter of 1975. The reason for that is the inventory correction does not take forever and some kind of housing recovery would occur even if lots of other things go wrong.

Mr. WEIDENBAUM. Can I emphasize that what Mr. Eckstein has said corresponds to the economic forecasts I referred to in my opening statement. Just about every—I cannot think of an exception—experienced forecaster whose work I have reviewed projects an upturn, a modest upturn, but an upturn in the second half of 1975.

The CHAIRMAN. If that is the case, why should we change our policy now?

Mr. WEIDENBAUM. Because the upturn is likely on the basis of present policy, to be so modest, so sluggish, that the level of economic

activity will not generate enough jobs to provide for a growing labor force or even to provide for the labor force that we have now. Hence unless policy right now becomes more stimulating, we are going to have very rapidly rising unemployment in the year ahead.

We are going to have rising unemployment, frankly in any event.

The CHAIRMAN. Dr. Okun.

Mr. OKUN. My best judgment would also be that, even if you essentially left fiscal policy unchanged, there would be a rise to some degree in real GNP by the end of 1975, but I would not consider that a better than 60–40 bet.

I think the forecasts have been chasing reality in the last several months and chasing it pretty madly on a downward path.

If one, for example, assumes a pessimistic but not impossible path of capital spending where businessmen cut their plans as much as they did in 1957–58, that implies a really sharp decline in capital spending during the second half of 1975, triggering another wave of inventory liquidation by the producers of capital goods. Then one can draw a plausible picture of an economy that continues to decline all the way into 1976.

We will never get a chance to test that proposition, fortunately. There is no question that policies are going to have to change; they are going to have to buy insurance that we do have a recovery and that the recovery is not too anemic. And that is the compelling case for doing something as soon as possible—to insure both the timing and the strength of that subsequent recovery.

The CHAIRMAN. My time has expired.

One other question I wanted to put that maybe we can get into with the other Senators, is given the current policies, their continuance through 1975, what would be the picture then as to unemployment, inflation and other critical indicators?

I will yield to Senator Moss at this time.

STATEMENT OF HON. FRANK E. MOSS, A U.S. SENATOR FROM THE STATE OF UTAH

Senator Moss. Thank you, Mr. Chairman.

These hearings have taken on increased urgency given the events of the past few days.

Friday, the Labor Department announced that unemployment had increased by 460,000 people during the month of November. There are now over 6 million Americans unemployed, a 13-year high, and some economists are predicting that a million more people could be forced into unemployment by midsummer.

The tormenting difficulty of this situation is that strong inflationary pressures continue even though the economy is sliding rapidly into a deep recession.

There is no easy way out of our current economic crisis. Many of our economic problems are a result of events beyond the control of our economic policy machinery. The bad weather which helped increase world food shortage, the price of mid-East oil, and the superinflationary policies of foreign countries are all beyond our control. But the impact of these events on our economy has been demonstrated all too well.

We are no longer insulated from the economic policies and conditions of foreign countries. We are only part of a much larger world economy. It is in this international context that we should discuss possible solutions to our complex national economic problems.

We are in uncharted economic waters. Our economy has never experienced such high levels of inflation and unemployment at the same time.

The economy cannot be permitted to drift any longer without inviting serious economic disaster.

A depression is not likely, but unless we have some strong leadership and new economic policies a serious recession is a very real possibilty.

The administration will be represented in subsequent hearings and I am hopeful that they will present a program to avert an economic crisis.

In addition, these hearings and those that follow will provide this committee with some important input for congressional economic initiatives.

The Congress must exert economic leadership and it is the responsibility of this committee to weigh the economic impact of proposed programs on the level of government expenditures and taxation.

One thing that gives me concern is the lack of consumer confidence, which seems to be about at its lowest ebb that we have had for a long time.

Now, is there some fairly dramatic action simply to restore that confidence, is it worth doing that?

Dr. Eckstein.

Mr. ECKSTEIN. Well, my view of consumer confidence has been that the American consumer is quite astute in assessing the situation, occasionally more so than we are, and that lack of confidence is based on the realistic perception of the situation.

With unemployment rising from 6 to 8 percent, which does mean you know that additional people in seven figures will lose their jobs, and with no real sense of security about the end of inflation, plus some worries about a second oil embargo, the consumer has serious concern on his economic fate. I do not believe there is any way to substantially improve consumer confidence except by creating a genuinely better situation. I think there is no practical alternative except to augment his real income.

You must keep in mind the income of consumers over the last year has dropped from $623 to $603 billion in real terms. On this kind of forecast it is going to drop from $603 billion down to $590 billion over the next 6 months. And, of course, that ignores there are more households and more people. So there is shrinking income, lots of insecurities about jobs and prices. Statistical studies seeking to explain consumer confidence find a principal determinant to be the current rate of inflation and the second factor is current unemployment change.

Mr. OKUN. Dr. Eckstein is pointing out that the consumer is not having nightmares about some terrible things that might happen to him. The nightmares are happening when he is awake. Terrible things are happening to him and that is why he feels so miserable.

The recent inflation has been very different from previous ones in that consumer income hasn't kept pace.

In 1968–69 we had inflation that certainly troubled the consumer but wages were basically running in parallel with prices.

This time, reflecting what has happened to food and fuel, there has been an enormous squeeze with consumer incomes not keeping pace with inflation. There is tremendous uncertainty about where the next blow to real income will come from and they seem to be coming thick and fast.

The sugar explosion is a $10 billion tax on the American consumer on top of about $35 billion from oil and $20 billion from farm products in recent years. These increases in effect tax away consumer income and it is not surprising that this particular inflation has had such a dramatic impact on consumer spending.

Now, the unemployment worry on top of that adds up to two sets of genuine concerns. The remedy is to give the consumer some hope that the economy is going to turn up and at the same time to demonstrate that the Government really is doing something to curb inflation other than putting the economy through the wringer.

That is why we need to have some decisive antiinflationary as well as antirecessionary parts to the program.

Senator Moss. I was going to ask the question of whether just the granting of standby control power, even if it were not used by the President, would that stabilize consumer confidence?

Mr. WEIDENBAUM. I think that would do more to increase prices than anything else I could think of.

There are so many companies, Senator, who feel they were burnt in 1971 because prices were frozen and then controlled, when that company's prices were low, when the increases in their costs had not been passed on in terms of increases in list prices. If you have price controls hanging over their heads you are going to tempt, I'm afraid, an awful lot of companies into anticipatory price increases.

Mr. OKUN. May I comment on that?

Senator Moss. Please do.

Mr. OKUN. Firms can anticipate price controls once, and they might be able to anticipate them twice, but they cannot anticipate them every month with another price rise. Price controls have been looming as a possibility ever since they expired on April 30 and I do not think they are going to vanish as a realistic possibility at any time in the future. It seems to me that the argument Dr. Weidenbaum is making is an argument for the President using selective control authority once it is given to him, dropping the shoe and ending the uncertainty, rather than an argument against Congress granting it.

My reason for suggesting that it be controlled by the President is my perception of the complexity of any kind of price program. I do not believe that Congress can draw a blueprint. If it is a blueprint that the Administration does not want and Administration officials insist that it is going to be a failure, then they are in a perfect position to make that forecast come true. Consequently, you cannot force a price control program on the Administration. You can beg, you can plead, you can persuade, and you can give authority and make it clear that Congress intends that authority to be used, but it would be a misperception of what Congress can do to think that a price wage program can be blueprinted on Capital Hill and forced onto an Administration that doesn't want to use it. The proper design is for the Administration when it is ready to move forth, to come to the Congress and ratify

the essential components of the program—its scope, its even-handedness and the like.

Senator Moss. Dr. Eckstein, I understood you thought we ought to have some selective wage and price controls.

What industries do you think should be controlled?

Mr. ECKSTEIN. Well, first, let me say that sitting here in mid-December 1974, I feel we are better off without them. I think it is a reasonable expectation that the inflation will improve over the next six months, quite substantially, and hopefully even to the point where the public would believe that there had been an improvement, would understand there had been improvement.

This, of course, would be the most essential ingredient to consumer confidence. If it turns out that something else goes wrong, the inflation stays at 10 percent and you have to go to the controls, I may change my mind in April, but in December I really feel the best prospect of recovery is to do nothing on controls at this time.

Now, again I may be persuaded by Dr. Okun's argument that you need some controls or standby powers or what have you to get the reflation program politically accepted, but I consider it simply a minus to the current situation.

Also I think there is a difference in business conduct whether there is control authority on the books or not.

At the moment a realistic businessman does understand that he cannot be clobbered by controls today because the legal authority does not exist.

Now, if you do come to the selective approach, then you wind up with that list of 50 or 100 prices starting with automobiles and steel, the old standbys, that always are in the public eye when there is a big commitment. The economic basis for such a list has to rest on economic market power.

You have to look at the concentration ratios of specific products and industries and single out those where nobody could reasonably claim that it is a routine competitive industry and, of course, if the program is to have any reality and realism to it, it has to be confined to very large companies because we really are not serious about enforcing it on the small ones.

The CHAIRMAN. Just to understand the impact of the policy you advocate, if it were adopted, I was interested in your anaylsis of the three categories of prices, and the sensitivity: early ones, the coincident ones and the future ones.

Now is it your view that we will now get additional price increases which simply reflect the passing on through the economy of the increased costs that have already been fixed in place as well as the increased costs of wage increases now on the order of 11 percent, that will come down the line?

In other words, you say that the free economy, the consumer, has to expect these increases in prices and they are coming down the pike and they have just got to take them.

Is that what you are saying? There is nothing you can do about them?

Mr. ECKSTEIN. Yes, let me give you the extreme examples. Health insurance, which has many billions of dollars. Health insurance rates

are going to go up, auto insurance rates will go up. These are items that are labor intensive. Wages are going up. Consequently, the cost of doing these things goes up. The regulated companies are usually not put under price controls, not in any meaningful sense, the regulators, are just beginning to catch up. I am sure they will keep on granting increases in 1975. You have areas that are going to rise and the longer you sit on housing with tight money, the more you move toward rising rents.

Now, in the traditional hard goods area, I would part company as a business judgment with the auto companies, whether this was the right time to boost their list prices, they are also quite unique in having list prices normally higher than actual prices.

There must be some reason that gets you to that behavior. I don't understand it, but I am second guessing; it is their business. I am not an expert on setting auto prices.

I think you will find a lot of people rethinking prices. You see it in the big retail chains. They are running sales. That is not usually what they do before Christmas. Even the auto companies seem to be beginning to get the message about their prices.

There are many other areas of rising prices, equipment companies, for example. Nobody gets excited about industrial machinery or pipelines for the oil fields. Anybody who sells to the energy industry is not hurt by this recession. Yet he is going to have an increase in his labor contracts. If a step comes in 1975, in a routine way they will probably pass that wage increase forward.

Senator Moss. Is the cost of money the prime factor that has hurt the building industry?

Mr. OKUN. Certainly the cost and availability of funds were the basic factors creating the sharp plunge we have had so far. Even if money becomes less expensive and more readily available, we will not get back to strong housing activity as long as consumer income is depressed, jobs are scarce and the like.

So we can get some recovery in housing just by relaxing money. We cannot get a large and sensational recovery until other things in the economy start going right and rebuilding consumer confidence, the critical area that you focused on earlier.

Mr. WEIDENBAUM. In any event, it will take a good deal of time because even though thrift institutions—savings and loans and associations and mutual savings banks—are beginning to get inflows of deposits, at least on the basis of past experience I would anticipate this increase in availability of mortgage funds would impact first on the used housing market, the market for housing which is unbuilt but unsold, housing which is three-quarters finished, and where builders need funds to complete the construction.

Until all of this is absorbed, it will take quite a while before we really will see an upturn of any significance in new housing starts. I think the decline in interest rates, which I think we all forecast is going to continue into 1975, is going to be very helpful in the turn around in the housing industry.

Senator Moss. Thank you.

The CHAIRMAN. Senator Mondale.

Senator MONDALE. Thank you very much. As I understood, Dr. Eckstein and Dr. Okun, both of you agree essentially that we need about a $25 billion reflation, as you call it, in the current year; both of you would reject the proposed rescissions and deferrals; and you both recommend substantially liberalized monetary policy. Do you disagree, Dr. Weidenbaum with that general outline in any major respect?

Mr. WEIDENBAUM. I do not mean to be equivocal but I have to give you a firm yes or no answer. That is, one, I agree that monetary policy needs to shift from current tightness to greater ease. I may hope that the shifts may be more moderate than the two gentlemen with me on the panel, but clearly the money supply has not been growing adequately. I think it is essential to the recovery for the Federal Reserve to increase the supply of money and credit to the American economy.

On the fiscal side, as I look at my projections of the budget for this year, and next year, I see rising budget deficits. For fiscal year 1975, my estimate of revenues is $290 billion. My estimate of expenditures is $306 billion, on the basis of existing policy. That gives me a deficit of $16 billion.

I look at fiscal 1976 on the basis again of existing policy. I see a revenue of $307 billion, expenditures of $334 billion, and a deficit of $27 billion.

This is a substantial turn-around in the budget position.

Senator MONDALE. Would you propose further acceleration?

Mr. WEIDENBAUM. Of a modest nature to cover the public sector jobs program and the liberalized unemployment compensation, because these will take hold right away and they will be limited to the current recession. They won't be a permanent charge on the budget.

I am concerned about permanent tax reduction.

Senator MONDALE. Could you give us a ballpark figure of how much additional stimulation you think we should have over those deficit figures?

Mr. WEIDENBAUM. I guess this is what separates the liberals from the conservatives, Senator.

Senator MONDALE. I would like to know how much you separate them.

Mr. WEIDENBAUM. These are very——

Senator MONDALE. You are out of government, now—you can let us know.

The CHAIRMAN. Let it all hang out.

Senator MONDALE. It is time for the hang-out route.

Mr. WEIDENBAUM. I really hope that the major stimulus is on the monetary side and I do not advocate a budget deficit above $27 billion for fiscal 1976.

Senator MONDALE. What about this year? What is your estimate?

Mr. WEIDENBAUM. My deficit estimate for this year is $16 billion. That is assuming that the Congress ignores the surcharge proposal and the rescission proposals.

Senator MONDALE. How much would the jobs program add to that, your program?

Mr. WEIDENBAUM. If you are talking about a $5 billion program——

Senator MONDALE. That would make the total about $21 billion.

Mr. WEIDENBAUM. Several, only a portion of it really would be expended in fiscal 1975. You are talking about a deficit of perhaps up to $20 billion.

Senator MONDALE. Well, now, when you talk about $25 billion in reflation, are you talking about his estimate of a $16 billion deficit as being part of the $25 billion?

Are you adding $25 billion over the $16 billion?

Mr. ECKSTEIN. I know it is shocking but that is the conclusion to which our studies drove us. We mean $25 billion incremental.

Senator MONDALE. So it is like a $20 billion gap between your prescriptions here and fiscal stimulation.

Mr. ECKSTEIN. Well, I think I should mention my own general attitudes in these matters are fairly cautious and I come to the conclusion of that large a stimulus with reluctance and only having redone the work three times. As a matter of fact, the recession is sliding down so quickly and the short-fall of purchasing power to get the consumers off this track of rapidly sinking incomes, that short-fall is so great that you have to have a big infusion of purchasing power if the economy is going to turn around.

Senator MONDALE. If we take your policy of the $25 billion reflation, liberalized monetary policy, et cetera, what do you predict? I think you said this—what do you predict would be the impact on the inflation of that policy of stimulation?

Mr. ECKSTEIN. Let me give you a rule of thumb which grows out of our model, what it implies about the relationship. And this is representative of other models. If anything, the answers of others are more conservative. For every 1 percent extra unemployment, you gain five-tenths to seven-tenths of a point on the inflation rate a year later. So the trade-off over a 2-year span, is not quite one to one. The sheer violence of the recent inflation is only in small part related to what happened to the unemployment, the larger part of the figures which are now so much in our mind have to do with energy and oil and 6 or 8 years of excess demand.

Senator MONDALE. But if you added $25 billion of reflation stimulus, what would be the argument on the inflation side? I am sure we are going to hear why this is going to send prices through the ceiling.

What do you think is the responsible estimate of the amount by which $25 billion increases the rate of inflation over what it would be otherwise?

Mr. ECKSTEIN. Well, we face up to that in the testimony and the difference at the end of 1976, which is about as drastic a way as you can display the difference, because that is when the difference will be at its peak. The inflation rate without stimulus is around 6.2 according to the formulas, and with the stimulus it is 6.7.

Senator MONDALE. So that you could add $25 billion to Federal spending and only cause a half point in inflation?

Mr. ECKSTEIN. Yes.

Now, of course I do not really mean $25 billion of spending. Taxes——

Senator MONDALE. Yes, I want to get into that in a minute.

Mr. ECKSTEIN. Twenty-five—a few you will get anyway. I think the baseline is really passé. You will have some cost overruns.

Now thinking of it in these dimensions, that $25 billion stimulus is about 1.6 percent of GNP. There is a multiplier. The multiplier is less than two. So that the total dollar GNP at the peak, at the end of 2 years out, would be bigger by something on the order of 2 percent of that. A fraction is more inflation, a fraction is more real. Again most studies would feel that over that time span the bigger part of it is real, the smaller part of it just inflation.

Senator MONDALE. Can it be said that some of the increased stimulation actually is anti-inflationary because people are back to work, your unit costs are spread over more products and the rest, that some of your spending is anti-inflationary?

Mr. ECKSTEIN. You do get a benefit because a recovering economy has a one-time productivity gain which for a period of 6 or 9 months dampens the unit labor cost rise.

I would never recommend that we base our policies on that because you know it is a very fleeting affair and indeed I do have some concern about keeping a $25 billion stimulus through 1977–1978. Now, let me clarify one other point beyond where Dr. Weidenbaum might go. We do need a permanent tax reduction unless we really do choose to permanently have a higher Federal tax take of the GNP.

Unless we reorder our priorities dramatically, we do need some permanent tax reduction because the inflation drives up the real take of the tax system.

We are pushed up the progressive income tax structure even though the rise in the income is only price, not real income. The progressive income tax burden rose and rose with inflation. The tax cut is really like indexing in a way, it is a one-time bit of indexing to take a little bit of the inflation out.

Mr. WEIDENBAUM. Senator, this is a very important unstated assumption, to put it unkindly, and that is that the econometric models, Dr. Eckstein's, as well as the others, don't under-estimate the inflation next time around as badly as they have done in the last few years. Frankly, I am greatly concerned that the prospect of a $50 billion budget deficit, whatever the percentage of GNP, would so shake up the financial community, the public, the media, that it would generate the expectation of another substantial wave of inflation and that unions in their bargaining and companies in their pricing would reflect those inflationary expectations.

Senator MONDALE. That is the old story of whether you can depend upon computers or whether it is sort of a mystical process. Which is it?

Mr. ECKSTEIN. Well, I mean we are strongly on the public record warning against overreliance on the accuracy of these models and particularly on the price forecasting side, but the errors in the forecasting, which have been very, very substantial, have been primarily food, oil, that aspect of it. The basic wage price spiral unit labor cost, that part is a fairly humdrum, cut-and-dried affair.

The risks at this time on the inflation forecasts are on the commodity side. We make quite gloomy assumptions. The whole problem would be much simplified if we got a few lucky breaks on food and such, but I do not bank on that and I recognize the political difficulty

and the intellectual difficulty of accepting a $25 billion stimulus which would create, in our estimate, a $42 billion deficit. Although I do make myself feel better, you might as well be hung for doing something as doing nothing and $25 billion is a little more dramatic perhaps than it deserves because inevitably some fraction of it is going to be cost overruns beyond the base line budget.

But I know it may even be that it has to be done in steps. I am not suggesting the President go on television tonight and announce a $25 billion spending program. Nobody is prepared for that.

Obviously the political process reacts to the reality that month by month there will be massive layoffs and unemployment and someone is going to decide to get the economy back on its feet, this is going to be a bigger problem.

The CHAIRMAN. Dr. Okun.

Mr. OKUN. I think what this underlines is a magnitude of the educational problem, not of the economic problem. The deficit figures tell you how bad off the economy is, not how stimulating the fiscal policy is, and the bigger those are, the most that needs to be done.

When Dr. Weidbaum's friends revise their forecasts in light of the figures of this month, they are going to have a bigger deficit and those bigger deficit numbers are simply going to reflect just how urgent the need for action is, and it is terribly important to distinguish what the economy's deterioration does to the budget from what any budget support does to the economy.

It is a little like some analogy to a thermostatic system we have got built in; that is why all of us are talking about 8 percent unemployment or maybe 10 at worst.

If nothing is done, because the budget automatically does these things, that is why economists as a group are so convinced we do not face the kind of deterioration we had in the great depression—but that is merely a cushion, that is the way the budget reacts to the economy.

If it gets cold enough outside, the furnace goes on, but that doesn't make you warmer if the thermostatic setting is too low, and it is too low. The budget figures Dr. Weidenbaum is using are applied to a tighter budget in fiscal year 1976 with expenditures up only about 7 or 8 percent less than the cost of living will go up and at a time that the economy will be sinking and I think it is important to make it clear that a weak economy produces a huge deficit and the only way to get out of that position is to strengthen the economy, even if that requires a larger deficit initially.

Senator MUSKIE. Senator Biden.

Senator BIDEN. Thank you very much, Mr. Chairman.

I apologize for missing Dr. Eckstein's testimony and I would like to submit for the record the opening remarks [1] that I had, if I may, and that they be inserted in the proper place in the hearing record.

The CHAIRMAN. Without objection, it is so ordered.

Senator BIDEN. I would like to follow up on a few of the questions. I am sure I am not going to get to other written questions I have, and I would like to submit them for the record and ask that the appropriate parties [2] respond if they have an opportunity.

[1] See p. 3.
[2] See pp. 41, 43 and 45.

Gentlemen, everyone seems to agree—and I assume Dr. Eckstein does also—that the biggest portion of the inflationary picture in the past couple of years has been energy and food, and that they are a big indicator that wasn't anticipated. No one expected the impact to be as severe as it was in either of those sectors, and yet I see no indication in other sectors of our economy that those two factors are going to substantially change in terms of the impact they are having.

In the testimony that I have heard, I have heard little directed toward what we do about either of those two areas.

The Senator from Minnesota was asking what effect your reflationary policy, the additional $25 billion Government expenditures, will have on the inflation picture. I would like to ask the other side of that.

Can we get at the recession through some of the proposals that you have suggested, all of you, ranging from the cost of money to employment programs to filing away rescissions and impoundment messages?

Can we get at that inflation side by doing something more than you are doing now with regard to energy and food?

Now, Dr. Okun, I believe, testified that there are certain things we can do with regard to the oil industry, things we should be doing, particularly with regard to our tax policy as it relates to foreign investment of oil companies.

Is there anything more substantial we can do in either of the areas of food or fuel?

That is a general question I would like to direct to all three of you, if I could.

Mr. Eckstein. Well, in the case of food, I think the most overriding necessity is to closely monitor the Department of Agriculture that it will, in fact, adhere to policies of stimulating production rather than curtailing it.

The big decisions on acreages and such are on the side of getting production up, but I think the Department has ingrained into it bureaucratically a tendency to backslide on issues of this size and resolve issues where there is any doubt at all against the consumer and against the fight on inflation.

I think that is far and away the most important thing to do and I am not sure such a system of checks and balances exists in the Government at this time, especially since the Cost of Living Council was abolished.

Beyond that, of course, there is an impact of the world economy on world food prices and there was a longer run imbalance in the growth of supply versus the rising food standards of the world at large. The world at large is now in a recession, real growth in other advanced countries will also be negligible next year. It may not be negative as a total but it will be 1 percent. A worldwide drive toward higher standards will be mainly to the oil producers and the Soviet Union where there is a big attempt to upgrade food consumption.

We still have marketing orders that are long obsolete that should be abolished.

Senator Biden. Can you give me an example?

Mr. Eckstein. I gather they still exist on some citrus fruits.

We still have policies of import limitation from Mexico. In the distribution side we still have the obsolete trucking regulations. There appear to be productivity problems in food processing of which the Government is starting a study. But these are really long-range problems, they are not going to solve next year's problems.

I think the most critical thing on food you can do in the short run is to make sure the Government policy stays where it is today to get production up.

Mr. OKUN. I think it is possible to do something on the export side. The projections I have seen at a time when the United States as a consumer is going to be taking a 10- to 15-percent reduction in grain use, that includes primarily feed grain fed to animals, that Eastern European countries—namely, the Soviet Union—are raising theirs significantly.

I think throughout the last few years there have been serious questions in my mind as to whether our policies have given a fair shake to the American housewife in the consumer market.

We have peddled our exports to all sorts of new customers who never bought from us before who indeed in the past have had restrictions against the entry of U.S. farm products and will probably have them again as soon as the supplies become adequate.

I do not understand why two-thirds of that Soviet grain purchase was restored after the President took what I thought was the most encouraging step in canceling that order.

I hear all sorts of stories, the veracity of which I don't know, about oil producing countries that are suddenly entering into U.S. markets for grains in a big way. I think we have a real responsibility in the world. We should not forget the poor, the regular customers who are dependent on us. I think we should be carefully looking at whether sales abroad are justified in terms of our obligations.

I must say, Senator Biden, I do not want to convey—I don't think Dr. Eckstein does either—the notion there have not been mistakes of fiscal monetary policy on the side of excessive stimulus in recent years.

I think in 1972 and 1973, at least the first half of 1973, we were giving too much gas to the economy in the form of excessive budgetary stimulus and excessive monetary stimulus.

I think in retrospect certainly we did let the economy boom too much quite apart from the special factors in food and fuel. I think that is something we should be aware of now in structuring policy that will not commit us to giving too much gas at a time when it is not needed, but you do not rectify those mistakes by slamming on the brakes and stalling out the economic engine, and that is the way we have tried to make up for it.

Senator BIDEN. Dr. Weidenbaum said that although he, as I understood his testimony, favored stimulus at this time, he cautioned that we not build in long-term stimuli and concentrate on the short-term and in your $25 billion reflation package, where do you suggest—let me back up. I assume that depending on what sector of the economy

we reflate, the effect can be different, just as when we were going through a budget cutting procedure it was agreed that cutting in one sector of the economy may have a totally different effect than cutting in another sector, not just on that sector but on the total economy. I assume the converse is also true.

Where do we reflate?

Mr. ECKSTEIN. I think any package that has the right dimension for the problem has to emphasize the consumer and, therefore, tax reduction, personal tax reduction.

Senator BIDEN. Personal tax reduction.

Mr. ECKSTEIN. I think that must inevitably be a large part of the total package. I happen to believe in longrun efficiency for the budget. I am very leery of temporary increases in the budget outside of areas where everybody recognizes it is an antirecession program, like public service employment or unemployment insurance.

I think there is enough happening in the budget side. Even in the military side there will be some increases in spending beyond these budgetary targets which I include in the $25 billion.

I am troubled by the process of winding down the stimulus, if the economy really is clicking along. In our current model exercises, the economy would need a lot less stimulus in 1977–1978 than it needs in 1975.

The investment credit I think will pay for itself in extra fiscal capacity. I think it is going to be a longrun benefit. And on the spending side, I don't really advocate, in fact I guess I really reject the point of view that you should look across the budget from top to bottom and try to spend more money.

Senator BIDEN. I think that is an important point to make because there are many people that I serve with who will read what you have said as being: We have just got to spend more money; whether it be in the HEW budget or in the Defense budget, if we just push more money into the economy in terms of Federal dollars, we are going to move into the reflation, the reflationary cycle that Dr. Eckstein is suggesting.

So I would find it extremely useful, and I realize time does not permit that, if you could provide for me and possibly anyone on the committee who might be interested, some more specific direction as to where that $25 billion should go to have the effect that you are suggesting is needed,[1] and I realize my time is running out.

May I ask one quick question?

The CHAIRMAN. Go ahead and pursue that question.

I was going to ask it. You can have part of my time to pursue it.

Senator BIDEN. I'm glad the chairman said that instead of the ranking member. [Laughter.]

It also seems to me that if in fact when we talk about the tax side of this $25 billion package, we get fairly specific about how we go about accomplishing that reduction in personal taxes and whether or not we do anything. For example, Dr. Okun, you said somethiing which I think everyone in the room agrees with, and you probably have abbreviated your statement just in order to be able to get it in.

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[1] See testimony on p. 39.

On page 7 you said:

More generally, I believe that the review of oil taxation should be only the first step in a thoroughgoing national tax reform that improves the justice and equity of our tax system.

And I believe in God and motherhood, too, but how do we improve the equity of that tax system?

There are some up here in the Congress who are pushing for tax reform. It always amazes me what tax reform means when it gets to the floor of the Senate. I just find it difficult to understand, even though I understand a little bit about taxes. I practiced some tax law, and I have some general feel for it. What we label reform can mean anything at all.

So I think it would be extremely helpful from the economists, especially as well respected as you three gentlemen are, to have some very specific suggestions as to where that reform should come in order to accomplish the economic impact that you say you desire. I am not asking you to make social judgments, although in effect you have to do so when you do this, but again time probably does not permit that.

If you can respond to that very general broad question, fine, if not, I would appreciate some kind of input later.

Mr. OKUN. I would respond by saying that I deliberately mentioned tax reform in an abbreviated way because I think it is important, but it really isn't a part of the urgent antirecession program.

I don't think that coupling tax reform with the supportive measures that are so urgently needed would result in a successful program. It would hold up the enactment of the stimulative measures that we sorely need.

That is why I wanted to focus on a few large steps. In fact my recommendation on most Federal spending programs would be: Treat them no differently than you would if we did not have a recession. There are only a few places where expenditures are the most effective way of dealing with a recession

For the same reasons that I fear delays, I am a little hesitant about suggesting what I think are highly desirable ways of using the stimulus to buy some antiinflationary bonus like the special revenue-sharing for the States and localities or the use of food subsidies.

I think those are programs which we should institute. They would improve the performance of prices as well as economic activity next year, but I realize that unless everyone sees the wisdom of these ideas in a very short period of time, they could become a barrier to doing what is necessary.

Maybe we do have to resort to personal tax cuts. If we do, then I would try to couple them with an explicit program of wage restraint, telling the American worker the truth—that he cannot get well simply by pushing up wages.

Senator BIDEN. The reason why I asked that question is twofold. The first reason I think is obvious, but the second reason is that I am concerned again about one thing which I agree with, which Dr. Weidenbaum stated, which is that we have a tendency to overreact to built-in long term solutions to short-term problems and end up causing our long-term problems. If we do, for example, as Dr. Eckstein suggests

and some of us support, go with the reduction in personal income tax, and I think that is needed, without an adjustment of other portions of the tax structure that deal with outmoded economic factors that impact adversely on the economy now or later—if we build the reduction in and 2 years down the road we are saying that we need a different policy and revenues need be increased, we are left with those policies which are no longer beneficial in many instances, the tax loopholes that are thrown around so loosely, and what we are going to have to do it go back to the consumer, who I think by the way, under any circumstances, should have his personal tax revised down for equity and justice, in addition to the economic reason, which I fully agree exists now.

That is why I ask the question, because I am afraid we are going to build in a politically untenable situation later down the road in 1976, an election year. I cannot picture many men or women going out on the stump and saying, "Well, now what we have to do is increase revenue, and the way we are going to increase those revenues is to go back to the 1974 picture, where you paid *x* number of dollars."

Anyway, I would like to ask one general question. You need not respond now, but again it is my lack of understanding possibly and my lack of ability of dealing with generalities that we all deal with up here which really worried me a lot. One of them is the fairly general outline, Dr. Weidenbaum, that you suggested, and I would like—what is the phrase they use—I would like the skeleton fleshed out, or whatever, and that is your talk about the job program that has the effect in the next 3 to 6 months—you say.

Avoid voting for large new public works projects, for example, that would take a year to get going, and would have their major economic impact in 1976 or even later. As we have learned, a temporary and limited public service employment program can be an effective way of creating jobs for those who are unemployed because of the current recession. Such a program should focus on adults who are family heads. No incentive should be given to younger persons to drop out or stay out of school.

I agree with that. How do you do that, specifically?

Mr. WEIDENBAUM. Right now, pass the bill for public service employment, right now, not January.

Senator BIDEN. Which bill?

We have a bundle of them floating around.

Mr. WEIDENBAUM. The Nelson-Javits bill would be fine right now.

The CHAIRMAN. It depends on who you are. I have heard that referred to as the Mondale bill.

Senator MONDALE. Right now.

Mr. WEIDENBAUM. The Mondale-Nelson-Javits bill.

Senator MONDALE. You are getting to be a better economist every minute. [Laughter.]

Senator BIDEN. As I said, Mr. Chairman, with permission I would like to submit these other questions in writing and I appreciate that and look forward, Dr. Eckstein, to your additional views on the first subject we raised.

The CHAIRMAN. Thank you very much, Senator Biden.

I wonder if, Dr. Okun and Dr. Eckstein, you would suggest for the record how you would program the $25 billion reflation. It may be spread through the testimony at this point, but I would like to see it summarized.

Mr. ECKSTEIN. Yes, in my case the assumptions that we actually had to make to run the model were these: We cut personal taxes $12 billion. I did not spell out how. I would assume some would be indexing in the sense of a bigger exemption, perhaps a bigger low income allowance, perhaps the tax credit approach as a part of it, although they cannot spend all $12 billion at the low end.

Beyond that it might well be that if there were a temporary element it could be an opposite of a surtax, it could be a recession discount if you like.

Then on the business side it is a $3 billion investment credit. On spending, what we actually put into the model will give you a sense of why part is a cost overrun. We assumed that military spending would be about $2.7 billion higher. That is an outgrowth of the SALT agreements, et cetera, and also the extra inflation has cut the real purchasing power of the military quite substantially.

Another $2.7 billion we put into improvement in transfer programs of some sort which could be better welfare or food stamps, which have partly eroded their value under the inflation; $2 billion we put into grants-in-aid to the States which could be any form.

And then another 0.6 we put into other goods and service purchases of the Government which could be extra roads or Army engineer projects, or what have you.

If I did that right it should add up to the $25 billion.

In timing we assume that nothing would happen before July 1, 1975, because everything takes time and it is only an illustrative exercise.

I would assume in fact some of these things would take longer even to get legislated, much less to get implemented.

The CHAIRMAN. How do you count the automatic increases in social security and pensions that take place under current law, you don't include that in the $25 billion?

Mr. ECKSTEIN. No, that is current policies, it includes the escalated social security.

The CHAIRMAN. There will be an increase next July 1——

Mr. ECKSTEIN. Yes, sir. That is in the baseline forecast.

Mr. WEIDENBAUM. A brief comment.

I think that there is an underlying strong area of agreement here which needs to be emphasized. That is, we all believe that this committee on the budget should maintain a very hard-nosed attitude on Government spending, that this is not the time, I cannot think when the time would be right, for low-yield projects to be put in the budget just to spend money.

If additional fiscal stimulus is needed, and we all think that additional fiscal stimulus is needed right now, it should primarily be on the tax side.

So even though we may disagree about the precise amount of the stimulus, not surprisingly, Republicans want less than Democrats, we do think that the stimulus should be in the form primarily of tax

reductions which put more income in the private sector so that individuals and business firms can make their own spending decisions.

The CHAIRMAN. Would that include, from your point of view, the kind of tax reductions in the lower income levels Dr. Eckstein is describing?

Mr. WEIDENBAUM. The sensible package would be the investment tax credit plus the reductions at lower income levels in the income taxes.

The CHAIRMAN. Dr. Okun, your $25 billion package.

Dr. OKUN. Well, I got onto Dr. Eckstein's $25 billion bandwagon with a little rounding up of what I initially had in mind but I think it is a useful characterization of the appropriate magnitudes. My guess is that public service employment, unemployment compensation improvements, and some improvement in food stamps could spend $5 or $6 billion. I support the increase in the investment tax credit, which is about $3 billion. I would then use the $15 billion that I suggested earlier as an aid to consumer purchasing power in any one or combination of the forms that I mentioned.

Getting the States and localities to cut excise taxes would be the very best possible way to cut taxes next year. It has the right distributional effect and a very significant anti-inflationary bonus. We get more of a cut in the inflation rate from that than from an extra two points of unemployment. And some of the effect would stick because changes is excise taxes affect escalator clauses, and other prices and costs geared to consumer price index.

If we move to the income tax alternative, I would be reluctant to see a permanent cut of as much as $15 billion. I might like to see some combination of a permanent and a temporary portion, recognizing that you would get a somewhat less stimulative effect.

I would focus that very heavily on the lower and middle income taxpayers and particularly on workers. We could increase exemptions. I was attracted by Senator Mondale's proposal for offering a credit as an alternative to the exemption in the present system. Then, if I had some more to give away in the form of tax cuts, I would focus on the lower brackets of the tax system.

The 14, 15, 16, and 17 percent rates in the bottom brackets could be lowered. That would give an equal dollar cut to everybody in high and middle income groups and hence have a quite progressive effect.

I would want to design a program that would specifically couple the income tax cuts with some wage restraint. For some purposes it might be best to cut the employee share of the payroll tax on a temporary basis. I did not offer that suggestion because I think that there is such a feeling of sanctity about the technique of financing social insurance that one could touch off a great debate about religion at a time when we need action rather than ideology.

The CHAIRMAN. I will ask one or two more questions, then yield to Senator Cranston and ask Senator Mondale to conduct the rest of this hearing because I have an appointment with the Governor-Elect of Maine and I would not want to be late.

Dr. Okun, I think you said you favored an explicit import quota on oil. Would not that raise the domestic price of oil and increase oil company profits?

Mr. OKUN. What happens to the uncontrolled price of domestic new oil depends upon what other measures are taken to fill the gap between supply and demand.

If we did nothing else, it surely would have that effect. If we are successful in getting some prompt expansion of domestic supply, or in getting enough conservation, then it would not.

I am more optimistic about voluntarism on energy than most people are. My feeling is that you cannot get results by telling people to drive less. If you tell them what you really want them to do, if you appeal in a quite explicit way for the kind of response that you want from the American consumer, if you can create a feeling in this country where anybody would be embarrassed in his neighborhood to pull his car out of the driveway on Sunday without explaining that he was going to church or visiting a sick mother-in-law, then I think you will get a real response.

I am far from certain that this combination will work. If it does not, then we may have to move to taxation or to rationing. We should give voluntarism a real try and allow some opportunity for opinions to crystalize and for ideas to be floated. I think the enthusiasm for the gasoline excise tax has more of an emotional than economic basis.

It stimulates people writing on the editorial pages of the newspapers, but the hard calculation of what a dime or 20 cents will do to cut gasoline consumption, based on the experience of the past year, gives discouraging results.

So I do not think that price increases through taxation are a great remedy. On the other hand, if we are going to have price increases, then I would rather have them through taxation than through still further increases in the new oil price which should be adequate today to encourage oil production and exploration.

The CHAIRMAN. We do have a roll call vote so I yield at this point.

Well, I guess none of us can come back.

That leaves us then with unanswered questions but all three of you gentlemen have been available to us on such a liberal and general basis that I am hopeful we can get you back at any time we like. I invite members of the committee to submit questions to you for the record, and may I say thank you again. I feel more educated every time you appear.

Maybe by the time we have to act officially, as a committee, we may have some sense of knowing what we are about.

Thank you very much and we will meet again tomorrow morning.

At this point in the record we will enter additional material requested and subsequently supplied.

[The information referred to follows:]

QUESTIONS SUBMITTED BY SENATOR BIDEN TO DR. OTTO ECKSTEIN, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY, WITH RESPONSE

Question 1. Professor Weidenbaum suggested the need for an increase in the investment tax credit from 7 to 10%. Do you agree? How quickly will this have an impact on business investment?

Answer. I favor a more liberal investment tax credit and its extension to public utilities at the uniform rate. There is a quick impact in encouraging the purchases of off-the-shelf items, but the larger impacts come after a delay of six to 24 months.

Question 2. Beginning in January many employees will start having the Social Security payroll tax taken out of their pay. In the first quarter, this will result in taking about 3 billion out of their pockets. Is this reduction in spending power of concern and if so is there anything we can do?

Answer. The annual resumption of payroll tax collections is included in the seasonal adjustment factors of the National Income Accounts. Thus, it is automatically built into the econometric analyses based on this set of figures. Fortunately, the resumption of these taxes coincides each year with the end of the Christmas buying season.

Question 3. Dr. Okun suggested asking States to cancel sales taxes to stimulate spending and that the Federal Government make up the tax loss. This might not work in Delaware because we do not have a sales tax. Are there other variations of such a program that would work in any State regardless of its particular tax structure? There has been a suggestion that Federal Government reimburse States for all revenue losses due to recession. Would this have any stimulative effect?

Answer. I can see no way to treat the states uniformly in a system of offsetting sales taxes. I also question whether a federal reimbursement of revenue losses due to recession is a workable plan. For one thing, it would rely heavily on rather arbitrary calculations of revenue losses. Of course if the states were given the extra money it would have some modest stimulating effect, like revenue sharing generally.

Question 4. Frequently we focus primarily on Federal fiscal policy, and its impact on the economy. Should we also be considering the impact of about $180 billion of State and local spending?

Has anyone ever studied how we could plan for State and local fiscal policy as well as Federal in trying to guide the economy?

Answer. There is a long history of studies seeking to integrate state and local fiscal policy with national fiscal policies. But these studies all come to a dead end. The Federal Government does not control the states and localities, and it should not do so.

In economic forecasting, which is of course a necessary background to fiscal planning, the states and localities must be analyzed like other economic units in the economy. For example, the Data Resources econometric model, used in my own forecasts and used as an analytical tool by government agencies, has an explicit behavioral model of state and local governments. Expenditures depend upon the financial conditions as well as the long-term needs, and the taxes are partly determined by the need to have state and local governments remain near budget balance.

One of the disturbing elements of the current recession is that the budgets of the local governments are in relatively weak condition. States and localities have been among the highest growth sectors ever since the War and have been important stabilizers in recession. This time there is no growth in state and local spending, a setback not seen since the thirties.

Question 5. You have suggested there will probably be a budget deficit next year. Do you believe this is desirable??

Answer. Whether it is desirable or not, the budget will have a very large deficit next year. Spending cannot be reduced in recession even if the government should have the misguided desire to do so. Yet revenues drop very sharply, both due to the progressive nature of the income tax and the still quite considerable reliance on corporate profit taxes.

The budget deficit per se is not desirable. It does have to be financed and therefore indirectly reduces private spending at least in some modest proportion. But the deficit is simply an inevitable concomitant of a policy of reflation, of raising demand to the point where the economy can begin to heal itself.

Question 6. I held a meeting in Delaware with representatives of housing and construction industries, financial institutions, labor, and others. With housing starts in Delaware down about 60% and both public and private heavy construction virtually stopped, there will be no industry left to enjoy an improved economy. What can we do for these hard-hit groups now?

Answer. The only way to help the construction industry is to keep on easing monetary policy so that the traditional sources of financing for construction can be resumed. The thrift institutions have not only suffered outflows of funds, but have become, in many cases, highly illiquid. Consequently, they will be using the

initial savings inflows to restore their own balance sheets, rather than to vigorously resume lending. A considerable easing of money therefore becomes particularly important if the process of construction recovery is to begin in the first half of 1975.

The government of course also takes other measures, but these, to an extent, are a form of self-deception. The "billions" poured into the mortgage market largely come out of the thrift institutions through the sale of the necessary agency securities.

There is one other aspect to the recovery of the construction industry. As long as collective bargaining in the industry is as one-sided as it has been through most of the last 20 years, the construction industry is an inflationary headache. Since inflation is the phenomenon that created the recession to begin with, one cannot focus on construction as a sector in which one would aim to stimulate sharply.

Question 7. As of October, the electric utilities have postponed or cancelled $16 billion in plant construction over the next 5 years. This obviously has hurt the construction industry, but may make sense in terms of energy conservation. Do you see any way out of this dilemma?

Answer. No sane person could have devised the set of events that have occurred in the utility industry. As a result of the very tight money, consumerism and environmentalism, the utility industry has been pushed into such a financial state that it has cancelled much the largest part of its nuclear plans. Yet it is the nuclear technology that is the real hope for achieving Project Independence and for restoring America's international political and economic power.

The utilities are going ahead with fossil fuel plants, using much less capital, even plants dependent on natural gas which is known to be in very short supply.

The events in the electric utility industry make it vividly clear that our approach to the planning of economic policy requires a complete overhaul. Only a piecemeal approach to monetary policy, regulation, and energy policy could have produced the current monstrosity.

The United States will have to conserve energy, mainly for international policy reasons. The need for conservation is so great that we will have to use all the ingenuity we possess to improve the GNP-energy relationship. We must devise ways to have the GNP advance at a healthy rate with relatively less use of energy if we are to create the jobs for a growing population and to meet the aspirations of rising living standards. Of course, the recession does provide a side benefit of reduced energy demands, but that is certainly solving the energy problem the hard way.

I hope you find these replies useful.

QUESTIONS SUBMITTED BY SENATOR BIDEN TO DR. ARTHUR OKUN, SENIOR FELLOW, BROOKINGS INSTITUTION, WITH RESPONSE

Question 1. Prof. Weidenbaum suggested the need for an increase in the investment tax credit from 7 to 10 percent. Do the rest agree? How quickly will this have an impact on business investment?

Answer. I would support an increase in the investment tax credit from 7 percent to 10 percent as part of a stimulative package of tax-reducing measures. While the effect of the credit on actual investment spending builds up over a year or two, some rise in orders and activity of machinery-producing industries should take place very promptly.

Question 2. Beginning in January, many employees will start having the Social Security payroll tax taken out of their pay. In the first quarter, this will result in taking about $3 billion out of their pockets. Is this reduction in spending power of concern and if so is there anything we can do?

Answer. The pending increase in the payroll tax will absorb purchasing power that would be better left within the private sector. It is an added reason for offsetting tax cuts that will add to consumer purchasing power.

Question 3. Dr. Okun suggested asking states to cancel sales taxes to stimulate spending and that the Federal government make up the tax loss. This might not work in Delaware because we don't have a sales tax. Are there other variations of such a program that would work in any state regardless of its particular tax

structure? There has been a suggestion that Federal government reimburse states for all revenue losses due to recession. Would this have any stimulative effect?

Answer. It is true that five states have no general sales tax. But I suspect that some of them have other price-increasing excise taxes (other than on sumptuary items or gasoline) where cuts might be made to qualify for the special revenue fund. I would think that a state should not be penalized if it had no price raising taxes whatsoever and hence should in that event qualify for the revenue sharing funds without action on its part.

As a long-term built-in stabilizer, I would favor a revision of general revenue sharing to make the formula reimburse states for at least some of their revenue losses due to recession. But as a quick-acting, newly-legislated anti-recession measure, I would fear that it would take too long to influence state outlays and hence would merely increase federal deficits by narrowing state and local deficits, rather than infusing new purchasing power into the private economy.

Question 4. Frequently we focus primarily on Federal fiscal policy and its impact on the economy. Should we also be considering the impact of about $180 billion of state and local spending? Has anyone ever studied how we could plan for state and local fiscal policy as well as Federal in trying to guide the economy?

Answer. As you suggest, the spending and receipts of the large state and local sectors have important effects on the overall economy. But while the federal government can influence this sector through its grant programs, it cannot plan for it. Many economists do try to predict the activity of this sector in such a way as to make it clearer what federal actions might be taken to offset stimulus or restraint to the overall economy that might arise from state and local government fiscal programs.

Question 5. All of you have suggested there will probably be a budget deficit next year. Do you all believe this is desirable?

Answer. A federal deficit during fiscal years 1975 and 1976 is a regrettable necessity. There is no way the budget could be balanced with the deteriorating performance of the American economy. Any effort to balance it would turn the recession into a depression and ensure federal deficits of enormous size for years to come.

Question 6. I held a meeting in Delaware last Saturday with representatives of housing and construction industries; financial institutions; labor and others. With housing starts in Delaware down about 60 percent and both public and private heavy construction virtually stopped, there will be no industry left to enjoy an improved economy. What can we do for these hard hit groups now?

Answer. The only glimmer of good news in recent months is the improving outlook for homebuilding and thrift institutions. Lower interest rates are bringing money back into the financial institutions and these, in turn, will begin to flow to housing by the spring of 1975. A continued emphasis on the easing of monetary policy is the best thing that can be done to ease the plight of these hard-hit groups.

Question 7. As of October, the electric utilities have postponed or cancelled $16 billion in plant construction over the next 5 years. This obviously has hurt construction industry, but may make sense in terms of energy conservation. Do you see any way out of this dilemma?

Answer. While I do not know the details, I doubt that all the cutbacks in plant construction by electric utilities can be viewed as a benefit for energy conservation. While the higher cost of energy points to a lesser need for expansion of these facilities than was previously contemplated, some of the construction seemed necessary to convert those facilities to the use of coal and to improve conformity with environmental goals. To that extent, the financial squeeze on the electric utilities is actually resulting in a setback to energy and environmental goals as well as to the construction industry. Public utility commissions should recognize that there is no way to shield the consumer from the higher cost of energy without imperiling the reliability of services in the years ahead. This is one place where unfortunately some further increase in the cost of living must be accepted.

QUESTIONS SUBMITTED BY SENATOR BIDEN TO PROF. MURRAY L. WEIDENBAUM, MALLINCKRADT DISTINGUISED UNIVERSITY PROFESSOR, WASHINGTON UNIVERSITY WITH RESPONSE

Question 1. How quickly will increasing the investment tax credit have an impact on business investment?

Answer. Some impact of the change would be felt quickly by business firms who are considering making new capital investments. On balance, I would expect a higher level of new capital appropriations than would otherwise be the case. The tax change would show up in a higher volume of construction with some lag, depending on the extent that advance design work had been performed, the availability of land and financing, and so forth. Liberalization of the investment credit would improve the outlook for capital goods producers right away.

Question 2. Are you concerned about the reduction in purchasing power that will result from the increase in the Social Security payroll tax scheduled for January?

Answer. Yes I am concerned about the withdrawal of purchasing power at that time. However, the various proposals for change worry me even more so. Social Security and related income maintenance outlays have been rising far more rapidly than the budget as a whole. One of the few restraints on that expansion has been the necessary but unpleasant need to pay for the Social Security benefit increases by Social Security payroll tax increases.

Question 3. What if anything should the Federal Government do to help the states offset revenue losses due to the recession?

Answer. Since late 1972 the Federal Government has been providing general revenue sharing payments to state and local governments. I believe that this innovative program should be extended and expanded. The annual amounts should be increased to keep pace with inflation and population growth. Judging from the use reports made by the governments that have received the revenue sharing money, a significant portion has been used in lieu of further increases in already high and often regressive state and local taxes.

Question 4. Should Federal fiscal policy take account of state and local government revenues and expenditures?

Answer. The formulation of Federal fiscal policy should, and I believe usually does, take account of all of the other sectors of the economy, including state and local governments. Difficulties arise from the decentralized nature of decision-making by 50 states and literally tens of thousands of cities, counties, special districts, and other local units. Thus, in practice only aggregate projections are made of state-local purchases.

Given the inability of many local governments to run current account deficits and the limited financial reserves of even the more affluent state governments, it is not feasible for them to attempt to conduct their own counter-cyclical fiscal policy. If anything, these governments are hard-pressed to finance their current level of services during periods of recession when the growth of revenues slows down.

Question 5. Is a budget deficit desirable for next year?

Answer. Even though I am not overly fond of large budget deficits as a general proposition, I do believe that a substantial deficit is inevitable for fiscal 1976. Even in the absence of new spending programs or tax cuts, the budget deficit likely will reach $25 billion or more. That will occur primarily because the depressed economy will generate a relatively low level of tax receipts. It would be foolish to try to reduce the deficit. Given the high and rising level of unemployment, tax increases or spending cuts would be self-defeating. They would pull down the economy even more and on balance result in an even bigger deficit.

Question 6. What can be done for the hard-hit construction industries?

Answer. It is important that the Federal Reserve System encourage a moderately more rapid growth in the money supply. The resultant further decline in interest rates will hasten the reflow of funds to the thrift institutions, which provide the bulk of the mortgage money. Declines in interest rates will also make home purchases more attractive. Increasing the investment tax credit, for all companies including utilities, would give industrial and commercial construction a shot-in-the-arm.

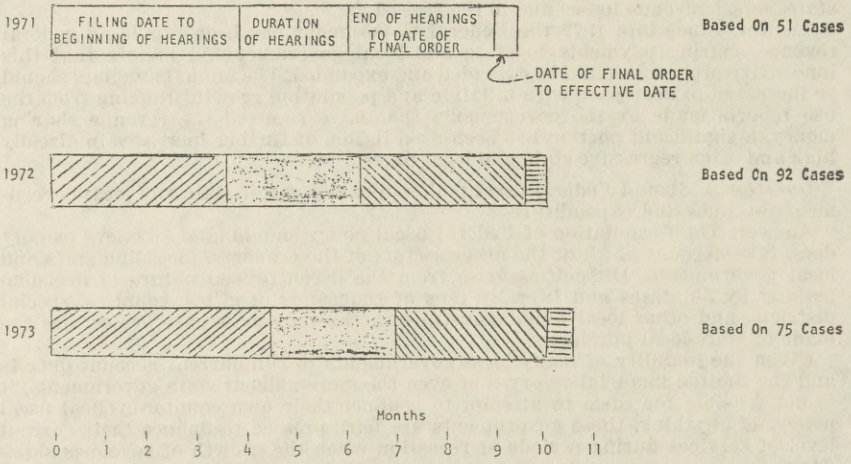
Question 7. What can be done for the electric utility industry which has been forced to postpone or cancel $16 billion in plant construction?

Answer. The electric utilities are suffering from a variety of problems, some of which afflict the economy as a whole and some which are special to them. To my knowledge, most of the cancellations and cutbacks result from inability to raise needed new financing. In good measure this, in turn, reflects investor concerns that the state regulatory commissions are not approving rate increases either promptly enough (see Figure 1) or in sufficient magnitude. Although rate increases are unpopular, there is no real substitute for charging customers the full cost of electricty, including the construction of the new facilities required to serve a growing population. At the Federal level, there is no excuse for giving the utilities a smaller investment tax credit than all other companies (4% instead of 7%). They shoud receive the same investment incentives as are granted to business in general—and the many state regulatory commissions that do not let them receive the benefits of the credit should change their procedures.

Simultaneously, changes in rate structures should be instituted to encourage users to economize on electricity, especially during peak-usage periods. It is the peak periods that generate the need for new facilities.

Figure 1

REGULATORY LAG ANALYSIS OF ELECTRIC UTILITY
Rate Cases Decided By State Utility Commissions, 1971-73



The Chairman. The meeting is adjourned.

[Whereupon, at 12:15 p.m., the committee adjourned, to reconvene at 10:00 a.m., Thursday, December 12, 1974.]

THE ECONOMY AND FISCAL POLICY, 1974

THURSDAY, DECEMBER 12, 1974

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to notice, at 10:07 a.m., in room 1114, Dirksen Senate Office Building, Senator Edmund S. Muskie (chairman) presiding.

Present: Senators Muskie, Moss, Mondale, Cranston, Chiles, Fannin, and Biden.

Also present: Douglas J. Bennet, Jr., staff director; John J. McEvoy, chief counsel; Marc Lackritz, deputy chief counsel; Arnold Packer, chief economist; Maria P. Durelli, chief clerk; Bert Carp, task force investigator for Senator Mondale; James Wood, professional staff member to Senator Moss; Harold Gross, task force investigator for Senator Cranston; Susan Kinsman, research assistant for Senator Cranston; Colin Bradford, professional staff member to Senator Chiles; Alan Chvotkin, professional staff member to Senator Abourezk; Richard Andrews, task force investigator for Senator Biden, and Joan Leach, clerical assistant.

The CHAIRMAN. The committee will be in order.

OPENING STATEMENT OF SENATOR MUSKIE

I have a brief opening statement in which I will summarize my impressions of yesterday's testimony as well as to set the stage for today's testimony.

Last night the President reviewed his economic policy. As I understand it, it can be described as "steady as she goes", at least for the next couple of months.

Yesterday this committee heard testimony from three leading economists who said that "steady as she goes" means down. It means 8 percent unemployment by next summer and even worse if current policies stand.

It means a recovery starting no earlier than late 1975, a recovery so anemic that it will not keep unemployment from rising further.

The President admonishes us not to make any discouraging statements or to engage in "partisan economics." But the economic situation is discouraging. Yesterday Republicans joined Democrats in calling for vigorous anti-recession measures. The President noted that he has seen five recessions in his 25 years in the Capitol and we have recovered every time. But projected unemployment is now heading for levels worse than any time in the last 30 years.

This means if these projections are accurate that almost 8 million Americans will be unable to find work, not even counting those who have become discouraged enough to drop out of the labor force.

The administration's response to date is a proposal to provide 83,000 new jobs—about one job for every 100 job seekers.

The consensus of the experts we heard yesterday is that a prompt and major shift in policy is required to stimulate the economy. The economists pointed out that timid attempts to solve inflation and recession simultaneously will just not do the job. I am sure that both this Congress and the next one will understand that fact and will act vigorously to enact programs designed to first halt and then reverse the current slide into the worst recession since World War II.

These hearings are not intended to put you, Mr. Ash, or the administration on the spot at this time in the budgetmaking process but we do want to know if you concur with the forecasts we heard yesterday and what you believe fiscal policy should be in that situation.

Specifically, we need to know whether the administration still wants Congress to cut spending. The President has submitted more than $25 billion in impoundments of Federal funds. If Congress permits those cuts to stand, this will reduce Federal spending in essential areas such as pollution control by more than $1 billion in this fiscal year. And I might note that Henry Ford the other day urged the release of all of the funds that have been impounded for pollution control and highway construction as a job-creating policy.

The President has made these impoundments for what he describes as economic policy purposes but the major premises of the economic policy the President was pursuing when he made these impoundments was that the country did not face a recession and that inflation was its major problem.

The President has now acknowledged that recession is a major problem, so we must ask this morning whether these impoundments make sense in the real economic environment of deepening recession.

In the Congressional Budget and Impoundment Control Act which created this Budget Committee, the Congress established a procedure for dealing with impoundments. A number of questions have already arisen between the executive branch and the Congress about the proper interpretation of the act and about the proper use of the impoundment authority contained in title X of that act. These differences are serious and continuing. They go to the basic question of whether the President has complied with the act in these impoundments.

I do not believe that time permits us to examine these problems this morning nor does it permit a detailed examination of a great number of the more than 150 impoundments the President has made. But we are deeply concerned with these questions.

For that reason we may be submitting to you, Mr. Ash, and the Office of Management and Budget, a list of questions in writing about these impoundments and their justification. We will have to see how far we get in today's hearing.

There are other questions under title X involving internal policies of the Congress which also must be resolved and I gather that neither set of problems can be resolved in the short time remaining in this Congress but should be resolved as soon as we can in the new Congress.

As I said in my opening statement yesterday, and in the first hearings that we held, Congress and the administration must cooperate in developing a workable economic program. Indeed, I do not believe a workable economic program is possible without cooperation and without some kind of agreement between the two branches as to the principles that should underlie that program.

So at this point success in that enterprise requires a substantial clarification of the administration's policy and I understand the President indicated in his address yesterday that the administration is now working on modifications of the economic package which he submitted to the Congress—modifications which he plans to submit to the Congress in January. I understand that the process is underway and not completed, and I intend to raise no questions about the time that that takes because obviously the President has a right to give the appropriate time to developing his new policies. But within the limits of that consideration I hope that we can get some further insights as to the direction of the administration's thinking at this point.

With that, Mr. Ash, I am delighted to have you with us this morning. You have been most cooperative with the committee in meeting with us and most frank in expressing your views and I am sure that that will continue.

May I ask my colleagues if any of them have statements they would like to make before we proceed.

Senator Moss. No. I do not this morning, Mr. Chairman. I am anxious to hear Mr. Ash.

Senator MONDALE. I have none.

The CHAIRMAN. Senator Biden?

Senator CHILES. I gather not.

The CHAIRMAN. Mr. Ash, will you proceed?

STATEMENT OF HON. ROY L. ASH, DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET, ACCOMPANIED BY DALE McOMBER, ASSISTANT DIRECTOR, AND ROBERT BONITATI, ASSISTANT TO THE DIRECTOR FOR CONGRESSIONAL RELATIONS

Mr. ASH. Thank you, Mr. Chairman and members of the committee. I welcome this opportunity to discuss the current economic situation and its impact on the administration's economic and budget policies.

Clearly, it is useful for this committee and representatives of the administration to exchange views at a time of economic difficulty. As I stressed in my appearance before this committee in August, we want a constructive working relationship with this committee. At the same time, I am concerned that, unavoidably, administration spokesmen will not be able to provide the degree of detailed budget information that some persons might hope or expect. This is so now because:

First, conditions in the economy are changing more rapidly than usual; and

Second, the President is in the midst of making his budget decisions.

I think you were taking account of that even as you made your own observations.

As a part of this process, the President is in the midst of a detailed review of budget recommendations of the agencies. It would not be appropriate for me to speculate how the multitude of his decisions will finally affect budget totals, nor how the totals will affect individual budget decisions.

Having indicated some of the limitations on what I can discuss, let me suggest what would be appropriate for discussion. First of all, I will be glad to talk with you about some of the effects various economic assumptions would have on the budget. Second, I am sure Members of this committee have views that they would like to state and which they would like us to consider. We are receiving many views on the economy these days, but I give special weight to those of this committee since our responsibilities overlap to such a great extent.

Let me tell you something about our thinking as we prepare the budget. As you know from the President's statement last night, the administration is concerned about recession, and plans to move aggressively to combat the increasing slack in the economy. In doing so, however, we will be mindful that inflation is still a serious problem. Taken together, these factors—inflation and recession—constitute the economic malaise from which we are now suffering.

For example, we are examining all programs with a special view to dealing with unemployment. In his economic program announced October 8, the President recommended a National Employment Assistance Act that would provide substantial new aid to the unemployed when the unemployed rate reached an average of 6 percent for 3 months, and increasing amounts if the rate went higher. If that proposal were now law, there would be available today, even as I speak to you, $1.5 billion to provide more unemployment insurance benefits this year and to add at least 83,000 new jobs under the proposed community improvement program. This is on top of the more than $10 billion we now expect to spend for unemployment benefits in 1975 from existing programs. It is also on top of $2.7 billion requested on an annual basis for public service jobs and training slots for 550,000 workers under the Comprehensive Training and Employment Act.

Moreover, as the President indicated in his November 26th message to the Congress, he does not believe it is wise to offset each dollar of increased aid to the unemployed by a dollar of cuts elsewhere in the budget. I might add that, by the same logic, if the softening of the economy results in lower receipts estimates than we originally anticipated, we do not intend to reduce spending dollar for dollar in an effort to have a balanced budget.

Nonetheless, with the huge pressures on the budget both because of the need to help those without jobs and the need to help those hurt most by inflation, we need to work harder than ever to hold down lower-priority programs. It is not inconsistent to propose, simultaneously, antirecession budget increases and budget reductions which address long-run problems caused by excessive long-range growth in Federal spending.

Balancing the needs of the country and responsible economic policy that will help to ease unemployment, recession, and inflation is a very complex job. We intend to work with the Congress on it. While I cannot discuss specifically at this time what the President might rec-

ommend in his budget next month since decisions have not been made, I do know that the budget will be submitted to the Congress in the spirit of cooperation. The budget consists of the President's recommendations. We will look forward to considering constructive, responsible alternatives put forth by the Congress.

Last month, in response to a letter from the chairman of this committee and the chairman of the House Committee on the Budget, I agreed that our staffs should cooperate in developing information for a current services budget. I understand that this work is proceeding. We all, I am sure, look forward to the publication of the results. They will, I suspect, indicate the degree of difficulty we all face in developing responsible budget proposals. Sharing this kind of understanding will help to foster the kind of constructive relationships between OMB and the budget committees of the Congress that will be essential if the Congressional Budget and Impoundment Control Act is to work.

We also understand that the Congress will seek a trial-run of the control procedures under the new act during the next session of the Congress. Your success in this initial effort will be of value to all of us, and my organization stands ready to do what it can to help.

I understand, Mr. Chairman, that you want me to limit my opening remarks to a brief statement, so let me stop at this point and respond to your questions.

Maybe I should add one observation before doing so. You observed that last night the President stated a policy that represented a "steady as she goes" course. If that implies a firm hand at the helm, then I would certainly agree. On the other hand, if that implies that the President does not intend taking into account the changes in the economy and the actions called for, I would disagree because in his own statements, and I will just quote a limited number of them, he said:

> A national problem is something that demands widespread understanding and carefully deliberated solutions, cures that are not worse than the disease. Long-term success is not assured by short-term panaceas. There appears to be a tendency these days to focus only on the immediate needs or effects of any proposed economic remedy and not to examine its long-term effects.

He went on to say:

> I intend to keep my experts working over the holidays translating into specifics a number of new or alternative measures to augment and update the economic package that I will place before the Congress within the next two months. I will have new proposals on the desks of the new Members of Congress when they convene in mid-January, if not sooner.

So I think when one talks about a "steady as she goes" course, if that means a firm hand at the helm, I would agree but I would suggest that these comments be considered when interpreting that statement.

Thank you, Mr. Chairman.

The CHAIRMAN. Well, I appreciate having that emphasis on those portions of the President's speech of yesterday. Frankly, in reading it, and I did not hear it delivered, and sometimes in reading a speech you do not get the emphasis that is given during the delivery, I got the impression that the President felt pretty confident that his present course is the course best designed to permit the lifegiving juices of the private economy a chance to work and that we ought not to undertake to inject major changes in Government policy.

If in fact he is contemplating major changes in Government policy, of course, we are delighted to hear that and I guess we will wait until he has formed his ideas and is ready to present them. So I do appreciate that emphasis.

I think we will adopt the 10-minute rule again and I will undertake to direct a few questions to you.

First of all, may I express my appreciation in turn for the willingness that OMB has demonstrated to work with us to try to make this trial run work. I might make a point for the benefit of the press and the public present that the budget act does not require us to execute the scheme of the Budget Reform Act until the 1976 fiscal year. Indeed, it was the conception of the act that we might need until next year to fully organize and staff ourselves and develop resources necessary to do the job.

However, the law does give us the option of undertaking a trial run, notwithstanding that provision.

There are some limitations. First of all, we do not have the benefit of the current services' budgets in November which the act mandates. I am delighted that OMB is going to cooperate with us to give us something approximating that between now and the time the full budget is presented.

Second, the new fiscal year 1976 will begin on July 1, and so we do not have the full 11 months that will be available to us when the process is fully employed to do the job. That imposes some restraints upon the tailend of the process, from July 1 to October 1, which we have not yet fully worked out. But, in any case, we are going to try to make it work with something approximating a full trial run and we cannot do it without your cooperation and I want to express my appreciation for the fact that you have offered us that cooperation.

Now, in his speech last night, Mr. Ash, the President referred to early indicators which indicated to him that inflation is coming under control and that he is confident that we will drop below the double digit inflation which has concerned us all and which has plagued us all this year. I wonder if you could give us those indicators and maybe expand on the President's evaluation of them as an assurance that maybe there is a trend in motion in which we can place some confidence.

Mr. ASH. Mr. Chairman, I think it is now becoming the general view, both within and outside the Government, that the rate of inflation in 1975 and beyond will gradually decline from the rate that we have just experienced. It will not be going down at a precipitous rate. It would be nice if that would be the fact. But I think we would join with most of those who are forecasting the future of the economy in the conclusion that we can look forward to lower inflation rates.

There is a variation, of course, in the amounts that are forecast by the different forecasters and I would have to say that in the past not all forecasters have turned out to be exactly right as they looked into the future, but we have certainly seen evidence, even in current data, that rates of inflation are going down. And there are some very specific things that we can look at.

We all know that the price of energy has gone up considerably in the last year. I do not think there is anybody that expects it to go up at the same rate or anywhere near the same rate in the year ahead.

Certainly, it will not be contributing to our inflation rates in the periods ahead as it has in the past.

Other indices—the Wholesale Price Index, which is a forerunner of the Consumer Price Index, has shown some easing off which will translate into lower rates of inflation at the consumer level.

When we look to next year's production of agricultural products, I think the probabilities are that the weather will be considerably better than this year and that should have dampening effects on inflation from the agricultural sector. Of course, nobody can forecast weather but I think we can say this year was an abnormally poor year which translated into higher prices that, in the normal course, should not be repeated next year. So there are few factors that we can identify as pressing upward. There are potentials for pressing downward and some of those are even now taking place, so I think there is reason to believe—I think most outside forecasts concur with this—that inflation rates will begin to go down.

The CHAIRMAN. Do you have in mind a range that will describe the possible rate of inflation a year from now, for example?

Mr. ASH. Well, certainly a range that moves us back down from the double digit level of inflation that we are currently experiencing. I think that there would be a general consensus—I realize that again we are all forecasting—that a year from now as we look at the inflation rates compared to the same quarter of the previous year, we could be into the 7 to 9 percent range.

At one time, of course, when we would speak of 7 percent we would think that was horrendously high but 7 percent on the way down means a lot more than the 7 percent on the way up. I would be hoping that we could be looking at a number such as that, and certainly most everybody would agree that we should be moving down from the rates we have been experiencing.

The CHAIRMAN. Now, under the pressures to catch up, I think some of the witnesses yesterday projected increases on the order of 11 percent in the wage adjustments. Do you have any fix on that?

Mr. ASH. I do not have any specific data that I would rest firmly on. I think those estimates would be on the high side of the range of probabilities and, of course, they only relate to those employees who would be affected by wage settlements made during this coming year. If one were to look at the wage rates across the total of the labor force, I am sure 11 percent would be outside the range of probable increase.

I do not know exactly what questions were asked of those testifying yesterday or their answers but I would suspect that they may have discussed the settlements that would be taking place during the year itself rather than the aggregate wage rate changes for the whole of the labor force during the year. That number—I think the latter number, the aggregate of wage rates—will be down in the 10 or less percentage level which, with increases in productivity, can lead us to that 7 plus percent rate of inflation.

I should say to make sure that this year, as every other year, we are going through a last official iteration of all of our calculations so they can be both the basis of the State of the Union, the budget and the economic message. The degree of firmness that should be ascribed to my comments is a little less than it would be were the same questions

to be asked about 3 weeks from now. We are at the beginning of a very comprehensive economic review to be the basis of the messages that will be coming to the Congress early the next year.

The CHAIRMAN. Now, there has been a real decline in gross national product in each quarter of the year.

Mr. ASH. Yes; there has.

The CHAIRMAN. What do you see happening to that?

Mr. ASH. It would be our view at this stage, of course there are variations on that view depending upon whom you ask, that in the second half of next year we should begin to see an upturn in the real GNP and hopefully to go out at the end of next year at a respectable rate of growth. I am sure that the two quarters immediately ahead will not be quarters we would want to brag about, in fact, they will be quarters we would like to put into history as soon as possible. But, if we keep our eye on the third and fourth quarters of next year, I think we should see the economy moving back in the way we hope it would.

The CHAIRMAN. Now, what are the factors you think will be at work to produce that improvement?

Mr. ASH. Well, a number. First, housing should improve.

The CHAIRMAN. Why?

Mr. ASH. Interest rates will be moving down. Money will be moving into savings banks and savings and loans organizations because interest rates are coming down and, of course, it is that money which most of all finances the housing market. So, I can see housing beginning to turn up by the normal forces and factors in the economy.

Consumer durable goods tend to follow changes in housing trends because, of course, these houses have to be equipped with the necessary durable goods to make them useful.

Auto sales are currently at quite a low level. It is hard to imagine that they could go much lower. It is more probable that the normal ebbs and flows in the auto purchasing market will bring about an increase in automobile purchases during the quarters ahead. Inventory stocks that have accumulated to high levels will have been reduced by that time and we will be back to a normal cycle in inventory production.

At the same time, it is very possible that investments in fixed plants and equipment, which have held up relatively well considering the rest of the economy, can continue to be made and with a greater confidence. The President addressed the subject of confidence last night. With a greater confidence in the economy that would come about from the evidence of its upturn, there could be increases in plant and equipment investments.

The President has seen five recessions in his time in the Congress. As the President said last night, it is merely a matter of how or when it will be done, not whether. The underlying basis of the economy is such that we can have confidence that the normal workings of the economy will once again come to the fore. These will turn the economy up.

The President said that he will propose those things that the Government can do, but indicated that the Government will not carry and cannot carry the whole of the burden. You have said that the lifegiving juices of the private economy will be a part of our recovery. They

always have, they always will be. The Government is not the sole determinant of what happens in the economy. We need those life-giving juices of the private sector and they could well be flowing in that second half of next year with the kind of confidence both at the consumer, employee, and industrial level that can turn the economy upward.

The CHAIRMAN. My time is up at this point. I yield to Senator Moss.

Senator Moss. Thank you, Mr. Chairman, and I am pleased to have you before the committee, Mr. Ash. We do appreciate your cooperation.

You asserted in answer to Senator Muskie that the interest rates would come down in the ensuing year. How do we know they will come down and, second, how far down will they come?

Mr. ASH. The question might best be directed to Chairman Burns who is the most qualified source to speak on the subject. I will not presume to deal with that subject as well as he might.

However, we are already seeing interest rates coming down, a combination of actions of the Federal Reserve Board and again of the private economy and its workings. Interbank rates are down about 3 percent from the high that they had reached not too long ago, and the prime rate is down a bit. The forces at work are affected by the policies of the Federal Reserve Board. The Chairman and the rest of the Board are sufficiently mindful of the effect of their actions on the economy.

I will say again that the natural forces of supply and demand in the credit markets should take some of the upward pressure off of interest rates. Whatever anybody says about interest rates needs to be tempered by the fact that anybody making forecasts of today's interest rates a year ago would have been wrong. I would not want to suggest that I have more clairvoyance than the rest of you. I merely want to suggest that my view of the forces at work would be ones that would lead us to lower rather than higher interest rates. I would be very humble in making a forecast of interest rates, particularly given what has been happening this last year.

Senator Moss. Well, your prediction would be based really, then, I guess, on the fact that you assume that inflation itself, rate of inflation, would fall——

Mr. ASH. Yes, sir.

Senator Moss [continuing]. And, therefore, the Federal Reserve Board, the independent body that it is, would respond to that in reducing interest charges.

Mr. ASH. Yes, plus the fact that the very factors that caused the rate of inflation to fall, the supply and demand in the economy, will exert a downward pressure on interest rates.

Senator Moss. Is not the cost of money the biggest factor in the slump or almost total collapse of the home-building market?

Mr. ASH. Yes, sir, a very important part. There have been a number of factors that have dealt with the slump in homebuilding. The cost of money has been one. The availability of money has been one. The availability of energy was an important one, that is, if I built a house in the suburbs, would I be able to get back and forth to work? There was apprehension that deterred some people from purchasing homes.

At any time of apprehension, people tend to defer big and long-term decisions. Housing and automobiles tend to be such kinds of decisions. So all of these factors together, availability and cost of money, and apprehensions about what the future might hold have worked to reduce housing starts. We will see some of these factors improving during this coming year.

Senator Moss. In your statement, Mr. Ash, in talking about unemployment and unemployment benefits, you say "It is also on top of $2.7 billion requested on an annual basis for public service jobs and training slots", and so on.

I wonder what your reaction is to the report which I read in the morning press of New York City laying off some 8,000, and I have seen other reports of various city and I think county governments that are actually dismissing employees because they are in financial difficulties. Are we not going to be at cross purposes if we supply public service jobs and at the same time they are being laid off by other governmental layers?

Mr. Ash. It is always regrettable when anybody is laid off and certainly a part of the President's proposal is to make sure that we give first attention to those who become unemployed in the current economic crisis.

The public service job proposals that have been before the Congress since October reflects our mutual concern with those that are unemployed.

The public service job program would make funds available to States and cities to create community improvement-type projects.

Senator Muskie made reference to 83,000 jobs. That number is not seen as the total program. The total program is to extend unemployment benefits to over 2 million people that otherwise would not receive benefits. It would add 83,000 jobs to the 170,000 that already exist under our present programs and would make available additional jobs if the unemployment rate moved even higher. The Congress is working on this proposal and I am sure that before their adjournment we will have in place a program to deal with the problem you have identified.

Senator Moss. Would it not be equally effective and perhaps simpler to release some of the impounded funds on highway construction and water pollution abatement construction that have been held up and, therefore, those jobs have dried up?

Mr. Ash. A very good question, Senator, and one, of course, that we look at from time to time.

Here is what we perceive the problem to be: let us take the highway program in particular.

The funds that are spent and the people that are employed today in the highway programs derive out of decisions made approximately 2 years ago. Decisions made today to change the level of highway programs will not affect employment to any significant degree until at least a year and probably 2 years from now. Had we 2 years ago been able to anticipate the position that we are now in it could well have been, in retrospect, a time to have added to the highway program. That was not done. And when spending programs get out of

phase with the business cycles, we find that we accentuate the cycles rather than moderate them.

Now, in the environmental area, the issues are a little bit different. While there is also a 2-year leadtime, there has been a rapid step-up in moneys available, but those moneys have been available this year in amounts greater than the Environmental Protection Agency has been able to spend. The Agency is actually revising downward its estimate of outlays, not because funds were not available for obligation, but because more was available than they could possibly spend. The EPA has been unable to allocate the moneys that have been available to them. Therefore, making more available will not get us very far this year in that area.

The CHAIRMAN. Will the gentleman yield?

Senator MOSS. I gladly yield, Senator.

The CHAIRMAN. I would like to make this point, Mr. Ash, that projects have not been approved at as fast a rate as in my judgment they could have been.

There is evidence of an administrative drag that has inhibited the expenditure of outlays in the environmental field. Whether that is deliberate as a policy of slowing down spending or not I have no way of making a judgment but I know in my own State there have been delays that in my judgment could not be justified in terms of the merits of the projects that have resulted in a slowdown in outlays.

Now, if this is the pattern across the country, it seems to me that we have not made a maximum effort to push that program forward.

The second point I would make is that with the impoundment of funds, impoundment of half of the funds authorized by the Congress, the stimulus to industry that the Congress envisioned with the passage of the 1972 act was cut in half. So industry did not get that stimulus.

And the final point I would like to make is that if what we are talking about is not only Government programs but also the vital juices of the private enterprise economy, I cannot think of anything better than to gear up the industry effort in the environmental fields for what is going to have to be for years to come. This is an area of entirely new jobs, not just short range but long range, and it seems to me that a massive incentive from the Federal Government would achieve not only the deadlines of the 1972 law but also the building up of an industry that is going to be critical to the long-term future of the country. There are coincidental benefits we ought to seek.

Senator BIDEN. Will the gentleman yield at that point?

Senator MOSS. I will be glad to yield.

Senator BIDEN. Just to back up what the chairman says, my State is no different than any State. Delaware has matching sewer funds that are sitting there. They have the men to go forward, the workmen on site. They have got everything geared to go and they cannot get the Federal dollars, matching dollars to put in the sewers because of the impoundment of funds. Delaware has put up its money. No question the contract is ready to go and it is no different than any other State.

Mr. ASH. I do not believe it is because of the impounded funds. It might be that it would be useful to address the question to the EPA

as to what might be holding up that particular program. It could well be that there is some very special factor about that.

Senator BIDEN. I just double checked with my staff. That is precisely what EPA has said and the reason why the funds are not coming is that they are impounded funds.

I am not suggesting that every dollar you have impounded is able to be spent. I am suggesting, though, that there are a number of those dollars that you impounded, and particularly in my State with regard to sewer projects, that are badly needed that are ready to go now, and are impounded.

Mr. ASH. We will be glad to look further into it. I will be happy to get you clarification of that.

[The information referred to and subsequently supplied follows:]

CONSTRUCTION GRANT PROGRAM

P.L. 92-500 authorized a total of $18 billion over a three-year period for the construction of new sewers and sewage treatment facilities. Thus far, only $9 billion has been made available for obligation. The status of these funds are as follows:

[In millions (as of Nov. 30, 1974)]

Allotment year	Allotment level	Obligated	Balance
1973	2,000	2,000	
1974	3,000	1,563	1,437
1975	4,000	188	3,812
Total	9,000	3,751	5,249

While the States and municipalities have been making reasonable progress in getting projects started, about 58 percent (over $5 billion) of the money allotted so far is still unobligated, $1.4 billion of which has been available for almost two years. In addition to these funds, a substantial portion of the remaining $9 billion will be allotted next month.

On a State-by-State basis, the picture is pretty much the same. For example, the State of Delaware has obligated $13 million thus far, which is only 25 percent of the total funds available to that State.

DELAWARE

[In millions (as of Nov. 30, 1974)]

Allotment year	Allotment level	Obligated	Balance
1973	13.1	13.1	
1974	19.7	.2	19.5
1975	21.8		21.8
Total	54.6	13.3	41.3

Considering the progress made by the States in obligating funds already available, we believe that the Administration has taken a positive attitude and approach in providing funds for this program.

Senator BIDEN. Thank you. I thank you for yielding.

Senator MOSS. I yield to the Senator from Florida.

Senator CHILES. I appreciate very much your yielding.

I want to challenge, Mr. Ash, respectfully, your statement that there is a 2-year lead in the highway fund. I think that statement might be applicable to 4 or 5 years ago in normal times where there would

be this kind of a work backlog and from the time you would appropriate or the time the money would come there would be a 2-year time before that money would be showing up, that particular fund on highways.

That would not be true today. If you released some highway trust funds today, we have got highway companies that have laid off employees. Their equipment is sitting by the sides of the roads. It is not being worked. The States are ready to go with their funds and there is just no way there is a 2-year leadtime if you wanted to release some of that money today. So I do not think we should use figures that would be under normal circumstances and try to apply them now.

There is just no way that you could tell me that if we release some highway dollars now it would be 2 years before they would cause an infusion of jobs. I think they would cause an immediate infusion of jobs.

Senator Moss. Thank you. I have conceded my time. I yield.

The CHAIRMAN. I yield to Senator Fannin.

Senator FANNIN. Thank you, Mr. Chairman, and Mr. Director, I regret I was not here to hear your statement but I did glance at it. I am very pleased with what you have to say.

The Wharton forecast plus the Manufacturers Hanover Trust Co., has said: "This prospect for the coming year has indicated that regardless * * *"—they are talking about the recession not ending until no later than December 1975. I think you are familiar with what has been said by the Wharton forecast, and the Manufacturers Hanover Trust Co. forecast, but I'll give you the exact statement so I can have your thoughts:

> This prospect for the coming year has indicated that regardless of what the administration does in the way of economic policy—

In other words, no amount of stimulus coming out of Washington—

> of these will be a deepening economic slide during the first half of 1975, neither a major shift in monetary or fiscal policy nor a reimposition of controls would appear to be necessary at this time.

My question is if we add another $25 billion to the projected $50 billion deficit for fiscal 1975, would we be programing a disastrous inflation rate for 1976?

Mr. ASH. I find it difficult to even contemplate how we could add $25 billion to the fiscal 1975 outlays. I am not sure that it is possible to move that fast. Let us assume that we could.

If we spend $25 billion it is quite likely we would put programs on the books that would pertain to 1975, 1976, 1977 but we would find ourselves on a totally different course out into the future, one from which we may not be able to recover. I would worry especially about a complex of programs that would represent an additional $25 billion outlay in 1975. We could be seeking a short-term panacea and get us in deeper fiscal trouble for the long term. I think that is a key point that the President intended to make last night.

There are many around who would like to have short-term panaceas and ignore the consequences in the future. If we look at it only that way, we could create a fiscal catastrophe down the road.

Senator CRANSTON. Will the Senator yield for a follow-up question on that?

Was not part of that $25 billion accounted for by tax cuts, or reduced tax revenues, because of the state of the economy? I do not think it was a plan for $25 billion more in spending.

Senator FANNIN. I think that is quite correct.

Mr. Director, you state on page 2 of your statement:

For example, we are reexamining all programs with a special view to dealing with unemployment.

We are looking for innovative ideas, so here is one for you to consider.

We know the problem of the automotive industry. We realize the tremendous unemployment in Michigan—they are almost destitute, according to the reports we receive—and, realizing this, about one out of every seven employees in the United States directly or indirectly has a connection with the automotive industry, I have this thought.

We want to get the clunkers off the highway to help Senator Muskie with his clean air program. We want loose control and I am very sincere about this. So let us work out a way of getting these gas eaters and these air polluters off the highway by giving consumers an incentive to buy high mileage American cars.

Now, why could we not work out some subsidy whereby enough is given perhaps for a down payment on a new American car if owners are willing to junk their gas eaters, and polluters? Would you think that something like that—I know I have not gone into enough detail—but do you think something like this might be possible?

Mr. ASH. Senator, this is a very interesting idea.

However, I can identify two or three problems in it even as you have identified its advantages. One of them is what we call, in spending Government, money buying the base. Under normal circumstances, there would be 6 or 8 million cars bought next year anyway. If, by Government action, we add on 500,000 more cars, we will have made whatever subsidy available to all of them; we will have paid a tremendous amount for the increment. We have to make such a program available to everybody whether or not he would otherwise have bought a car. If he otherwise would have bought a car, the Government subsidy will have accomplished nothing.

The people at the margin that might be affected by the subsidy would tend to be small in number, yet the subsidy is payable to all. That is one of the main problems.

Senator FANNIN. Maybe I have not made myself clear. I am not talking about one additional car. I am talking about wrecking a car when a new car is purchased. In other words, wrecking the gas eater. We would have to have an age involved. This would not add one single car to the highway.

Mr. ASH. I understand, but the problem is how many people would have done that anyway?

Senator FANNIN. Well, I am talking about the additional cars that would be off the highway.

Mr. ASH. Certainly, I was just advancing one idea on the other side. One of the problems that needs to be taken into account in designing any program is to affect action at the margin and yet not to pay for action which would have occurred any way.

Senator FANNIN. For example, here is a fellow who has an old 1960 Cadillac, he cannot afford a down payment, he cannot trade the old car in, and it is not worth $100. If he wants a car that would not use so much gas, can we in some way provide him with a means of getting rid of that Cadillac—wreck it and use the material?

Mr. ASH. It is an idea worth exploring. Insofar as programs like that, we have to make an assumption that people will beat the system when one creates a system. We might create a great market for used cars of the 1960 and earlier models.

Senator FANNIN. No, no. I am talking about wrecking the car.

Mr. ASH. Yes, but people would buy those cars in order to get the benefit as they wreck it. We might increase the price of all cars before 1960. What I am saying, there is a problem but it is an idea well worth looking into.

Senator FANNIN. Well, let us just think about it. Presently we are giving subsidies to several of the States to pick up the old clunkers left abandoned. Abandoned cars are a problem, for instance, in New York. Get them off the highway. So many of those abandoned cars end up with somebody else driving them rather than being wrecked. I am proposing a way we can get rid of those cars and get them off the highway and then help the domestic new car market, and put people to work.

Mr. ASH. Certainly $5 or $10 to pick up a car and dispose of it is one thing but a $200 body on a car before 1960 could send a lot of people into the junk yards and bring out a lot of cars for which they can get a $200 bounty.

The idea is worth exploring. I am merely saying there are problems we need to think about.

Senator FANNIN. I realize every idea has a problem but let us give it some thought. We must come up with some ideas that will help put people back to work and also if we can accomplish the objectives of getting those old—the dangerous car, the air polluter——

Mr. ASH. I understand.

Senator FANNIN [continuing]. The gas eater off the highway I think it would be well.

Mr. ASH. It is an idea well worth exploring. Every idea has a problem but just because they have problems does not mean they should not be considered.

The CHAIRMAN. The only ideas that do not have problems are mine. It is yours that run into difficulty.

Senator FANNIN. Thank you.

The CHAIRMAN. Senator Mondale.

Senator MONDALE. Mr. Ash, if you have a 1-percent increase in unemployment, approximately how many workers lose their jobs?

Mr. ASH. Well, how many are unemployed?

Senator MONDALE. Yes.

Mr. ASH. In some cases new entrants to the workforce do not get jobs, so it is not exactly losing a job.

Senator MONDALE. One percent of the work force.

Mr. ASH. Then we are talking about 900,000 people.

Senator MONDALE. Do you have an estimate of the average income of the 900,000?

Mr. ASH. Well, assuming that the mix of those that lose their jobs would be one of, let us just say, $8,000 a year——

Senator MONDALE. Is that your best estimate?

Mr. ASH. That is $7.2 billion, total.

Senator MONDALE. Yes, but you figure the average salary is about $8,000?

Mr. ASH. I am making an assumption as to a mix I might picture.

Senator MONDALE. I am trying to get the lost percentage income from 1 percent unemployment. Your estimate is $8,000 per person but that is just a guess?

Mr. ASH. Yes. I would not want to advance it as an average of any set of statistical data, but it does not seem unreasonable. You could scale it one way or the other.

Senator MONDALE. You do not have a hard figure on that?

Mr. ASH. Well, let us see. If we say it is the average income of everybody in the country, and we have—well, it would be a little higher than $8,000, I guess.

Senator MONDALE. What is the average——

Mr. ASH. Let us see. Personal income is a trillion dollars for 85 or so milion people employed. So obviously, we are almost at the $12,000 per person employed. But that personal income includes more than pay. It includes investment income, farm income, and other sources of income.

Senator MONDALE. Then you would also have the problem of—given an additional 1 percent of unemployment, what section of the labor force suffers the most? I am not sure that just an average of personal income would give you——

Mr. ASH. Well, those obviously that have less savings or other——

Senator MONDALE. Well, I assume the unskilled, and so on, would be the first to lose their jobs. I am trying to get an idea of your projection of what is lost in terms of personal income when an additional 1 percent of the work force becomes unemployed.

Mr. ASH. I am sure if Alan Greenspan were here he would tell you that number right out of his head but I do not have the exact figure.

Senator MONDALE. You do not enjoy this as much as he does.

Mr. ASH. Per capita disposable is a little less than $5,000.

Senator MONDALE. If you could supply——

Mr. ASH. My number is not too far——

Senator MONDALE. Let us say $8,000.

So that would be how much in lost——

Mr. ASH. One percent is $7.2 billion.

Senator MONDALE. $7.2 billion?

Mr. ASH. About.

Senator MONDALE. What would be the estimated loss in Federal, State, and local revenues?

Mr. ASH. I will have to assume that those that are losing that income are an average mix of everybody that pays taxes. Then, 20 percent of $7.2 billion would be lost to Federal Government, say, $1.4 billion would be the Federal income lost. At least, it is an order of magnitude.

Senator MONDALE. And do you have a similar rule of thumb for——

Mr. ASH. State and local?

Senator MONDALE. Yes.

Mr. ASH. State and local taxes are based largely upon real estate taxation or sales taxation; only about 12 percent is derived from individual income taxes. It would have a somewhat smaller effect on State and local governments.

Senator MONDALE. Do you have a rule of thumb? More and more the States have——

Mr. ASH. State and local own-source revenue is about 70 percent of Federal and it would only have a 10-percent effect. If there is a $1.4 billion loss of Federal income, it is down in the $100 million, $200 million level of loss to the State and local income.

Senator MONDALE. Do you have a—if you have later figures——

Mr. ASH. It is a small number.

Senator MONDALE. About $200 million? Would that be a fair guess?

Mr. ASH. More or less.

Senator MONDALE. If you have later figures I would like to have them.

All right. What would be the loss of gross national product which follows from a 1 percent drop in employment? Do you have the figure?

I have a figure. I'm told that economists assume that a 1 percent increase in unemployment means a 3 percent drop in GNP or a loss of $45 billion in profits and wages. Would that be accurate?

Mr. ASH. I would only be making a rough estimate from the data that I have in front of me that it would be better not to venture it.

Senator MONDALE. That might be the——

Mr. ASH. And, of course, other things would have to be taken into account.

Senator MONDALE. That would probably be the better figure because if a million people, 1 percent, nearly a million people, lost their jobs, presumably businesses and profits and thus revenues and the rest would be affected as well.

Mr. ASH. Well, there are numerous ways the economy would be affected.

If——

Senator MONDALE. All right. Now, if you have later figures I would like them.

Now, what about other costs from unemployment, like unemployment insurance? If you have an additional 900,000 unemployed, what is the cost over a year in unemployment insurance?

Mr. ASH. Under the present unemployment insurance program one-tenth of 1 percent change in the unemployment rate affects unemployment insurance outlays by about $150 million. So, we are talking about $1½ billion for 1 percent.

Now, on top of that, of course, the President has proposed and the Congress is considering the National Employment Assistance Act that would add much more to that.

Senator MONDALE. I want to get into tradeoffs in a minute.

Mr. ASH. All right.

Senator MONDALE. Do you have any idea of what increases there are in welfare? I assume if you have a one percent increase, welfare costs, AFDC, food stamps, public housing, social services, rise. Do you have a rule of thumb on that?

Mr. ASH. There are many factors that determine the amounts paid under those programs and they do not have a first order relationship to unemployment. They are related to so many things that it would be impossible to determine the effect of one increment of unemployment on the aggregate of those other programs.

Senator MONDALE. What I am getting at, when you deal with the tradeoff issue that you refer to in your statement, it must involve some—an effort on your part to make some hard estimates of what alternative policies cost.

Mr. ASH. Yes, sir.

Senator MONDALE. And certainly such things as unemployment insurance costs, lost revenue and welfare costs, and the rest, must be matters which you have to consider.

Mr. ASH. Clearly the unemployment insurance costs are very explicitly considered because they have first order effects. The effects on GNP, the effects on unemployment particularly, are calculated as precisely as possible. Some of the second order effects we can identify as present but are very difficult to determine exactly. For example, how does one unemployment level relate to food stamps or social services programs.

Senator MONDALE. I guess my time is up. I would like to pick this up later.

Mr. ASH. The policies can be made with a calculation of the first order effects just as you have identified them and a recognition that there are some second and third order effects which are so relatively small that one need only recognize they exist. These second and third order effects are overwhelmed by other numbers in any calculation and for that matter are lost in the potential errors in the calculation of first order effects.

The CHAIRMAN. Senator Chiles?

Senator CHILES. Mr. Ash, where do we stand now in relation to the surtax? Is that gone?

Mr. ASH. As best we can observe what is going on in Congress, there will be no action on the surtax.

Senator CHILES. I am not asking you about the Congress. Really, I am asking you from the administration's standpoint.

Mr. ASH. I suppose we ought to stand aside and let events unfold as they will. The President has said that the surtax was proposed as a way of providing funds to pay for his proposed unemployment programs. If those unemployment programs are passed by the Congress and put in front of him without that surtax, he will sign them. He will not look to that surtax as providing the offsetting revenues. He has made that clear.

Senator CHILES. Well, in the light of where we now find ourselves economically, which appears to be different from what everybody says from where we were a month ago, I was just wondering now does the administration still feel they want a surtax if some of us were to decide we were going to change our minds?

Mr. ASH. We have pretty well lost all sensitivity to that matter; there will not be a surtax. The President said in his statement last night, "My experts are working on a number of new or alternative measures to augment and update the economic package." He will have

those proposals on the desks of the new Members of the Congress soon and I would think we should look ahead to them because to look backward is not to accomplish very much at this time.

Senator CHILES. We are not going to ever get the answer, then, as to whether the President thinks we no longer need a surtax or that it would not be wise to do. It is again going to be, well, the Congress would not give it. So the President abandoned it.

Mr. ASH. We have no plan to walk up and down the halls of the Congress shouting for a surtax. We doubt if it would affect what is going to take place in any case.

The CHAIRMAN. Is that a new congressional liaison policy? [Laughter.]

Senator CHILES. I just checked with the Secretary of Transportation in my State of Florida and he confirmed that there would be an immediate employment impact if Highway Trust Fund money were released from impoundment. In my particular State we have interstate highway project I–75, which is a large project, and the impact in Florida would be up to $200 million within 6 months if funds were released.

Now, the State has the projects ready to go and the Secretary has informed my staff the situation in Florida he thinks, is typical of many other States. So I just—that kind of confirms what was my gut feeling.

Mr. ASH. A $200 million effect could well mean $200 million of obligations and contracts. What I am talking about is the effect on the employment of an individual working on the project. Here is where the lag comes in.

Senator CHILES. That was the specific thing that I asked him, what would be the impact on jobs in Florida? So that answer relates not to the contract obligation.

Mr. ASH. $200 million of labor costs incurred in the next 6 months?

Senator CHILES. Relating to the immediate impact of $200 million in jobs.

Mr. ASH. Labor payrolls made in 6 months? $200 million?

Senator CHILES. That could affect $200 million in jobs.

Mr. ASH. And if the average person made $10,000 a year and worked for 6 months to get $5,000 a year, 5,000 into $200 million is 40,000 jobs on the average, is that not right for the next 6 months? That does not exactly seem to test in terms of that being the labor content. My guess is that that is not the labor content of a highway program. It just does not test for numbers of people.

Senator CHILES. My time has expired.

The CHAIRMAN. Senator Biden.

Senator BIDEN. Thank you very much.

Mr. Ash, I have several questions. One, I would like to speak to the housing issue which you raised. I am very encouraged by your optimistic forecast that it is going to turn around because of interest rates hopefully declining and more money in S. & L.'s. I held last week my own little economic summit in Delaware. It is easy to do that in Delaware. You can get everybody in Delaware in one room—all the major bankers, all the major construction outfits and all the major labor unions dealing with construction and housing, construction in

general and housing in particular, and it turned out that in my State housing starts are down 60 percent over last year which is not drastically different than many other States. There was little hope in that room that things were going to turn up, and keep in mind I would say two-thirds of the people in that room and in my State of Delaware—they are fairly conservative fellows. And they saw the situation as extremely dire. And they went on to ask me questions about the $972 million that is currently impounded in the housing area. Approximately $972 million. And to pick on one program for a minute, let us talk about the section 235 program, providing home ownership for moderate income families.

The use of impoundment funds was specifically mentioned time and again at this meeting I held, which went on for an entire day. It is my understanding there is a probable difference of opinion as to whether the impoundment of 235 funds was rescission or deferral.

In an effort to clarify this question after failure of the administration to respond to some of our inquiries, there has been introduced in the Senate a resolution specifically disapproving of this impoundment. Actually, I believe such resolution was not necessary because technically it has been ruled by the Comptroller General to be a rescission which does not take effect unless Congress specifically authorizes the rescission within 45 days.

Will you please tell me first, whether the President intends to allow these funds for 235 housing to be spent according to the law and, second, can you explain to us in general why the administration would impound any funds which would produce housing for people now and also produce jobs for a very, very depressed industry as evidenced by the President's own summit conference that he held in Atlanta and his summary of that conference which was that the housing industry is in a depressed stage? Unemployment among construction workers is twice the national average, and so on.

Why would moneys be impounded in this area now?

Mr. ASH. Well, I can give you a multiple answer to the multiple question.

Senator BIDEN. Good.

Mr. ASH. First, the 235 and 236 programs are believed by the administration, and I am sure by many people, as among the least cost beneficial programs that the taxpayers pay for. Sure, they build housing but if we look back at the history, we find that we have not built low-cost housing, we have built high-cost housing. The beneficiaries have not been those that have occupied them, the beneficiaries are those that have built them or sold the land or otherwise participated in the development of 235 and 236 programs.

Through the operation of those programs, we have mortgaged the future taxpayers of this country for approximately $80 billion. The taxpayers will have to pay off programs that we have put into effect. They do not know it yet, but they will as the years go by.

Fundamentally, they are considered not good programs, ones that do not achieve a benefit commensurate with cost. So that is the——

The CHAIRMAN. Would the gentleman yield on that point? I am glad to hear that because deferrals under title X were not intended to be used to raise program issues. They are not intended to be used

to bring programs to an end. They are intended to be used only for the purpose of delaying spending in the current fiscal year. Now, you have listed that as your first reason which fully justifies GAO's judgment that you improperly used title X authority in using the deferral authority to accomplish this purpose.

Mr. ASH. Well, fortunately the GAO has defined when deferrals shall be used and when rescissions shall be used and has allowed that deferrals may be used for policy considerations.

The CHAIRMAN. But they specifically with respect to this program told you it was an improper use and the administration has told the GAO to go fry ice, that GAO had no power to enforce its opinion, is that not correct?

Mr. ASH. Specifically with respect to this program, in contrast to the general rule of using deferrals.

The CHAIRMAN. Which I disagree with but let us zero in on this one.

Mr. ASH. I first want to make a point of general rule where I think the GAO ruled consistent with the administration's classification of these actions. On this particular one, the GAO has indicated that this should be submitted as a rescission rather than a deferral. The President has not yet responded. He has not suggested the GAO fry ice.

The CHAIRMAN. That is the response we get, very clear challenge from the administration.

Mr. ASH. The President has yet to make the decision on that matter. My job is to put before him, as an honest broker, the many points of view so he can make a decision unaffected by biases in the administration or the Congress.

The CHAIRMAN. You are not making a recommendation to him on this point?

Mr. Ash. I have not made one yet. But I will probably——

The CHAIRMAN. I suggest you think about it.

Mr. ASH. I will make one, but I think one of the things that is interesting on this subject, we should all take solace from the fact that now, under the Congressional Budget and Impoundment Act, we have a process that will work. We will not have to sit and criticize each other. Why did you impound? Why did you not impound? We now have a process. All issues will be brought forth, resolved in the proper way, whether it is the highways or the EPA. Decisions will be made in the course of legislative-executive interaction with the rules of the road clearly, properly, and fully applied.

Senator BIDEN. Mr. Ash, you know you are doing what Mr. Lynn does very well. You are a very good dancer. You dance, as they say, some of the clients I used to represent, hey, man, you dance more than any dude I know. You are dancing an awful lot now.

I really want to thank you for that straight answer. I sat through 2 years of housing hearings and heard all that administration malarkey about 235 and 236. We are studying it, we are looking at it. I thank you for the straight out answer: Bam! It is not worth its salt. We do not want the program. The administration never intended to go through with the program. They have no intention of going through with the programs now. And I do not know what you call it, frying ice or dancing or what you say, rules of the road. The fact of the matter is, I think we should face flat out that the administra-

tion does not want those programs because they do not work according to them, and the fact is the Congress has said, we think they do work and we want them; and that is the conflict. Now, I guess we are going to resolve that with our rules of the road you talk about, but I just wanted to get it straight that you know section 8 is the only program the administration wants and I do not want to get you into that housing thing. Mr. Lynn can dance very well for himself.

I am going to, as Senator Chiles said, suspend the ball for a moment and go on to another thing.

With regard to housing, without being specific now, I will just give you my impression. You say the rates will be down and more money will be in S. & L.'s and I think that is probably correct, but I do not think that is going to increase housing starts at all if the housing experts, the producers and the banks that I have spoken to, and there have been many so far, are right. They say, look, when a guy is worried about whether he is not going to have a job, he does not give a damn how much he has got in a savings account and does not give a damn about how much the savings associations have to lend him and what the interest rates are. If he is worried about his job he is not going to go out and make a new move to go buy another home now. And it seems to me unless somehow we change consumer confidence in terms of the fact that they are going to have some job security, I do not know that we are going to sell any more housing, new or old. One of the things that is going to be moving toward the S. & L.'s—I have heard this in my capacity on the Banking Committee—is that most of their housing money is going to go in resale of existing housing, not new starts, and that is not going to put more people to work. That is not going to start new construction projects. My time is running out. I am not asking you to respond. That is taking advantage of your being here.

Senator Cranston wanted me to ask a question. He said on page 2 of your statement you say in the last paragraph "For example, we are examining all programs with a special view to dealing with unemployment. In his economic program announced October 8, the President recommended a National Employment Assistance Act that would provide substantial new aid to the unemployed when the unemployment rate reached an average of 6 percent for 3 months. If that proposal were now law, there would be available today, even as I speak to you, $1.5 billion to provide more unemployment insurance benefits this year and to add at least 83,000," and it goes on from there.

The question that the Senator from California had was: "What unemployment rate is this based upon?"

Mr. Ash. The proposal that the President submitted provided increasing amounts of funds to be made available as the unemployment rate would increase. The numbers are based upon an unemployment rate averaging 6 percent or more for a 3-month period. The recently announced unemployment rate for the month of November was such that the average for September, October, and November exceeded 6 percent and thus amounts would have been available.

Senator Biden. If I can ask one last question—my time as I said, is probably up now. I have not gotten a little slip yet.

The CHAIRMAN. We will put that last question on Senator Cranston's time.

Senator BIDEN. Thank you very much, Mr. Chairman. Would you believe me, I told you he did not want to know the answer to that question, it was mine?

This is the next question, Senator Cranston's question also [Laughter.]

I am only kidding.

Anyway, in a message dated August 31 which dealt primarily with deferral of pay adjustment, the President also stated:

> I am also ordering the Director of the Office of Management and Budget to proceed with reduction of 40,000 Federal civilian positions from those planned for the current fiscal year.

The President also added:

> The Office of Management and Budget has now determined the specific reductions in civilian positions for those budgeted for the current fiscal year.

Mr. Ash, can you tell me whether or not this program for reducing employment opportunities is still underway and if so how many positions have been eliminated and in what programs and what are the estimated dollar savings that year?

Mr. ASH. The program is underway. The ceilings for the agencies have been reduced from the numbers published in the budget. There are ceilings that relate to the employment level at June 30, 1975. Each agency must determine how and generally at what rate the reductions will take place. The biggest proportion of those employees, of course, are out of the Defense Department.

Senator BIDEN. I would appreciate it if you could get some of those figures and I want to add to what Senator Moss has said. It seems to me it is a little bit inconsistent for us to be cutting 40,000 jobs[1] or thereabouts and then turn around and initiate a public service employment program, an unemployment program, to hire people. I assume the reason for that is long-term, short-term benefits?

Mr. ASH. Defense will show absolute reductions of personnel, while most agencies will show slowed rates of increase in personnel.

Senator BIDEN. I see.

Mr. ASH. We projected 1,968,100 Federal employees by the end of June 1975. That was reduced to 1,928,000; 1,928,000 is about exactly the same as it was at the end of fiscal 1974. So what happened is Defense went down in real employment while others were restrained somewhat in their amount of increase. Overall it was not a RIF or a major reduction of personnel, it was the slowing of growth of personnel.

Senator BIDEN. Mr. Chairman, with your permission, I would like to submit some written questions, if I may.[2]

The CHAIRMAN. I think we may well come around on a second round of questioning if the Senator can stand by.

I would like to refer again to this question of impoundment. I was not happy with title X as it finally developed because I thought it left many ambiguities with respect to the issues that have been raised by the impoundment policies of the previous administration.

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[1] See p. 93.
[2] See p. 92 for questions submitted with response.

Let me put it this way. I think there is a difference between impoundments that are related to prudent housekeeping and impoundments that are intended to stop programs. If it is the latter, it is a proper legislative matter as to which the Congress ought to play its full role. The former is a proper executive function. We are dealing with a budget of $300 billion. The Nixon administration made no distinction between these. It tried to wrap them all up in the cloak of prudent housekeeping to defy the will of Congress and to take the legislative function out of its hands.

Now, that was the major thing and I wish that title X had resolved it. We tried to and had to do so in the context of a House version that was much more complicated in its thrust than the Senate version. The Senate version in a very clean cut and simple surgical way undertook to limit the President's impoundment authority to prudent housekeeping. The House undertook to do both. So the rescission authority was written into the act for the purpose of dealing with those impoundments that had to do with legislative matters, killing programs, cutting them back, reshaping them, redirecting them. Those were to be dealt with as rescissions because those kinds of impoundments had to be approved in a positive way by each house as is the case with legislation. Prudent housekeeping impoundments were to be dealt with as deferrals.

This administration has used those two authorities in the reverse. Of the $25 billion or so of impoundments, the great bulk of them are deferrals. They involve the water pollution program. There is $9 billion in that program hanging fire, hanging in the air, unprogramed, having been totally removed from the timeframe authorized by the Congress, still unprogramed, and I gather the administration asserts the authority to program that $9 billion independent of action by the Congress. At least, that was the testimony before by Subcommittee on Environmental Pollution.

Now, that is not a prudent housekeeping function. That is a legislative function. The same is true with the highway matters.

Now, the GAO unfortunately has embraced the administration's point of view. I vigorously disagree with the GAO. I find it incredible that an agency which is an arm of the Congress should have made itself a party to this kind of expansion of executive authority over impoundments. I think it runs counter to the entire legislative history of the act. The effect of this kind of interpretation of title X would be to give the President greater authority over impoundments than either the Congress or the courts were willing to concede him before this legislation was adopted.

Now, if that is not a 180 degree reversal of legislative intent I never saw one. GAO understands my feeling about this. We have been in negotiations with them for weeks. I have made my feelings felt, expressed just as strongly to them as I have here this morning to you, and I stated this opinion directly to the President in the White House at a meeting that he had of committee chairmen before he sent up his first impoundment message.

So I say to you, Mr. Ash, what I said to you then, that if this interpretation of title X is persisted in, endorsed by GAO, we have not put that issue to sleep because I will make it a personal project, to see to

the best of my ability that what we intended in title X becomes the policy of this Government, both in the executive and the legislative, because the whole purpose of this act is to send all of these issues through the legislative process.

The executive for some reason seems to be reluctant to do that. They still want this handle on us. After the legislative process has been completed, appropriations acts passed, and signed, you still want the authority to get into a program and hold up programs, kill them, reshape them, redirect them, even though the legislative process has run counter to your wishes. That is the nature of the confrontation which led to the whole impoundment crisis and it is still here, if you persist in it.

I think that it is important to use this hearing to make that point. I feel very deeply about this. We spent a year and a half in the Congress trying to shape a formula and the minute that piece of paper was signed by the President, the executive branch got to work to foil the results that we had labored to achieve. But it is not a matter of personal feeling at all. I just think the thing came out wrong. Whether or not it can be corrected without further legislation is a very interesting question but I wanted to ask some other questions if I could on the subject that is before us. This is my first opportunity since the GAO handed down its opinion to indicate my vigorous disagreement with them.

Now, let me ask you this with respect to the economy. You have said that you expect a rebound in housing and in auto sales. But will not the drop in real wages and the inflation caused by erosion in personal assets postpone this recovery in your judgment? You see, I am trying to get into the reasons for your optimism, which is cautious.

Mr. ASH. We look to a resurgence of purchasing power and confidence, taking place not immediately but a number of months hence.

The CHAIRMAN. But will that not require some reinvigoration of consumer purchasing power? The savings have been eroded by inflation. If in so many cases their incomes are not increased to offset the impact of inflation, where is the purchasing power coming as you see it to reinvigorate the economy?

Mr. ASH. The purchasing power comes from production. We can consume only what we produce. The purchasing power has to be a self-generating process. It does not come only from the Government. There can be Government action at the margin but basically, we are back to the lifegiving juices of the private economy that will sustain the recovery.

The CHAIRMAN. What I am trying to get you to identify is the glands of the private economy to produce these juices.

Mr. ASH. Confidence is the primary "gland." Confidence by employees that there will not be unemployment, confidence of consumers that it is now a good time to buy, confidence of industry that it is a good time to produce and expand. The first turn around comes from confidence, and that is what we have to regenerate.

The CHAIRMAN. My wife is an optimistic person but she finds she cannot cash confidence in at the supermarkets and confidence will take you so far but you need some purchasing power to use and I just do not see the signs of that.

I guess my time is up. I had better disapprove myself as much as I did Senator Biden.

Senator Fannin.

Senator FANNIN. Thank you, Mr. Chairman.

Mr. Director, we were talking about what we could do to revive American industry. We know that productivity is essential and in fact if we are going to compete with imports and if we are going to have the American—American jobs develop, then we must increase our productivity.

Now, do you not feel that the Commission on Productivity which is now charged with promoting our productivity performance must be revamped if we are going to accomplish that?

Mr. ASH. Yes, I do. We need to revitalize the interest and understanding of the people of this country, whether they be employer, employee, or general public, in the importance of productivity.

Senator FANNIN. Do you feel the funding should be increased considerably?

Mr. ASH. I am not sure I know the present funding level.

Senator FANNIN. Well, it is less than $10 million, as I understand it.

Mr. ASH. The question is what the funds are spent for. I am not sure that we should have a federally-financed center on productivity I think the private sector could take on that task itself.

Senator FANNIN. I agree but I feel that the impetus must come from Government to create the right atmosphere for that particular commission. I would hope that a great emphasis is placed in that direction.

Getting on to another subject, do you agree that monetary policies have assumed an undue burden in meeting our inflationary pressures?

Mr. ASH. In fiscal 1974, we had the lowest Federal deficit that we have had in a long, long time. In that sense, last year there was some relief in the burden of monetary policy. I certainly agree with you that over the past years, monetary policy has had to carry a major burden in fighting inflation.

Senator FANNIN. But I feel now that fiscal and tax policy should help to ameliorate——

Mr. ASH. It is difficult for fiscal policy to do the job that it once did because we have constructed a complex of Federal programs that are so rigid that they can only be moved in one direction, up. Fiscal policy is not as useful a tool as it once was unless we look at the tax side. Short of that, considering only the expenditure side of the Federal Government, it has become a less useful tool. In fact, it only gets us in more trouble because we tend to build in programs that have long-term momentum, and we end up suffering more than we gain from any advantage that we increase the spending.

Senator FANNIN. Well, do you feel that these monetary policies are being appropriately eased, then, as we change over in the direction of tax policy?

Mr. ASH. The monetary policies are controlled by the Federal Reserve Board. We would say the Board is moving in the right direction and at about the right pace.

Senator FANNIN. Although it was discussed earlier I want to reiterate the importance of capital investment and capital formation

and how critical it is to modernization that we talked about, meeting competition and increasing productivity. It all ties together. Do you agree we should give new incentives for saving flows so that we can have greater capital formation?

Mr. ASH. Senator, I have the same problem with that as we had on the automobiles proposal. If we did not have to buy the base then it would be a good program. Let us say this new program added $100 million of savings for each $1 billion of base. We would have to pay the incentive to those that already are saving, the $1 billion, just to realize a $100 million gain. The Federal Government is really paying a tremendous price for the incremental savings that it might induce. That is the problem.

It is a good idea but the problem is we see difficulties in achieving the goals.

Senator FANNIN. Mr. Ash, do you have any suggestion? I know we have a great number of bills introduced to accomplish the goal. I do not know how you can separate, as you say, the amount of money that would have been deposited anyway into those accounts or the increase that has resulted.

Is there any way that you can think of that we could provide legislation that could help accomplish what we are talking about and still not have that costly result?

Mr. ASH. I have thought through a way. I must say that not very many people agree with it, but I can put it forth here.

It has complexity, but I do not know how to avoid that. We say to each taxpayer, assuming we wish to achieve this goal, that we will provide him a tax deduction or exemption of some kind applied to that amount of interest income that exceeds the interest income of the previous year. This proposal would aim basically at incremental interest income.

There are other problems. If we do it only for savings institutions and interest from savings institutions and not provide the same advantage for savings income from Government bonds, then we may be taking lots of savings that are today in Government bonds and putting them into savings institutions. I am not sure that is right. We might have to look at interest income regardless of source.

If we provide such advantage to interest income, we have another problem. This country needs equity investment even more than savings. Should we provide a comparable advantage to equity income? We have that to a degree now in the dividend exclusion, but is it right and how should it relate to interest? We do not want to chase all money into debt when some should be into equity or into savings institutions when some should be in Government bonds.

There are many complications to this proposal and many others. If we seriously believe these are principles we want to pursue, I am sure we could work out some way of inducing greater savings and greater investment.

I agree with you that one of the major problems of this country, and this will be increasingly the case in the years ahead, is the inadequacy of private savings and investment. Jobs result from investment capital. If we cannot generate capital at the rate that we

generate additions to the labor force, we are not going to be able to employ those additions to the labor force.

If we took onto our labor force the new entrants each year without providing new capital we would lower the productivity of this country. People without tools are very unproductive, so we must accompany those jobs with capital investment.

Senator FANNIN. Thank you, Mr. Chairman. My time is up but you certainly gave me a lot of food for thought in that 2 minutes. I do not know if I can absorb it all. Thank you.

The CHAIRMAN. Senator Mondale.

Senator MONDALE. Turning to the line of inquiry about the cost of unemployment, our staff economist says that economists assume that a 1-percent increase in unemployment means a 3 percent drop in Gross National Product, or $45 billion loss in profits and wages. Economists also assume that a $5 billion drop in GNP would cost the Federal Government $12 billion in lost revenues, unemployment compensation and the other costs of adding 900,000 workers to rolls of the unemployed.

Yesterday we had two economists here, Dr. Eckstein and Dr. Okun, both of whom urged a reflation figure of $25 billion, and stated in their judgment, and based on the Harvard Econometric Model, that this could be done while adding no more than half a point to inflation next year. They expect the inflation rate to drop, but they estimated that it would drop about a half point less than if this effort were not undertaken.

Now, let's look at the fantastic costs, lost revenues, lost personal income, lost profits, lost wages, business failures, the productivity that these people can provide for this country, not to mention the awful human tragedy of unemployment. I think we ought to have a minister in here to tell what it is like to deal with families where the wage earner cannot hold a job—or a teacher, what happens to the children of those families. It is a terrible life.

My father was a minister in the depression. He said the statistics never reflected the real cost of the depression. To see an able-bodied man with pride destroyed through the loss of a job and failure to have the dignity, the authority, the respect that goes with employment. We are a very job-oriented society and I am glad that we are. But it seems to me that the policy now is one which assumes that the easiest way to deal with our economic problems is to tilt toward unemployment.

Now, these two top economists—and Mr. Weidenbaum even supported them to some extent in terms of opposing your rescissions and deferrals—all thought the time had come to recognize that we are in a tragic situation, that unemployment is rising dramatically, and that in the name of decent economic management and concern for these people we ought to be moving rapidly toward a policy to provide employment.

Now, I do not hear that from you today. I hear you talking about a $5 billion cut in the budget which according to the last testimony you gave us, would add 300,000 to the unemployment rolls we have on the way. You are not even willing to back off from the 5-percent surtax which would also contribute to unemployment. Look at the nature of the cuts you propose in such things as Medicare, food stamps, vet-

erans educational allowances and other items—which I think is a cruel choice of cuts. Compare those, for example, with the modest increase in oil taxes.

And it seems to me that the full burden of this policy that you are pursuing is being placed on the backs of decent working Americans that are trying to make it go, that want a job, want to pay taxes and we say, no, we have got a policy to put another million or 2 million out of work. And I think it is wrong. I think it is insensitive. I think it is poor economics and I think we are going to be paying the price for another generation.

Mr. ASH. I do not think that is a proper characterization of the President's policy. In fact, the most important part of his October 8 message has been a program of national employment assistance.

Senator MONDALE. How many jobs?

Mr. ASH. Counting the——

Senator MONDALE. How many jobs?

Mr. ASH. The additional unemployment benefits and additional jobs?

Senator MONDALE. No; I am talking about people at work now. How many jobs?

Mr. ASH. It depends on levels of unemployment.

Senator MONDALE. All right; let us take 6 percent.

Mr. ASH. The additional jobs at 6 percent, 83,000, at 6½ percent, 208,000.

Senator MONDALE. 83,000 jobs. How many people lost their jobs last month, 400,000?

Mr. ASH. Of course, but there are——

Senator MONDALE. And what do those jobs pay?

Mr. ASH. There are already a considerable number of other programs in the Comprehensive Employment Training Act that are providing——

Senator MONDALE. Training, not jobs.

Mr. ASH. Including jobs, 170,000 public service jobs will be made available.

Senator MONDALE. Those are working now. I am talking about the people that are unemployed.

Mr. ASH. These are jobs available. It is somewhat dismaying that we cannot find people for them.

Senator MONDALE. What do they pay?

Mr. ASH. A maximum of $10,000.

Senator MONDALE. What does the average local public service job pay?

Mr. ASH. $7,000.

Senator MONDALE. If you have got a family of four or five you are better off on welfare.

Mr. ASH. Those salaries can be augmented by State and local governments, and some pay $10,000 or $15,000.

Senator MONDALE. I am a strong supporter of public service employment but I consider it a net and a strictly inferior alternative to private employment—and I do not know of any worker who does not agree. First of all, it smacks of welfare. Second, these jobs do not pay as well. Third, they are temporary. And fourth, there are not enough to serve 2 percent of the unemployed.

What is the total public service employment that your administration proposed to provide, say, at 6 percent?

Mr. ASH. At 6 percent unemployment, the public service employment would be a quarter of a million jobs. In addition, there would be extension of unemployment benefits to 2 million additional people.

Senator MONDALE. I am talking about work. So we have got an unemployment force of what, now, 5½ million people? And you are——

Mr. ASH. 5½ or 6 million people.

Senator MONDALE. And you are talking about 250,000 jobs.

Mr. ASH. What we really need is to get people working in the private sector. That is where the real jobs are.

Senator MONDALE. Yes, and your policy—and you must know this—you have decided to put them out of work.

Mr. ASH. Not so.

Senator MONDALE. Everybody knows unemployment is going up, and that the way to put people to work is to give them some money and some purchasing power so that jobs are needed. And you are saying give them less purchasing power. That is your policy, is it not?

Mr. ASH. We have created in this country the economic situation where programs and policies have generated a very high rate of inflation. That inflation is part of the cause of the present recession that we are in.

Senator MONDALE. Yes.

Mr. ASH. We must, therefore, as the President said last night, deal with those factors that not only reduce inflation but deal directly with the effects of the recession. We have to have a balanced and a complete program. If we were to adopt policies that would regenerate the forces of inflation, unemployment would be even worse. We must, therefore, have programs that are totally balanced to fight both inflation and recession.

Senator MONDALE. I am not arguing with that at all. You have to balance employment with inflation plus the other mix of income policies and the rest, but what I am saying is that you are pursuing a policy which almost guarantees 8 percent unemployment, even though at this point most of the economists we have talked to have said through reflation we could put many back to work without significantly affecting inflation. What I am saying is that you are tilted toward unemployment and the decisions you are making, are ones which in my opinion, almost totally ignore the suffering that Americans go through when they lose their jobs.

Mr. ASH. I do not think they ignore the suffering. I will quote again from the President: "I intend to keep my experts working over the holidays"—when Congress is out.

Senator MONDALE. Terrific.

Mr. ASH. Again the President stated, "We will be working to have new proposals on the desks of Congress when they convene in January if not sooner." The proposals that we put before you in October, which would have dealt substantially with these very issues, have yet to be acted upon. We would commend you to action in the next few days on those and we will have new ones for you when you get back.

Senator MONDALE. As you know, the Wharton School took that program you are talking about, ran it through the econometric model and

it made everything worse, inflation and unemployment. I think we are doing the President a favor not adopting his program.

Second, the American people have spoken on this. All the arguments the President has used—he is using them again—he tried out for 6 weeks on the American people and he took a shellacking in the election. Because the American people do not want any more of this unemployment and high inflation and concern only for others than the working Americans. There has got to be some concern. And the reason I am a little excited about this, Mr. Ash, there are millions of Americans who are out of work, who want to work, who want to pay taxes, whose services we need, and your policies are designed to put more of them out of work. You have got to stop it. You have got to stop it and the American people will stop you if you do not.

Mr. ASH. I am excited because the President's program is designed to get people back to work.

Senator MONDALE. You should be.

Mr. ASH. Get people back to work in good jobs with good purchasing power. His programs and plans are designed to do exactly that.

Senator MONDALE. There is not an economist that I know of who thinks the policies you are pursuing will not produce more unemployment. Do you know of any?

Mr. ASH. There are a number of economists that believe the President's programs are going to do most for the country in improving employment, purchasing power, and the general well-being of the country for each and every American. This is exactly the course that he is on.

Senator MONDALE. And I gather it is the same people who think a $300 million cut in food stamps, increasing the medical costs for old folks, is a good idea, too.

Mr. ASH. There are many programs on the books that are not ideally constructed and clearly can be improved. The proposals before the Congress set forth a number of improvements that can be made. It is up to the Congress to consider them. They are there for you to act upon.

The CHAIRMAN. Well, we are back to how you used deferral authority again. You reinforce my case constantly. I would say we have gotten some healthy juices flowing this morning.

Senator Chiles.

Senator CHILES. Mr. Ash, your mathematics are too fast for me. I have had a chance to get my pencil out and now it looks like it is 4,000 jobs, not 40,000 jobs, that we were talking about.

Mr. ASH. 5,000 times 4,000 is 20 million; 5,000 times 40,000 is 200 million. I do not have a calculator but I know that 5,000 times 4,000 is 20 million, not 200 million.

Senator CHILES. We were talking about confidence. It seems like to me that certainly all of us recognize that confidence is the big thing but the question I think to determine is how do we get confidence? Do we get it from kind of saying let there be confidence? We have said that many, many times. It looks like now the only way that we are going to get some confidence back in the American people is to show them some deeds, and that appears to me to be of great concern, you know, how do we show them some deeds or something, to a business-

man or someone who wants to invest, someone who wants to save, someone who wants to buy equity stock, and I do not think it comes from just saying things are not as bad as they seem or we are going to have a recovery in such and such year. I think we are going to have to show them some real concrete deeds.

I am concerned about your statement about capital. Everything that we are hearing is that all the indexes show that there is a decrease in capital investment and that that is something that is going to continue. All the trends are that that is going to continue. Your statement seemed to indicate that you think it is going to be an increase. I do not know how we can say that in the face of all facts showing there to be the difference and I do not know how that establishes confidence.

Mr. ASH. I certainly agree with you, deeds or actions are necessary. Deeds in Government have to be the function of the combined efforts of Congress and the executive branch. We have put before the Congress 31 proposed deeds and——

Senator CHILES. One of those deeds was a surtax.

Mr. ASH. Sure. One of them. There were many others. In terms of capital investment, it is true that at the moment it is weak. The key here is the confidence that comes from an increasing or prospectively increasing economy that gives rise to capital investment. I go back to your $200 million impact on Florida's highway program. It is a fact that 40,000 is the number of employees that would have to be working on the average, between now and next June. If we started at zero we would have to end up with 80,000, and working the calculation out on a straight line basis, building to have $200 million spent on payroll.

Senator CHILES. If all the money went into jobs——

Mr. ASH. You said it was——

Senator CHILES. If you are releasing $200 million, it is not all going into jobs.

Mr. ASH. I suggested it was not and you suggested it was; I was just picking up your view of it. Just doing the rough calculation without attempting to make a determination, it would take 40,000 people, so I merely question, therefore, whether $200 million would go into jobs alone. It does not seem reasonable that there would be an average of 40,000 additional people working in Florida highways for the next 6 months starting from a zero base.

Senator CHILES. I agree. I do not think when you release $200 million, you know, going back—let us go back a little bit further to your statement that it took 2 years——

Mr. ASH. To have significant——

Senator CHILES. Before you got this money translated into jobs.

Mr. ASH. To have significant——

Senator CHILES. And my statement was what came from the Federal highway people, that within 6 months it could be an infusion of $200 million into the economy. This certainly does create jobs, which does buy equipment, which does buy gasoline for the job, which does transfer purchasing power, and all of that certainly translates, so the difference is between—it is 18 months time, and so I was suggesting that when you said 2 years, you were basing that on the good years in which you had this kind of leadtime but now if you wanted to stimulate the economy, and again I am not talking about the four times or

six times or whatever that rollover is for that $200 million, but within 6 months there would be an infusion of $200 million into the economy of the State of Florida. That is instant. That is very quick.

Mr. ASH. But the significant employment effect would come clearly after 1 year, and on the average about 2 years, for any significant employment effect from Federal highway spending. That just happens to be the way funds in the highway programs take effect.

Senator CHILES. Well, the way they went. It is a different ballgame now. If you would only look to the number of people that are now waiting and the jobs that are ready, do not use 3 years ago and what the average was. Come back to today.

Mr. ASH. It may be 1 year and 8 months or 6 months but we are not talking about significant employment effects this month or March or April. We are talking about employment effects in 1976.

The CHAIRMAN. Would the Senator yield?

Senator CHILES. I yield.

The CHAIRMAN. Now, Mr. Ash, what you are talking about is the normal impact. I remember in 1958 when I was Governor and President Eisenhower wanted to get—there was a recession at that time—some employment going, so he initiated a program of supplemental highway construction and asked each of us Governors to put together projects that could have immediate employment payoff and we did it. We did it. Within 6 months, we were able to put in place, put to work, programs which generated $2 million in additional employment. Why? Because every State highway department has blueprints, you know, pigeonholed, ready to go, and it is possible to do that.

The same thing is true of the environmental programs.

Sure, if you start a program from scratch, before you know where you are going to put the road or how it is going to be designed and all of the rest of it, sure, what you are talking about, the formula you are talking about is right. But I do not know of a State in this Union that does not have projects in the highway field, environmental field, ready to go that would have employment payoffs as quickly as Senator Chiles suggests.

I just wanted to inject that, Senator, because I could not agree more with the thrust of your question.

Senator CHILES. At the time my staff called our Commissioner, the secretary of transportation for the State of Maryland was there and meeting with him and indicated Maryland had $30 million in projects that were on the shelf that were ready to go as you suggested from your experience as Governor, that are not going to take 2 years, that are not going to take 18 months, that they are ready to go with. So that is a—again, we get into this thing of confidence, and how do we get confidence.

The CHAIRMAN. May I say to the Senator, it is not only a question of that. So much of this make-work stuff that you tend to get under public service employment is necessary in order to put people to work but what we are talking about is work that needs to be done anyway.

Senator CHILES. The other thing I think we are talking about is we are talking about money that is in the bank. The highway trust funds are there. They are not something that I know of that we have got to go out and raise a tax.

Mr. ASH. Yes; we do.

Senator CHILES. Why do we have to?

Mr. ASH. There is no money in the bank.

Senator CHILES. How are you going to—you are going to have to raise the tax for the highway trust fund or what you mean is you have taken that money and borrowed it?

Mr. ASH. The trust fund balances by law, have been invested in the Federal securities, in effect, the Treasury has borrowed from the trust funds. Federal statutes require the trust funds to lend it to the Treasury. To expand the highway program now will require either a bigger deficit, which requires raising new money or alternatively, increased taxation to raise the new money. One way or the other we have to go out and get the money. It is not in the bank.

Senator CHILES. The increased deficit would be for the interest that you pay now?

Mr. ASH. No. The total amount of the additional funds spent for highways would be an increase in the deficit.

The CHAIRMAN. What we are talknig about generally, Mr. Ash, is public service employment; you are going to have to go out to the public to borrow that money, I would assume?

Mr. ASH. That is right, for the public service employment program.

The CHAIRMAN. So we are talking about what kind of package stimulants you are putting together. You are not suggesting, are you, that all of these programs are going to have to be offset by increased taxes?

Mr. ASH. Senator Chiles stated that the trust funds had the money sitting in the bank. I was just observing that it is not sitting in the bank in cash, by law, it has been invested in Treasury securities.

The CHAIRMAN. I agree.

Senator CHILES. I want to carry that through. The highway trust fund, the money came in from highway use taxes.

Mr. ASH. That is right.

Senator CHILES. Then the Treasury borrowed the money.

Mr. ASH. The net effect technically.

Senator CHILES. Pardon?

Mr. ASH. The Treasury borrows the money from the trust fund and pays it interest. In the process of borrowing from the trust funds, that same amount is not borrowed from the public. As the Treasury would pay back to the trust fund it would have to do so by getting the same amount from the public.

Senator CHILES. How much has the Treasury borrowed from the highway trust fund?

Mr. ASH. About $8 million is the amount currently outstanding.

Senator CHILES. What is the interest on that?

Mr. ASH. The interest rate the Federal Government currently pays on some of its regular bills approximates the rate paid to the trust funds. I would guess the rate would be around 7 percent. This interest accumulates, of course.

Senator CHILES. Which they borrow again.

Mr. ASH. Pardon?

Senator CHILES. Which they borrow again.

Mr. ASH. Exactly, and that compounds the interest payable to the trust fund.

Senator CHILES. When the Treasury borrows the $10 million, the $10 billion, is that considered a deficit at that time?

Mr. ASH. On the unified budget basis, that has no effect. But on the Federal funds basis it is considered a deficit of Federal operations. It depends on which budget you are looking at.

Senator CHILES. Well——

Mr. ASH. The basic budget we present is a unified budget.

Senator CHILES. What I am trying to find out, it cannot be sort of a deficit two times. It is a deficit once.

Mr. ASH. That is right. It is merely moving money from one pocket of the Federal Government to another. In the unified budget, these transactions are offset and net out to zero. Do you want me to describe that further?

Senator CHILES. No. I am just trying to determine it cannot be a deficit two times. If the Federal Government has already taken it as a deficit, then if the money is released to highways, the interest certainly on the borrowing would certainly continue to be a deficit.

Mr. ASH. In the highway fund, we have collected more in revenue than we have spent in total, cumulatively. That surplus has been invested, by law, in Government securities.

Senator CHILES. Which the Government spends.

Mr. ASH. Yes, the Government borrows money to pay for programs. Treasury borrows some from the public, borrows some from the trust funds. These are sources of borrowing. If it does not borrow from one source it must borrow from another.

Senator CHILES. My time is up.

The CHAIRMAN. Mr. Ash, the general picture presented to us yesterday of the state of the current economic situation, what we can look forward to next year, is so much darker than what you presented this morning. We got into that somewhat through questions from the committee, but let me just present to you some of the forecasts. That is, given a continuation of present policies, we do not know what the President's new policies will be, and we did not expect you to unveil them this morning. But we are getting your feeling for the situation.

Dr. Eckstein made these statements:

> The recent statistical evidence clearly shows that the economy is sinking rapidly. Domestic automobile sales in November were 5½ million units, the worst month except for the 1970 automobile strike months since 1961. Other retail sales according to the weekly data for November, were up only seven percent, year over year, implying at least a five percent real decline. The dollar sales of department stores and other general merchandise outfits have flattened, indicating a massive real decline. Business fixed investment still provides the most support for the economy, reflecting the enormous underlying strength of capital goods demand. This strength is predicated on our long-term needs to expand capacity, break bottlenecks, find new energy sources and modernize our industry, but the new Commerce plant and equipment survey does imply a continuation of significant declines in real business, fixed investments, and support the DRI forecast of a 1975 drop of 3½ percent. This is a long way from the six percent real growth that represents the long-term needs of the country.

On housing the projection is equally pessimistic and on employment the projection is at the end of 1975, the unemployment rate will reach 8.3 percent, and I would say that that reflects the attitude of all three of our witnesses yesterday.

Do you see an unemployment rate that drastically at the end of 1975?

Mr. ASH. No, I do not. In fact, neither do other non-Government forecasters. But I, certainly, do not see 8.3 percent unemployed.

The CHAIRMAN. Well, it strikes me that out of the economic summit, most of the projections of unemployment were very modest and yet already experience that we have had since the summit indicates that the unemployment picture is worse than the consensus that the summit projected.

Mr. ASH. It certainly reached its present level faster than the consensus indicated.

The CHAIRMAN. Well——

Mr. Ash [continuing]. It has not reached a higher number.

The CHAIRMAN. That suggests to me that the downward momentum is such that the unemployment level will be deeper.

Mr. ASH. Well, it is possible, but not certain. It merely means that events have transpired earlier than expected. It is possible that recent events could lead to a deeper level of unemployment than was forecast but certainly not to the rate that you have suggested there.

The CHAIRMAN. So these three gentlemen who testified yesterday are sort of offbeat, would you say?

Mr. ASH. Well, I would say that others have quite different conclusions and it might be useful to talk to other economists as well.

The CHAIRMAN. Well, we will.

Mr. Weidenbaum is hardly politically or philosophically aligned with Dr. Eckstein, is he?

Mr. ASH. Well, they each have their own perspective.

Senator CHILES. Mr. Chairman, we might just get the names of some of these others because I would like to——

The CHAIRMAN. Could you suggest some?

Mr. ASH. Let me not suggest them now. I am sure you are going to be talking to Alan Greenspan here soon, are you not?

The CHAIRMAN. I expect so, yes.

Mr. ASH. All right, he would be more knowledgeable in recommending other economists.

The CHAIRMAN. Let me say this. You quoted the President and then you, yourself expressed the same thought, that there is danger to overreacting, danger of applying the right remedies at the wrong time or the wrong remedies at this time, but Mr. Weidenbaum warned yesterday against doing too much too late as a result of not doing enough now. So it is rather important to get a fix on this unemployment rate.

Mr. ASH. I think the President was responsive on that point as well. He has asked his experts to come up with updated proposals for the Congress to consider.

The CHAIRMAN. Let me ask now some questions about the impounded funds. One, is the administration still committed to the full total of some $25 billion, I think, of impounded funds in their recissions or deferrals? You have no second thoughts about any of that?

Mr. ASH. That number you referred to is, of course, budget authority, and the answer is, yes we are still committed to that total. One need only look at the composition of those programs to conclude that

it would be wise to support the President's position on those. That action would make money available to spend in more productive ways, particularly more productive ways in dealing with the kinds of problems we have been talking about this morning.

The CHAIRMAN. Let me ask you about the water pollution control funds. Do you intend to continue to impound those and if so, for how long?

Mr. ASH. The water pollution control funds, as you know, are subject to current court actions. We do not expect that decision to come from the court until at least February 1. There will be further allotments, even before February 1st, on the next round of water pollution control spending. That which is not made available at that next allotment time will again be subject to the title X of the act. We will see what the court decides and, of course, the President will follow that decision. The Congress may wish to consider, at any time, changes in that program.

The CHAIRMAN. Now, if the impounded water pollution control funds are not released, is there some risk that they may lapse?

Mr. ASH. No.

The CHAIRMAN. You say, no?

Mr. ASH. No.

The CHAIRMAN. Do you have any plans for releasing any of the other funds that have been impounded?

Mr. ASH. The Congress itself has acted on our first deferral and rescission message and did support the President's position on all items either deferred or rescinded except for REA and the REAP program. Those funds will be made available, consistent with the Budget and Impoundment Control Act.

The CHAIRMAN. We have not acted on the deferrals.

Mr. ASH. Those were rescissions you acted upon.

The CHAIRMAN. We have not acted——

Mr. ASH. The law provides that we continue to defer funds until the Congress acts upon them.

The CHAIRMAN. Exactly, which is my point, and I do not want to belabor that point again, but I am asking if the messages are unclear when we defer, then spending is deferred without objection, without approval by Congress and it is a very neat way to kill a program. So what I am asking for you to give me this morning is what is your program for continuing to defer because the messages do not say how long you will defer. On the water pollution there is $9 billion. You have not told us how long you plan to stretch out those funds or when you plan to spend them and let me, incidentally, refer you to the language of the act on this subject. You have been taken to task by GAO on this. Thank God GAO has some insight into congressional intent.

Section 1013(a) of the Budget and Impoundment Control Act states:

> Whenever the President proposes to defer any budget authority, he shall transmit to the House and Senate a special message which specifies the details of the proposed deferral as well as to the maximum extent practicable the estimated fiscal, economic and budgetary effects of the proposed deferral. In addition, the President is required to report to Congress all facts, circumstances and considerations relating to or bearing upon the proposed deferral and the decision to effect the proposed deferral including an analysis of such

facts, circumstances, and considerations, and to the maximum extent practical the estimated effects of the proposed deferral upon the objects, purposes and programs for which the budget authority is provided.

Now, in my judgment that includes a responsibility to tell us how long the deferral is going to go, when it is going to end, how the funds impounded are going to be programed, over what period of time, under what conditions, so that we can tell what you are doing to the programs that are involved. Instead, what you have done is simply defer them, hold up the spending. You do not tell us when the end of the line will come or under what conditions or terms the spending will be resumed and the programs resumed. You have not told us any of that and that is why I am asking you some of these questions.

Mr. ASH. I think the case you are referring to, the budget will have proposals to deal with the program.

The CHAIRMAN. Why was that not done in the deferral message?

Mr. ASH. The determination at the time of deferral was that it was not appropriate to spend those moneys at that time.

The CHAIRMAN. How long a time?

Mr. ASH. The deferral is the determination not to spend at that time.

The CHAIRMAN. Yes, but you see, Mr. Ash, the act says the Congress then must make a judgment as to whether it would disapprove or approve the deferral. Now, how on earth can we make a judgment when you do not tell us for how long you propose to defer, how long you propose to stretch it out, how you propose to reinvigorate or reestablish the program when your deferral period, whatever it is, comes to an end? How are we to act intelligently under title X when you do not give us what is in your mind?

Mr. ASH. On this point again, it is before the Supreme Court and we need a determination from the Supreme Court to really know what final position the administration should take.

The CHAIRMAN. No, you do not. No, you do not at all. The Supreme Court issue is whether or not the President had the authority to do what he did. Pendency of that case in the court does not prevent you from making administrative judgments as to how you are going to spend the moneys that in my judgment you improperly impounded. There is nothing in the court case that prevents you from programing that $9 billion.

Mr. ASH. We will do the best we can.

The CHAIRMAN. Because the 3 years, the subject of impoundment, are almost over. Whatever the court decides, you have done what you set out to do. You killed the program or half the program for 3 years. That has been done.

Now, there is nothing to prevent you in terms of the cases pending in court from telling us when you defer what you are going to do about the program at the end of that 3 years. You have not told us.

Mr. ASH. It is before the Congress now as a deferral action for congressional action.

The CHAIRMAN. Then why do you not give us the facts that we need upon which to base a judgment?

Mr. ASH. In the budget that will be submitted when Congress reconvenes there will be a specific——

The CHAIRMAN. Title X does not give you that option. Title X says you do it at the time you defer and you have not done it.

Mr. ASH. I think we may have a different interpretation between ourselves as to title X. I think title X——

The CHAIRMAN. We clearly do.

Mr. ASH. We can have the GAO resolve our differences as they have resolved these other matters.

The CHAIRMAN. The GAO has told you that you did not meet the requirements of the law with respect to the point I am now discussing.

Mr. ASH. You know, as we said earlier, in a number of areas in the act we have not yet all fully agreed what some of the language means. We are working it out item by item.

The CHAIRMAN. This is not an ambiguity. The law says in section 1013 that you shall specify the period of time during which the budget authority is proposed to be deferred. That is not an ambiguity.

Mr. ASH. That is what we have specified.

The CHAIRMAN. You have not specified it with respect to this program.

Mr. ASH. It will be deferred this year.

Senator CHILES. Does that mean it will be released next year, the first thing next year?

Mr. ASH. It means there may be other actions, be reassessments next year, but one has to make budget decisions within the context of all issues such as the economic ones we have been talking about this morning.

The CHAIRMAN. Let me ask you this, Mr. Ash.

Mr. ASH. We have always said that these funds are partly a function of the rate at which it is proper to have them flow into the economy and one has to look at the economy before determining at what point it is proper to have any funds flow. If the economy would bear upon it in a way that would suggest it be higher or lower, next year, we would act accordingly.

The CHAIRMAN. That is a legislative function.

Let me ask you this. At the end of this fiscal year is it your view that the President can send up another deferral message on that $9 billion and redefer them?

Mr. ASH. The President will send up an additional request at the proper time.

The CHAIRMAN. Focus on my question.

Mr. ASH. There is no necessity of a further——

The CHAIRMAN. I am not asking for necessity. I am asking you for your interpretation of the law.

Mr. ASH. There is no necessity that it be sent up, if he does not want to continue the deferral.

The CHAIRMAN. That is not my question. I am asking you whether next July 1, next July 2, in your judgment, the President has authority to redefer the $9 billion that he has deferred in this fiscal year?

Mr. ASH. The law provides that one can only defer year to year. Therefore, a deferral expires at the end of a year and needs to have new action to continue it.

The CHAIRMAN. Exactly——

Mr. ASH. And he would do so.

The CHAIRMAN [continuing]. My point. So you see it is a device to permanently end a program you do not like.

Mr. ASH. No.

The CHAIRMAN. And what you intend to do—listen carefully to what I am saying—what you intend to do or what you think the President has authority to do by indirection is to defer this year, on the first hand, the next fiscal year, do it again with respect to the same program and indefinitely until you have killed the program. Is that your interpretation of the law?

Mr. ASH. The next year is a new year according to the law. It defers only this year.

The CHAIRMAN. It is a new year but it is the same program and I want your answer to that question.

Mr. ASH. I can provide it very simply. The law provides that we defer the funds for a period of up to 1 year. We proposed in this particular program to defer them for 1 year. When that year ends then the President is confronted with another decision, shall we defer or not? He will take into account all the facts and circumstances of the times, economic and otherwise, and make a determination whether to submit them as another deferral or not. He could or he could not. It really is a new decision when the new year comes.

The CHAIRMAN. It is not a new decision, because the President, in your words, has the authority to use deferral to kill programs. That is the very reason that we said clearly in the law if you wanted to use impoundments for fiscal policy reasons you use rescissions because when what you are talking about is programs year after year, you are talking about a legislative decision. You are not talking about housekeeping prudence. I have to assume that you believe what you have just told me. What you have just told me is one of the fundamental reasons why you do not have authority to use deferrals as you have used them.

Mr. ASH. What I just said is that which GAO concurs with and we are following the procedure about which they have made a determination.

The CHAIRMAN. You told GAO that they did not have the troops to enforce their judgment. I say to you that GAO does not have the troops yet to enforce its opinion on the Congress with respect to this. I happen to have had a part in writing this law. I say to you the reason that we put the year to year limitation in is so that you would not use the deferral authority to terminate programs or cut their level and you are considering doing precisely that.

Mr. ASH. Let me make two answers. First, I am sure the GAO considered the very arguments you are making when they reached their conclusion. They are not new arguments.

The CHAIRMAN. They are certainly not new arguments and they are as wrong as when they were first articulated.

Mr. ASH. Second, we do not intend to kill the program. We do intend to spend those moneys at some time before they expire. The question is when moneys are spent rather than whether they are spent.

The CHAIRMAN. I will tell you I do not have to look into your intent to draw my conclusions. All I have to do is look at the history, and let me spell it out once more.

Congress enacted a 3-year program, with an authorization of $18 billion. The President vetoed that program because he said it was proposed to spend at a rate that was not wise in his judgment. He recommended a lower rate. The veto came here to the Congress. We overrode his veto so overwhelmingly that he got a total of 35 votes in both houses to support his policy view.

He then proceeded to impound $9 billion. Why? Because he said in the words of his veto message that it projected spending for this purpose at a rate higher than was wise, a legislative judgment, and he impounded half of the program. And he succeeded in cutting the program in half over the 3-year period that the Congress authorized.

And now you tell me this morning that the President has the authority, without further words from the Congress, to decide how and when, over what period of time, that $9 billion is to be spent. Now you tell me the President has the authority under the title X of the act that we enacted in order to get at the abuse of Executive authority that he had been guilty of in the first impoundment, you are telling me that he can use that act to do the same thing over again, to impound one year after another by deferrals, taking the whole policy question out of the regular legislative stream, doing it by his own arbitrary action.

Now, those are facts.

Mr. ASH. But you have completely misstated what I said. The President has the authority to submit a deferral or a rescission proposal to the Congress. The Congress now has in front of it that deferral action to consider. If the Congress wishes, it can take whatever position it wishes on the subject.

The CHAIRMAN. Wait a minute. The last time you testified you told me that this deferral message on water impoundment is not before the Congress under title X because in the opinion of the Justice Department, title X does not apply——

Mr. ASH. Because it——

The CHAIRMAN. To this impoundment because it took place before July 12. So it is not before the Congress under your interpretation of the act.

Mr. ASH. This one particularly, as distinct from the many others.

The CHAIRMAN. It is not anything we can do anything about according to your interpretation.

Mr. ASH. Our interrpretation is consistent with the GAO's interpretation.

The CHAIRMAN. No. GAO said it is before the Congress. You disagree with GAO.

Mr. ASH. The President is now determining his response to the GAO and we will be back to you with what he has concluded.

The CHAIRMAN. The President is so way out in left field I doubt if he would come up with a position that is going to resolve this issue.

Now, this issue has come up several times this morning because in my judgment, it is a serious one. I think that the position taken by this administration on this issue has been a disservice to the resolution of the whole impoundment question. I said it before, I say it again, and until you come around to what I believe to be, and I think that eventually the Congress will endorse this view, the legislative intent as

reflected in legislative history we are going to continue to have trouble with this because you just assume to yourselves and the President the authority to legislate independent of congressional will.

Senator Chiles.

Senator CHILES. What is our deficit this year?

Mr. ASH. We cannot tell you exactly. It depends largely on congressional action on deferrals and rescissions that are before the Congress right now. As you may remember, the President, on November 26th, sent up a package of deferrals and rescissions. He observed that if the Congress concurred in his actions we would have an outlay level of about $302 billion. The Congress since that time has negated some of those requests, so that the $302 billion level should be increased. We are not exactly sure how the Congress will deal with the additional deferrals and rescissions that are before it.

The package sent us on November 26 involved about $4.6 billion of spending this fiscal year. If the Congress chooses not to concur with the President, then the outlays become $308 billion and with an expected revenue level of around $294 billion or so, you can see we are getting to a $14 or $15 billion deficit this year. It is up to the Congress to act on the deferrals and rescissions that are before them now.

Senator CHILES. How much was the deficit last year?

Mr. ASH. About $3½ billion.

Senator CHILES. Of the $3½ billion that was the deficit last year, how much of that was the borrowing on the highway trust funds?

Mr. ASH. What was the question again?

Senator CHILES. How much money of highway trust funds did we defer, did we not spend last year?

Mr. ASH. We did not use last year?

Senator CHILES. For highway uses.

Mr. ASH. Of the amount that came in last year, I would guess there was about $2 billion.

Senator CHILES. So of the $3.5 billion, $2 billion of that would have been that highway—highway revenues that we did not use for highways?

Mr. ASH. The deficit would have been higher by $2 billion had highway money been spent in the amount that was received in revenues.

Senator CHILES. No. I do not understand that.

Mr. ASH. We reduced outlays by $2 billion from what they would have been had we spent all of the inflow to the highway trust funds last year. By reducing outlays that $2 billion, we held down the deficit to $3½ billion rather than allowing it to become $5½ billion. It is clear, we would have spent $2 billion more had we spent all of the trust fund revenues.

Senator CHILES. So if that is correct, what you have done is, we took $2 billion from the American taxpayer by way of highway uses, highway use taxes, earmarked for highway construction under the highway trust fund, and we spent it for other purposes and, therefore, did not have to report a deficit.

Mr. ASH. We avoided taking $2 billion away from them in taxes of some other form.

Senator CHILES. Or we just did not report the deficit. And now if we want to spend that——

Mr. ASH. Had we spent the $2 billion, we would have taken money away from them in inflation. That money has to come out of inflation or taxes.

Senator CHILES. But now if we want to spend that money for highway uses which is what we collected it for, now that is going to be a deficit?

Mr. ASH. Yes. We in effect saved $2 billion for the taxpayers. Any time we reverse ourselves and spend it then we are saying to the taxpayers, give up the amount and we will spend it.

Senator CHILES. No, sir. We did not save it for people. If we saved it for them it would be available for them to use it for highways. We did not save it for them. We spent it for them for something else.

Mr. ASH. We saved it in the sense that we did not collect $2 billion from the taxpayer. He had it remaining in his hand rather than having it taken away from him.

Senator CHILES. He does not have it remaining in his hand. If he had it remaining in his hand he could now spend it for the use it was designed for. It is gone.

Mr. ASH. The taxpayers have it in their hands. The Government did not take it away from the taxpayers and hold it in the cash account. Any time we want to spend we have got to go out to the taxpayers and get the money. We left it in the taxpayers' hands last year. Any dollar that we do not spend for highways or anything else, we leave in the taxpayers' hands to spend for private goods and services.

Senator CHILES. Not if we have taken the money and spent it for something else, and that is what we did. We took this money and spent it for something else.

Mr. ASH. And by spending it for something else we did not have to go to the taxpayer and get that same amount of money to spend for those other programs.

Senator CHILES. You know, we ought to charge higher highway use taxes because then we could leave more money in the taxpayers' hands and spend that money for something else that we need taxing for and the taxpayer would just be better off all the time. There would never be any highways built but think how happy he would be.

Mr. ASH. It is much more simplified than that. You can look at it more clearly and simply by not thinking of the trust funds separate from the general revenues, merely thinking that whatever money the Government spends for one program or another it has to collect from the people. There is no place else to collect it. Whatever it does not spend is that much less it collects from the people. There is no such thing as Government money. There is only people's money. And the more we spend, the more money of the people we are spending. The less we spend the more we leave in their hands to spend for their own purposes. The fact that there are trust funds really makes only one slight difference. The highway trust fund is paid into by a certain group of taxpayers, those that consume gasoline. Federal funds are paid in by the general base of taxpayers, some of whom also consume gasoline. The only difference is a shift between which group of taxpayers and even they are much the same.

Senator CHILES. Well, again we are talking about confidence and confidence in Government and confidence that people have, so we have set up a highway trust fund and we set up highway use taxes to go into the trust fund to complete the highway system in this country. But now the money is not being used for that and if we try to now use it for what you say that amounts to—you have to raise new taxes even though they paid the money once for that or add to the deficit.

Now, it is one or the other.

Mr. ASH. The money has been loaned, the money has accumulated faster than it has been wise to spend it and it has been properly and prudently invested in Government bonds. Those Government bonds are paying interest.

Senator CHILES. Again, it is wiser and it was prudent to have spent it, is the executive decision over what Congress set forth in why we were going to take these people—why we were going to take their money in these highway use taxes and we said we were taking it for a purpose and we were to guarantee that purpose. We were going to set up the highway trust fund so that this money would be earmarked and go into that fund.

Mr. ASH. It is merely a matter of when it is spent.

Senator CHILES. You tell me now we cannot use it for that unless we go tax the people or add to the deficit.

Mr. ASH. The trust fund as an account still exists. In effect, there are certain funds earmarked for spending on highways but there is no——

Senator CHILES. When I said let us go ahead and stimulate that you you said no, no, we cannot do that. We have to raise taxes.

Mr. ASH.The trust fund moneys exist as an investment in Government bonds. Therefore, when the highway trust fund says I want to get some of that money that I now have in bonds, they are saying to the taxpayers, send in your cash so the Government can pay off Government bonds. Therefore, we have to get it from the taxpayers.

Senator CHILES. But Congress said to the people we are going to tax you these highway uses. The reason we are doing that is we are going to put this into a highway trust fund and we are going to complete the highway program or we are going to set up a highway program.

All of that has to deal with confidence and that is what the Congress told the people. But now the administration decides, wait a minute. We want to take these funds and we are going to use them somewhere else.

Mr. ASH. The law says two things. First, the trust fund surplus must be invested in Government bonds. The Congress said that. The executive branch is doing exactly that which the Congress required it to do, invest in Government bonds.

Second, the law did not say that the moneys should be spent at exactly the rate that they were collected. They should be spent to complete the highway program in a prudent, efficient way and the fact that revenues varied 1 year to another was never intended to be the exact rate at which the money was spent.

Senator CHILES. We are talking about $10 billion.

Mr. ASH. That is right.

Senator CHILES. That has been taken out of the fund, that has been borrowed from the fund that is now being and has been used, and we are talking about now when John Q. Public says all right, let us spend my highway money for highways, we say, wait a minute. If we are going to do that we are going to have to tax you so we can spend that money for highways.

Mr. ASH. That is right. When the Treasury borrows from the trust fund, it forgoes borrowing from the people.

Senator CHILES. Yes, but you know, I have heard that you rob from Peter to pay Paul but it looks like here you did not rob from Peter to pay Paul. Peter raised the money but Paul got the money and spent it for something else.

Mr. ASH. You are wrong. The money was not given to Paul. The money was loaned to him. When the taxpayers that pay in the highway trust fund put their money into this fund, the law requires that the money be loaned to the general taxpayers. The taxpayers borrowed that money from the trust fund and spent it for other things.

When those loans have to be repaid, the Government has to go to the taxpayers and get the money to repay the trust fund.

Senator CHILES. It was Congress' fault that this money is not in the trust fund, that you took that money.

Mr. ASH. The Congress required by law that any accumulated amounts in the trust fund be invested in Government bonds.

Senator CHILES. Any accumulated amounts?

Mr. ASH. That is right.

Senator CHILES. But the Congress did not require that this money be accumulated——

Mr. ASH. It did not require that it be spent either.

Senator CHILES [continuing]. And not be released.

Mr. ASH. It did not require it be spent at the rate that it came in.

Senator CHILES. That is what the court case is now about, as to whether——

Mr. ASH. It required that any accumulated amounts be invested in Government bonds. Those accumulated amounts have been invested in Government bonds. That is where they stand, invested in Government bonds.

Now, the Government gave the bonds for that money and received the cash from the trust fund. What did they do with the cash? They spent it for things like food stamps and defense and anything else Congress mandated.

Senator CHILES. That is the problem that I worry about in trying to explain to people that——

Mr. ASH. I tell you the answer——

Senator CHILES [continuing]. One part of the Government borrowed this money and told us they were going to use it for one purpose but this other part of the Government that you just talked about decided we did not want to spend it on this purpose, that we would rather spend it on some other purpose.

Mr. ASH. We are just carrying out the law. The best answer is to eliminate the trust fund, comingle these funds and not try to maintain two different pockets and separate bookkeeping. Just put the two

pockets together and each year determine the mix of programs the Congress adopts and spend money that way. That is the best way.

Senator CHILES. I think what you are saying, the best way is do not tax the people and say you, the Congress, are going to spend it for certain programs because you know we, the administration, is going to spend it how we want to and we are not necessarily going to carry out the Congress' programs if we do not think they are wise or prudent, so do not start on that.

Mr. ASH. The problems of trust funds is that they do not really reflect the decisions of the Congress, the Executive or their actions together. They become bookkeeping techniques instead and the easy way to cut through it is to ignore the bookkeeping and go back to collecting money and deciding how it is to be spent. How much money we pass back and forth between one pocket and another is confusing to a lot of people. I see and we can easily eliminate it by not having the trust funds.

The CHAIRMAN. What you call the old shell game.

Mr. ASH. We would prefer there not be these two shells set up. It would be much better if the law provided that we did not have this separation of accounts because it is not helping any of us either to understand or administer.

The CHAIRMAN. Once we adopt a unified budget or even before the practical effect is to eliminate——

Mr. ASH. We carry out the law the best we can.

The CHAIRMAN. Well, Mr. Director, I appreciate your patience through a long morning of questions and I am not sure we have asked all the right ones nor that the ones we did ask were in all cases pertinent to what we are all trying to do. But you were patient when you did respond to our questions and we did surface some issues and disagreements and for that I am appreciative. At this time I think it is time to call the session to a halt.

Mr. ASH. Thank you, Mr. Chairman. We still have work to do together—our staffs and ourselves—in getting this new legislation in place and operating.

The CHAIRMAN. At this point in the record we will print additional material requested and subsequently supplied.

[The information follows:]

QUESTIONS SUBMITTED BY SENATOR BIDEN TO MR. ROY ASH

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C., December 16, 1974.

Hon. ROY ASH,
Director, Office of Management and Budget,
Executive Office Building, Washington, D.C.

DEAR MR. ASH: I am sorry my other duties prevented me from returning to the Senate Budget Committee hearing the other day so that you and I could discuss further some of the economic problems facing our Nation today. I do have, however, some fairly specific questions to which I would appreciate receiving written responses, so that I may insert them in the hearing record. These questions are set forth below.

(1) We discussed the proposed reduction of 40,000 civilian positions from those planned for the current fiscal year at the hearing. In addition to what was said there, I would appreciate your written comments on what appears to me to be the paradox of appropriating funds to create additional positions in State and

local governments, while at the same time reducing planned available employment opportunities at the Federal level by 40,000 positions.

(2) In the *Washington Post* on December 12, the following statement was attributed to the President:

"So I asked my former colleagues—and I think most of them sincerely agreed—if we could have a sort of informal moratorium on partisan economics . . . at least until the new Congress convenes in January. Couldn't we sort of bite our tongues when tempted to say things that might further weaken confidence in the economy and compound the confusion in many American's minds about their future."

Is not talking about it really to be our solution to recession? Is it something that will go away if we forget it? I held a meeting in Delaware recently on the economy. I think one labor leader summed it up best when he said what we need is "jobs, Senator, just jobs." Don't you think that would be a better approach than trying to instill confidence by ignoring the problem?

(3) It is my understanding that, in January, a large number of people will again begin to pay Social Security payroll taxes. My information indicates, in rough terms, that in the first quarter of the year, payroll tax collections will be about $3 billion higher than in the last quarter of the current year. As I see it, this is another $3 billion out of the consumer's pocket at a time when we need to be putting money into his pocket. I am as concerned as the next man about preserving the Social Security trust fund intact. However, I would like to inquire whether you see any way of either forgiving some of this Social Security payroll tax increase, and replacing it with general funds, or with funds from a new tax source? Or might it be possible in some way to postpone that January impact? Even if it is too late to do anything about this now, should we not try to prevent this kind of impact in the future when times are not good?

(4) Late in November, the *New York Times* attributed to you a statement that your revised budget estimates for the current year assumes that the unemployment rate will average 6.15 percent during the current fiscal year. With a rate of 6.5 percent in November, and with even the most optimistic economist not predicting an upturn before the middle of next year, do you still believe that you can attain an average of 6.15 percent? If not, what effect will this have on the deficit for the current fiscal year?

(5) Frequently, we focus primarily on Federal fiscal policy and its impact on the economy. Should we also be considering the impact that about $180 billion of State and local spending can have? Might it not be possible, through the vast network of Federal offices around the country, to seek to stimulate and encourage State and local capital spending on planned and worthwhile projects, but perhaps on a faster time schedule? Might not this do a great deal to provide employment and stimulate the construction industry?

I bring this up because, at the meeting I had in Delaware with the housing and construction industry people, they indicated that one of their primary problems was that Delaware had not adopted its annual capital program, and that this, combined with a lack of private spending, practically put them out of business.

(6) With housing starts in Delaware down about 60%, and both public and private heavy construction virtually stopped, there will be no industry left to enjoy an improved economy, if we ever manage to improve it. While in my meetings with the housing industry, it applauded the things we have done, such as emergency mortgage purchase programs and increased deposit insurance, it feels that the impact, at least in Delaware, is small to the point of being nonexistent. Does the Administration have any further proposals to aid these industries which have been hit so hard and so long by our economic problems?

I believe that the answers to these questions will help to clarify for me the direction in which the Administration feels we should go, and I appreciate your willingness to take the time to answer them.

Sincerely,

(Signed) Joe Biden,
JOSEPH R. BIDEN, Jr.,
U.S. Senator.

RESPONSE BY MR. ROY ASH TO QUESTIONS SUBMITTED BY SENATOR BIDEN

The following replies were prepared for the record in response to written questions submitted by the Honorable Joseph R. Biden, Jr.

1. The proposed reduction of 40,000 civilian positions does not indicate an actual decline in the number of Federal government employees. Rather, it represents a reduction from the amount originally indicated in the 1975 Budget. Thus, the result will be that Federal civilian employment will grow at a somewhat lower rate than would have otherwise been the case. Moreover, because of the nature of most direct Federal employment, it is difficult to alter personnel levels easily for short term policy purposes. Thus, the apparent paradox of restraining the growth of Federal employment while providing funds for additional state and local public service employment is not real. Public service employment programs are designed to be temporary in nature. They draw from a different group of workers than most civil service employment and are meant to serve different goals.

2. The President's comments are not meant to suggest that there should be no discussion of the economic problems of the country. Rather, the President was urging that this discussion be carried on in a responsible and constructive way recognizing that our economic problems will be solved only through non-partisan cooperation. The President's statement, as well as his recommendations to the Congress, clearly indicate his understanding of the seriousness of the unemployment problem and the need to do something about it.

3. No increase in the social security payroll tax is scheduled for January. There will be an increase in the ceiling of income subject to the social security payroll tax. Judging from your question, the probable cause of the apparent "tax increase" in January is due in large part to the fact that many contributors to social security reach the maximum annual amount they are required to pay before the end of the calendar year. If that happens, they do not pay any further payroll tax from the time they have reached the maximum until the beginning of a new year. It is at the beginning of the new year that their payroll tax payments are resumed. This, of course, is not a "tax increase", but merely a result of the way the payroll tax is administered.

The question of delaying, reducing, or postponing payroll taxes for the social security program are fundamental and probably should be considered in a longer-term context which takes into account a broad range of issues involved in our social security program rather than as a counter-cyclical measure.

4. Recent unemployment data suggest that it will not be possible to hold unemployment down to the 6.15% average previously projected for fiscal year 1975. The Administration is developing its unemployment assumptions at this time and these will be available with the release of the *Economic Report* and the *Budget*. The larger than anticipated unemployment rate will increase considerably the outlays for automatic programs that aid the unemployed and additional outlays will result from the special programs that the President and the Congress have developed. As indicated in the prepared statement, it is the policy of the Administration not to try to offset each dollar of increased aid to the unemployed by a dollar of cuts elsewhere in the budget. Therefore, increased aid to the unemployed will result in a larger budget deficit. However, the entire budget is under intensive review at this stage and it would be premature to speculate on the final results at this time.

5. The Employment Act of 1946 gave the Federal Government direct responsibility for the level of employment and income prevailing in the economy. Hence, the Federal Government needs to consider all methods of maintaining employment and growth, including stimulating State and local spending. However, the States are limited in the degree to which they can respond. Moreover, the Federal Government needs to consider methods of stimulating private investment and consumption spending as well. As the President has already stated, policy considerations of this nature are already under review.

6. Recent events have pointed out the inadequacies of our existing financial structures. In periods of rising interest rates and inflation, thrift institutions cannot provide the needed flow of funds to the housing markets. The administration has already announced several measures to stimulate the financial markets during the current crisis, but experience shows that the best way to aid these markets is to pursue a *balanced* fiscal and monetary policy.

The administration remains open to suggestions on ways to aid the housing industry. Suggestions are being considered in the formulation of the 1976 Budget.

More importantly, the current situation emphasizes the need for long-range reform of our financial institutions. In August of 1973, a broad and far reaching set of recommendations was sent to the Congress. The package embraced the proposals of the President's Commission on Financial Structure and Regulation,

the Hunt Commission, in 1971. Action on these recommendations is needed now to prevent a recurrence of recent events. While it will take time to implement the recommendations of the commission, the best way for the government to act in the short term is to proceed with a balanced fiscal and monetary policy.

QUESTIONS SUBMITTED BY SENATOR CRANSTON TO MR. ROY ASH, WITH RESPONSE

Question 1. If all Administration-proposed rescissions and deferrals are approved by the Congress, how many existing or prospective jobs will be eliminated?

Answer. Rough estimates suggest that during FY 1976 approximately 55,000 jobs would be affected if all proposed rescissions and deferrals ($1.1 billion outlay effect in FY 1975 and $2.4 billion outlay effect in FY 1976) were approved by the Congress. However, changes of such small magnitude are impossible to calculate precisely and it would be unwise to place much confidence in that figure.

Question 2. What will the effect of these impoundments be on the unemployment rate?

Answer. On the basis of the above calculation, the unemployment rate would rise six hundredths (.06) of one percentage point if all proposed rescissions and deferrals were approved.

Question 3. If the surtax had been adopted by the Congress when last proposed by the Administration, how many additional jobs would have been lost as a result of the consequent decline in consumer spending power?

Answer. Similar analysis suggests that the adoption of the surtax, when first proposed by the administration, would have affected 45,000 jobs.

Question 4. What would the effect of the adoption of the surtax proposal be on the unemployment rate?

Answer. On the above basis, the unemployment rate would have risen by five hundredths (.05) of one percentage point if the surtax had been adopted.

Question 5. What is the quantitative rescessionary effect of the administration-proposed surtax?

Answer. The proposed surtax would have reduced GNP by roughly $2½ billion dollars in calendar year 1975.

Question 6. Is this proposal still supported by the Administration?

Answer. The proposed surtax is no longer supported by the administration.

The CHAIRMAN. We will meet again next Tuesday at 10 o'clock.

[Whereupon, at 1 p.m., the committee was adjourned, to reconvene at 10 a.m., Tuesday, December 17, 1974.]

THE ECONOMY AND FISCAL POLICY, 1974

TUESDAY, DECEMBER 17, 1974

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m., in room 1114, Dirksen Senate Office Building, Senator Edmund S. Muskie (chairman) presiding.

Present: Senators Muskie, Moss, Chiles, Abourezk, and Biden.

Also present: Douglas J. Bennet, Jr., staff director; John T. McEvoy, chief counsel; Marc Lackritz, deputy chief counsel; Arnold Packer, chief economist; Maria P. Durelli, chief clerk; James Wood, professional staff member to Senator Moss; Harold Gross, task force investigator for Senator Cranston; Colin Bradford, professional staff member to Senator Chiles; Alan Chvotkin, task force investigator for Senator Abourezk; Frank Ballance, task force investigator for Senator Javits; George Pritts, professional staff member to Senator Fannin; and Joan Leach, clerical assistant.

OPENING STATEMENT OF SENATOR MUSKIE

The CHAIRMAN. This committee will be in order. I have a brief opening statement to again set the hearing this morning in the context of previous hearings.

This morning we continue the hearings we began last week on the current state of the economy and the appropriate fiscal policy to deal with it.

Our witness this morning is Secretary of the Treasury William E. Simon, who is also the Chairman of the President's Economic Policy Council.

Last week we heard testimony from a bipartisan panel of experts on the state of the economy.

They were unanimous in recommending that fiscal and monetary policy shift from restraint to stimulus.

They agreed that, even if such a shift were to take place as quickly as possible, the country would face the longest and deepest recession of the post-war period.

On Wednesday, Mr. Ash, the Director of the President's Office of Management and Budget, testified that the administration was preparing its response to the new situation.

Unfortunately, we were unable to determine if the administration has shifted gears or what new initiatives it was considering.

We recognize that the administration is hesitant to discuss specifics in this period, while the state of the Union, budget, and economic messages are being prepared.

However, we feel that the Congress and the public need to know how the administration perceives the current economic situation, what their general economic goals are, and what range of policies are being considered.

We hope that the testimony of Secretary Simon, the administration's chief economic spokesman, will be enlightening in these regards.

As I have stressed in the past, no one has a corner on truth in our continuing quest to identify the proper fiscal response to the rapidly worsening economic situation we confront.

With the President, we in Congress believe that this economic crisis should be confronted in a nonpartisan fashion, and by nonpartisan we mean not only that the two political parties should work together but that the Congress and the President should work together.

I think we all believe it is inappropriate for the President to criticize the Congress for an unwillingness to enact proposals which his own advisers have either abandoned publicly or which have never dealt effectively with the realities the country faces.

I believe most Members of Congress are gravely concerned that the administration's view of the economic condition has consistently been wrong during this year, and that the economic program the President has pursued, based on an overoptimistic view of the economy, has failed to address our real problems and, in a number of areas, would have exacerbated them.

In our committee hearings this August, administration spokesmen uniformly denied that recession was a significant problem. Even now the President characterizes the worst economic crisis we have endured in 30 years as simply a problem—which requires no urgent action on the part of the Government.

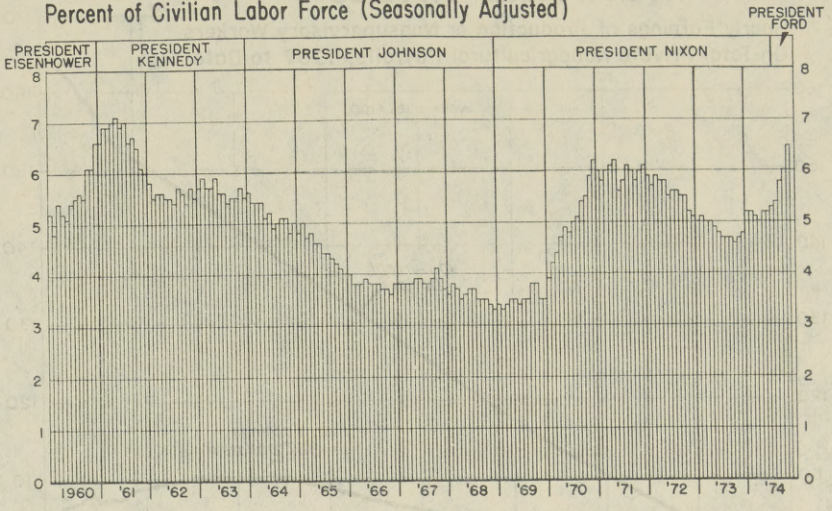
The oldtime religion preached by the administration in August has given way to the agnosticism of this winter of grave and deepening recession, but we take no consolation from the fact that the beginning of the admission of the severity of our problems has not been accompanied by a program to deal with them.

At this point in the record we will insert three charts prepared for the committee by the Congressional Research Service of the Library of Congress.

[The charts follow:]

UNEMPLOYMENT RATE, January 1960 to Date

Percent of Civilian Labor Force (Seasonally Adjusted)



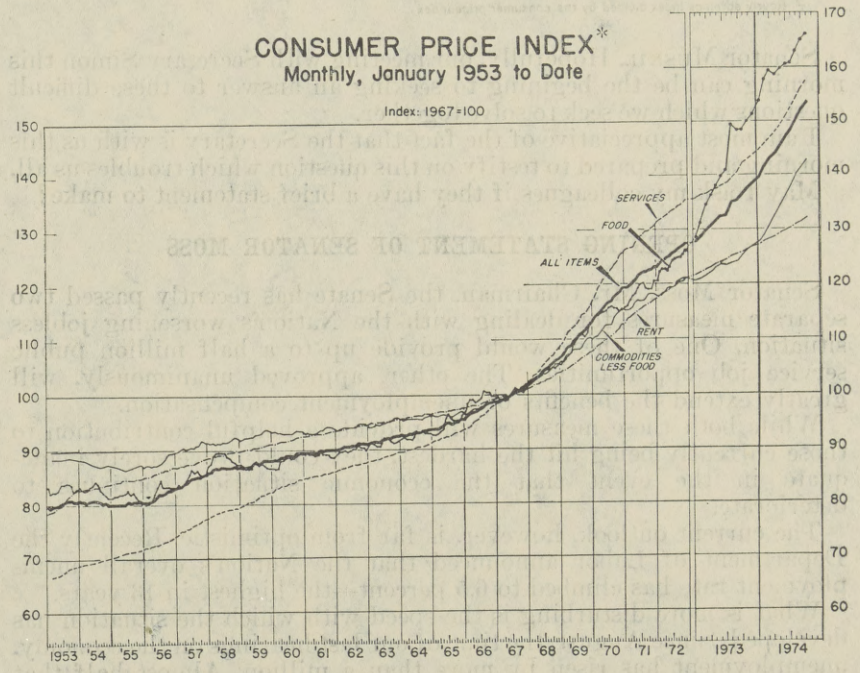
Source: U.S. Department of Labor

THE LIBRARY OF CONGRESS
CONGRESSIONAL RESEARCH SERVICE
ROBERT L. BOSTICK, 5-13-13
NO. 3360
UP-DATED DEC. 1974

CONSUMER PRICE INDEX*

Monthly, January 1953 to Date

Index: 1967=100

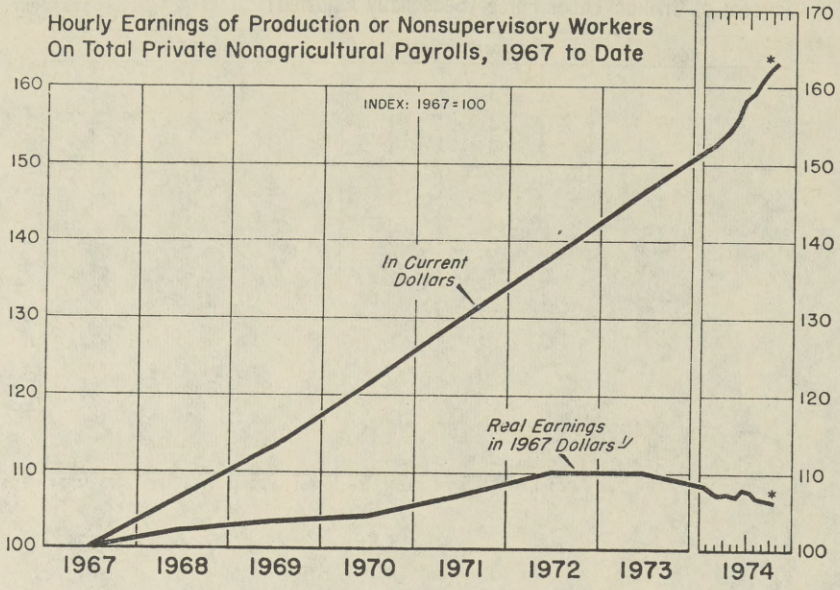


* Unadjusted

Source: U.S. Department of Labor

INFLATION AND WAGES

Hourly Earnings of Production or Nonsupervisory Workers On Total Private Nonagricultural Payrolls, 1967 to Date



* Preliminary

1/ Hourly earnings index divided by the consumer price index

Senator MUSKIE. Hopefully, our meeting with Secretary Simon this morning can be the begining to seeking an answer to these difficult questions which we seek to solve together.

I am most appreciative of the fact that the Secretary is with us this morning and prepared to testify on this question which troubles us all.

May I ask my colleagues if they have a brief statement to make?

OPENING STATEMENT OF SENATOR MOSS

Senator Moss. Mr. Chairman, the Senate has recently passed two separate measures for dealing with the Nation's worsening jobless situation. One of these would provide up to a half million public service job opportunities. The other, approved unanimously, will greatly extend the benefits of unemployment compensation.

While both these measures will provide a helpful contribution to those currently being hit the hardest, they could prove sorely inadequate in the event that the economic situation continues to deteriorate.

The current outlook, however, is far from optimistic. Recently the Department of Labor announced that the Nation's overall unemployment rate has climbed to 6.5 percent—the highest in 13 years.

What is more disturbing is the speed with which the situation has developed. Since August, the time of our last hearings on the economy, unemployment has risen by more than a million. Almost half that amount has come about in the past month.

Even in the face of this deepening recession Government policy has done little to break the back of inflation. Wholesale price figures released last week show only a moderate decline in inflationary pressures, while prices remain in the double-digit range.

The purpose of the hearings which we continue today is to survey the current economic outlook and to determine appropriate Federal action. We are particularly interested in the appropriate role of fiscal policy in dealing with the current climate of rising unemployment and continued inflation.

The Senate Budget Committee has a unique responsibility in this area: to determine and recommend to the entire Senate those total levels of Government outlays and revenues which are most consistent with the nation's overall economic welfare. There could be no greater challenge, nor one more complex.

Four months ago, at the time of our earlier hearings, the Nation's No. 1 problem was clearly that of inflation. Today we face the dual evils of rising prices and rising unemployment.

Four months ago, many economists predicted that we would be in the situation we now confront. Others downplayed the dangers of recession.

The purpose of today's hearings is neither to confirm nor reject proposals and projections made last summer, but to determine which policies are needed now. Rather than a chorus of "I told you so's," in other words, our Nation would be far better served with some "Where we go from here's." Quite bluntly, there is a point when the American people expect Congress to cease berating policy failures of the past and to begin to construct new programs to meet the needs of the future.

The time for such action is now. Every economic indicator that has been released by the Government in the past month points in the same direction: down.

Investment in new plant and equipment: down.

Auto production: down.

Overall industrial output: down.

Employment: down.

The forecasts for the future are just as dismal. Professor Otto Eckstein, who testified before the committee last week, predicted a jobless rate approaching 10 percent sometime next year.

President Ford, meanwhile, has denied the need for urgent action. He has denied that we are in an economic crisis. But if our Nation's recent experience offers us any guide, the time for action is before, not after, the gasoline lines; before, not after, the bread lines.

OPENING STATEMENT OF SENATOR ABOUREZK

Senator ABOUREZK. I do have a brief statement, Mr. Chairman.

One, I also want to welcome Mr. Simon to the committee. I am as curious as the chairman to know what is the policy of the administration toward the economy. I think perhaps the one thing wrong with the administration's approach to what is wrong with our economy is the fact that they are unable to make up their minds as to what to do, who is at fault or what is to blame. I want to point specifically to

the great amount of time spent by administration spokesmen denouncing high foreign oil prices and at the same time the same spokesmen and others spend a great deal of time trying to raise domestic oil and gas prices.

I am confused, as I am sure the other members of the committee are, as to why this anomaly exists. I hope that the Secretary will be able to express himself on this question during his testimony or following his prepared testimony.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Mr. Secretary, I know that you are under pressure of time and may I advise members of the committee that the Secretary would like to conclude by noon.

In order to maximize the time that we have, we will use the 10-minute rule once the Secretary has concluded his testimony.

Please proceed, Mr. Secretary.

STATEMENT OF HON. WILLIAM E. SIMON, SECRETARY OF THE TREASURY; ACCOMPANIED BY EDGAR R. FIEDLER, ASSISTANT SECRETARY FOR ECONOMIC POLICY; AND SIDNEY L. JONES, COUNSELOR TO THE SECRETARY OF THE TREASURY

Secretary SIMON. Thank you, Mr. Chairman.

Just a brief response, before going to my prepared text, to Senator Abourezk. I have spent many hundreds of hours explaining the causes and what we believe the cures of our present economic malaise, and there is no mystery nor has it been a mystery to anybody. The major cause of our economic problems today in fighting this twin-headed monster is inflation, and let there be no doubt about that.

On the subject of speeches made by people in the Administration, I think you are referring to a speech made by the Honorable Thomas Enders, Assistant Secretary of State for Economic Business Affairs. However, as Secretary Kissinger has said, the speech by Assistant Secretary Enders was not an administration proposal, but a talk on the academics of the issue. It did not relate to administration policy per se.

It is a pleasure to return before your committee to continue the hearings initiated in August. These are important times for the committee and for all of us. A rate of inflation unprecedented in our peacetime history is now coupled with a decline in economic activity and rising unemployment. In large part, our present difficulties are the result of earlier failures, both fiscal and monetary, that extend back in time a decade and more. Your committee, and its counterpart in the House of Representatives, can play an important role in helping to make the Federal budgetary process a much more effective instrument of economic stabilization in the future than it has been in the past. We want to work closely with you to achieve that objective. In this statement I have tried to answer the specific questions you raised, Mr. Chairman, in your letter of December 5.

There have been significant changes in the economic situation since I appeared before you in August. These changes deserve and are receiving our close attention within the administration. However,

nothing has happened in these past few months that detracts from the necessity of bringing the entire Federal budget process under much better control. Federal expenditures have doubled in the past 8 years and have built up a powerful momentum. Even with favorable action on the President's proposed cuts in spending, Federal outlays would rise by $34 billion in the current fiscal year—a rise of 13 percent. At that rate, Federal expenditures would double again in just another 6 years. We must not allow anything like that to happen.

The problem is not only runaway Federal expenditure programs and chronic budget deficits. We are deceiving ourselves and the American public by excluding items from the budget that have a considerable impact on the economy and the American taxpayer. For example, in fiscal year 1974 the reported figure of $3 billion of Government borrowing from the public—to finance the unified budget deficit of $3.5 billion—showed only the tip of the iceberg: the net borrowing from the public to finance Federal programs outside the budget was estimated at $28 billion. During the past decade the unified budget had a cumulative deficit of $102.9 billion. But total net borrowings for off-budget programs were an even more staggering figure—$142 billion. The disruptive effects on the Nation's capital markets of having the Government borrow one quarter of a trillion dollars in a single decade deserves much more attention. I seriously doubt that we will ever be able to have either stable housing markets or the level of savings and capital investment needed to generate the necessary jobs and economic output until we correct this serious Government distortion of the financial markets.

There is much that needs to be done—and done quickly—by your committee and the rest of us to restrain excessive Federal spending and moderate the use of Federal credit. We will not solve the problems of stagflation by opening the sluice gates of Federal spending and lending. We would only worsen our long-run budgetary situation which is bad enough already.

While sticking to a course of expenditure restraint, we recognize that the economy is in need of a degree of fiscal and monetary support. The economy is in a recession and the downward movement will probably continue into the spring of next year. We expect real growth to resume sometime during the middle months of the year.

At present, the automobile and housing industries account for a large part of the rate of change in the economic situation—much more than would be suggested by their relatively small average share of GNP. Both industries have substantial inventories of unsold units to work off. Both industries are thus producing at unsustainably low rates—well below their long-run normal levels. As soon as inventories are brought into better balance, production levels can increase again in both industries, probably in the late winter or early spring. In addition, most observers expect car sales to rise from their recent very low levels, which would also require a pickup in automobile production. In housing, where financing is always the key factor, there has already been an increase in savings flows to mortgage lenders, which is establishing the preconditions for a recovery in residential building activity.

However, the recession has not yet bottomed out; economic recovery still lies in the future. At the same time, some meaningful improve-

ment in the price picture is beginning to emerge and more will appear. This is a very encouraging development. Nevertheless, the situation is still one of too much inflation and too much weakness in economic activity.

Some people feel that we must, therefore, make an agonizing choice between fighting inflation and fighting recession. I cannot agree. The two conditions cannot be separated. Inflation and recession are inextricably intertwined—they are both integral parts of the same disease.

Inflation led directly—through the high interest rates that always accompany inflation—to sever financial instability, to a heavy outflow of funds from thrift institutions, to a sharp squeeze on the availability of mortgage credit, and thereby to one of the worst slumps on record in the housing industry. Similarly, inflation has been a major factor—perhaps the major factor—that has demolished consumer's confidence, which is having a crushing impact on sales of automobiles and other consumer goods. Surely the answer to these problems does not lie in policies that would invariably lead to still further increases in the rate of inflation. That road leads to economic and financial disaster.

We must recognize that fiscal discipline is the only appropriate course of action. I am not, of course, proposing doctrinaire actions to achieve unrealizable and undesirable budget goals that would aggravate the recession. Budget deficits are inescapable in the present situation. There is a vast difference, however, between a budget deficit arising from slow growth in receipts in a softening economy, and a budget deficit arising because of a burst of Federal expenditures.

But our present Federal budget position is already expansive. As I mentioned earlier, we face an expenditure increase of $34 billion or 13 percent. And if the proposed spending cuts are not realized, the gain will be $38½ billion, or 14½ percent.

Thus, we should avoid a new spree of budget busting in the guise of curing recession. Spending programs designed for that purpose generally come too late, cannot be reversed, only intensify inflationary pressures in the recovery and thereafter, and ultimately must be paid for through the burden of higher taxes on the American people or, alternatively, through the cruel tax of inflation. Furthermore, larger Federal expenditure programs would shift resources from the private to the public sector at a time when all levels of Government are already taking one-third of total output.

What we need now, in my opinion, is a shift in the mix of policy to achieve a better balance between our monetary and fiscal positions. Over the past year, monetary policy has carried a disproportionate share of the burden of stabilization policy. This was necessary because fiscal policy did not do its share. In the present situation, therefore, we should be maintaining firm fiscal discipline. This is the purpose behind the President's proposals to reduce the explosive growth of Federal spending by $4.6 billion in fiscal 1975, a cut that will produce at least $6.7 billion of savings in 1976 and more in future years.

We should recognize that our measures of budget policy are seriously incomplete at the present time. First, the unified budget does not reflect the off-budget lending and loan-guarantee programs that I mentioned earlier. With net borrowing for off-budget programs added in, the deficit in fiscal 1973 would have totaled $39.5 billion—rather than

the $14.3 billion shown in the unified budget—and in 1974, about $32 growth of money and credit, the inflationary impact of these off-budget lending programs is comparable to that of deficits in the unified budget. Second, the acceleration of inflation these past couple of years has boosted tax receipts—especially from taxes on inventory profits—faster than it increased Government expenditures. This has narrowed the budget deficit, but that reduction does not indicate fiscal restraint—it simply reflects the increase in the rate of inflation. For these reasons, Federal fiscal operations have been much more stimulative in fact than they have appeared to be.

Thus, fiscal policy should be kept under a tight rein. At the same time, however, monetary policy is easing. Indeed, the Federal Reserve has already moved a considerable distance in this direction. If we can pursue budget discipline, this will permit a further easing in credit conditions, which will assist the recovery in housing and help to restore consumer and business confidence. As I mentioned earlier, a reflow of funds to the thrift institutions has already begun.

We have at the present time an extraordinary opportunity to alleviate our economic problems. The first essential step in the anti-inflation fight has already been completed in that the excess demand conditions that characterized our economy in 1973 have ended. We no longer have "too much money chasing too few goods".

Right now we are seeing the first concrete evidence of some progress on the inflation front. Raw materials prices have been falling since the end of July. The latest consumer and wholesale price indexes show some slackening in the upward thrust of nonfood commodity prices. Interest rates on Treasury bills are down about 2½ percentage points; long-term corporate bonds are down about 1¾ points. Competition is breaking out again in many industries. Inflationary pressures are still strong on both the price and wage sides, but at last some indications have appeared that we are making headway.

This does not mean that inflation will quickly disappear, quite the contrary, but it does give us the opportunity to reduce the rate of inflation to more tolerable levels. We must not abandon the effort now that it is beginning to show signs of paying off. We can and must have recovery from the current recession, but we must do that in a way that does not lead to an overheating of the economy again. We must not get back into the situation where the economy is propelled beyond the limits of its capacity to produce.

We will, however, lose this opportunity to achieve stable economic growth if we switch to excessively stimulative policies. That has been the repetitive pattern over the past decade. Every time the economy showed signs of hesitation, there was a pronounced shift to stimulative monetary and fiscal policies. The result was that we pushed the inflation rate up onto higher and higher plateaus. In 1966, the peak inflation rate was about 4 percent; in 1970 it was about 6 percent; and now prices are rising at about a 12-percent rate. The same process ratchetted interest rates higher and higher. In 1966 rates on long corporate bonds peaked at a little over 6 percent, in 1970 they reached almost 10 percent, and this year the high was 12 percent.

We should also take note of what happened to unemployment over this same span of years. Economists often talk of the tradeoff between

inflation and unemployment. This would suggest that as inflation worsened over the past decade—because stimulative economic policies were pursued—unemployment should have improved. But this did not happen; in fact, the unemployment rate climbed to higher and higher plateaus. In 1966–67 the unemployment rate barely increased and reached a high of about 4 percent; in 1970–71 unemployment climbed to around 6 percent; and unemployment is currently at 6½ percent and still rising.

Surely the lessons are clear: First, there is no worthwhile payoff in a decision to ignore inflation and focus all policy on recession. Both are components of the same malaise. We are fighting a two-headed monster: One head is inflation and the other is recession, and the inflation has been the culprit in causing much of the recession. And the experience of the past decade clearly demonstrates that allowing inflation to accelerate so explosively does not achieve any benefits—except in the very short run—in the form of a reduced level of unemployment. Second, if we do not seize this present opportunity to pursue responsible fiscal and monetary policies, the problem of rampaging inflation and a weak economy will be even worse the next time around.

This is why I believe that the top priority for both the executive and legislative branches is to get our fiscal house in order. The runaway pattern of Federal spending threatens to become permanent. It is high time for a thorough review of Federal spending programs and a concerted effort to blunt the momentum of their growth.

Our current economic condition is very difficult but I am convinced we can bring the economy under better control if we persevere with suitable policies. We are presently paying the price—the high price—for the irresponsible policies of the past decade. If we turn again to excessive economic stimulus, in an attempt to escape the consequences of our past indulgences, we will only be presented with a larger bill later on. When will we learn that each time we refuse to pay the price, we face a still higher price the next time around?

Measures to adequately cushion the impact of the current economic adjustment where it falls with disproportionate force must be enacted promptly; the burdens of stagflation must be equitably shared. At the same time, I hope your committee will assist in the equally important task of bringing Federal expenditures back within the limits of what the public is willing to provide in the form of tax revenues.

ENERGY POLICY

For many years, the energy policy of the United States was based upon the assumption that we would always be able to obtain all of the energy we wanted at bargain basement rates. Foreign oil was inexpensive and seemed limitless in quantity. It thus appeared to be good business and sound diplomacy to increase oil imports.

We have now learned that such a policy was a double-edged sword. It led directly to a growing dependence upon other nations and a decline in exploration and production within the United States. By the time of the embargo last year, foreign oil accounted for over one-third of our petroleum consumption and our dependence on it was still surging upward.

The legacy of that policy is now clear: We allowed our domestic energy base to erode so badly that we became highly vulnerable to foreign extortion. Now we are paying an extraordinary price for our mistakes. In 1974, the United States will pay $27.5 billion for foreign oil, and our balance-of-payments deficit is likely to be $5 billion. As for the OPEC nations, their trade surplus for the current year will probably be in excess of $60 billion, and by 1980, if present trends continue, their total accumulation could exceed $500 billion. Imbalances of this magnitude cannot continue. They are neither economically nor politically tolerable.

In my meetings with the Arab leaders, I have tried to impress upon them that their oil policies are not only bad politics but bad economics. They are exerting enormous pressures on the United States and other countries to become more self-sufficient. Since 1972, significant discoveries of oil have been made in 26 areas of the world—outside of the OPEC bloc—and countries such as Britain are now working to convert these deposits into major energy sources. As consuming nations expand production and cut back on consumption, the only way the present high price can be maintained, even on a temporary basis, is for producers to cut back production. The OPEC ministers know that every barrel sold today is worth more to them than every barrel left in the ground. Selling now and investing the money is simply more profitable than selling later. For example, to match the long-run return on an investment made today at 8 percent per year, a barrel of today's $10 oil left in the ground until 1984 would have to bring more than $21.59—a price that is unrealistic. Moreover, the Arab nations cannot expect to remain aloof from the dangers of social unrest and political instability that their policies are creating around the world.

I believe that economic and political realities will eventually force oil prices to come down. As of the moment oil diplomacy is particularly delicate and in the short run there may even be some further efforts to increase prices. But over the long run, the question is no longer whether oil prices will come down but when they will come down.

In the meantime, it is absolutely vital that the United States put its own house in order. Supply and demand must be brought into better balance here at home, so that foreign nations will never again be able to make oil a political weapon.

I believe we can now attack our problems with vision born of our mistakes. For many years the Government has posed major obstacles to the efficient market allocation of energy. We regulate the price and distribution of natural gas; we manipulate the pricing and distribution system in oil; we require lengthy and cumbersome processes for obtaining licenses and rate approval; and, we impose environmental restraints of questionable validity upon both the production and combustion of fossil fuel.

In order to accelerate domestic production, I would submit that the Government must act decisively to free producers from Federal laws and regulations which discourage growth. We at the same time should understand that now is not the time to point the finger of guilt at American energy industries. In the future, they are the major hope we have to meet our needs. However, what we need to remember now

is that our success in providing needed supplies will be related to our willingness to allow the marketplace to function freely so that the exploration and development of energy sources will be encouraged. We must continue to provide energy companies with reasonable policies under which they can expand their production.

Our policy must be to eliminate waste through energy conservation programs and to stimulate the development of domestic energy resources. We must accelerate the development of oil and natural gas in Alaska and on the Outer Continental Shelf; we must boost coal production and bring online coal liquefaction and gasification capacity; we must develop the promise of our vast oil shale reserves; and expand our nuclear and geothermal power.

We have an abundance of natural resources that can meet our needs. For instance:

The United States has 1,500 billion tons of identifiable coal reserves, or half of the known free world reserves, and one-third of these reserves are economically recoverable now.

We have upward of 80 billion barrels of oil and 490 trillion cubic feet of natural gas on the Outer Continental Shelf—for which intensive drilling is now becoming feasible as the Government accelerates the leasing program.

We have an estimated 1,800 billion barrels of oil shale resources in Western States, enough to meet our total needs for decades. The time has come for the Federal Government and private industry to bring the promise of shale into the marketplace.

Throughout these efforts, we strongly believe that the Federal Government has a responsibility to provide strong leadership—to insure that there are necessary incentives for the development of our massive untapped energy resources.

Recently Secretary Kissinger and I outlined the U.S. proposals for international cooperation in energy and finance. The essence of our position can be succinctly described:

The price of oil itself, not its financial repercussions, is the real source of trouble in the world economy.

To help bring about lower oil prices, and to reduce the economic burden of oil imports, major consuming nations should work together to achieve significant reductions in their imports of OPEC oil.

They should also coordinate policies and pool their technical resources to increase energy production within their own nations.

IMF resources should be more fully mobilized for all its member nations.

A major, new financial mechanism should be set up in association with the OECD to provide standby financial support in case any of the participating countries find themselves in economic trouble after having made reasonable efforts on their own part.

Consideration should also be given to setting up a special trust fund managed by the IMF to help developing nations that are suffering the most and require financing on concessional terms.

Our ideas call for a forthright effort by the world's major industrial countries to resolve the international energy crisis. To implement our far-reaching initiatives will require many weeks of dialog. Even now, our International Energy Agency—IEA—working group represen-

tatives are meeting in Paris in an effort to assimilate the views of the member nations. To implement the decisions and initiatives we have made will require many further weeks of diplomacy with our allies and with our friends. In our efforts, we will work closely with the Congress.

In our view, the most important and immediate aspect of our domestic energy policy is that of reducing our consumption of high-cost imported oil. In the near term, this can only be accomplished by strict adherence to conservation. In his recent economic message, President Ford announced a voluntary program to reduce oil imports by 1 million barrels a day by the end of 1975. As the members of this committee know, the President has made it clear that we will meet this target and that to do so we will take whatever steps are necessary.

If the voluntary reductions are not adequate to meet our target of reductions, more stringent steps will be taken. Federal agency working groups are now completing intensive studies of possible options for the President to consider. The President will present a coordinated package of administrative and suggested legislative actions to Congress in January. These actions will address the dual problems of reducing our imports and increasing our domestic supplies of energy. In developing its options, the administration is paying particular attention to the possible effects on the economy and the Federal budget.

In total, the administration's energy policy is a balanced mix of international and domestic initiatives. We have set clear goals for the Nation and we will work cooperatively with the Congress in achieving them.

Our ultimate goal is one of moving the United States from its present nonrenewable hydrocarbon energy base to a renewable energy base. This calls for a coordinated effort to make maximum use of oil, gas and coal as well as the development of solar, geothermal, nuclear, and eventually fusion power. The switch over to these latter sources will extend over a period of many years, but what is needed now is a clear national commitment to increase our domestic energy production in areas and forms consistent with market forces. Such a commitment need not, and should not, imply that essential social and environmental concerns must be neglected. On the contrary, such concerns must be fully taken into account. But protection against social abuses must be provided without unduly dampening incentives to expand production.

Mr. Chairman, I have with me this morning Mr. Edgar Fiedler, Assistant Secretary of Economic Policy of the Treasury Department, and Dr. Sidney Jones, Counselor to the Secretary for Economic Policy.

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

I appreciate that statement. I must say that more questions occur to me than I could possibly put to you in the time that is available so I would hope that with my colleagues we may get to the principal ones.

It is very difficult, I must say, for us to know what the administration's current policy stand is. Newspaper reports and some of your recent statements suggest a switch from fighting inflation to combating recession, and yet your statement this morning puts such a heavy emphasis upon continuing to fight inflation and such minimal emphasis upon the need to fight recession, that I am confused again.

On page 7, for example, you say that "If we turn again to excessive economic stimulus, in an attempt to escape the consequences of our past indulgences, we will only be presented with a larger bill later on."

You do not define what you mean by excessive economic stimulus. Clearly there could be disagreement, in any case, about what that definition ought to be.

Was it your intention this morning to indicate that, at least from your point of view, the emphasis should continue to be on fighting inflation rather than fighting recession?

Secretary SIMON. I have attempted to point out in my statement that we are fighting both. However, inflation is the major factor in causing the recession and I cited the two examples in detail in my statement—housing and construction as we set it off, and consumer confidence reflected in automobile sales as well as many of the consumer goods areas. So we must continue to battle both, yes, and avoid the very clear danger that we have fallen prey to in the past 8 years. Twice we have missed opportunities where the economy has been overstimulated during periods of recession to a point where inflation and unemployment in a very short period of time, in a matter of a couple of years, were back at even higher levels than in the bout we had previously fought.

The CHAIRMAN. You say we have to fight both.

Is it your view still that the administration policy as announced in September still reflects the kind of balance that you would recommend for the future?

Secretary SIMON. The one thing that we have to understand, Mr. Chairman, and we have attempted to explain this on many occasions, is that economic policymaking is an ever-evolving process. One does not put forth a set of proposals and have them just stay there from beginning to end, and that is the end of all of our problems. Conditions change in our economy. Forecasts turn out to be on the low side in some areas and on the high side in others. Unemployment, for instance, while a 6½ percent unemployment rate was clearly within our forecasts of our zones of forecasting, it came sooner than we expected it would come. While this requires constant discussion and constant updating of economic policy, this is what we have been in the process of doing really, for the last month. We will be presenting to the President in the very near future a set of options for him to deal with this everchanging situation.

The CHAIRMAN. If I understand it, everchanging in dynamics. I am simply trying to inquire whether there is going to be a change of direction as a result after the experience of the last couple of months.

Secretary SIMON. When you say change of direction, to say that we are shifting from fighting inflation to fighting recession, I would say, no. We are going to continue to fight both, representing that inflation as I said a few minutes ago, is the major factor causing the recession that we have got.

When we talk about the emphasis of the policy or certain policy mixes, that to some might appear like we are changing our direction because certain stimulation of the economy is desirable at times and indeed even necessary. But that does not mean that we have given up our battle against inflation.

The CHAIRMAN. My question is not designed to push you in that corner, I am simply trying to get some specifics.

The President's package, for example, in September, proposed a 5 percent surtax. There is now speculation that the administration may be for a tax cut. Here we are not talking about theory, we are talking about conditions.

Are you now for the 5 percent surtax? Are you now for a tax cut?

These are two, as I view them, sharply different policies.

Are we going to see this change in the administration's policy? This is a specific.

Secretary SIMON. It is. The newspaper reports, Mr. Chairman, as far as the tax cut is concerned, came from a speech to a group of economists, a very technical speech and a very excellent one by Alan Greenspan, on fiscal measures to deal with stimulating the economy. He made a sharp differentiation between Federal expenditures and tax cuts, preferring a tax cut route to massive Federal expenditures when the time for stimulation arrived if, of course, it became necessary. I certainly agree with that view as a policy, but that does not say that we are going to have tax cuts. The purpose of a surtax was to begin to think about in the Government paying for expenditure measures that we put forth and we proposed. The President proposed the public service unemployment program and a rise in the investment tax credit which were going to cost us revenues. Therefore, he proposed a surtax to pay for those expenditures.

This is the direction we are trying to move in to control the explosive growth of Federal spending.

The CHAIRMAN. I understand.

Secretary SIMON. I obviously strongly subscribe to——

The CHAIRMAN. And you spent most of your speech emphasizing that point. What I am trying to get at is your tax policy. We have a story: "Simon moves for an option of a tax cut." If that story is accurate, you proposed this option to the President. What I am trying to find out is, we are not talking about theory, we are talking about an economic condition.

Secretary SIMON. The point of the matter is——

The CHAIRMAN. What I am trying to find out is whether the administration is switching its tax policy. We can talk about budget policy in another series of questions, but are you talking about, are you considering shifting the tax policy from an increase represented by the surtax to a tax cut of our order?

Secretary SIMON. You cannot separate tax policy from budget policy.

The CHAIRMAN. I understand. But I can ask only one question at a time.

Secretary SIMON. The point is I do not make the economic policy of the United States. I make recommendations to the President, and he clearly chooses the options and makes the decisions himself. That newspaper article reflects the opinion of the writer, not necessarily any interview that I gave.

I have not yet presented the President with options, but I will in the very near future for his decision.

The CHAIRMAN. What I am trying to ascertain this morning, Mr. Secretary, because you are the President's chief economic spokesman, as I understand it, is what your present view of the economy is, what kinds of directions you think we ought to be moving with policy and programs. If you take the position that it is not your prerogative to express those views to this Committee because the President is in the process of considering this policy for submission to the Congress, that is one approach to it. What I am trying to——

Secretary SIMON. I mentioned that in my testimony, Mr. Chairman.

The point is, you know, that the chief economic spokesman or economic policymaker is put in a delicate position before the President has made a decision. There is too much in the newspapers now that is inaccurate about what we are discussing, and it builds up expectations on the part of the American people which may or may not be accurate, and it effectively paints our President in a corner as far as decisionmaking is concerned, and I think that is unfair.

The CHAIRMAN. Mr. Secretary, may I be a little blunt?

Secretary SIMON. Sure.

The CHAIRMAN. You come here with a statement this morning emphasizing excessive spending directly focusing on criticism of this Congress and not this committee.

Secretary SIMON. No, sir.

The CHAIRMAN. May I finish my question?

Secretary SIMON. Sure.

The CHAIRMAN. For budget deficits. Now this is perfectly permissible, that is your prerogative, I do not challenge that. But now you come here talking about excessive economic stimulus and we continue to read in the papers criticism of the Congress for not responding to the President's requests for budget cutting, budget prudence and all the rest of it, in the face of the fact that the President himself has abandoned, according to the press, his $300 billion ceiling on spending for fiscal year 1975 and has abandoned the notion of a balanced budget for fiscal year 1976. Just what the ingredients of that shift in policy are is the thrust of my questions. I want to know whether or not the abandonment of those budget goals are related to a change in tax policy. I am interested not because of the impact on the budget but because of the impact on the economy.

Not all of the economists who testified before us, Mr. Secretary, agree with your emphasis on budgetary deficits as a cause of the present inflation. The emphasis last week on the part of the bipartisan panel of economists who appeared before us was on energy and food prices as a principal ingredient of the present inflation. So the emphasis is different.

The question, the underlying assumptions with respect to that by the administration have a great deal to do with budget policy, with tax policy, and the other policies that go into it, and I am simply trying, not to dance around with words, but to get down to specifics, if that is possible. If what you are saying to me is you are not in a position to give us specifics this morning because the President is preparing his program for January, then we will take that. But I want to get around this dance with rhetoric and get down to the specifics.

Mr. Ash the other day sort of walked away from the 5 percent surtax because it was clear Congress would not buy it but he would not tell us whether he still believed that that was the right policy for our present economy.

I would like to ask you, irrespective of Congress' attitude toward the surtax, and I think that is the wrong policy, whether you think that is the right policy in our present economic situation.

I ask you, secondly, whatever your answer to that question is, whether or not you view the growing unemployment and the deepening recession as a reason now for moving toward a tax cut, and if you do not, how severe a downturn, what unemployment rate would persuade you that a tax cut is essential?

Those questions ask the specifics. If you are not in a position to give us that this morning, I will understand, but I do not want to get as an answer another round of rhetoric about the importance of budgetary restraint. We have gotten that lecture.

Secretary SIMON. That is what I attempted to say two or three times about the President making decisions and presenting the policy to Congress, and it is not a good idea for me to preempt or make more difficult the difficult decisions that he is going to have to make. But I would like to take violent exception to your opening comment that I come up here or have ever come up here and criticized Congress as being the so-called budget busters. I have never done that. As a matter of fact, I have gone just the other way. I do not sit downtown and point up to the Hill and suggest that it is Congress who does this and Congress that does that.

The CHAIRMAN. Could I ask you a question to interrupt you for a moment?

Secretary SIMON. Sure. We have plenty of blame to go around on who does spending, and I think we do it all together a lot of times.

The CHAIRMAN. Let me ask, if we turn to "excessive economic stimulus," that is a strawman, that sentence. Who is advocating excessive economic stimulus? When I see a sentence like that in a statement I assume that it is inserted for a purpose.

What is the purpose of that?

Secretary SIMON. It is inserted for the purpose because there are some today that would suggest Federal expenditure increases of $25 to $30 billion or a tax cut of $25 to $30 billion, which I would consider excessively stimulating at this point. Though it may in the short run have a beneficial effect, a very illusory short run beneficial effect, we would end up in trouble a couple of years from now with even a higher rate of inflation and higher rate of unemployment, because that is just what we have done in the past.

That does not mean, Mr. Chairman, I am saying Congress does that. Administrations have done that as well. That is why I say we ought to work together on these problems and solve them.

The CHAIRMAN. That is what these hearings are for.

Secretary SIMON. Let me respond to your two specific questions.

On the surtax proposal, it is most clearly going to be an option that we give to the President next week the surtax should we pursue it, or should certain other measures be taken. When we talk about the abandonment of moving to a balanced budget, we must realize that

what a balanced budget is, is dictated in economic terms. No, that policy has not been abandoned. We have presented cuts of $4.6 billion—our President did—which brings us down to $302 billion. At the same time we recognize that we have to spend additional amounts to deal specifically with rising unemployment in this country through the expanded unemployment benefits and public service programs that you are presently working on here in the Congress and we hope will be passed before you go home for Christmas.

So that deals with the problem of that.

We are concerned about unemployment, and we wish to deal with that problem specifically.

The CHAIRMAN. I understand that. I wonder, however, how Congress action in walking away from a $300 billion ceiling would have been described, if we had done that. That is, if the record of the Congress had left us with $302 billion in expenditures. I think in my own judgment, even if the administration proposal for cutting back spending were fully implemented, that the total spending this year will exceed $302 billion. That is my own guess for the very reason that you are talking about, but all of these imponderables were not discussed in August when we held hearings. We tried to get for weeks what the unemployment compensation benefits cost us. Will that change the $300 billion ceiling? What is happening to the money the Federal Government pays interest, will that force us to abandon the ceiling? No, we were told, this $300 billion ceiling was sacrosanct and the balanced budget was sacrosanct, so when we tried to point out some of these imponderables that make these numbers unattainable, then implicitly we were subject to criticism as the same old spenders.

I am going to yield, I have exceeded my time by 5 or 10 minutes. It is very difficult, may I say, Mr. Secretary, because we have had good attendance by committee members, to make very effective use of a 10-minute period of questions. One cannot pursue a point very well, and so we have tried to get to specifics as quickly as possible.

Senator CHILES. Maybe we ought to make it 20.

The CHAIRMAN. Yes, but we would run out of the Secretary's time.

What we really look at is not an exchange of criticism but what we are looking for is an exchange of ideas.

There are no economists on this committee, so far as I know. We are all undertaking to make that budget process work. We are trying to learn. I think we have excellent staff assistance to give us some clues as to the implications for alternatives and policy. So they take us through one at a time fiscal policy, tax policy, monetary policy, and energy policy. And so we have to direct our questions to one area or another in order to try to put your answers in the framework of our understanding.

That is really what I was trying to do.

At this point I yield to Senator Moss.

Senator Moss. Thank you.

The CHAIRMAN. If you overstep your time I cannot criticize.

Senator Moss. I will try to stay within it, Mr. Chairman. I understand the rule, and it is to enable all of us to have a question or two at least.

As the chairman explained, we are not economists, we are trying to learn and get laid out for us, in language that we can understand, what the economic situation is and how it fits in with budgetary policy and tax policy, and other matters that the Congress must deal with.

Following on somewhat with what Senator Muskie had said. On page 2, Mr. Secretary, you say "The economy is in need of a degree of fiscal and monetary support."

What kind of support had you planned in that?

Secretary SIMON. Well, I went on to say, I believe, that concerning monetary policy we have had a reduction in reserve requirements and a cut in the discount rate. We have seen an expansion in money supply which was clearly needed, and this, of course, has had the effect of bringing down interest rates rather significantly from their highs, which is going to have a very positive effect on the housing. There is always a lag during a recessionary period in this occurrence. Housing always leads our economy out of a recession because housing prospers when goods and services are plentiful, which they certainly are, and interest rates are at a more moderate level, which is the direction they are heading presently.

When you talk about fiscal expansion, I went on to explain that the time did not permit to explain it with the comparisons of another decade, 1955 to 1965, when Federal expenditures were growing at about a 6-percent annual rate. This year they will be growing, even if we hold at $302 billion, at about a 13-percent rate. If we break that level with public service employment, or whatever the reason, it will be growing at a 14- or 14½-percent annual rate, and that is expansionary.

Senator MOSS. Well, in your prediction of this growth 13 percent, which I understand is about $34 billion, what is the increase in real dollars as compared with inflated dollars?

Secretary SIMON. That is a little faster than the inflation rate. We have to predict what the inflation rate is going to be between now and the end of the fiscal year and we believe that we are going to see significant improvement from the double digit level. It is still going to be unacceptably high and this gets back to a point that Senator Muskie made about the causes. We recognize that there is no single factor; this is a multidimensional problem. We have had two major categories, what we call special factors and fundamental factors. The special factors, as Chairman Muskie said, are food and fuel, two of the majors. In 1973 that accounted for over 50 percent of our inflation. There were others. Two devaluations of the dollar, while needed, certainly had inflationary impact; and simultaneously, boom among all of the industrial nations created tremendous pressure on international trade and raw materials and the budget at the end of wage and price controls. We have seen special factors like this before in our economy and after they push the price level, after they pass through, prices ordinarily recede to what you and I might call an acceptable rate of inflation.

This time they are not going to do so. Excessive fiscal and monetary policies over the last decade have played a major part in contributing to the massive deficits that we have, and massive deficits during periods of high economic activity have a tremendous pressure in pushing up prices. It puts us in competition, not in competition, it wipes

out the competition as we—the Government—move into the capital markets to preempt the funds of the traditional borrowers. Last year we took 63 percent of the funds in our capital market, that is, the U.S. Government and federally sponsored agencies.

Senator Moss. To get back to the 13-percent budgetary increase, assuming that the inflation rate stays constant, that it does not fluctuate greatly, how much in constant dollars is that an increase in the budget?

You say $34 billion, but if we assume the inflation rate carrying on, doesn't that about wipe that out?

Secretary SIMON. That, of course, depends upon the prices Government is paying. You cannot be too specific about that.

Senator Moss. I ask you to assume——

Secretary SIMON. It would be very little, really, if the inflation rate stayed like this. What I am saying is that the inflation rate is not going to stay at the 12 percent level. While it is still going to be unacceptably high, we look for it to recede to the 7½-percent area by spring.

Senator Moss. That amount of increase certainly wouldn't be a budget busting increase if it went up to $34 billion, would it?

Secretary SIMON. It is any add on to this that we are concerned with, not about the present amount that is in there that will clearly be expansionary.

Senator Moss. Well, now, the President has requested that the Congress is moving to provide additional funds for employment to deal with the recessionary factor and also to extend unemployment compensation.

Is this going to deepen our problem on inflationary pressures?

Secretary SIMON. Well, the proposal that we put forth is all included in the $302 billion, Senator Moss, and it depends on what the final proposal is, and we are still working on that now.

Senator Moss. So to that extent, in order to cushion the rescission, you have recognized that point and made the recommendation for additional spending.

Secretary SIMON. Yes, sir.

Senator Moss. And on what can we pin our hopes then for the slowing down of the inflation rate? You said that you expected it would come down considerably from what it is now.

Secretary SIMON. Demand is clearly down. I went into some detail in my statement. Senator, as to the prices and many of our industrial trading commodities are down significantly—copper, for instance. There was an article in the newspaper this morning on that. We have clearly run the demand out of the economy, clearly through the blown instrument of monetary policy, and that is a crude instrument which is used in the absence of any fiscal balance and acts very unevenly and causes the unemployment problem that we've got today. That, as I say, is the first step toward success in getting out of the problem of inflation and dealing with the problem of recession, which is caused in a major part by the inflation problem.

We have to recognize that we have to take care of those disproportionate burdens, and we are, and it is correcting itself now, sir.

Senator Moss. Do I understand then that this increase of $34 billion in the fiscal year 1975 budget is not expansionary, you don't consider it expansionary?

Secretary SIMON. I would say it is slightly expansionary, Senator Moss, yes, judging on what we believe will happen to the inflation rate over the year, thereby measuring in real dollars what the growth in Federal spending will be.

Senator Moss. Was the recommendation on going to the $302 billion expenditure in this year's budget based on the rates of unemployment as they exist today or does it reach back some distance?

Secretary SIMON. Well, it was based on the forecast that we set, and we tried to look ahead in the future, as imperfect as that exercise necessarily is, because nobody has the ability to tell the future.

We try and pick the zones of unemployment, and what dates they would occur within a range. The 6½-percent announcement came earlier than we expected, and, as I say, we are constantly updating our analysis on what additional programs may be required to deal with the changing conditions in our economy because our President intends to take care of the unemployment problem, and it cannot be based on assumptions that were made in August or September when things have obviously changed.

Senator Moss. One of our witnesses predicted that unemployment might go as high as 10 percent next year.

Has that been figured in our projection?

Secretary SIMON. No; our forecasts are in the area of 7½ percent, Senator Moss, and I believe we will arrive at that number.

Senator Moss. Did you say 7½ percent?

Secretary SIMON. Yes.

Now, what will public service employment do and what will expanded unemployment do? I would suggest that any assumption of a 10 percent unemployment rate is just way too high because we will take care of that problem through these expensive measures.

Senator Moss. Thank you, Mr. Chairman.

I will yield the remainder of my time.

The CHAIRMAN. Senator Chiles.

Senator CHILES. Mr. Secretary, you were citing some of these figures on the amount of interest that we are paying.

How much interest are we paying annually on the unified budget, on the debt, on everything?

Secretary SIMON. Approximately $32 billion, but I will give you the exact figures for the record.

[The information referred to and subsequently supplied follows:]

According to estimates by the Office of Management and Budget, the interest on the national debt for fiscal year 1975 will be $33 billion.

Senator CHILES. $32 billion a year we are paying annually.

Mr. Secretary, the President's proposal called for cuts of around, I think, $4.6 billion and your testimony today is that you still feel that those cuts are necessary.

My concern is that if you really look at the way the budget reduction proposals come to the Congress, and the actions that Congress would be required to take to implement these proposals, it is just liter-

ally impossible for all of the actions that Congress would have to take to make those proposals.

It would be impossible to do. So it almost ends up to be an exercise of saying we proposed this and they didn't do it, just by the very nature of the way those particular proposals came to us.

All of the different laws that we have to change, all of the different actions that we have to take, all of the different committees that would have to be involved, and from the time that we had left before we have to go out, there is just no way physically you could do that if you had 10 or 15 people in the Congress that didn't agree because of the combined actions that have to be taken. So some of us are concerned that we do have to have restraint on spending.

In fact, we had a colloquy on the floor today in which a proposal that Senator Hollings of South Carolina has been working on, and he is joined in that by myself and Senator Domenici, and Senator Bartlett, and Senator Cook, and Senator Nunn, following the process that we took in 1967 at the time in which the Joint Appropriations, two Appropriations Committees reduced spending by putting a reduction on both the controllables that you could reduce and on the employment, obligations for personnel, 10 percent on contractual services.

Under this proposal we would set forth a formula requiring a 2-percent reduction on the obligations for personnel and 10 percent on contractual services, across the board, then allow any particular agency a credit for any cuts that the Congress had heretofore made as we made substantial cuts in the defense and some of the other areas.

This would amount to a reduction of about $3.2 billion in actual outlays and $6.4 billion in proposed spending, and that would be in addition to the $2.1 billion in outlays that the Congress has already cut and $4.5 in controllable authority that we have already cut.

This kind of proposal is something that is possible to do, where I do not see the $4.6 billion cut being remotely possible to do, and I would like to know whether you have looked at the proposal, whether you are familiar with the action that was taken by the Congress in 1967, and the way that it was taken, and I would like to have your views in regard too if we are serious about restraint, of using this as an avenue, the only avenue, to be able to accomplish something before this Congress adjourns.

Secretary SIMON. Senator Chiles, I am not familiar with this proposal at all and I would have to look at what priorities the President has established, such as the defense priority, and how far those funds would be reduced before commenting specifically.

Basically, I am in favor of keeping our national security and national interests very much in the forefront in using any method at all to curb the explosive growth in spending.

The President went through a very agonizing exercise in arriving at the $4.6 billion in deferrals and rescissions to be submitted to the Congress and I recognize that the calendar and the time permitting in the few weeks that you are back do not permit all of those actions to be taken, but I would hope that the rescission and deferral method that was designed for this budget committee by the Congress could be used, but I would not dismiss any formula or any means in attempting to begin to curb this growth at all.

I will be very interested in reading your proposal, Senator.

Senator CHILES. Because of the cuts that have heretofore been made by the Congress there will be very little effect in the area of defense itself. So we were trying to take into account those budgets that had heretofore been cut from the budget authority that was set forth.

I wish you would look at this because I think that in the time that we have it is the only way that I see that you are going to be able to make some kind of cut.

Now, you mentioned something about the President's selection of priorities. I hope you would realize that we feel we have something to say in what those priorities are.

Secretary SIMON. I certainly do.

Senator CHILES. And where that selection should be.

I want to ask you a couple of other things about your statement. I would like to give you a copy of this proposal and get your comments as soon as you would be able to do that.

Secretary SIMON. Thank you.

Senator CHILES. In your statement you point out and you talk about the inflation, and it seems to me from listening to you that you place all of the blame on inflation basically on the poor budgetary policy that we had; not just the Congress, but the executive branch as well.

I just didn't get anything from the thrust of your statement that you brought in energy or food and what happened in that acceleration, recognizing that we were in an inflationary period, in which we had excess demand, we switched out of that and we now have the tremendous impact of the energy and food. So I do not know what budgetary policy is really going to do in considering those two items and I would like your comments on what part they now play.

Secretary SIMON. This is the point that I tried to answer with Senator Moss. I am not trying to oversimplify our problems and say that our inflation rate today is purely one thing or another. It is many faceted. It deals with oil and food, which, as I said, has over 50 percent of the blame during 1973 for the explosion of both prices in general and in those commodity areas. The devaluation of the dollar and the simultaneous boom, the removal of wage and price controls, all of those special factors were also a major contributor, meaning over 50 percent, to our present inflation rate. But after those special factors move through our economy, because nobody expects a doubling of fuel prices from here, this time the base inflation rate is not going to go back to what we call an acceptable rate of inflation that we experienced in the 1955 to 1965 period. Therefore, the fundamental policies of fiscal discipline and curbing the explosive growth in Federal spending, as well as the creation of all of the money during that period to mostly pay for the Federal deficits—these are the fundamental causes that had to be brought under control.

You know, there is no mystery today why Germany has half the inflation rate, and it is going down, that we have in this country. They have had a demand restraint program in effect in their country for almost 19 months. They now have a pleasant prospect of moving in the other direction to begin reflation.

They have politically unacceptable high unemployment and they are going to deal with that, but they also have a very fundamental understanding of the dangers of inflation having lived through the

1920's and fortunately there are people there that still remember this. And this is our problem.

As I have said so many times, Senator, if we miss this opportunity and do as we have done twice in the last 8 years, the same excessive stimulation, whether it is $25 or $30 or $35 billion, we are going to pay the price, and this is the opportunity that I speak of today. I sometimes must admit that I really question whether democracy has the ability to exercise the patience and the courage and the wisdom to get to finally defeating this problem once and for all and tackling the causes of it instead of the results.

The CHAIRMAN. Senator Abourezk.

Senator ABOUREZK. Thank you.

You spent a lot of time in your statement, Mr. Secretary, talking about balancing the budget and stopping runaway inflation, and you were questioned somewhat on that.

I just wonder if you disagree with Roy Ash when he says that a $15 or $10 billion budget cut at this point would have only, I think, one-half of 1 percent impact on inflation?

Secretary SIMON. Well, the point is not whether our economists in the Treasury Department have some disagreement, and we do. We all recognize that in the near term the impact on the inflation rates itself is small. The point is that it has a cumulative effect as Arthur Burns testified several weeks ago, and this cumulative effect and the long term effect is what we are aiming at.

Senator ABOUREZK. But do you have a different figure than Roy Ash does?

Secretary SIMON. Our figure for the near term, meaning for the first year, would be low by any comparison. I believe Roy's was one-tenth of 1 percent.

Senator ABOUREZK. Would yours be about the same?

Secretary SIMON. Ours is slightly higher than that in the near term, not significantly. But there is really no way to tell because you are making some great assumptions on what human behavior is going to be.

That is one of the myths, some people think it is a myth, of changing policy where it assumes everything remains constant. I do not think it does.

Senator ABOUREZK. Turning to your energy policy, if I might, you also made the statement that food and fuel comprise 50 percent of the inflation.

Secretary SIMON. Last year, yes.

Senator ABOUREZK. In the past year.

How much of that is food and how much of that is fuel [1]?

Secretary SIMON. It is mostly food.

Senator ABOUREZK. Do you have the percentages?

Secretary SIMON. It is close to 50 percent in the food area and about 10 to 15 percent on energy, on oil.

Senator ABOUREZK. Of all of our inflation we have experienced, of 100 percent, how much is food?

Secretary SIMON. Almost half, in 1973.

Senator ABOUREZK. And how much of that is fuel?

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[1] See letter on p. 125.

Secretary SIMON. Between 10 to 15 percent.

Senator ABOUREZK. Fifty percent?

Secretary SIMON. Between 45 to 50 and 10 to 15. So you are talking about 60 percent for both.

Senator ABOUREZK. Getting to energy policy, or the lack of an energy policy, whatever you might want to term it. Let's say 15 percent of the inflation rate is caused by the high price of fuel. Now if my understanding is correct, the amount of fuel that we import is roughly 15 percent of our total energy consumption. Is that a fair figure? Do you have any disagreement on that?

Secretary SIMON. Of total energy; yes, sir. It is about 35 percent of——

Senator ABOUREZK. Fifteen percent of the inflation rate that we are experiencing, roughly, 2½ percent of that is caused by imported oil? Is that correct?

Secretary SIMON. I have to work that through. I think it would be under that.

Senator ABOUREZK. It would be less than 2½ percent. So let me just recap that.

Of 100 percent of our inflation rate, about 2 percent is caused by the importation of oil from all foreign countries. Is that a fair summarization we are agreed upon?

Secretary SIMON. Fifteen percent of our total energy is imported oil; yes.

Senator ABOUREZK. Okay. So 98 percent, then or well over 95 percent of the inflation rate in this country that is due to energy price increases is due to the increase in domestic oil and natural gas; is that correct?

Secretary SIMON. No.

Senator ABOUREZK. What is correct?

Secretary SIMON. No. 1, you are doing apples and oranges with me. Let's move to oil and natural gas.

Senator ABOUREZK. Sure.

Secretary SIMON. Natural gas, as you know, is controlled by the FPC.

Senator ABOUREZK. Not very much, but it is controlled.

Secretary SIMON. It is controlled at a sufficient price to make sure our reserves have declined to 10 years, versus 22½ in 1954.

But as far as oil is concerned, we import a third of our oil.

Senator ABOUREZK. Yes.

Secretary SIMON. And when the world price exploded obviously the freed price of oil jumped a step, moved to the world market level, but we still control about 60 to 65 percent of our domestic production at $5.25 which is about half the world price.

Senator ABOUREZK. But the average price for domestic oil is around $7.50 a barrel?

Secretary SIMON. Sixty-forty, sixty five-thirty five.

Senator ABOUREZK. If you use the average right now it would be about $7 a barrel; is that accurate?

Secretary SIMON. Yes.

Senator ABOUREZK. What I am trying to get at is the contribution of domestic energy prices to our inflation rate and the figures you and I have worked out here together show the overwhelming majority of the inflation rate due to energy price increases comes from the increase in domestic oil prices.

Now, would you agree or disagree with that?

Secretary SIMON. From domestic oil prices?

If only 35 percent of our production is price freed, able to go to the market, that is a small portion. It is obviously half of what our controllable price is.

Senator ABOUREZK. You are not answering my question. I am having the same difficulty as the chairman.

Secretary SIMON. I am not sure I understand it.

The CHAIRMAN. Would the Senator yield?

The price for old oil represents a doubling of price over the year before. Five and a quarter represents a doubling of the price for old oil the year before.

Secretary SIMON. I think it is about a dollar and a half.

The CHAIRMAN. Wasn't it $2.50 a barrel before the embargo? It went up.

Secretary SIMON. It was higher than that but I will have to go back and look at those numbers.

But the point of the matter is that a price is needed to bring on more exploration and production.

Senator ABOUREZK. That might be the point, but I still want to arrive at some kind of agreement with you on a figure, if I may, Mr. Secretary.

Would you tell me the amount of contribution to inflation that the domestic oil price increase has contributed?

Secretary SIMON. I would have to go through the exercise of isolating the domestic prices. Yes, I most certainly will submit that to you.

Senator ABOUREZK. Can we do that now?

I would like to get it on the record now if we could.

We import roughly 30 percent of our oil, about a third of our oil.

Secretary SIMON. You have to work this through from the crude to the Consumer Price Index, and really to attempt to go through and build a model like that I think would be most imperfect.

Senator ABOUREZK. How imperfect would it be?

It seems to me that a price is a price.

Secretary SIMON. It sure is. We have no disagreement on that.

Senator ABOUREZK. It is really not a very complicated formula. We know what we import. We know what we buy domestically and we know the prices of it and I don't see where the complication comes in unless you don't want to come to a figure today.

Secretary SIMON. Sure, I will give you any figures. When I deal with figures I like to deal with accurate ones, and not ones that are arrived at——

Senator ABOUREZK. That is what I am trying to arrive at, some accurate figures.

If we import a third of our oil, that amounts to 15 percent of our total energy consumption, including coal, natural gas.

Secretary SIMON. Let me break it down.

Let me break it down and talk about oil for a second.

Senator ABOUREZK. Let's talk about energy consumption.

Secretary SIMON. OK. I will expand on that as well.

You have 3½ million barrels a day, approximately, at the freed price, and let's use the $10.50 price domestically. You have 6½ million

barrels a day domestically that is price controlled at $5.25. So that would give you an average price of something over $7.

Senator ABOUREZK. It is about $7.15 a barrel.

Secretary SIMON. Sure, then you have got, of course——

Senator ABOUREZK. But I am not certain that you need to consider the price.

I think what you need to consider is the contribution by percentage of inflation of foreign oil and domestic oil.

Secretary SIMON. Well, as I say, our economic analysis, which I will be delighted to supply to you, is between 10 and 15 percent.

Senator ABOUREZK. The point I am trying to get at, and I am not getting very far with this price situation——

Senator BIDEN. You have already accomplished it. You got it the first time around.

Senator ABOUREZK. The point I am trying to get at, through all of the rhetoric I have heard from the administration and the opening statement I made, I asked you to respond to the tremendous anomaly that I see inside the administration on the one hand denouncing high foreign oil prices and yet trying to raise domestic prices higher than they are. As I followed your opening statement, although you denied it at the beginning, that was the case. You did it once again in your opening statement. You spent a great deal of time denouncing foreign oil prices and asking for increase and deregulation, decontrol of natural gas, of domestic oil, of everything that is produced in this country, including coal and other sources of energy.

Now, if Chairman Muskie is confused about your economic policy, I am more confused about your domestic energy policy.

Secretary SIMON. When I denounce on the one hand the foreign price of oil set by a monopoly and a cartel and a price that is absolutely not related to any long-term supply price or production cost, that is one thing. When I talk about having a market that is allowed to function in this country where we have built so many impediments in our energy industries, to the production of fossil fuel in this country, that is another point. And they are totally separatable.

Our long-term supply price, admittedly as an economic judgment, is somewhere in the area of $7. I happen to believe if we act wisely that will end up below that.

I think natural gas——

Senator ABOUREZK. Mr. Secretary——

Secretary SIMON. You criticize the natural gas stand that I feel very strongly about. When natural gas for years is priced at an uneconomic level as related to all other energy, it is going to discourage production, and we see the results in the reduction of our reserves from a 22½ years supply to under 10 years.

Now in reserves it is going to continue to decline as long as we do this.

Senator ABOUREZK. You would call it blackmail when the Arabs put on an oil embargo during the war, but you would call it incentive when the domestic oil and gas companies do the same thing here without the excuse of war.

Secretary SIMON. We are not talking about the oil companies. Everybody uses that misnomer. Seventy-five percent of the wells drilled in this country are independent producers.

Senator ABOUREZK. But they are done on land and reserves owned by the major oil companies, however.

Secretary SIMON. I would have to research that.

Senator ABOUREZK. I will save you the time. You can ask the Federal Trade Commission. They will tell you that 93 percent of the domestic reserves are owned and controlled by 20 major oil companies. That is using their figures. I do not have any other independent figures to use.

But all I am saying is that I wish that there would be a policy so far as helping in the fight against inflation, a policy on the part of the administration and the Congress as well, I would welcome that, that would do something about holding down domestic oil prices which contribute an overwhelming percentage of our domestic inflation. The only policy that I have ever seen is one that is wanted and desired by the oil industry itself, and not by the Government, so far as what it is going to do for the consumer, and it is just a total, well, it is just a rip off. I will yield, Mr. Chairman.

Secretary SIMON. It is not an overwhelming amount, as I say, 10 to 15 percent, and I will supply that study to you. The President's proposal of cutting a million barrels a day by the end of 1975, as well as our international efforts to bring down the foreign price of crude, as well as policies to increase the supply that we have in our country, are the only answer in the final analysis; and we need lots of legislation passed in this area, including the deregulation of natural gas, and I recognize that is a——

Senator ABOUREZK. I just want to ask one more question. By the way, I am for drastic energy conservation measures, but my question to you is: What impact would a fairly drastic conservation program have on the economy itself?

Secretary SIMON. It would all depend on how drastic you want to use a million barrels a day.

Senator ABOUREZK. 2 million?

Secretary SIMON. 2 million would be in my judgment too severe. What you would be doing over a 1-year period, over a longer term—you know your elasticity of demand—the ability to cut back in the short run is fairly small. In the longer run when we can begin to use insulation and people buy more economic automobiles, et cetera, it becomes greater.

We think, according to our economic analysis, that a million barrels a day is just about right. Remember, a million barrels a day from this level is pretty close to where we were at the embargo a year ago, and that is about as safe, as far as we think it is appropriate to go.

Senator ABOUREZK. Without having a damaging effect on the economy.

Secretary SIMON. Yes, that is correct.

Senator ABOUREZK. Thank you, Mr. Chairman.

[Information requested and subsequently supplied by Secretary Simon follows:]

THE SECRETARY OF THE TREASURY
WASHINGTON 20220

JAN 15 1975

JAN 9 1975

Dear Senator Abourezk:

I am writing in reply to your letter of December 18 which requested a breakdown of the contributions to inflation of higher food and energy prices, both domestic and foreign. As you will recall, we discussed this matter when I appeared before the Senate Budget Committee on December 17.

The direct contributions of higher food and energy prices to the Consumer Price Index can be measured in a straightforward manner. The enclosed Table 1 based on Bureau of Labor Statistics data presents comparisons in the form requested in your letter of December 18. Food was by far the most important factor in the earlier year, whereas energy prices contributed a disproportionately large--though not dominant--share of the total price increase over the past 12 months.

Difficulties arise when we attempt to separate the contribution to inflation of domestic and foreign energy prices. By the time energy items are priced for the Consumer Price Index the imported component has merged in an indistinguishable way with the domestic. Therefore, in estimating the separate contribution of foreign and domestic energy prices we found it necessary to confine the comparison to crude oil before it enters the refining process. The enclosed Table 2 summarizes the contributions of domestic and imported crude oil to the total change in crude oil prices over the period requested. Although the calculation is limited to crude oil, this is by far the most important source of imported energy. We import about 4 percent of our consumption of natural gas but other energy imports are quantitatively insignificant. In the earlier year, the domestic proportion was dominant in accounting for the 28 percent price increase, but since the embargo the imported part of our supply accounts for 58 percent of the much larger (91 percent) price increase on crude oil.

I would like to add, however, that while this analysis is interesting we should be careful not to conclude from it that the domestic oil industry bears the direct responsibility for 42 percent of the enormous price increases that took place in late 1973. I don't think there is any way to make even approximate numerical calculations of this sort, because of the complexity of the issues. Nevertheless, it is clear to me that the single event of overriding importance that caused the price increases for energy in late 1973 and throughout 1974 was the oil embargo and the OPEC decision to raise prices.

I hope that you will let us know if you desire further information on this subject.

Sincerely yours,

(Signed) Bill

William E. Simon

The Honorable
James Abourezk
United States Senate
Washington, D.C. 20510

cc: Senator Edmund S. Muskie

Table 1.

Contributions of Food and Energy to Inflation as Measured by the Consumer Price Index

	Relative importance in total index expressed as a % December 1973	Percent change 11/72-11/73	Contribution to total change*	Percent change 11/73-11/74	Contribution to total change*
CPI total	100.000	8.4	100%	12.1	100.0%
Food	24.810	19.6	56.7%	11.9	24.5%
Energy	6.424	12.8	9.6%	27.3	14.5%
Gasoline and motor oil	3.162	13.8	4.9%	25.3	7.0%
Fuel oil and coal	0.872	30.4	3.0%	47.3	3.6%
Gas and electricity	2.390	6.2	1.7%	18.6	3.9%
CPI less food and energy	68.766	4.2	33.7%	10.7	61.0%

* Percentages normalized to eliminate errors caused by rounding and the necessity of using a constant weighting system.

Table 2.

Crude Oil Price Changes

	Source of crude oil		Recent increase in price per barrel			Contribution to total change	
	domestic	imported	domestic	imported	composite	domestic	imported
Oct.'72-Oct.'73 1/	75.0%	25.0%	26.6%	33.9%	28.1%	75.3%	24.7%
Oct.'73-Oct.'74 2/	67.7%	32.3%	58.3%	153.4%	91.0%	42.0%	58.0%

1. Calculations based on the average well-head price of crude oil, U.S. production of crude oil and the imports and custom values of crude oil.

2. Data for these calculations were obtained from FEA. The price of imported crude oil rose from $4.91 to $12.44 per bbl. during the 12-month period, reaching a peak of $13.06 in June 1974. The price of "old" domestic crude rose from $4.11 to its $5.25 controlled level by December 1973 and has been held there. "New" domestic crude prices rose from $5.62 to $10.78.

Senator BIDEN. Mr. Secretary, the chairman stated earlier that we were no economists, and that is correct.

He also stated that as a consequence of that we have to take one step at a time, and I think that is correct.

When I first got down here, I was very self-conscious about not being able to understand some of the policies that were proposed, but after being here 2 years, I am not at all self-conscious because I am aware that so few understand the policy.

I am not being facetious; I am being deadly earnest when I say this.

I have heard the chairman question you this morning about a simple fact of whether or not you support an increase in taxes or a decrease in taxes, and I am still not sure if you said which you support, and maybe you said you cannot say anything. But what is it?

Secretary SIMON. I was quite clear, Senator, when I said that it is not a good idea for me to paint myself, or paint the President, I should say, in a corner prior to his submission of, as he said he would submit to Congress in January, specific proposals which he is presently studying.

Senator BIDEN. So you cannot say or you feel it is wise not to say now.

No. 2, with regard to energy policy, I would like to be very specific. I think the points raised, as they say, by my distinguished colleague from South Dakota, were very pertinent, but I will not be as general as he was in terms of the overall energy picture. I would like to be very specific. I would like to talk about Project Independence.

Is Project Independence something that the administration desires to accomplish and, if so, specifically what is meant by Project Independence?

Secretary SIMON. Project Independence is giving us the ability, and I stress the ability, for self-sufficiency in energy. That does not mean that we will not be importing oil for many, many years or forever, because when a market is free to function the price determines whether you import or whether you use domestic supplies.

. . . Now, how do we attempt to arrive at that. In the near term there are two ways to reduce our dependence on foreign oil. One is through conservation measures, immediate conservation measures—all the voluntary which were in place during the embargo last year, the State mandate of 55 miles per hour and lower speed limits, and now we are working on a national speed limit at that level.

We have asked for the ability to mandate switches of oil to coal as far as public utilities. Amendments to the Clean Air Act which would allow not only utilities but industries, where it does not endanger public safety, to burn coal. These are important measures.

The balance of the million barrels a day, even in the near term, is going to be done with mandatory measures, and the President will receive those options this week.

As you undoubtedly know, they worked all weekend on the energy options for the President.

Senator BIDEN. Would it be inconsistent with Project Independence if by the year 1980 we were importing a larger proportion of our energy needs than we are now?

Secretary SIMON. If we were?

I was going to get to that in a second.

You know, literally there have been thousands of hours spent talking on this subject. I must admit, I guess, that I did not do a very good job trying to get the message across on the mysteries of energy policy. It is sort of like the mystery on economic policy. I just dealt with the demand side, which is about the only thing we can do there in the short run, other than remove some of the impediments to burn our fossil fuels.

As far as the supply side is concerned, there is no mystery about that either. We have a superabundance of natural resources in this country. We have what I would like to call the existing state of the art, that is, coal and oil and natural gas and nuclear. There are four areas there.

Senator BIDEN. What I am trying to get at is how do we measure whether or not Project Independence is working or not working; what is the yardstick we use?

Secretary SIMON. We can see how much oil that we are importing; we set a target on the reduction of those imports. That is exactly how we see it.

Senator BIDEN. If we did not reduce the proportion, if in fact we increase the proportion of imports, Project Independence is not working the way we want it to. Is that fair to say?

Secretary SIMON. It also depends on the supply side in this country. If we all of a sudden discover major new oil fields and decide to go back to prorationing again, instead of using them as we did before in this country, then I would not say that that was a correct measurement.

Senator BIDEN. Then we would not call it Project Independence.

Secretary SIMON. That is what Project Independence, again Senator, is—the ability for self-sufficiency. It is not making sure we do not have to import at all; it is just to make sure if others wish to use oil as a political weapon and cut it off or price it at ridiculous levels, it is not going to have the effect of us saying well, we have to pay these prices or not use it. We have the ability to use our own resources.

Senator BIDEN. Well, do we not sort of lock ourselves into an increasing amount of reliance upon the importation of foreign crude oil by the policy we have adopted with regard to deep water ports and super tanker construction?

For example, we have said that in the administration's policy, and that has been concurred in by and large by the U.S. Congress, we are going to build several if not a number of, deepwater port facilities.

The only way in which they are economically feasible is if, in fact, they are serviced by supertankers. We are talking about billions of dollars in terms of an investment which will lock us in, if you take the life expectancy of those capital investments, of a minimum 25, maybe close to 50 years, where we will be making—when we are in a capital short situation to begin with this Nation—where we will be making tens of billions investment in providing for the ability to import not only what we are now importing, but import additional amounts of foreign oil.

We are asking the business community, the private sector, to make this kind of investment. They are anxious to make that kind of investment, at least the ones who have spoken to me in my other committee assignments which deal with this subject, and we are in fact,

are we not, locking in a policy in this Nation where we said, regardless of what we call it, Project Independence or otherwise, we are going to continue to increase our—just merely—capital investment we make, we are required to increase the amount of foreign crude oil which we import in this country. Is that correct or incorrect?

Secretary SIMON. Our deepwater ports recognize that for many years, for the reason I mentioned before, we are going to be importing oil into this country whether we have the ability for self-sufficiency or not. That is, in my judgment, a fact of life.

Senator BIDEN. I agree with you.

Secretary SIMON. There is no inconsistency with that whatever. Private enterprise will build the supertankers only if they deem it is going to be profitable to do so over a long period of time.

Senator BIDEN. Once they deem that which has been the dictate has come from on high, they deem that to be the case unless the businessmen that I have been speaking to are reading "the signals all wrong" that come from this town; once it is done, the pressure from the private sector to import a significant amount of crude oil, even if we are able to be self-sufficient and if our desire will be incredibly strong, I do not see how, after we make a $100 billion investment, which is a minimum amount we are going to be making over the next several years of our deep water port construction and supertankers, I cannot fathom this Congress or any administration turning around and saying, now that you have made that $100 billion commitment in the private sector or $150 billion, whatever it is, we in our judgment decided that for the security of the United States it is better for us, for you, to put your ships in mothballs and we are going to use coal or we are going to use solar or whatever method we develop.

Secretary SIMON. I do not think that follows at all, Senator Biden. The fact is that we wish to use the existing supertankers in the world to deliver oil cheaper to us.

Senator BIDEN. We are not talking about existing supertankers; we are talking about an incredible stepped-up program of construction.

Secretary SIMON. We do not dictate to the people who build the supertankers that they should have a stepped-up program. We set clear policies on this and that is their clear decision to make. I do not agree with you, sir.

Senator BIDEN. OK, let's talk about utilities, and I think I have about 30 seconds. It will only take 30 seconds to talk about utilities. Not long ago a group of public service commissions, or whatever they are called in the various States, called to Washington to meet with you, and other members of the administration. I am not sure who they met with the administration, but the administration policy was to encourage the utility companies to grant the rate increases to enable the utility companies domestically, which have on the board tens of billions of dollars of construction, about 60 percent of which at most is nuclear, 40 percent of which, as I understand the figures, and they are hard to get, at least for me to get, are fossil fuel.

I was under the impression the administration's policy was to encourage the public service commissions, the ratesetting agencies of the Nation in each of the States, to grant rate increases which were on the average of 18 to 26 percent in order to be able to raise the

capital to go out through the bond market, to make the significant capital investments which are in tens of billions of dollars.

The life cycle of these fixed capital investments will be a minimum of 30 and a maximum of 50 years, and the assumption that these utility companies have worked on, at least the ones on the east coast, which I specifically am aware of by asking the utility companies, is that energy consumption in the Nation's electric energy consumption has doubled every 7½ years.

Therefore, in order to meet the future needs of this Nation we have to spend *x* number of dollars—in my State of Delaware it is $1.4 billion. In order to do that, to meet a doubling of consumption every 7½ years, and in order to enable themselves to borrow that money, they have to go out and change their rate structure so that they initially have a 23-percent increase in Delaware, and the same with Pennsylvania and New Jersey and New York, all over the Nation. The administration's policy, I was told—maybe I am mistaken—was to encourage these public service commissions to grant increases to allow the construction of these powerplants which would lock us in in terms of the cost of maintaining them, whether or not we use the energy. They have to go on the bond market and borrow the $1.4 billion to build the facility, which has to be paid off whether or not the consumers are using it, and the administration policy was to grant these increases and a little bit, I think the phrase was used by some member of our Public Service Commission who may have been prejudiced, who said pressure was put on us to grant the increases.

Now, is my assumption correct or incorrect? Did the administration——

Secretary SIMON. We held a meeting to deal with the problem of utilities as we met with both the utilities and utility regulators to attempt to find out how we can solve their shortrun as well as their longrun problems, and one of their critical shortage problems is the lag in their ability to pass through the much higher cost of energy. It varies from State to State.

Senator BIDEN. That is a minor portion.

Secretary SIMON. It is not.

Senator BIDEN. That is not even 5 percent, maybe not even 2 percent. Let's talk straight now.

Secretary SIMON. I talk straight at all times, Senator.

Senator BIDEN. We are talking about tens of billions of dollars in construction for utility projects. I am not talking about the loss of revenue as a consequence of the American people responding to the administration and the Congress and turning down the thermostat, which in turn had utilities across the Nation saying, my revenues are down; therefore, because you listened to me and conserved, we have to increase your rate to meet the lost revenues, because I have a fixed cost in this plant no matter whether you use my energy or not. This accounted for 9 percent of the basis for the rate increase in my State.

I am not talking about that cost. I am also not talking about the cost the utility companies have encountered as a consequence of the increased cost in fuel. This is not even part of the requested rate increase justification, either before the Federal Power Commission and/

or the Public Service Commission in the State of Delaware. This is accomplished by an automatic fuel adjustment charge.

Secretary SIMON. They recognize the rise in cost across the board of everything—of construction costs, of labor and material, and the higher cost of fuel and the general inflation problem.

Senator BIDEN. The general inflation problem comes where it cost them money, when it comes down to making a decision to construct, to build a building.

Assumptions are based upon consumption which will double every seven and a half years.

Secretary SIMON. They are not basing it on that any more, not the ones I have talked to. They recognize that consumption is going to be down, just as it is down today in response to the higher price and the higher rates that come with the higher costs. I do not buy that doubling in 7 years from here on.

Recognizing what happened in the past in all energy consumption in the country where it grew approximately 5 percent a year, we are not growing at that rate any more. We are negative this year, and in my judgment we will be flat to slightly positive next year. It is going to be several years before we have any meaningful growth. I would say the long-term growth is going to be between 3 and 4 percent.

Senator BIDEN. I happen to think you are right, and that is why I do not understand why the administration encourages the public service commissions across the Nation to grant increases on the average of close to 20 percent.

Secretary SIMON. I do not deal with the specifics of a particular utility rate increase. I deal with a part of a problem where, if they do not have ability to pass on the higher costs—for whatever the reasons for these higher costs—they are not going to have the profits, the reasonable profits as regulated, not only to go into the bond market, because they have gone into the bond market too much in recent years, but to meet the power needs of the country. What they need is equity capital. One only need look at the price of the utility securities where they can borrow on the higher rated utility between a 16- and 18-percent annual dividend rate.

So I think that is quite significant as far as illustrating their problem is concerned.

Senator BIDEN. Mr. Chairman, I have gone 5 minutes over. Can I summarize what I have been trying to say?

It seems to me that if Project Independence means what you say—that is, to give us the option to do what we think is in our best interests and not to be bludgeoned by anyone outside of our borders——

Secretary SIMON. Yes, sir.

Senator BIDEN [continuing]. If that means stockpiling our domestic resources and importing cheaper crude or any kind of fuel, that is fine; but it seems to me that with that desired end, it is inconsistent to move in the direction we are with regard to super port construction, and what is obviously going to follow as a consequence of that is the undiminished attempt on the part of utility companies not to increase their profit picture, but to meet what they feel to be the projected demand of this country with regard to utility-generated power.

Secretary SIMON. The cut back in the new construction and expanded construction in utility plants in this country has been based on a reworking of their assessment of utility demand and energy demand in the future, and I think you are going to find it sharply below this doubling in 7 years.

Senator BIDEN. I think you have to. There is no way you cannot or else we are not going to be around. But I guess I am more of a politician than a statesman. The reason they cut back is very simple. The political pressure had built so the public service commission could not in fact grant that increase.

They did not change their projections at that point; they said, we are not going to be able to do it because the political pressures are such we just cannot. At the same time we were saying revamp those projections, the administration was saying give them the increase. I do not understand that.

Thank you, Mr. Chairman, and thank you, Mr. Simon.

The CHAIRMAN. Thank you. Thank you very much for that view into the future.

Mr. Secretary, it is obvious that it is very difficult to get into a comprehensive and thorough examination of all of the issues that are raised in a statement such as that you presented this morning.

I personally would welcome a great deal more time to explore not only those which have been raised by the committee, but other which the committee has not gotten to.

For example, I am interested in knowing precisely what you have in mind with respect to on-budget and off-budget lending agencies, both in terms of their budget impact and their impact upon the capital market.

There are not any new recent institutions in this group, most of them have been around a long time.

I would be interested to know, partly because the Budget Control Act imposes a study responsibility upon us.

Two questions: One, is it your view that some of these agencies should be eliminated or that their activities should be reduced, in order to reduce their impact on the capital market?

Second, I am interested in exploring, and it will have to be done later because we have reached the end of your time, whether or not you really mean that the loans of these agencies should be balanced in the budgetary sense by a reduction in other programs, in order to make them possible, and to achieve a balanced budget? If so, this is a novel idea, at least novel in terms of any recent consideration in the Congress.

So this is a very interesting subject that you have opened up that we need to get into, and I hope we will.

Also, I was interested in getting in the energy questions which you have raised from a slightly different perspective, and my colleagues have, in terms of the impact upon our monetary policy and the accumulation of petro-dollars and reserves by the oil production countries.

It seems to me that they have at least as much impact upon our money supply and upon the inflationary or deflationary implications for our economy as the Federal Reserve Board, as they accumulate these dollars and are able to enter our economy in an increasingly heavy way.

So I was interested in pursuing the question of whether or not we ought to lean more heavily upon fiscal policy and tax policy to stimulate the economy because of that uncertainty about monetary policy. That is an interesting question. It seems to me that will take some time to explore.

Trying to sum up what I think I have heard this morning, it is this: That as of the public record, the administration's economic and energy policy remains as it has been articulated by the President and the others on the public record, that you did not come here this morning to give us any new signals or signals of new directions, that we will have to await the President's three messages of January before we have those signals.

Secretary SIMON. I did not want to give you the wrong impression that it is necessarily going to wait for the budget message or state of the Union message.

The CHAIRMAN. It could come before?

Secretary SIMON. Yes, sir.

The CHAIRMAN. As long as I have that in mind, I think what ever ambiguities I may have rendered to your statement, that we will have to wait for the new signals from the President.

I think that ought to be clear.

Secretary SIMON. Yes, sir.

The CHAIRMAN. Thank you very much, Mr. Secretary. I hope that perhaps after the first of the year when we really get into this new budget process that we might be able to schedule a day when we can spend the full day with you, so that we can really run out some of the implications of what you will then have to say to us. It is very frustrating to try to compress an examination of so many important issues in this limited time.

Secretary SIMON. I agree with you and I would enjoy that, I think. [Laughter.]

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

Secretary SIMON. Thank you, Mr. Chairman.

[Whereupon, at 12:02 p.m., the committee recessed to reconvene Wednesday, December 18, 1974, at 10 a.m.]

THE ECONOMY AND FISCAL POLICY, 1974

WEDNESDAY, DECEMBER 18, 1974

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to notice, at 10:15 a.m., in room 1114, Dirksen Senate Office Building, Senator Edmund S. Muskie (chairman) presiding.

Present: Senators Muskie, Moss, and Chiles.

Also present: Douglas J. Bennet, Jr., staff director; John J. McEvoy, chief counsel; Marc Lackritz, deputy chief counsel; Arnold Packer, chief economist; Maria P. Durelli, chief clerk; Bert Carp, task force investigator for Senator Mondale; James Wood, professional staff member to Senator Moss; Harold Gross, task force investigator for Senator Cranston; Susan Kinsman, research assistant for Senator Chiles; Alan Chvotkin, professional staff member to Senator Abourezk; Richard Andrews, task force investigator for Senator Biden, and Joan Leach, clerical assistant.

The CHAIRMAN. The committee will be in order.

I have a brief statement to put today's hearing in perspective.

OPENING STATEMENT OF SENATOR MUSKIE

This morning witnesses will give us their views of the interrelationships between our national energy policies and the fiscal policy the Federal Government should be pursuing. We know that the price of energy is a very significant contributor to the current inflation and that no degree of fiscal restraint can reduce that contribution.

We are also confronted with a whole array of proposals to deal with the energy situation.

On the revenue side, these proposals include creating tax incentives for energy development, such as the increased investment tax credit for utilities, which the President has proposed. They also include raising the gasoline tax and imposing a significant tax on automobile weight and horsepower.

The controversy over deregulation of natural gas and old oil also has revenue implications, since some proponents of deregulation also advocate a windfall profits tax on the oil companies.

On the expenditures side, proposals for storing oil supplies for any future embargoes have significant implications on the Federal budget. So does the amount expended for energy research and development.

We seek the guidance this morning of experts in the energy field as we try to discern the relationship between the Federal fiscal policy we should be pursuing and the current energy situation we confront.

We regret that the administration spokesmen cannot, because of scheduling difficulties that they had, appear before us this morning. We did our best to arrange the hearings around their schedules, but were unable to do so.

We are fortunate to have with us this morning several distinguished experts in the energy field. They are Dr. Paul Davidson, professor of economics at Rutgers University and a specialist in conglomerate energy companies and the energy price system; Dr. Edward Erickson, professor of economics at North Carolina State University, a specialist in competition and regulation in the energy industry, and Mr. Lee White, former Chairman of the Federal Power Commission and presently head of the Consumer Federation Task Force on Energy.

As we have done in a number of cases, we again ask all of the witnesses to testify as a panel and reserve our questions until they have completed their testimony as a group. That, I think, will help us to maximize the questioning period.

With that, gentlemen, we thank you very much for coming and arranging your schedule around ours.

STATEMENT OF DR. PAUL DAVIDSON, PROFESSOR OF ECONOMICS AND ASSOCIATE DIRECTOR OF THE BUREAU OF ECONOMIC RESEARCH, RUTGERS UNIVERSITY, NEW BURNSWICK, N.J.

Mr. DAVIDSON. Thank you, Senator Muskie.

My written statement, which unfortunately comes in two pieces, the second part being an addendum [1] which spells out in some more detail how my recommendations for Federal leasing policy will affect the cash deficit and the rationale for such a change, even though it will create an increased deficit in the near future.

Without reading the statement, let me just briefly summarize some of the important points by first pointing out my interest in oil and gas can be traced back to 1960 when I was Assistant Director of the Economics Division of the Continental Oil Co. I am one of the few academics who has been on the payroll, so to speak, and I have since that time had considerable interest in this area, and just recently finished two studies, one for the Ford Foundation energy policy project, and another for the Brookings Institution, on price incentives and supplies for Project Independence.

The purpose of my statement today is to indicate some of the conclusions of our studies, and also why I believe a natural energy policy must be coordinated with a policy to alleviate inflation and recession at the present time.

Starting on page 3 of my statement and running for several pages is a summary of some of the conclusions that our studies have reached.

First, and I think a very important thing to recognize is that the supplies of indigenous fossil fuel, and crude oil particularly, are tremendous in the United States at the present time. There is no danger of a Malthusian shortage, that is, that we are running out of oil, although very often the energy crisis appears that way in the public's mind.

[1] See p. 151.

The question, of course, is merely at what price. Neither the oil industry nor the academics will deny there is plenty of oil. The only question is the price, and our study has been to find out at what price we can get this oil.

Our study both of the world supply and the U.S. supply suggests that if we could ever get competitive markets in crude oil, we in the United States and the free world, except perhaps for Japan, would be in danger of being inundated in a sea of crude oil. Luckily, competitive conditions are not likely to show up and we are not likely to run into the problems of competition which east Texas showed in the 1930's, but it is possible.

We studied Project Independence and our study for Brookings showed at the price of between $5 and $7 per barrel in 1974 dollars, if certain governmental policies were adopted, we could be basically self-sufficient in oil.

We found that there is a mounting body of evidence that shows that there is a significant amount of crude oil and natural gas which is profitable to produce at current controlled prices which are being withheld by both producers, domestic producers, and other interested parties, hoping for a windfall capital gain when the deregulation of natural gas and old oil occurs, and they hope this will permit oil prices and natural gas to reach current exorbitant cartel prices. There is lots of evidence.

For example, the number of producible shut-in zones offshore in the United States jumped by over 2,000 in 1972. These are zones that were producing and are listed by the United States Geological Survey as still economically producible and yet they are shut in.

The setting of allowables by Louisiana, Texas, and so on, are not based on engineering considerations of MER [maximum efficiency rate] but are based on price support practices. I was interested to note that in the December 1974 Fortune magazine, there is an editorial about U.S. oil policies where they point out something that I have been arguing and people have forgotten, that in east Texas, for example, allowables set at 240,000 a day, barrel allowables, Exxon estimates could bring out 400,000 barrels a day from that field without disturbing MER. Presently only 204,000 barrels a day are being produced from east Texas, which means you could increase east Texas by 200,000 barrels, if you take Exxon's estimate, without affecting ultimate recovery.

The question is why is this occurring?

After publishing our Brookings Institution paper, I was contacted by a number of independent producers and they pointed out to me that the use of perpetual call clauses in farm-out agreements by the majors, who are the initial lessors on these properties, give the right to restrict production. Many of these independent producers said to me—I do not know how prevalent it is—this is people who have come forward to me and said they would like to produce more but they are being restricted by the perpetual call clause of a farm-out agreement and being constrained to how much natural gas and crude oil they can bring out of currently producing wells.

Obviously then, this suggestion that, although these farm outs are operated by independents, production decisions are being made by the majors.

The CHAIRMAN. What is a farm-out agreement?

Mr. DAVIDSON. This is where the original lease is taken by a major and then, rather than developing the lease itself, he farms it out to an independent who drills the hole and produces the thing, but the major has a working agreement and a perpetual call on the products produced out of these wells.

The CHAIRMAN. Including the volume?

Mr. DAVIDSON. That is the way they do it, on the volumes, that is right.

The CHAIRMAN. What proportion of oil developed by independents is on hand and subject to these kinds of agreements?

Mr. DAVIDSON. This just came to my attention in the last few days, I have not been able to search it out. One of my colleagues who was with me in the study used to work for Shell Oil. He indicates there is a good proportion for Shell at least, most independents work on farm-out agreements, lease bonuses being very difficult for them to get. I think it is worth further investigation at this point.

The CHAIRMAN. On the floor someone used the figure 94 percent, 94 percent of the oil developed by independents is developed on land owned by the majors?

Mr. DAVIDSON. It may well be, I do not know.

The CHAIRMAN. And thus subject to this kind of farm-out agreement. But you do not have that?

Mr. DAVIDSON. I do not have that.

Also, the rate the properties are leased, particularly on Federal lands, have been restrictive and the rate at which these leased properties are brought onstream is quite restrictive. There is a FPC study on shutins and natural gas leases which show, among other things, 108 producible gas leases are over 5 years old out on the Louisiana coast. That means that the producers have had more than 5 years. They have drilled wells, they have capped them, they are producible and they are not currently onstream.

About 20 percent of them are within a mile of the collection line.

Again, these are things which at least suggest that current production could be expanded relatively rapidly without jeopardizing our situation.

Now, our studies both for the Ford Foundation and Brookings Institution suggested the following types of policies ought to be pursued, and I will just list them and perhaps you can question me later on, if you want me to go into detail.

One is extensive antitrust action to break up conglomerate energy companies so that alternative sources of fossil fuels are really competitive both with OPEC and with domestic oil.

Second, Government coordination and regulation of well-head prices of oil and natural gas so that any necessary price increase occur at such low annual rates so as to make speculative holding unprofitable.

Basically, the front-loaded bonus can be done away with, and that is what I spend the addendum to my statement explaining in some detail:

Policies which encourage and require accelerated exploitation of both old and new properties. We should certainly go past allowables and even produce in excess of MER.

There are some petroleum engineering studies which show that MER, maximum efficient rate of production, is supposedly an engineering concept which says if you exceed that rate of flow, you will leave some oil underground that you cannot bring out by natural pressures.

The CHAIRMAN. Who establishes that standard in the case of a given well?

Mr. DAVIDSON. That is supposedly established by engineers.

The CHAIRMAN. Does it have the force of law?

Mr. DAVIDSON. Well, both Texas and Louisiana set their production allowables by field, by what they said was MER, but actually, and I have statements here from the Oil and Gas Journal which show the allowables are not set by MER, but are set by what are called depth bracket allowables, which have nothing to do with MER.

As I pointed out, the Fortune magazine editorial also indicates that these allowables, which are really nothing more than they have always been since the thirties, price supportive agreements are just to hold the price up.

We should immediately turn on the tap, so to speak. During the Second World War oil fields were allowed to produce in excess of MER because of shortages.

We are in economic war now and we ought to go into that kind of policy. The amount of damage done to the fields during the Second World War by producing in excess of MER was minimum.

And finally, we ought to prohibit shutins and other practices which permit speculative withholding and, finally, I suggest a federally-sponsored corporation which, as a minimum, would aid in the financing of new properties and might even enter into joint ventures with the independents; in other words, a Federal oil and gas corporation.

If on the other hand the free market is permitted to go on, we will in 1980 have self-sufficiency or near self-sufficiency at something in excess of $11 a barrel. The domestic price of oil will be in essence set by the sheiks on the Persian Gulf, and it is my own view that the OPEC cartel will not unravel of its own accord.

Historically, cartels have unraveled, but they have always had substitute products that they did not control that does not exist in the present cartel since the international energy companies are willing supplicants to the OPEC cartel.

This is an economic war and the major consuming nations better understand this is about the distribution of the world's wealth and that one can negotiate only from a policy of strength.

The CHAIRMAN. Can I ask you this, because it seems to fit into this. In your judgment what would be the effect upon the cartel, of an effective conservation program in the United States which would reduce our consumption by a million barrels a day?

Mr. DAVIDSON. That is my next statement.

On page 6 I argue that either a large gasoline tax or rationing to reduce consumption in order to lower the world oil prices when there is no more Malthusian shortage, is in my view foolish.

We have lots of oil, lots of gas, and as long as the demand for OPEC oil is inelastic, the company, the OPEC cartel, can absorb reduced demand and maintain the high price.

The Arabian or Saudi Arabians are acting like the Texas Railroad Commission acted 20 years ago, that is, controlling the price by being willing to absorb these things.

The way to break the cartel is to make demand for an OPEC oil elastic, and in economic terms that means to make supplies of alternatives available, basically domestic supplies, which in our view are quite readily available in this country, and to make these supplies available at a price significantly below OPEC's price.

OPEC will come down to meet this because clearly they can even produce cheaper than the United States can, and if we break the cartel our problem will be to protect the domestic industries rather than the other way around.

In terms of tying this in with inflation and recession, the first thing we have to recognize is that the large increase in OPEC oil has led to an enormous transfer of purchasing power and real income from U.S. consumers to the OPEC nations.

Now, the OPEC nations do not want to spend all of the income. In essence, we are redistributing income from Americans who would be willing to buy American goods to the Arabs who would not buy American goods, thus this redistribution of real income is taking the form of lower employment as sales drop rather than shipping goods via exports to the Arabs.

That in my view is desirable. It means that if we were to expand the economy we could produce more goods and not have to give to the Arabs anything but paper claims, which may create problems later on, but would not create a recession now.

In other words, just redistribution to the Arabs, if nothing else would happen, would have created something of a recession in the United States, and we must expand total demand to offset the Arabs' refusal to buy the products of our industry with the income they are earning from selling to us.

Moreover, what has happened is the increase in oil prices has created what is called a commodity inflation. This is an old phenomenon that was very popular in the twenties and literature of the twenties said commodity inflation must never spill over to income inflation.

The former, a commodity inflation, can be reversed; income inflation, which we normally think of as wage and price inflation, is almost inevitably irreversible. Inflation is merely a device for redistributing income and commodity inflation is a device for redistributing income from consumers to producers and owners of properties of these commodities.

The world and domestic oil price inflation has led to a huge redistribution of income not only to the OPEC nations but to the multinational companies and domestic producers and property owners. The major impetus for this redistribution is the growing OPEC cartel strength in the 1970's, and the lack of countervailing efforts by multinational companies, by the U.S. State Department, and many Federal and State government policies.

The American people must be told that the inevitable consequences of the recent oil price rise is a reducing in real income for the United

States and a considerable reduction in real income for U.S. energy consumers.

There is no way of getting out of that until we break the cartel.

The only question for our society is how do we divide the remaining smaller pie among our groups. Each group of workers and the energy using industries refuse to accept this lower real income and tries to foist it onto somebody else, by raising the wages and prices to meet the higher price of fossil fuels and to maintain their former purchasing power. This leads to uncoordinated, inconsistent, and competing claims for higher money income to offset the higher commodity prices and will result in a rampant wage-price spiral which puts us on a treadmill where we all have to run faster and demand more money income merely to try to catch up.

There is less goods and services to go around and we have to learn that we cannot all catch up to what existed before the Arabs raised their prices.

The traditional remedy for fighting inflation, so-called bullet biting, that is, stringent monetary and fiscal policies merely is a device for making the economy so impoverished nobody can be held up for economic blackmail by subgroups who are strong enough to demand higher wages and prices.

The remedy for our enlightened society which is faced with this redistribution is not to adopt a free market philosophy of survival of the fittest and race to push the loss onto sombody else, instead we should break up the cartel and stop redistribution via coordinated policy on energy, as I have indicated, but while this redistribution is going on, an elightened society should adopt a national policy for coordinating the income claims of the various groups and sharing the output while pursuing full employment.

Such a policy of coordinating income claims goes under various euphemisms such as social contract, incomes policy, or even wage and price controls. In my view the national policy to coordinate income claims is the only valid alternative to the Darwanism of free markets, or a combination of Darwanism and bullet biting where each group of society is kept in its place by debilitating the society so no one can afford to make any demand on it.

Well, I think both the Congress and the President will observe this very quickly and I expect within the next 6 months, if I have my prediction, that we will have a national policy of coordinating incomes claims coming from the Congress. The question then is what about oil?

I am taking a lot of time. I will just summarize.

Basically, deregulation and decontrol of oil and gas would create a huge further redistribution away from energy consumers to domestic producers.

Such a redistribution is not only unnecessary, in my view, but undesirable and will merely exacerbate the problem as workers and industries again try to catch up and we will just exacerbate the inflationary process and, therefore, we have a tiger by the tail.

We cannot decontrol and deregulate at the present time.

I think I have taken more than enough time.

The CHAIRMAN. Not at all.

Mr. DAVIDSON. On the Federal leasing policy——

The CHAIRMAN. Present your case. Lyndon Johnson once told me you are not learning much when you are talking. That admonition ought to apply to those of us on this side of the table, not on the other side.

Mr. DAVIDSON. Let me say regulation of natural gas does not mean never changing the price but it means changing the price in such a way that it never pays to speculate; it never pays to speculate.

Proved reserves of natural gas, there is tremendous evidence that they are being understated. I have said in my addendum on page 4, footnote 6, where FPC economists testified by using six applications for selling gas in southern Louisiana in a particular period these companies which had to be certified by the FPC pointed out that they had discovered 4.3 trillion cubic feet of reserves in that period, whereas the AGA statistics for that period for southern Louisiana indicated only an increase of 1 trillion cubic feet. Something was wrong but I have lots of documents if the staff is interested of similar cases of this occurring and we only know about it in natural gas because it is regulated and controlled and there are, therefore, independent auditing checks that can be made. We do not know about it in crude oil, but I would guess that similar problems exist there.

I recommended that lease bonuses are staggering and a tremendous financial constraint and that the Federal leasing practices should be changed so that the lease bonus is moved from front load to not having to be paid until the property is on stream. This would reduce somewhere between a third and a fourth of the cost of exploration and developing properties, which means fantastic sums of money. It does mean, however, that the Federal Treasury, in the next few years, would get a lot less revenues than they estimate, which are now $5 to $7 to $8 billion a year in lease bonuses, but I think it is important.

Independents are not able to bid offshore at all. I have some statistics on pages 2 and 3 which show that almost all of the leased bonuses are being bought by the top 10 to 16 companies in the United States and this is even worse on new properties, which means that the control of new oil and gas is being more concentrated than even the old oil and gas was, and since it is particularly in gas only the new ones that can ultimately be sold, this means that they have a tight domestic cartel being created.

Senator CHILES. What would be the problem, as you see it, in having the U.S. Government license the drilling off there?

Mr. DAVIDSON. One of the things I recommend is a Federal oil and gas company as a possible alternative, rather than just licensing. I think it would be useful to have joint ventures because that would give the Federal Government access to what is now proprietary data of the company, and I have great suspicion about some of the data made available on reserves and cost and it would be nice to have an independent way of checking it and the Federal oil and the gas company could do that.

Licensing would do it in a sort of minor way.

Senator CHILES. Well, I think a lot of us are concerned about the possibility of a Federal oil and gas company when we cannot run the

Post Office and cannot run the railroads. With a Federal company I don't know how we are going to run an oil company either. But I think that if we did what a number of, really some of, our OPEC nations are now doing, they license our oil companies and they give them 9 percent of the oil for drilling the oil and they keep 91 percent, and here we are getting 16 percent after the bonus and we are giving them 84 percent, and it does not make sense to me, and if you do license then the Federal Government continues to own the oil, we regulate then how we want the oil taken out and under what period of time or anything like that, the oil belongs to the Federal Government still rather than the fact that you have sold the oil.

It looks like to me this would certainly be a way and, therefore, in the licensing agreement you could make any provision you wanted to for proprietary information, it is your oil, if you own it, and then under that, of course, we could explore ourselves by licensing that to be done prior to the time you fully start selling the oil in these new fields, offshore fields, the Federal Government could drill those out and explore them, know what the reserves are and have under control all of the data you are licensing.

I do not see the problem in having the data.

Mr. DAVIDSON. I agree with you. The important thing is to identify the principle. Then there are lots of alternative methods; a Federal oil and gas company being one, licensing perhaps being a slightly different method.

With all of these it is not enough to set up an agency, it is also necessary to have good people in that agency, and if they are good at licensing they will be good at Federal oil and gas.

When the Post Office was switched from Government to private enterprise, it did not become any more efficient.

I have worked for oil companies. It is people who are good, who are motivated by desire to be good and do what they think are the goals of the organization independent of whether it is profit maximizing or not.

So I do not want to get into an argument whether the Government ought to be in it or we ought to maintain this, the important thing is to make sure that the Government has some sort of interest and control on production and access to the data, and once we recognize that principle, I think there may be 10 different ways of doing it, and your position may be better than mine, or more politically acceptable to most people or easier to institute, and I would be perfectly willing if we agree on the principle, and I think from what you say we do agree on the principle involved. I would, however, point out that with the OPEC nations there is one big difference, they are not major consumers, they are major producers, and we are a major producer and major consumer, therefore, the way they handle the companies can be quite different from the way we can afford to handle the companies. The Department of the Interior acts more like a blue-eyed Arab in handling the companies than they do in operating for the average U.S. consumer.

As I say, I think we agree on principle, it is a question of implementation, and I am not wedded to any of these implementations if you and I agree on principle on these things.

The question is how do they finance this. In a way you might set up a bank to help them finance it because it is not only the lease bonus, which is very expensive, but in offshore drilling it is very expensive to put a well down. No question about it. And so that has to be financed several years in advance.

So you might have some Federal bank financing it.

All of these, however, are going to be drains on the Treasury in the next few years and I will end by saying I think these drains can be federally justified by looking upon this as production investments which will provide the Government with a fair rate of return, and if we license or enter as a joint venture while providing lower cost fuels, by creating competition for the consumer, also we can justify it as a part of a defense budget for offensive weapons which will help the United States negotiate a more favorable peace settlement in the economic war with OPEC than currently has been declared by OPEC on the consuming nations.

In both cases I think they are very good investments.

Thank you.

The CHAIRMAN. Thank you very much, Dr. Davidson, for a very interesting and challenging thesis.

Your full statement will be included in the record.

[The prepared statement of Dr. Davidson follows:]

PREPARED STATEMENT OF DR. PAUL DAVIDSON, PROFESSOR OF ECONOMICS AND ASSOCIATE DIRECTOR OF THE BUREAU OF ECONOMIC RESEARCH AT RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

My name is Paul Davidson. I live at 18 Turner Court, Princeton, New Jersey. I received a Bachelor of Science degree from Brooklyn College in 1950, a Master of Business Administration degree from City College of New York in 1955 and a Ph.D. in Economics from the University of Pennsylvania in 1959. I was a member of the Economics Department of the Wharton School of Commerce and Finance of the University of Pennsylvania and taught there during the periods of 1955–1958 and 1961–1966. From 1958 to 1960 I was Assistant Professor of Economics at Rutgers University. In 1960–61, I was Assistant Director of the Economics Division of the Continental Oil Company. In 1964–65, I was Visiting Lecturer and Fulbright Scholar at the University of Bristol in England. In 1970–71, I was a Senior Visitor at the Faculty of Economics and Politics of the University of Cambridge (England). I have held my current position at Rutgers since July, 1966.

I am the author of a book entitled *Theories of Aggregate Income Distribution* (Rutgers University Press, 1960) and one entitled *Money and the Real World* (Macmillan, 1972). I have coauthored a book entitled *Aggregate Supply and Demand Analysis* (Harper and Row, 1964) and a monograph entitled *Demand and Supply of Outdoor Recreation* (Bureau of Outdoor Recreation, 1969). I am the author of numerous articles on various economic subjects which have been published in professional journals such as *The American Economic Review, The Economic Journal, Oxford Economic Papers, Canadian Journal of Economics and Political Science, Public Finance, Econometrica, Land Economics, The Southern Economic Journal, The Natural Resources Journal, Review of Economics and Statistics, The Journal of Political Economy, Economic Inquiry,* and the *Brookings Papers on Economic Activity.*

My interest in the economic problems of the oil and gas industry can be traced back to 1960 when I was the Assistant Director of the Economic Division of the Continental Oil Company. Since then I have analyzed economic aspects of oil and gas in professional articles, in testimony as an expert witness before the Federal Power Commission, and in the past few years as a consultant to the Ford Foundation's Energy Policy Project where I was the senior investigator on a study entitled "The Relations of Economic Rent and Price Incentives to Oil and Gas Supply," and as a member of the *Brookings Economic Panel* where I was

the senior investigator of a study entitled "Oil: Its Time Allocation and Project Independence." These last two studies are scheduled for publication in December 1974.

The purpose of this statement is twofold, (1) to provide the Committee with some of the results of our analysis of the current energy problem and the implications for formulating a coherent national energy policy and (2) to suggest how a national energy policy should be coordinated with current macroeconomic policies to alleviate problems of inflation and recession.

I. THE ENERGY PROBLEM

In 1971, the onset of an energy crisis in a world that for a century had been plagued by potential oversupply of fossil fuels at existing market prices caught many knowledgeable observers by surprise. My Ford Foundation and Brookings studies lead me to conclude:

(1) In terms of ultimate supplies of indigenous fossil fuels, there is no danger that the United States will be depleted in the next 100 years even if present demand trends continue. Moreover Western Europe is likely to be nearly self-sufficient in fossil fuels by 1980. Thus there is no danger that most of the Free World will be running up against a Malthusian Constraint in the foreseeable future. In fact if the growth of technology and new petroleum discoveries over the next century is nearly as rapid as it has been in the past, and if trade in fossil fuels with Russia and China can be developed, the Free World may be in danger of being—in the longer run—inundated in a sea of crude oil if competitive conditions in the market for crude could be established. (But such competitive conditions create their own energy problems—as the experience with field prices of the 1930's in Texas demonstrated.)

(2) Project independence could be achieved at a price of $5–$7 per barrel (in 1974 dollars) by 1980 if certain governmental policies were to be adopted.[1]

(3) There is a mounting body of evidence that indicates that a significant amount of U.S. crude oil and natural gas (which would be profitable to produce even at current controlled prices) is being withheld by producers and other interested parties in the belief that wellhead prices of old oil and natural gas will be soon decontrolled and permitted to reach current exorbitant cartel price levels. These withholdings are done under a number of different guises including:

(a) An unusually large number of producible shut-in zones on offshore lands.[2]

(b) The setting of maximum allowables onshore at standards which are not based on engineering considerations regarding MER [3] and then constraining operators to produce at less than 100% of allowables.

(c) The use of perpetual call clauses in farm-out agreements which can give the majors the right to restrict natural gas and crude oil production of independents operating "farm-out" properties.

(d) The right of producers to produce at that rate of exploitation which they deem most efficient as long as they do not exceed allowables.

(e) The rate that properties are leased by the federal government and the rate that leased properties are developed and brought onstream.[4]

(4) A national energy policy (NEP) should consist of (a) extensive antitrust action to break up conglomerate energy companies and to create competitive alternative sources of fossil fuels (competitive to OPEC sources and the large conglomerates), (b) governmental coordination and regulation of wellhead prices of oil and natural gas so that any necessary price increases occur at such low annual rates as to make speculative withholding unprofitable, (c) prohibitive capital gains taxes on oil and gas properties, (d) the changing of leasing policies on federal properties in order to reduce the financial constraint of the front-

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[1] At the current price of new oil, Fortune Magazine indicates that "producible U.S. reserves probably total something like 165 billion barrels, about 5 times the API's 35-billion figure of proved reserves," *Fortune*, December 1974, p. 110. (This assumes on further improvements in technology.) Moreover, the USGS has reported that *economically recoverable* (at 1970–71 wellhead prices) oil reserves in the U.S. are 3½ to 10 times current proved reserves as reported by API. [See *United States Mineral Resources*, USGS Professional Paper 20 (1973), pp. 491–492.] Since this estimate was made when wellhead prices were much lower, it significantly underestimates current economically recoverable reserves.

[2] For example, U.S. Geological Survey, Conservation Division, *Outer Continental Shelf Statistics* (June 1974), pp. 29, 34–36; U.S. Federal Power Commission Bureau of Natural Gas, *Offshore Investigation: Producible Shut-in-Leases as of January 1974* (July 1974).

[3] For example, see *Oil and Gas Journal*, June 21, 1971, p. 76, and *Fortune*, December 1974, p. 110.

[4] A recent study by the FPC showed that 108 producible shut-in gas leases were more than 5 years old; see FPC Bureau of Natural Gas, *Offshore Investigation: Producible Shut-In-Leases as of January 1974* (*Second Phase*) July 1974, p. 3.

loaded bonuses and permit independents to develop offshore properties, (e) policies which encourage and require accelerated exploitation of old and new properties, even if, in certain situations such policies were to encourage flows in excess of MER, (f) policies which prohibit the "shut-ins" and other practices which permit speculative withholding, and (g) a federal sponsored corporation which at a minimum would aid in the financing the development of new properties and might even enter into joint ventures with independents; in other words, a Federal Oil and Gas Corporation.

(5) The adoption of the Adelman suggestion for an import auctioning system with unidentifiable foreign sellers to supply the diminishing share of the U.S. market as we approach self-sufficiency in the next few years. Such a program will create a positive incentive for members of OPEC to break with the cartel.

(6) If, on the other hand, the government permits a free market price for oil without altering existing conditions, the 1980 price for self sufficiency could easily be higher than the $11 per barrel that the government's Project Independence forecasts as domestic oil prices will in essence be set by the sheiks on the Persian Gulf; I see no reason to believe that the OPEC cartel will unravel of its own accord. The OPEC nations are engaged in an economic war with the major consuming nations over the distribution of the world's wealth. Until the consuming nations recognize that the dispute underlying this economic warfare can only be negotiated from a position of internal strength the consuming countries will remain at the mercy of the producing nations.

(7) Sole reliance on either a large gasoline tax or rationing to reduce U.S. consumption in order to lower world oil prices when there is no real Malthusian shortage is foolish. Moreover such a policy is unlikely to succeed as long as the U.S. demand for OPEC oil remains in the price inelastic range. OPEC prices *can* be brought down by fostering increased domestic production by producers who have no vested interests in maintaining world prices and who can make a fair profit by selling domestic oil at a level of wellhead prices [5] which are significantly below OPEC prices and which are coordinated so as to make speculative withholdings unprofitable. The availability of additional domestic production at profitable but controlled prices well below the OPEC cartel's level will create an elastic demand for OPEC oil and hence aid in the reduction of world oil prices.

ENERGY POLICY AND PROBLEMS OF INFLATION AND RECESSION

There has been two main ways by which the rapid increase in energy prices has affected the recent U.S. inflationary and recessionary problems. Moreover, the energy sector will continue to exacerbate these problems in the future until the relations are properly understood and positive action undertaken to offset the energy sector impact.

In the first place, the exceedingly large increase in cost of OPEC oil has lead to an enormous transfer of purchasing power and real income from the residents of the U.S. (and other consuming nations) to the OPEC nations. Since the latter can not or do not wish to spend most of their increasing claims on the purchase of newly produced U.S. goods (in economic jargon, the marginal propensity to save of OPEC nations is very high vis-a-vis American income recipients) even if the U.S. had not adopted restrictive anti-inflationary monetary and fiscal policies, there would have been, *ceteris paribus*, a reduction in aggregate demand. To the extent that the OPEC nations are willing to hold financial claims and not buy U.S. goods with the wealth that the cartel has extorted from U.S. consumers, the loss in U.S. real income due to redistribution will take the form of higher unemployment rather than a transfer of real goods. Since the cartel does not want real goods, the U.S. could maintain a higher current standard of living by enacting vigorous expansionary monetary and fiscal policies to offset the recessionary savings of OPEC.

Secondly, the increase in OPEC and domestic oil prices (and other commodities to a lesser extent) has created what in the 1920's was called a Commodity Inflation. A Commodity Inflation must *not* be allowed to spill over into an Incomes Inflation [6] since the former can, with proper policies be reversed, but the latter (i.e., a wage and profit margin inflation) is almost inevitably irreversible.

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[5] The OPEC cartel has the multinational companies to coordinate their price-market sharing agreements. (See M. A. Adelman's "The Oil Crisis—One Year Later" address given to the Conference Board on November 21, 1974.) What the U.S. needs is a coordinated governmental energy policy to break the cartel and their willing supplicants.

[6] See J. M. Keynes, *A Treatise on Money* (Macmillan, 1930). Vol. 1, pp. 155–6 for an early discussion of this process. See P. Davidson, *Money and the Real World* (Macmillan 1972), pp. 338–57 for a more up-to-date interpretation of this inflation process.

Inflation is a devise for redistributing income. A commodity inflation will, as long as it lasts, redistribute real income from consumers of commodities to producers and owners of property from which the commodity comes. The world and domestic oil price inflation is a symptom of the real income redistribution that has occurred from energy consumers to the OPEC nations, multinational companies and domestic producers and property owners. The major impetus for this redistribution was the growing power of the OPEC cartel supported in large part by the lack of countervailing efforts in recent years by the multinational oil companies, the U.S. State Department, and the federal and state governments.

The American people must ultimately be told the inevitable economic realities of the recent world oil price rise, namely that there has been some reduction in the available total real income of the U.S.[7] and a considerable reduction of the real income of U.S. energy consumers. Until and unless we break the cartel, the only question which our society can control is how we divide the burden of this lower real income amongst members of the U.S. economy. But each group of workers and energy using industries, refuse to accept a fair share of the lower standard of living which this income loss entails. Instead each group tries to maintain the former purchasing power of its income share by raising its wages on prices results in a rampant wage-price spiral, i.e., an Incomes Inflation that puts sistent and competing claims for higher money income to offset higher commodity price results in a rampant wage-price spiral, i.e., an Incomes Inflation that puts us all on a treadmill where we must all run faster—demand more money income—merely to try to catch up. But since there is less goods and services to go around, we can not all catch-up to our pre-Commodity Inflation shares of the National Product.

The traditional remedy for an Incomes Inflation is sufficient stringency in monetary and fiscal policies ("bullet-biting") so that the economy becomes so impoverished that it can not be held for economic blackmail by powerful subgroups in the economy who take action to maintain or improve their well-being at costs to others in society.[8]

The remedy for our enlightened society which is faced with a redistribution of income towards foreign nations is not to adopt the free market philosophy of the "survival of the fittest" race to push the loss of real income onto others in our society. Instead, we should attempt to break the cartel and stop the redistribution via a coordinated national energy policy similar to the one I suggest above. To the extent that we must accept some of the already accomplished redistribution and potential future redistribution until the cartel is broken, an enlightened society should adopt a national policy for coordinating the income claims of various groups and equitably sharing the remaining output that would be available at full employment. Such a policy goes under various euphemisms such as "a social contract," or an "incomes policy" or even "wage and price regulation and coordination" i.e., "controls." In my view such a National Policy to Coordinate Income Claims (NPCIC) is the only viable alternative to the Darwinism of free markets where economic power is not equitably distributed[9] or a combination of Darwinism and "bullet-biting" where the hope of keeping each group in society in its place is to be accomplished by so debilitating our economy so no one can afford to make any demands.

The desirability of instituting full employment monetary and fiscal policies in tandem with a NPCIC is clear and I anticipate the Congress and the Administration will recognize its obligations in this area in the next few months. Accordingly a National Energy Policy must be developed that is consistent with a NPCIC and the concomitant expansionary fiscal and monetary policies that prevent the redistribution of purchasing power to OPEC to take the form of high unemployment in the U.S.

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[7] Moreover, the loss in real income could have been reduced had the U.S. Government recognized in 1970 that OPEC was engaged in economic warfare with the consuming countries.

[8] In essence each subgroup will attempt to emulate the Arab sheiks and obtain and protect as much wealth for themselves as possible. Many economists in the U.S. are willing to force groups in our own country to bite-the-bullet, to accept economic impoverishment to fight inflation, but are strangely silent about encouraging bullet-in-biting remedies on the Sheiks of the Persian Gulf.

[9] A NPCIC is not as shocking as it seems. The government already deliberately affects the aftertax income distribution via fiscal policy. It is not a big step forward to coordinate pre-tax income distribution as it is determined in "free" markets. Most people might find they like the results of such a policy, once they get over the shock of it.

Recent events have created an environment where most domestic energy producers and property owners expect rapidly rising wellhead prices of natural gas, old crude oil, coal (partly because of the inflationary coal settlement) and even "new" crude as OPEC turns the cartel screw a little tighter and tries to "catch-up" to some extent on the world inflationary forces that the cartel released in the recent past. Currently regulated wellhead prices in the U.S. are below what the market could be forced to pay (i.e., demand is in the price inelastic range) while competitive fuels are controlled by growing monopolies (e.g. OPEC) and/or separate but not independent divisions of the same "energy companies". The Congress and the F.P.C. specifically hold public hearings to determine whether the wellhead price should be increased or even decontrolled. All these factors encourage producers to expect, at worse no change in the existing price, and at best a substantial increase. In other words, producer expectations are biased in the direction of price increases—and hence speculative expectations can have a significant impact on diminishing current supply offerings. John Maynard Keynes, once pointed out that economic progress depended on the spirit of Enterprise, which, in this context, refers to the activity of producers, motivated by a desire for action rather than inaction and operating under reasonably stable conditions in an uncertain world, to produce a steady flow of output for the economy. Keynes recognized that in an uncertain world, some men's proclivities would always turn to the possibility of making speculative profits via supply manipulations and he noted "Speculators may do no harm as bubbles on a steady stream of Enterprise. But the position is serious when Enterprise becomes the bubble on a whirlpool of speculation." The critical current supply situation for natural gas in the U.S. and the cartelized supply of all fossil fuels in the world is in part due to Enterprise becoming engulfed in speculative as well as monopoly practices.

Such speculation can be squelched in either of two ways:

(1) adoption of a regulated wellhead price policy which creates an atmosphere of certainty that any future price increases will be at an annual rate so small as to be below annual carrying costs, so that it will never pay to speculate on inventories (e.g. ceiling prices will never increase by more than six percent per annum) ; or

(2) creation of conditions which make expectations of a future price decline just as likely as an increase, so that individuals' speculative expectations tend to cancel.

Many people believe that decontrolling natural gas and "old" oil wellhead prices would be sufficient to establish the condition (2) above. In present circumstances however, that is not true.

In the first place history is replete with episodes where "free" or uncontrolled commodity markets have been subjected to disruptive speculative withholdings.[10]

Given that control of significant quantities of alternative fossil fuels are either in the hands of foreign nations or other divisions of the same domestic "energy companies" who are the major producers of oil and natural gas, it may be difficult to create conditions No. 2 as consumers could be continually whip-sawed by price rises in the alternative fossil fuel markets until producers and OPEC nations believe they have extracted the maximum transfer of income and wealth they can from the impoverished U.S. energy consumers. Even if it were possible, however, condition (2) would probably require, in present circumstances, an immediate and substantial rise in wellhead prices—high enough to convince a sufficient number of producers that the new price *exceeded* the long run price that the market could bear so that further price movements were more likely to be in a downward direction. Such a price increase would create tremendous economic rents for producers and landowners (which violates any reasonable fairness criterion) and would contribute to our inflationary problem, by creating conditions where individual groups of workers and other industries would again try to catch up. Even if it were possible, therefore it would be socially and

[10] Even today, the case of the "Centre Point" office block on the corner of Tottenham Court Road and Oxford Street in London is a case in point. Although it was built in the early '60's and although there has been an acute office space shortage in central London, this building has remained unoccupied. The developer discovered that because of the space shortage, the price per square foot is rising faster each year and the capitalized value of the unused building increases by more than the building would if the space was leased out on long term supply contracts. Thus the shortage problem is exacerbated by a free market and the right to speculate by withholding.

politically undesirable. Accordingly we are left with condition No. 1; to design a policy of regulating the wellhead price in such a way as to eliminate speculation as a factor affecting supply offerings. I believe my NEP summarized above will accomplish this.

ADDENDUM TO STATEMENT OF DR. PAUL DAVIDSON, RUTGERS UNIVERSITY

FEDERAL LEASING POLICY

A change in the lease contract from the constant percentage royalty and front loaded bonus would reduce the financial constraints and aid the independent producers in the development of new properties on the Outer Continental Shelf. For example, a bonus-variable royalty system under which the total bonus (plus accrued interest) would be paid on a schedule of annual payments out of sales receipts after the property was on-stream would virtually eliminate the producers's flow of funds problem for financing lease acquisitions and would substantially reduce the total financing problem of exploration and development (E & D) costs.

Lease bonus costs are a substantial portion of E & D. Data provided in a recent FPC Opinion [1] indicates that for the nation as a whole, ⅓ of total E & D costs for successful nonassociated gas properties are lease acquisition costs. If dry hole costs are included in the calculations, the figure is approximately ⅕ of total E & D costs.

Similar information was not readily available for oil properties. By making some reasonable assumptions and using statistics provided by USGS and World Oil,[2] —I estimate that lease bonuses in 1972 vary from a low of 25% to a high of 65% of total E & D for offshore oil properties. Accordingly I would think that a rough estimate of between ¼ to ⅓ is representative for all oil and gas properties in the U.S.

In absolute terms, recent lease bonus sums are staggering. In 1972, federal offshore lease bonus receipt totaled $2.25 billion.[3] Offshore acreage which received bonuses of a few hundred dollars per acre in the 1950's, now receive bonuses as high as $20,000 per acre and more. These costs are so substantial that very few producers below the top 16 largest have obtained leases independently and even the "majors" must normally enter into joint ventures. For example, in testimony before the House Subcommittee on Activities of Regulatory Agencies,[4] FPC economist David S. Schwartz provided substantial evidence of how the high lease bonuses effectively prohibit independents from obtaining offshore leases. Schwartz showed:

1. only 4 of the 16 major petroleum companies with an interest in Federal offshore properties own 50% or more of their producing leases independently;

2. 10 of the 16 own 80% or more of their offshore leases jointly with one another;

3. Major banks have representatives serving as directors on two or more petroleum companies.[5] Moreover, the FTC and the Justice Department are investigating several cases where individuals who are serving on two or more boards of directors of petroleum companies;

4. In recent offshore federal lease sales, the top 8 firms in each auction paid between 72% and 96% of all lease bonuses.

Such evidence strongly suggests that "old" supplies of oil and gas, and even more significantly "new" supplies of oil and gas (which many are advocating should be decontrolled and never regulated) are concentrated in the hands of a small, tightly knit oligopoly—perhaps even tighter for new supplies than for old. The members of this oligopoly can not be expected to vigorously compete with each other since they are joint partners in numerous properties. Moreover this domestic cartel could view its most profitable course as being complimentary to the OPEC cartel.

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[1] FPC Opinion #699, June 21, 1974, Appendix C.

[2] USGS, *Outer Continental Shelf Statistics* (June 1974), p. 20; *World Oil*, Feb. 15, 1974, p. 86.

[3] For some individual auctions the data are: 12/20/73 (87 tracts) $1.5 billion; 6/19/73 (100 tracts) $1.6 billion; 12/19/72 (116 tracts) $1.7 billion; 9/12/72 (62 tracts) $586 million.

[4] Testimony dated March 26, 1974.

[5] This raises the issue as to whether independent producers could readily obtain finance from banks who have interests in majors who might be adversely affected by the competition.

It is imperative, therefore, to encourage new entrants into the leasing and developing of offshore properties. In my view this will probably require not only the removal of the front-load bonus, but also the formation of a FOGCO to aid in financing exploration and development of offshore properties by independents, primarily via joint ventures.[6]

Lease Bonuses and the Federal Budget

Lease bonuses have, in the last few years brought substantial revenues into the federal Treasury. Removal of the front-load bonus will result in the postponement of these revenues for a number of years. Consequently the immediate impact would be to increase the federal cash flow deficit. Moreover, if a FOGCO was formed to aid in the cost of E & D by entering into joint ventures with the independents, the immediate impact would be to increase the government's cash deficit even more in the next few years.

Nevertheless, the removal of the front-load bonus and the creation of FOGCO can be readily justified by looking upon these actions as (a) productive investments which will provide our government with a fair rate of return over the long run while significantly providing consumers of energy with lower priced fossil fuels, and/or (b) a part of the defense budget for offensive weapons which will help the United States negotiate a more favorable peace settlement in the economic war that the OPEC cartel has declared on the consuming nations.

The CHAIRMAN. We have here a reprint of a paper you did for Brookings.

Mr. DAVIDSON. That is right.

The CHAIRMAN. Is that current?

Mr. DAVIDSON. That just came out the other day so I provided that.

The CHAIRMAN. We will include that in the record as well, without objection.

[The information referred to follows:]

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[6] One significant side advantage of FOGCO joint ventures is that the federal government would get reliable information on reserves, probably for the first time. Economist Schwartz, in his testimony, provides an example—which would be amusing if it were not so serious. Using data in FPC certification applications, Schwartz showed that for a given period in Southern Louisiana 6 applications for certification showed the "discovery" of 4.3 trillion c.f. of reserves on those properties alone, while AGA gross reserve additions for all Southern La. was reported as less than one trillion cubic feet in the same period.

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Oil: Its Time Allocation and Project Independence

IN 1973, THE onset of an energy crisis in a world that for a century had been plagued by potential oversupply of fossil fuels at existing market prices caught many knowledgeable observers by surprise. The energy shortage immediately generated a search for a scapegoat or a rational explanation of the predicament of the highly developed, capitalist economies, heavily based on energy resources, of the United States, Western Europe, and Japan.

According to Leonard Silk, the mammoth multinational energy companies, afflicted by the same "pea-sized brain" that proved fatal to the dinosaurs, either caused or exacerbated the problem. His analysis depicted corporate mastodons as relentlessly pursuing the goal of profit maximization; but it concluded that since "economics is not everything," society cannot be at the mercy "of corporations that have no other purpose than

profit-maximization, however legitimate and useful that objective may be in a limited context."[1]

Yet orthodox economic theory has taught that, given the right background assumptions, businessmen's single-minded pursuit of profit opportunities, tempered by competition and the absence of externalities, would result in an efficient and optimum allocation of resources and the maximization of the welfare of the community. Thus, contrary to Silk's condemnation, executives of multinational energy companies should not be pilloried for failing to meet the needs of any one selfish nation, for in their pursuit of profit maximization, they are unwittingly maximizing the economic welfare of mankind. Responding to comments on the lack of competition at various stages of the vertically integrated oil industry, some students of the industry claim that the international supply of crude oil is "the same as what might be expected to arise from the operation of the law of comparative costs in a freely competitive international market."[2] After all, the consumer seemed to be plentifully, and cheaply, supplied.

Even now that more economists are willing to acknowledge how noncompetitive the oil-resource market is, many continue to envision the problem of depletable fossil fuels in terms of determining the "optimal social management of a stock of a nonrenewable but essential resource."[3] An immediate consequence of this way of conceptualizing the problem is to analyze the existing structure of the resource market to see whether it provides "proper" price allocative guidelines. If it can be proven that the market "fails," then it follows (for those who use this approach) that the role of the economist is to design policies to improve market performance and bring it closer to the competitive ideal. In other words, the first instinct of many economists in this field is to leave the decision as to the time rate of exploitation of exhaustible resources to the invisible hand, unless a market failure can be demonstrated *and* a corrective policy can be developed.

1. Leonard Silk, "Multinational Morals," *New York Times*, March 5, 1974.

2. J. E. Hartshorn, *Politics and World Oil Economics: An Account of the International Oil Industry in Its Political Environment* (Praeger, 1962), p. 340. Even in 1974 studies have been produced to show that "prices paid by consumers for petroleum products reflect the actual costs of suppliers and are not 'padded' by excess profits. The competitive process has held industry profits down." See Edward J. Mitchell, *U.S. Energy Policy: A Primer* (Washington: American Enterprise Institute, 1974), p. 103.

3. Robert M. Solow, "The Economics of Resources or the Resources of Economics," in American Economic Association, *Papers and Proceedings of the Eighty-sixth Annual Meeting, 1973* (*American Economic Review*, Vol. 64, May 1974), p. 2.

In the first section of this paper we deal with two related issues: First, can market prices, even in a competitive environment, provide adequate guidelines for approaching an efficient and optimal rate of utilization of exhaustible resources? Second, in a world of conglomerate energy companies, does rationality of entrepreneurial policies imply anticompetitive and antisocial behavior that redistributes income from consumers to producers and owners of resource-bearing property? Some policy implications inevitably follow from this analysis.

The second section presents our estimates of the market price for crude oil required to achieve the stated goal of Project Independence: self-sufficiency by 1980.[4] Since the first section attempts to demonstrate that for policy purposes economists who seek to determine the efficiency of any given time rate of exploitation of oil properties only waste their own resources, it follows that no one can tell whether Project Independence is on a socially optimal management path—that is, whether self-sufficiency in 1980 will maximize the sum of discounted consumer and producer surpluses. But once self-sufficiency is established as a desirable goal by society's decisionmakers, economists can examine alternative paths to that objective and their implications for prices, income distribution, and production flows.[5]

In the second section we have estimated the 1980 market-clearing, long-run price necessary to achieve self-sufficiency, given the historical supply and demand elasticities for petroleum. A sensitivity analysis of this estimate to variations in supply and demand elasticities is also presented.

Market Prices and Exhaustible Resources

In a recent paper William Nordhaus not only succinctly summarized the foundation for the orthodox economic belief in the desirability of a laissez-faire approach to exhaustible-resource pricing, but also attempted to simu-

4. "The Energy Emergency," The President's Address to the Nation, November 7, 1973, in *Weekly Compilation of Presidential Documents*, Vol. 9 (November 12, 1973), pp. 1312–22.

5. It is our belief that economists should acknowledge their role as "soft" scientists providing advice to policymakers regarding "hard" decisions. Moreover, even as soft scientists we do not hesitate to suggest that policy should aim at (1) protecting consumers from paying more than the normal supply price for essential goods and services, and (2) encouraging "Enterprise" and preventing "Speculation" from dominating economic activities.

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late how such a pricing system would tend to allocate, over the next 200 years, the known recoverable energy resources of the world.

The theoretical foundation for Nordhaus' analysis relies on the theory of general economic equilibrium. It assumes

> consumers with initial resources and given preferences, and producers operating with well-defined technical relations. . . . [It] can embrace many time periods and uncertainty about the exact demand or supply conditions; but it assumes convex production and preference sets, and that markets exist for all goods, services, and contingencies. . . . [including] futures markets for, say, petroleum and coal in the year 2000; and . . . insurance markets for such contingencies as the failure of breeder processes to become economically viable. Also, all the costs and benefits of a particular process of production must be internalized to the decision maker. Under the above conditions a market system will have a general equilibrium of prices and quantities. . . . [T]he equilibrium will be efficient in the sense that there is no way of improving the lot of one consumer without worsening the lot of another. Expressed differently, the prices are appropriate indicators of social scarcity. . . .[6]

Although many economists subscribe to the general-equilibrium notion that market prices can allocate energy resources efficiently over time, others such as F. H. Hahn have noted that the theory of general economic equilibrium can only be used as an argument *against* someone

> . . . who maintains that we need not worry about exhaustible resources because they will always have prices which ensure their "proper" use. . . . A quick way of disposing with the claim is to note that an Arrow-Debreu equilibrium must be an assumption he is making for the economy and then to show why the economy cannot be in this state. The argument will here turn on the absence of futures markets and contingent futures markets and on the inadequate treatment of time and uncertainty. . . . This negative rôle of Arrow-Debreu equilibrium I consider almost to be sufficient justification for it, *since practical men and ill-trained theorists everywhere in the world do not understand what they are claiming . . . when they claim a beneficent and coherent rôle for the invisible hand. . . .*
>
> . . . [Since] we know that these [futures] markets are in fact very scarce [and] . . . some contingent markets could logically not exist . . . *we can easily refute propositions [like these] on exhaustible resources. . . .* Moreover one can locate precisely where the argument goes wrong.[7]

A "proper" use of any exhaustible resource requires entrepreneurial decisions on the time rate of its production. The market price system can

6. William D. Nordhaus, "The Allocation of Energy Resources," *Brookings Papers on Economic Activity* (3:1973), pp. 530–31. Hereafter this document will be referred to as *BPEA*, followed by the date.

7. Frank H. Hahn, *On the Notion of Equilibrium in Economics* (London: Cambridge University Press, 1973), pp. 14–16 (emphasis supplied).

provide guidance on an optimal resource allocation over time only under the following conditions:

1. Well-organized forward markets exist *for each date* in the future.
2. Consumers know *with actuarial certainty* all their needs of energy resources *at each date.*
3. Consumers are able and willing to exercise all these future demands by currently entering into forward contracts *for each date.*
4. Entrepreneurs know *with actuarial certainty* the costs of production associated with production flows *for each date.*
5. Sellers can choose between an immediate contract at today's market price and a forward contract at the market price associated with any future delivery date (over 73,000 in the Nordhaus model).
6. Entrepreneurs know *with actuarial certainty* the course of future interest rates.
7. The social rate of discount equals the rate at which entrepreneurs discount future earnings and costs.[8]
8. *No false trading* occurs—that is, no production or exchange ever takes place at nonequilibrium prices.[9]

If all these conditions are met, then in a competitive environment, market prices can be shown to be an efficient or socially optimal way to allocate energy resources over time, in the sense of maximizing the sum of discounted consumer and producer surpluses.

Since for any particular property, the fossil fuels in the ground are a fixed inventory (or exhaustible resource), the more used today, ceteris paribus, the less will be available for future delivery. Consequently, a

8. This condition can hold only if monetary and fiscal policy are so precisely applied that they eliminate any divergence between the natural rate of interest and the market rate of interest. See Kenneth J. Arrow, "Discounting and Public Investment Criteria," in Allen V. Kneese and Stephen C. Smith (eds.), *Water Research* (Johns Hopkins Press for Resources for the Future, 1966), pp. 13–32.

9. The absence of false trading is an esoteric but essential condition for the beneficence of the invisible hand. In the real world of uncertainty, however, false trades are inevitable and hence those who look to market prices to allocate energy resources properly over time are pursuing a will-o'-the-wisp.

Currently, general-equilibrium theorists utilize the assumption of a complete set of futures markets for all contingent commodities to eliminate uncertainty and false trades from their models. This is merely a logical dodge for it requires that contracts for all contingent commodities be entered into at market-clearing prices at the initial date—that is, all possible human agreements for every contingency involve prices that reconcile all plans and expectations before any production and exchange occurs *and* no additional contracts can be entered into for the rest of time.

rational entrepreneur will compare the present value of expected profits for a forward contract sale at each possible future date with the profitability of selling that amount today. If profit-maximizing entrepreneurs are to produce for current sale, current marginal revenue must be expected to cover not only current marginal factor costs associated with that barrel of oil but also the *user costs inherent in all depletable resources*—namely, the highest present value of marginal future profits given up by producing that barrel of oil currently rather than in the future.[10] Thus, for example, Nordhaus attempts to simulate the allocation arising from a complete set of spot and forward market prices assuming that (1) the 1970 information about supply availability and costs was accurate and relevant for each time period for the next two centuries, and (2) energy demands over the foreseeable future could be projected from the 1929–68 historical growth rates (ignoring price elasticity effects).[11]

As Nordhaus recognizes,[12] forward markets for most commodities do not exist and, as Hahn has noted, they cannot logically exist in the real world where the future is yet to be created. Arrow has attributed the failure

10. For a complete discussion of user costs and petroleum production, see Paul Davidson, "Public Policy Problems of the Domestic Crude Oil Industry," *American Economic Review*, Vol. 53 (March 1963), pp. 85–108; also see Robert G. Kuller and Ronald G. Cummings, "An Economic Model of Production and Investment for Petroleum Reservoirs," *American Economic Review*, Vol. 64 (March 1974), pp. 66–79.

As Champernowne has indicated, Keynes borrowed the term "user cost" from Marshall, but was the first to develop the concept and apply it to the question of intertemporal production from depletable properties. See D. G. Champernowne, "Expectations and the Links Between the Economic Present and Future," in Robert Lekachman (ed.), *Keynes' General Theory: Reports of Three Decades* (St. Martin's, 1964), p. 177; and John Maynard Keynes, *The General Theory of Employment, Interest and Money* (Harcourt, Brace, 1936), pp. 66–73. Since then many other authors have refined the user-cost concept to analyze entrepreneurial decisions about the timing of production in the short run. See, for example, Joe S. Bain, "Depression Pricing and the Depreciation Function," *Quarterly Journal of Economics*, Vol. 51 (August 1937), pp. 705–15; Alfred C. Neal, *Industrial Concentration and Price Inflexibility* (American Council on Public Affairs, 1942), pp. 58–61; Sidney Weintraub, *Price Theory* (Pitman, 1949), pp. 378–81; A. D. Scott, "Notes on User Cost," *Economic Journal*, Vol. 63 (June 1953), pp. 368–84; Anthony D. Scott, "The Theory of the Mine Under Conditions of Certainty," in Mason Gaffney (ed.), *Extractive Resources and Taxation* (University of Wisconsin Press, 1967), pp. 34–41; M. Mason Gaffney, "Soil Depletion and Land Rent," *Natural Resources Journal*, Vol. 4 (January 1965), pp. 537–57; and M. A. Adelman, *The World Petroleum Market* (Johns Hopkins University Press for Resources for the Future, 1972), p. 40.

11. Nordhaus, "Allocation of Energy Resources," pp. 537–41.

12. Ibid., p. 534.

of real-world economies to develop forward markets in most goods[13] to the costliness of enforcing forward contracts to dates far in the future, and the unwillingness of buyers and sellers to make forward contractual production and purchase commitments.[14] Even if one is willing to overlook what Arrow terms the "failure of markets for future goods" in attempting to model an "efficient" time path that might apply in the presence of futures markets (as Nordhaus does), the necessary assumption that no false trading occurs dooms the search for an efficient allocative mechanism that relies on market prices. If false trading occurs, the parameters of the economy change and it is extremely unlikely that the original set of equilibrium spot and forward prices over time will continue to provide an efficient solution—or that any other set can.

In the past, general-equilibrium theorists such as Hicks have avoided the devastating conclusion that economists cannot say anything meaningful about efficient resource use over time by merely assuming that false trading is negligible. Hicks justified this assumption by shortening the time horizon—to less than a day if necessary.[15] But, then, those who advocate a market-price solution for allocating exhaustible fossil fuels over years, decades, or even centuries cannot use general-equilibrium theory to justify their position.

Many economists ignore these formidable issues by developing models for a world of certainty with a specified time horizon. Other economists merely assert that resource markets in the real world normally behave much as they would in a world of certainty, and that therefore general-equilibrium models are a useful "parable" for analyzing the efficient time rate of exploitation of exhaustible resources. For example, Solow states: ". . . in tranquil conditions, resource markets are likely to track their equilibrium paths moderately well, or at least not likely to rush away from them. . . .

13. Kenneth J. Arrow, "Limited Knowledge and Economic Analysis," *American Economic Review*, Vol. 64 (March 1974), p. 8.

14. In fact, however, long-term (often perpetual) leases are the rule for properties that bear natural resources.

But many of those who will be buyers in the future may at any given time be yet unborn; or, if already alive, too young to enter into the contracts necessary to convert future wants into demand, or uncertain how much energy resources they will need in the future. Under these circumstances a free market system could not allocate energy resources over decades or centuries to achieve Pareto efficiency even if a complete set of futures markets for all contingent commodities existed.

15. J. R. Hicks, *Value and Capital: An Inquiry into Some Fundamental Principles of Economic Theory* (2d ed., Oxford University Press, 1946), p. 129.

[Of course] resource markets may be rather vulnerable to surprises. . . . It may be quite a while before the transvaluation of values . . . settles down under the control of sober future prospects."[16] This belief in "tranquil conditions" and the ultimate dominance of "sober" minds in the long run—in short, the stability of expectations—is the bedrock of the neoclassical view that the competitive market may yet, with sufficient empirical study and analysis, yield the secret of determining the socially optimal exploitation of exhaustible resources over time.

One of the more ingenious attempts at developing such a scenario for energy-resource use over time has been Nordhaus' monumental study. Nordhaus' work has been described as an analysis of ". . . how energy requirements will be met in the long run, . . . [and of] the pattern of uses and prices of various types of energy that would emerge through time in a free competitive market. While he acknowledges some of the ways in which actual prices may differ from those generated by his model, he regards his general outline of resource utilization and price changes as helpful indicators of how the future of energy use is likely to unfold."[17] Nordhaus notes that in his model "the price system is ex ante efficient as long as a complete set of futures markets exists."[18] He recognizes that the absence of these markets might create "serious problems," but he argues that "an estimate of whether current usage is too fast or too slow cannot be made a priori; it can emerge only from a carefully constructed econometric and engineering model of the economy."[19]

Here we must disagree.[20] As Shackle has pointed out, "the existence of 'futures' markets is a mere technical gloss on the essential situation,"[21] since speculators enter into contracts in futures markets because they *disagree* with the market's valuation of the future. Hence when the future

16. Solow, "Economics of Resources," p. 7. In correspondence regarding this paper, Solow has indicated that he accepts the view that an optimal strategy is a will-o'-the-wisp. Nevertheless, he maintains that it is possible to judge that some intertemporal allocations are better or more efficient than others with a high degree of probability.

17. Arthur M. Okun and George L. Perry, "Editors' Introduction and Summary," *BPEA* (3:1973), p. 516.

18. Nordhaus, "Allocation of Energy Resources," p. 534.

19. Ibid., p. 537.

20. This is not to deny Nordhaus' conclusion about the immense *availability* of fossil fuels! And Nordhaus has described at least one possible scenario for the future. But this scenario has nothing to do with an optimal path in the real world.

21. George L. S. Shackle, *Epistemics & Economics: A Critique of Economic Doctrines* (Cambridge, England: Cambridge University Press, 1972), p. 111.

becomes the present, either the speculators or the market, or both, will have been in error and false trading (surprises) will have occurred. As long as the future is uncertain individual opinions about it are free to diverge from each other and from the pronouncements of any market. False transactions are an inevitable and ubiquitous phenomenon in the real world.

"[The] *long run* is a misleading guide to current affairs. *In the long run* we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again."[22] Any attempt to provide policymakers with guidelines for solving real-world problems such as the energy crisis using assumptions of "a world of certainty" or "values under the control of sober future prospects" or "tranquil conditions," is, in our view, almost fruitless, and may be positively mischievous in that it may mislead practical men into claiming "a beneficent and coherent role for the invisible hand."

Because futures markets do not exist; because even if they did, false trading would occur in a world of uncertainty and change; and because estimates of future demands and costs are at best unreliable, it is impossible to specify any time rate of exploitation of resources that will be efficient or maximize the sum of discounted consumer and producer surpluses over any long period.

The a priori inability of market prices to provide any guideline for such allocation does not relieve producers from the responsibility of deciding the actual rate for exploiting these resources. Some economists, recognizing the hopelessness of specifying any policy for socially optimal resource management, have argued that "the mere statement of the problem . . . serves to support a general disposition to leave these complicated calculations to the self-interest of businessmen in competitive markets,"[23] in the delusive hope that the inevitable errors of many decisionmakers will tend to cancel out. In the early sixties, this view was not hard to accept, provided the government assured the existence of competitive markets, required field unitization, and removed certain favorable tax treatments. In the midst of a worldwide "energy crisis," leaving energy-resource production to businessmen's subjective estimates of user costs seems much less desir-

22. *A Tract on Monetary Reform*, Vol. IV, *The Collected Writings of John Maynard Keynes* (London: Macmillan, 1971 ed.), p. 65.

23. Melvin G. de Chazeau and Alfred E. Kahn, *Integration and Competition in the Petroleum Industry* (Yale University Press, 1959), p. 236.

able. Current market conditions are likely to encourage all producers to expect rapid increases in prices (as a reflection of growing monopoly elements rather than of increasing social value), and such views will nurture monopoly growth with its concomitant redistribution of income from consumers to producers and ultimately to property owners in the form of economic rents. While some may disagree, we judge such a redistribution to be undesirable as well as unnecessary. Accordingly, we now believe that in the absence of omniscient producers or governments, the damage is likely to be minimized by the adoption of policies that eliminate positive user costs as an element in production decisions.

USER COSTS IN THE ABSENCE OF FORWARD MARKETS

In the absence of developed futures markets, producers' subjective expectations of the user costs inherent in all raw materials are major determining factors in the time rate of exploitation of energy resources. Given the time period, as long as the expected rate of increase in the difference between price and average factor costs is equal to the expected rate of interest, the marginal user cost is zero, and profit-maximizing managers will produce up to the point where current price equals the remaining marginal factor costs *plus* a markup or profit margin whose magnitude depends on the degree of monopoly the producers have in the marketplace.[24] (If producers operated in a purely competitive market, price would simply equal marginal factor costs.)

If, however, for the future, price is expected to increase relative to production costs at an annual rate beyond the expected rate of interest, marginal user costs will be positive and current production will be reduced as producers withhold some energy resources to sell at a greater "discounted" profit at a future date. Finally, if prices are expected to decrease relative to costs (or to increase at less than the rate of interest), marginal user costs will be negative and current production will be higher than when marginal user costs are zero. Thus, in a world of uncertainty, we are left with a bootstrap theory of the time rate of exploitation of energy resources; current expectations of producers play the pivotal role in the absence of any "facts" about the future. Consequently, relative stability over time in prices and production in energy-resource markets requires that most pro-

24. The degree of monopoly power can be measured by $m = (P - MC)/P$, where P is current price and MC is marginal factor costs.

ducers think that tomorrow will not be significantly different from today, although it can perhaps accommodate some divergency of views among producers.

If, however, most producers expect that the relation of prices to costs will change significantly in an uncertain future, energy-resource markets will be dominated by speculative activities. Since solid information about that future *cannot* exist, the result is bound to be detrimental to society. "Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation."[25]

Until recently, state and federal governmental policies prevented rapid changes in wellhead prices in the United States. Market prorationing supported by the 1935 federal law, popularly known as the Connally Hot Oil Act, which prohibits interstate commerce in oil that was produced in violation of state prorationing laws, plus the operation of import quotas, effectively eliminated any positive user costs. At the same time, speculation in the international market was restrained by the ability of the "Seven Sisters" (the seven largest international oil-producing companies) to maintain an orderly market. However, most sellers of energy resources have been led to expect rapidly rising prices by the events of the early seventies—including the relaxation of market-demand prorationing; the growth of the power of the oil cartel, the Organisation of Petroleum Exporting Countries (OPEC), at the same time that import quotas were being removed; the unsettled politics of the Middle East. These events have stimulated speculative proclivities and consequently retarded current production of fossil fuels.

Current statistics from the U.S. Geological Survey (USGS) provide strong evidence of speculative withholding of oil production. Completed shut-in oil-producible zones[26] offshore jumped from 953 in 1971 to 2,996 in 1972 and 3,054 in 1973, while active oil wells fell from 5,704 to 3,814 over this period, even though new wells continued to be completed at a rate of 300 to 400 per year.[27] This jump in shut-ins from 14 percent of

25. Keynes, *General Theory*, p. 159.

26. A completed shut-in producible zone is an area in which a well has been drilled and has been determined by USGS to be capable of producing *in paying quantities*, but for which a suspension of production has been certified by USGS. There may be more than one producible zone associated with a single well.

27. U.S. Geological Survey, Conservation Division, *Outer Continental Shelf Statistics* (June 1974), pp. 29, 34–36. For a further discussion of the importance of the shut-in oil producible capacity, see the section, "A Final Caveat," below.

producible zones in 1971 to over 44 percent in 1972 does suggest an explicit decision by producers to restrict available production flows. Moreover, since producers can restrict oil production not only by a complete shut-in of oil wells but also by reducing flows from producing wells, shutting in associated gas wells, and slowing down drilling activity on wells nearing completion, and since the shut-in statistics cover only offshore completed oil-producible zones, speculative withholding may be significantly greater than these statistics suggest.[28]

If this speculation is unwarranted—that is, if producers' expectations do not properly reflect the relative valuation of buyers and the costs of producing energy resources for future use vis-à-vis their present use (and in an uncertain world there is no reason why they can or should)—then governments must act to prevent such profit-maximizing speculative activity from harming today's society. Stability in today's energy markets may be a humbler goal than the efficient allocation of energy resources over the long run but, at least, it is achievable.

In the current "energy crisis" two major factors have spurred speculative excesses in the energy market. These are the growth of the monopoly power of the OPEC cartel, and the development of conglomerate energy companies.

OPEC AND USER COSTS

OPEC oil has always been sold by producers who had not only significant monopoly power in product markets, but also, in the past, monopsony power in the market for oil-bearing properties. The existence of large monopoly rents, as well as the possible withholding of diminishing-return rents by monopsonist producers on properties in the OPEC nations, has now encouraged the host nations to attempt to capture some of these rents

28. A recent Federal Power Commission study of 168 offshore shut-in producible gas leases has conservatively estimated that these properties contain proved reserves of 4.7 billion mcf (thousand cubic feet) and an additional 3.3 billion mcf in probable reserves, a total two-and-one-half times actual offshore production in 1973. A significant portion of these gas reserves is in wells associated with producible quantities of oil. Over two-thirds of these 168 shut-in leases are more than five years old. The FPC staff is attempting to determine why rational producers would develop these properties and then shut them in. See U.S. Federal Power Commission, Bureau of Natural Gas, *Offshore Investigation: Producible Shut-in Leases (First Phase), January 1974* (March 1974), and *Offshore Investigation: Producible Shut-in Leases As of January 1974 (Second Phase)* (July 1974).

for themselves.[29] As long as the host nations competed with each other to grant concessions, however, they could receive the diminishing-returns rents at best. But once they organized a cartel, the market for OPEC properties became a type of bilateral monopoly situation, where the distribution of the total economic rents (of both sorts) is not determinate. Thus, as a number of experts have noted, the dispute between the operating companies and the African and Middle East governments "essentially, in economic terms, . . . is a question of the division of economic rent."[30]

As landowners in the Middle East and Africa realized that large economic rents had escaped them because of their acceptance of the original concession contracts, they urged the formation of the OPEC cartel as a remedy. If, of course, the operating companies were passively to acquiesce in giving the landowners the economic rents that, under the initial contracts, had been their own, then, ceteris paribus, the actual degree of monopoly in the product market would remain unchanged and so would the price to consumers.

But suppose that host nations are now attempting to capture both diminishing-returns rents *and* the monopoly rents in the product market. As Chamberlin has demonstrated, competition for properties among producers makes landlords the ultimate recipient of all monopoly rents.[31] If the price elasticity of demand in the product market (that is, the degree of monopoly) was unchanged and if producers were already profit maximizing in the product markets, then consumer prices would not change. In this case again, the only effect of the OPEC cartel would be to redistribute the largesse of economic rents from the companies to the host nations.[32]

If, however, some unexploited monopoly power remains in the product market, the companies can attempt to recoup the higher payments to landowners from the ultimate consumers. Their success will depend on the

29. In a perfectly competitive property market, the present value of lease bonuses and future royalties would exactly equal the discounted values of these economic rents so that all diminishing-return rents would accrue to property owners. If producers had monopsonistic power either because of superior information or collusion on bids, they could keep some of these economic rents.

30. Michael V. Posner, *Fuel Policy: A Study in Applied Economics* (London: Macmillan, 1973), p. 52.

31. Edward H. Chamberlin, *The Theory of Monopolistic Competition: A Re-orientation of the Theory of Value* (7th ed., Harvard University Press, 1960), pp. 266–69.

32. This result still might cause balance-of-payments problems for the consuming nations, but as long as the OPEC nations are attempting merely to capture existing economic rents, their actions will not affect long-run marginal factor costs.

price elasticity of demand of the consuming nations for OPEC oil.[33] As long as either this demand is relatively inelastic, or additional monopoly power can be brought to bear,[34] the operating companies will have a strong incentive to extract from consumers the net revenues lost in monopoly rents to the host governments. In fact, as the host nations have increased their receipts per barrel, the operating companies have raised product prices by an even greater absolute amount. For example, when the Persian Gulf nations raised their payments by the equivalent of 28 cents per barrel in February 1971, the matching price increase in Britain was 42 cents per barrel;[35] thus the net revenues of the operating companies increased as they drew on previously unexploited monopoly power.

The incentive to form a coalition to limit supply and to convince the consuming nations that there is an energy crisis can be analyzed via the user cost inherent in all raw materials that involve these kinds of latent market power. If at or near current price levels the consumer has no good substitute from suppliers who have no economic interest in maintaining the potential monopoly rents for OPEC oil, and if governments of consuming nations leave the market unfettered, then the demand for OPEC oil will provide the possibility of additional exploitable monopoly rents. If OPEC oil suppliers—whether host nations or operating companies—believe that, by enforcing market sharing and production restrictions, a cartel can exploit additional market power by raising the prices to the consuming nations over time, then the marginal user cost is positive. Hence producers and landowners (who via royalties and taxes have a vested interest in higher prices) will pursue policies to restrict current production as long as incremental revenues are exceeded by incremental costs, including this

33. The elasticity of demand for OPEC oil will depend on the availability of substitutes provided by suppliers who have no interest in maintaining economic rents for OPEC oil. This point is developed below.

34. In a world of perfect certainty, profit-maximizing entrepreneurs would not leave monopoly power unexploited. In the real world, however, producers in the oil industry may be more interested in maintaining market shares than in maximizing profits. Producers may not always set profit-maximizing prices for fear of antitrust or other governmental action. In the absence of significant justifications for increases, prices may remain stable below profit-maximizing levels until they are released by severe market shocks, like the closing of the Suez Canal or the unified demands of OPEC. Then, in a world of uncertainty, where political crises can reduce the effectiveness of government responses to price increases producers may exploit latent monopoly power and also try to stimulate political and expectational conditions that create additional monopoly power.

35. The data on price increases are from the McGraw-Hill publication, *Platt's Oilgram News Service*, Vol. 49 (February 18, 1971), p. 2, and (February 23, 1971), p. 1-A.

positive user cost, as they attempt to capture potential additional monopoly rents from consumers. The consumer must then either find a way to reduce the user costs to zero or else accept the higher price as tribute to the monopoly power of the suppliers.

CONGLOMERATE ENERGY COMPANIES AND USER COSTS

How has the growth of conglomerate energy companies affected the ability of the OPEC cartel to create positive user costs?

As has already been intimated, the existence of an exploitable monopoly position depends on the present and future price elasticity of demand in the relevant range. As far as the OPEC cartel is concerned, therefore, it depends in large measure on the current price in consuming countries and ultimately on the supply price at which alternative sources of energy will become significant substitutes for OPEC oil. Suppose, however, the supplier of a substitute energy source also has an economic interest in OPEC petroleum reserves, because it is a conglomerate energy company with an OPEC concession or other oil reserves. Then it will anticipate a positive user cost in providing the substitute if production of this substitute reduces potential profits from its oil reserves. This positive user cost will raise the supply price (above resource costs) of marketing the substitute.

In these circumstances this positive user cost of substitutes internalizes a cost that in a competitive economy would be external to an independent producer of a substitute energy source. Independent producers of domestic oil, shale, tar sands, coal, uranium, and so on, would not care if they inflicted capital losses on the value of foreign underground reserves of petroleum by providing a cheaper energy source. Most reasonable people would argue that society is the beneficiary of a decision to produce a less expensive substitute even though the oil producers and property owners would suffer a capital loss. The existence of rational, multisource, energy-producing conglomerates, however, constrains production of substitute fuels and reduces consumer welfare. The ability of conglomerates to maintain high prices for the substitutes tends to reinforce their monopoly power in marketing their OPEC oil.

If at the current price consumer demand for OPEC oil is therefore still in the exploitable range, a strong cartel of property owners can allow multinational energy conglomerates to continue to raise prices relative to real resource costs. The continuous revenue increases of host nations since 1970 seem to be attempts to search out the point at which demand for

OPEC oil becomes so elastic that monopoly rents are fully exploited. (However, for any given demand situation with any degree of elasticity, higher prices require production restrictions, and hence at least tacit market-sharing arrangements to prevent one member of the cartel from increasing its gains at the expense of others.) Since the operating companies also have vested interests in the price of OPEC reserves as long as they retain any monopoly rents, they will be willing tools in maintaining an "orderly" production market.

If, however, the operating companies expected the host nation to nationalize the reservoirs soon without adequate compensation for their economic interests, the user costs of OPEC reserves would become negative *to the producing firms*, and they would try to increase the production flow even if that would drive down current prices to resource costs and destroy their market power. Thus, threats of nationalization without adequate compensation can only be detrimental to the interests of host nations, while favoring consuming nations.

POLICY IMPLICATIONS OF USER COSTS

In the light of recent experience, OPEC nations seem likely to pursue their attempts to capture more of the monopoly rents, and the companies their efforts to exercise all the available monopoly power in consumer-nation markets. Furthermore, even if no additional monopoly power remains to be exploited in the consuming nations but if the OPEC cartel is intact, monopoly rents will be redistributed from the operating companies (which are basically residents of the consuming nations) toward the OPEC nations, causing balance-of-payments problems and perhaps adverse changes in the terms of trade among the consuming nations.[36] In such an ultimate situation, the operating companies would act as monopoly tax collectors for OPEC as all the monopoly rents are transferred to the host nations.[37]

Since expectations of price-cost relations can, via the user cost inherent in all depletable resources, dictate the rate at which OPEC exploits its large

36. The loss in real income of the consuming nations resulting from this redistribution may take the form of high unemployment if the OPEC nations do not spend all of their claims on world income, and if the governments of the developed nations do not undertake compensating expansionary policies.

37. See Adelman, *World Petroleum Market*, p. 256.

underground reserves in its search for maximum economic rents, user-cost expectations become crucial to the apparent worldwide energy crisis. The OPEC strategy on user costs depends on OPEC's view of the growth in demand of the consuming nations, and its estimates of the timetable and prices at which known and potential substitutes can be marketed.

User costs cut both ways—that is, expectations of higher prices tend to retard current exploitation of known OPEC reservoirs and exacerbate supply shortages, while expectations of lower prices will accelerate exploitation. In other words, if the OPEC countries expected the price of oil to decline over the next dozen years, they would want to augment the flow of oil now to take advantage of the higher prices available today and tomorrow. Hence the best interests of the consuming nations lie in policies that encourage the expectation of a decline in the price of OPEC crude by, say, 1980.

Accordingly, consuming nations should devise policies aimed at reducing the degree of monopoly in the energy-products market, or at least at containing it; and at breaking up the OPEC cartel to prevent redistribution of economic rents and the worsening of the terms of trade.

A policy for substitutes and curbing monopoly power. For consuming countries such as the United Kingdom, the United States, Western Europe, and Japan, the availability of substitutes rests on indigenous energy sources with low resource costs or importation of oil from low-cost, non-OPEC, regions.

Large additional reserves are unlikely to be available in the next decade from non-OPEC nations that are not themselves major consumers; and even if they were, such host nations would probably find their own self-interest more compatible with joining OPEC than with attempting to lick it by underpricing its oil. Moreover, OPEC would probably see that its self-interest was best served by accommodating these countries and sharing the fruits of the cartel with them. Hence the consuming nations are unlikely to find cheap substitutes for OPEC oil among other Third World countries.

Thus the major substitutes are oil and gas and other energy resources from properties within the boundaries of consuming nations or the adjacent continental shelf. Moreover, these substitutes should be developed by independent producers who have no vested interest in maintaining or improving the capitalized value of already proved oil reserves.

Accordingly, consumer nations such as the United States who happen to own most of the remaining unexplored potential fossil fuel-bearing

properties within their national boundaries[38] should adopt policies that accelerate leasing of offshore tracts and shale lands, and that promote development of the properties by independent producers and government energy corporations.[39] Such policies would reduce the existing degree of monopoly in product markets and permit some intramarginal lands (which are being withheld by government edict) to be developed before forcing producers to move further out along the extensive margin. Further, requirements for rapid development and exploitation would diminish the ability of producers to maintain monopoly power in the product market by limiting production.

Increasing rates of exploitation of new reservoirs. If large new fields in consuming countries are currently coming on stream—for example, in the North Sea and Alaska—an announced policy of rapid exploitation, even at rates that exceed the maximum efficient rate of production (MER),[40] will induce expectations of a decline in the price for OPEC oil. These expectations will be strengthened if an available substitute, such as shale or nuclear

38. The USGS estimates that the lower forty-eight states contain between 575 billion and 2.4 trillion barrels of oil reserves, while current proved reserves are only 37 billion barrels. See Sanford Rose, "Our Vast, Hidden Oil Resources," *Fortune*, Vol. 89 (April 1974), pp. 104–05. T. H. McColloh has reported that *economically recoverable* (at 1970–71 wellhead prices) oil reserves in the United States are from about three-and-one-half to ten times current proved reserves as reported by the industry. See *United States Mineral Resources*, USGS Professional Paper 20 (1973), pp. 491, 492. Since these two sets of estimates were made when wellhead prices were much lower, they significantly underestimate current economically recoverable reserves.

39. A change in the base contract from the constant-percentage royalty and front-loaded bonus should be undertaken to aid the smaller, independent, producers. For example, a bonus-variable royalty system under which the total bonus (plus accrued interest) would be paid on a schedule of annual payments out of sales receipts after the property is on stream would virtually eliminate the producers' flow-of-funds problem for financing property acquisitions. (If the property was abandoned before the total bonus bid was paid off, the producer would be liable for the remaining sum.)

40. MER is defined as the highest rate of production that can be sustained over a long period of time without reservoir damage or significant loss of ultimate oil and gas recovery. To the extent that there is a positive marginal user cost associated with any rate of flow that exceeds MER (see Davidson, "Public Policy Problems," pp. 91–94), a subsidy may have to be paid on oil produced *in excess of* MER in new fields that are under private corporate management. If the expected gain to the consuming nations in breaking the OPEC cartel and receiving their oil at a price closer to real resource costs exceeds this subsidy, such a policy would be desirable.

Some petroleum engineers claim that free (that is, not injected) gas saturation, which is created by fast production rates, actually enhances ultimate recovery from water-drive or water-flood mechanisms so that no case can be made for a loss of oil caused by production rates above MER. See Rose, "Our Vast, Hidden Oil Resources," pp. 106, 182.

power, is to be independently supplied in the foreseeable future. Once any OPEC member appreciates this eventuality, the cartel will begin to disintegrate and the increased production flow from indigenous fields competing with OPEC will tend to reduce monopoly power and increase supply.

POLICY CONCLUSIONS

In sum, the adoption by consuming nations of policies that promise to force down net demand prices for OPEC oil in the foreseeable future, but appear to permit host nations to capture some large monopoly rents currently, can have beneficial results for consuming nations. They will unleash economic forces that will encourage the break-up of the OPEC cartel, spur current production, and exert downward pressure on estimates of user cost. An essential condition for the success of this approach is the existence of an alternative energy source whose suppliers have no vested interest in maintaining the value of OPEC or other oil reserves. Thus, for example, if the development of the shale oil industry or the operation of the indigenous petroleum or coal industries in the United States is entrusted to conglomerate energy companies that have producing interests in OPEC or other oil reserves, the success of any attempt to provide a substitute, competitively priced, energy source will be seriously jeopardized. Accordingly, a vigorous domestic antitrust policy to dissolve conglomerate "energy companies" into independent domestic and foreign companies dealing with only one energy resource is an essential element in a national energy policy.

Any policy that is expected to reduce monopoly power in the product market over time will create negative user costs and accelerate current production and hence ease the energy crisis. Thus vigorous antitrust policies and consuming-government regulation of, or participation in, the operations of producing companies can, alone or in combination, force the producers to accept a more competitive return on their investment, and thereby eliminate monopoly rents and provide consumers with fuels at lower prices.

Market Price for Self-Sufficiency in Oil in 1980

This section presents estimates of the long-run market-clearing prices for oil that would be consistent with U.S. self-sufficiency in 1980.

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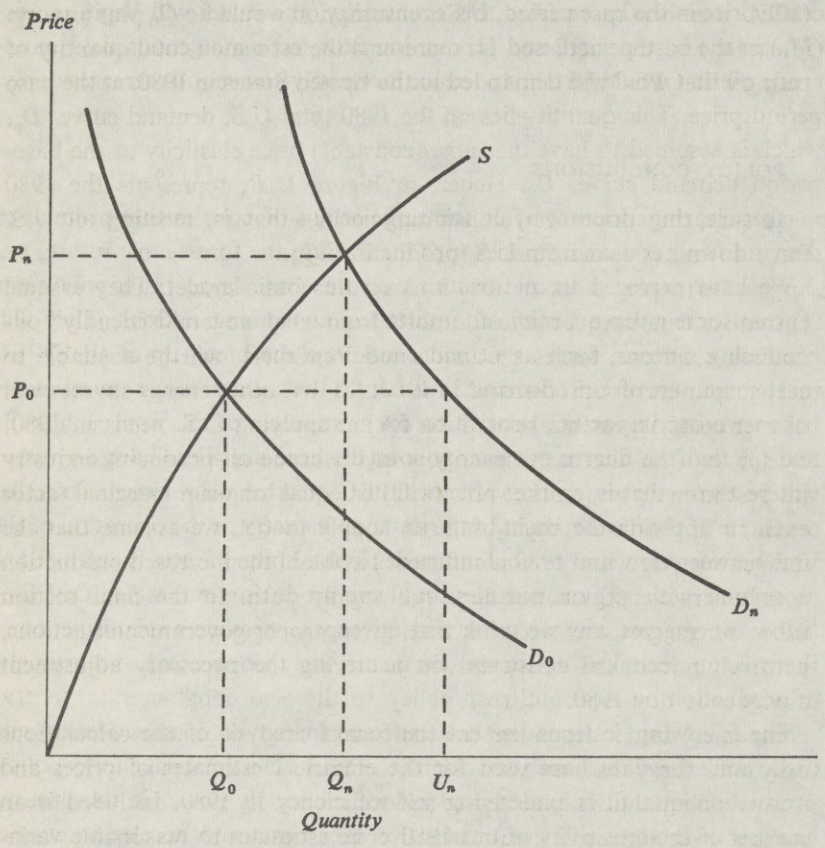
Figure 1. U.S. Supply and Demand for Crude Oil, 1971 and 1980[a]



Source: See text for detailed explanation.

a. D, P, Q = demand, price, and U.S. production, respectively
$0, n$ = subscripts indicating 1971 and 1980, respectively
U_n = U.S. demand in 1980 at 1971 price
S = long-run supply.

Figure 1 represents the basic model. Given the degree of monopoly in the petroleum industry, the curve S represents the supply path for crude oil for the United States in the long run (where user costs are zero);[41] D_0 is the U.S. demand curve for oil net of imports in the base period, 1971.

41. In what follows we use the phrase "long-run supply path" merely to denote a supply curve in which user costs are zero and the only components of the flow-supply price are Keynes' prime and supplementary factor costs including any historical monopoly rents. (See Keynes, *General Theory*, pp. 23–24, 67–68.) Our long-run supply price associated with production flows includes all factor payments to labor and capital

Accordingly, Q_0 is U.S. production in the base period, P_0 is the domestic crude price in the base period, U.S. consumption would be Q_0 plus imports (M_0) in the base period, and U_n represents the estimated total quantity of crude oil that would be demanded in the United States in 1980, at the base period price. This quantity lies on the 1980 total U.S. demand curve, D_n, which is assumed to have the same (constant) price elasticity as the base-period demand curve, D_0. Hence, in Figure 1, P_n represents the 1980 market-clearing price for full self-sufficiency—that is, meeting all U.S. demand for crude oil from U.S. production, Q_n.

We have explored three variations on this basic model. They assume (1) that some given quantity of imports from what we term "friendly" oil-producing nations, such as Canada and Venezuela, will be available to meet some part of U.S. demand in 1980; (2) that other energy sources will become more important relative to oil in supplying U.S. needs in 1980; and (3) that the degree of monopoly in the crude oil-producing industry will be zero—that is, market price will just equal long-run marginal factor costs. In applying the basic long-run supply model, we assume that the time between now and 1980 is sufficient to obtain the increased production associated with Q_n on our long-run supply path. In the final section below, we suggest why we think that, given proper governmental actions, there is no technical constraint on achieving the necessary adjustment in production by 1980.

The following sections present the formal analysis of the calculations made and the data base used for the empirical estimates of prices and production quantities underlying self-sufficiency in 1980. Included is an analysis of the sensitivity of our 1980 price estimates to reasonable variations in the elasticities of supply and demand to price.

THE ANALYTICAL MODELS

Full self-sufficiency. Assuming constant price elasticities for both supply and demand, the supply equation is specified as $Q = aP^b$, where b is the

(including finding and development costs). Consequently, at any point of time the supply prices of remaining reserves exceed zero only to the extent that they embody capitalized past finding and developing costs that have not yet been paid for out of sales revenues. In adopting this view we are emphasizing the important economic difference between finding what exists and creating something new. Nature, not man, produced mineral deposits and Nature's long-run supply price is zero. In the long run only finding, developing, and producing costs must be paid for.

long-run supply price elasticity and a is an arbitrary constant; and the demand equation is $Q = \alpha P^{-\beta}$, where β is the constant price elasticity of demand and α is an arbitrary constant.[42] Then the equilibrium price is the one that satisfies the condition $aP^b = \alpha P^{-\beta}$. The 1980 market-clearing price, P_n, as shown in Figure 1, is computed as[43]

$$P_n = e^{\lambda}, \tag{1}$$

where

$$\lambda = \frac{\ln U_n - \ln Q_0 + (b + \beta) \ln P_0}{b + \beta}. \tag{1a}$$

The quantity produced in 1980, Q_n in Figure 1, is obtained by substituting equation (1) into the supply equation to yield

$$Q_n = e^{\phi}, \tag{2}$$

where

$$\phi = \ln Q_0 - b \ln P_0 + b \ln P_n. \tag{2a}$$

Allowing for some imports or substitution. If imports form part of the supply in 1980, the market price will be lower than that computed under the assumption of full self-sufficiency. We have analyzed the simplest case by assuming that the ratio of imports to domestically produced crude oil will remain unchanged from the base period, so that the market-clearing price is adjusted downward by replacing Q_0 in equation (1a) with $(Q_0 + M_0)$, where M_0 is the quantity of crude oil imported from specific friendly countries during the base period:

$$P_n = e^{\theta}, \tag{3}$$

where

$$\theta = \frac{\ln U_n - \ln (Q_0 + M_0) + (b + \beta) \ln P_0}{b + \beta}. \tag{3a}$$

Similarly, if, say, indigenous coal becomes an important substitute for crude oil, then in equations (1a) and (2a), U_n is reduced by the amount of additional coal used in the nth year, and the system is then solved as in the basic case.

42. The supply equation is obtained by solving the differential equation

$$b = (dQ/dP)(P/Q),$$

where b is the constant price elasticity. A similar procedure yields the demand equation.

43. Derivation available from the authors upon request.

Zero degree of monopoly. The degree of monopoly power, m, exercised by producers in any market can be measured by $m = (P - MC)/P$, where P is product price and MC is marginal resource costs. Such a measure implies a markup over marginal costs of

$$\frac{1}{1-m} - 1.$$

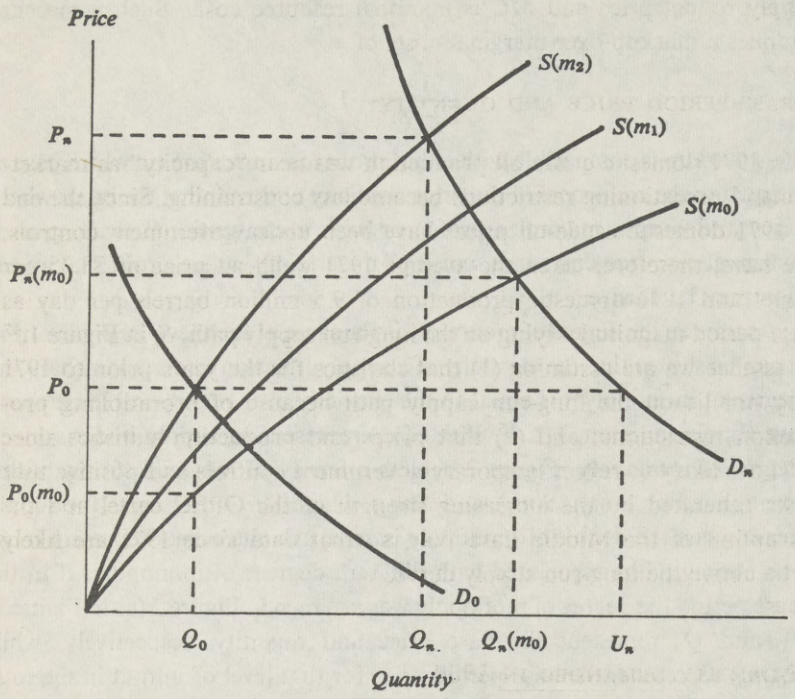
This markup is compatible with either profit maximization (in which case m is equal to the reciprocal of the price elasticity of demand at the point where price and output maximize profit) or with a conventional markup over marginal resource costs in a world of uncertainty where profit maximization may be elusive.

As long as the degree of monopoly is the same at each level of production, it can be shown that the elasticity of a supply function under an unchanging degree of monopoly[44] is equal to the elasticity of the comparable competitive supply function, MC.[45] With $S(m_x)$ representing supply under a given degree of monopoly, Figure 2 depicts a family of long-run supply paths, exemplified by $S(m_0)$, $S(m_1)$, and $S(m_2)$, where $S(m_0)$ represents the supply curve when the degree of monopoly is zero, and the others represent long-run supply paths associated with different degrees of monopoly. If in the base period the degree of monopoly was m_2, then in Figure 2 (as in Figure 1) P_0 and Q_0 represent the base price and quantity, respectively, while $P_0(m_0)$ represents the base-period price for that level of output in the total absence of monopoly. Thus, if the degree of monopoly in 1980 remains m_2, the 1980 self-sufficiency price and quantity are P_n and Q_n in Figure 2 (the same solution as in Figure 1). If, however, the degree of monopoly is reduced to zero in 1980, then by definition the 1980 self-sufficiency price would be less than P_n. In fact, under these assumptions, solution of equations (1a) and (2a) of the basic model gives 1980 prices, $P_n(m_0)$, below P_n, the 1980 self-sufficiency price of our basic model. That result provides good reason for (1) vigorous antitrust action, or (2) some form of government

44. Economic textbooks often claim that there is no supply function with monopoly in the product market; for example, see George J. Stigler, *The Theory of Price* (3rd ed., Macmillan, 1966), pp. 212–13. In fact, a supply function can be specified only when the degree of monopoly is determined—that is, the supply curve is always derived for alternative expected demand curves. It is only the assumption of a zero degree of monopoly that permits the textbooks to derive the marginal cost curve as the supply function in the purely competitive case. Given the cost function, the degree of monopoly, and entrepreneurial behavior, a supply path can always be derived.

45. A proof is available upon request from the authors.

Figure 2. U.S. Supply and Demand for Crude Oil, with Different Degrees of Monopoly, 1971 and 1980[a]



Source: See text for detailed explanation.
a. m_n = degree of monopoly (for example, m_0 represents a zero degree). Other symbols are as defined for Figure 1.

regulation, or (3) a government corporation—or some combination of the three—to foster a reduction in the degree of monopoly in the industry.[46] We discuss these alternatives below.

Estimates of Prices, Quantities, and Elasticities for the Model

Estimation of 1980 prices and production under self-sufficiency requires data on, first, the wellhead price and U.S. production in the base period

46. Senator Adlai E. Stevenson III has suggested that a Federal Oil and Gas Corporation (FOGCO) be created to explore for, develop, and produce oil and gas on lands owned by the federal government.

(P_0 and Q_0); second, the 1980 quantity of crude oil that would be demanded at the base-year price, U_n; and third, the price elasticities of demand and supply.

BASE-PERIOD PRICE AND QUANTITY

In 1971 domestic crude oil production was near "capacity" as market-demand prorationing restrictions became less constraining. Since the end of 1971 domestic crude-oil prices have been under government controls. We have, therefore, taken the average 1971 wellhead price of $3.35 per barrel and 1971 domestic production of 9.5 million barrels per day as base-period magnitudes lying on the long-run supply path, S, in Figure 1.[47] In essence we are assuming (1) that statistics for the years prior to 1971 may not lie on the long-run supply path because of prorationing production restrictions; and (2) that prices and production statistics since 1971 are likely to reflect temporary government controls and positive user costs generated by the increasing strength of the OPEC cartel and the disruption of the Middle East War, so that data since 1971 are likely to lie above the long-run supply curve.

QUANTITY DEMANDED IN 1980

For the quantity of crude oil that would be demanded in 1980 at the base-period price, we have taken the projection of the National Petroleum Council. NPC estimates an increase in total domestic oil demand from 14.7 million barrels per day in 1970 (including all imports of crude and refined products) to 22.3 million barrels per day in 1980, or 4.25 percent per year.[48] To obtain net demand for crude oil from the NPC statistics, we subtracted the production of natural-gas liquids of 1.7 million barrels per day

47. Price statistics from *World Oil*, Vol. 174 (February 15, 1972), p. 21; quantity statistics from *Oil and Gas Journal*, Vol. 70 (January 31, 1972), p. 87. The latter source (p. 93) was also used for base-period import statistics from Canada and Venezuela in our model assumir ; imports from friendly nations.

48. National Petroleum Council, *U.S. Energy Outlook: An Initial Appraisal, 1971–1985* (1971), Vol. 2, p. 15. The projection assumed that the economic environment would remain unchanged throughout the period 1971–85. Hence it appears to be equivalent to our U_n concept.

(MMB/d) in 1970. We estimated that production of natural-gas liquids will increase by 2.2 percent a year over the decade and therefore subtracted 2.1 MMB/d from the NPC projection of total demand to obtain 20.2 MMB/d in 1980 as our estimate of U_n.

ELASTICITY ESTIMATES

Supply elasticity. Despite the intensive study of the petroleum industry by economists over the years, there is a paucity of estimates of supply elasticities for crude oil. Since this is a vertically integrated industry, reliable data on the response, at the wellhead, of supply to the market price is extremely difficult to obtain. Moreover, the technology of oil production, which involves a long gestation period between well drilling and production flows, makes it extremely difficult empirically to relate changes in market prices at given points in time with the flow-supply responses over time. Because we believe these formidable problems make direct estimate of supply elasticities of crude oil difficult, if not impossible, we attempted in an earlier paper to estimate the supply elasticity indirectly, using the theory of economic rents.[49]

49. Paul Davidson, Laurence Falk, and Hoesung Lee, "The Relations of Economic Rents and Price Incentives to Oil and Gas Supplies," in G. Brannon (ed.), *Studies in Energy Tax Policy* (Ballinger, 1974), pp. 115–55.

Some may believe that a stock-supply elasticity of additions to reserves rather than a flow-supply elasticity of oil production is relevant. We disagree for a number of reasons.

Since proved reserves are merely "shelf inventory" for oil producers, the reserve elasticity would be a good proxy for the relevant Marshallian production-flow elasticity if it is assumed that shelf inventory is continuously maintained as a constant proportion to sales. But Project Independence is a production-flow goal and not a shelf-inventory goal, and a constant reserves-production ratio in oil is no more necessary than is an unchanging inventory-sales ratio in other economic activities; therefore, a reserve elasticity estimate is not the most relevant concept. Certainly no particular level of reserves is necessary for 1980.

Moreover, actual changes in the ratio of reserves to production flows will reflect (1) changes in the interest rate; (2) changes in user cost; (3) the technological fact that additions to reserves are lumpy; and (4) changes in wellhead prices and costs. Therefore, an empirical reserve elasticity based on past data is unlikely to reflect accurately the production-flow elasticity. Finally, statistics on proved reserves as reported by the industry are more likely to be biased and unreliable than production statistics, and hence any empirical estimates of reserve elasticity are less reliable than a production-flow elasticity.

Using the "as if" methodology of positive economics,[50] then, for any given degree of monopoly, we can estimate the supply elasticity in terms of payments to landowners (economic rents) as

$$E_s = \frac{1 - \alpha}{\alpha}, \tag{4}$$

where E_s is the long-run elasticity of supply and α is the proportion of the value of shipments that is paid to property owners.[51] Thus, the greater is α, the less elastic is the supply of petroleum.[52] If, for example, supply were almost perfectly elastic, payments to landowners would be insignificant, α would be negligible, and E_s would approach infinity. If, on the other hand, supply were very inelastic, payments to landowners would envelop most of the value of shipments, α would be very large, and E_s would approach zero.

Using data from the U.S. Department of the Interior on payments to property owners and the value of shipments for petroleum properties on the U.S. continental shelf, we estimated that E_s was approximately 1.4 for the years 1953–71 and 1.6 for 1971, and projected it at approximately 1.8 by 1980. Since we believe that most additional U.S. production will come from offshore properties, we prefer the 1971 base-year E_s of 1.6. In Tables 1–4, however, we also show the differences involved in using plausible estimates on either side of 1.6.

Demand elasticity. Both the income and price elasticities of demand are relevant to our 1980 estimates of demand. The NPC projection involved a 4.25 percent annual growth in demand (at the base-period price) in conjunction with a 3.9 percent annual growth in GNP. Thus the NPC forecast, which we used, implicitly assumed an income elasticity of 1.1.

50. For a discussion of this approach see Milton Friedman, *Essays in Positive Economics* (University of Chicago Press, 1953; fifth impression, 1966), Pt. 1.

51. For any given property at any given time the marginal cost schedule of annual production flows might be expected to shift upward over time (unless offset by productivity gains). Since each producer considers these expectations of changing costs and productivity gains over the life of the property when he enters into a lease contract, α will reflect them. Hence our supply elasticity reflects the expected "average" elasticity of the marginal costs of production flows over the life of each property. While the "average" elasticity in the aggregate can change over time, it is not likely to change drastically over a decade, since it is tied to the average life of properties, which normally exceeds two decades.

52. In "Relations of Economic Rents," we discuss at length some of the limitations of this measure. Nevertheless, we believe that this approach does provide a "ballpark" supply estimate for others to discuss or even shoot at.

Studies of the price elasticity of demand (E_d) have usually suggested a value in the inelastic range. The Cabinet Task Force used an estimate of 0.1, which Standard Oil Company (N.J.) provided, but its report gave no documentary support for this elasticity.[53] A study by Burrows and Domencich reported a higher, but still inelastic, price elasticity of 0.5.[54] In most of the following discussion of our estimates of the price and production outcomes in 1980, we use $E_s = 1.6$ and $E_d = 0.5$ as, in our view, the most reasonable values.

Empirical Results

The results of our analysis are summarized in Tables 1 through 4. All prices in the tables are expressed in terms of 1974 dollars: hence, the wellhead price in the 1971 base period in 1974 dollars is $3.74—compared with the actual 1971 price of $3.35.[55] All quantities are reported in millions of barrels per day.

Table 1 summarizes the market-clearing prices and quantities for full self-sufficiency in 1980—that is, no reliance on imports—at various elasticities. Taking 1.6 and 0.5 as the most reasonable elasticities for supply and demand, respectively, the market-clearing price would be $5.36 (in 1974 dollars) and the quantity supplied would be 16.9 MMB/d. If E_s was as low as 1.4 and E_d was as low as 0.1, the price at full self-sufficiency, given the degree of monopoly, might be as high as $6.19 per barrel, while 19.2 MMB/d would be produced. Table 1 also presents price and production estimates for other elasticities.[56]

53. Cabinet Task Force on Oil Import Control, *The Oil Import Question*, A Report on the Relationship of Oil Imports to the National Security (U.S. Government Printing Office, 1970), p. 226.

54. See James C. Burrows and Thomas A. Domencich, *An Analysis of the United States Oil Import Quota* (Heath-Lexington, 1970), pp. 106, 119–29. The negative signs of E_d are omitted throughout.

55. The price adjustment is made by first removing the fuel-price component from the GNP implicit price deflator for both periods, and then extrapolating the 1971 wellhead price to 1974 dollars, in proportion to the change in corrected GNP deflators between the two periods.

56. Spann and his associates have estimated a supply elasticity of 0.9, which is reflected in the first row of the table. Since their model utilizes a Cobb-Douglas function with production as the dependent variable, it can be shown that their supply-elasticity formula is comparable to ours. According to note 17 of their paper (p. 1320), the sum of

Table 1. Estimates of Market Price and Quantity for Full U.S. Self-Sufficiency in Oil in 1980, by Selected Elasticities

Prices in 1974 dollars; quantities in millions of barrels per day

Elasticity of supply	*Elasticity of demand*							
	0.08		*0.1*		*0.5*[a]		*1.0*	
	Price	*Quantity*	*Price*	*Quantity*	*Price*	*Quantity*	*Price*	*Quantity*
0.9	8.08	19.0	7.96	18.7	6.42	15.4	5.57	13.6
1.4	6.23	19.4	6.19	19.2	5.57	16.6	5.13	14.8
1.6[a]	5.87	19.5	5.84	19.3	5.36	16.9	5.00	15.1
1.8	5.59	19.6	5.57	19.4	5.20	17.1	4.90	15.4
2.0	5.38	19.6	5.36	19.5	5.06	17.4	4.81	15.7

Sources: Authors' model discussed in the text, where the sources of the basic data are also given.
a. Authors' preferred estimate.

Figure 3 can be used to interpret the results in Table 1. The S curve is the long-run supply path; D_0, D_c, and D_n are the demand curves in the 1971 base period, the current period, and 1980, respectively; P_0 is the 1971 price of \$3.74; Q_0 is the 1971 production of 9.5 MMB/d; and U_n is the demand projection for 1980 of 20.2 MMB/d. The current (January 1974) wellhead price, P_c, is \$6.63 and the (almost) vertical S_c line represents the current *short-run* supply curve, with Q_c being 1974 U.S. production of 9.2 MMB/d. (The fact that Q_c is less than Q_0 is compatible with short-run positive user costs in the current period.)

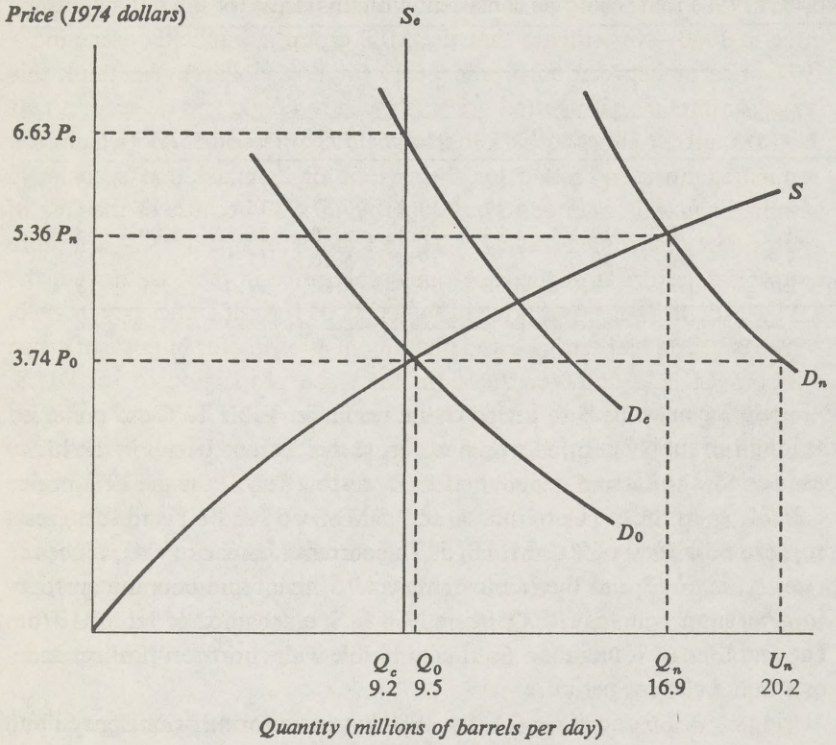
Using $E_s = 1.6$ and $E_d = 0.5$, the 1980 market-clearing price is given by the intersection of the S and D_n curves as P_n (\$5.36), while 1980 production is Q_n (16.9 MMB/d).

After we had completed our calculations, a study group at MIT published an estimate for the market price for self-sufficiency in 1980.[57] Using a mixture of econometric and judgmental models (including the NPC forecasts), they concluded that "the price of energy would be from \$10.00 to \$12.00 per barrel if supplies were limited to those within the United

their $\alpha + \beta$ equals one minus the rent share, and hence their supply-elasticity formula, which is $(\alpha + \beta)/(1 - \alpha - \beta)$, is identical with our equation (4). See Robert M. Spann, Edward W. Erickson, and Stephen W. Millsaps, "Percentage Depletion and the Price and Output of Domestic Crude Oil," in *General Tax Reform*, Panel Discussion before the House Committee on Ways and Means, 93 Cong. 1 sess. (1973), Pt. 9, pp. 1318–20.

57. The Policy Study Group of the M.I.T. Energy Laboratory, "Energy Self-Sufficiency: An Economic Evaluation," *Technology Review*, Vol. 76 (May 1974), pp. 23–58.

Figure 3. U.S. Supply and Demand for Crude Oil, Model Results, 1971, 1974, and 1980[a]



Source: Interpreted from Table 1. See text for detailed explanation.
a. c = subscript indicating 1974 current period. Other symbols are as defined for Figure 1.

States."[58] The MIT study differs from ours in that the authors attempted merely to find the price at which total demand and total supply for all fossil fuels and nuclear sources combined were in balance in 1980, whereas we have calculated the price for balancing demand and supply for oil separately. Nevertheless, the MIT results on price appear to be much higher than ours. If the two studies are compared on a common base (such as our simple model of Figure 1), the difference is readily explained.

The MIT group used the Erickson-Spann estimate of supply elasticity of 0.9 and the Hudson-Jorgenson estimate of demand elasticity of 0.15 as a

58. Ibid., p. 28.

basis for the \$10.00 to \$12.00 estimate of P_n (in Figure 1). Plugging these elasticity estimates into our model and solving for P_0—the long-run supply price in 1971 that would be consistent with this range for the self-sufficiency price in 1980—we estimate that the MIT group is implicitly assuming a 1971 price of between \$5.10 and \$6.30 (in 1974 dollars). We think this range for implicit base-period prices is much too high, and we suspect that the MIT group either let the short-run 1973 price of \$5.49 (which was dominated by user cost) color their views or assumed that speculative withholdings will continue to be profitable in 1980 because of the lack of appropriate government policy.[59] Table 1 indicates that if \$3.74 is a more appropriate estimate of the long-run supply price in the base period, the MIT elasticities suggest a price of under \$8.00 for self-sufficiency in 1980.

The effect on market price and quantity of allowing for imports of crude oil from Canada and Venezuela (in the same proportion to total U.S. production as in the base period) is shown in Table 2. Given our preferred elasticities, the 1980 price would be \$5.11 per barrel. If supply elasticity were as low as 1.4 and demand elasticity as low as 0.1, the projected price would rise to \$5.79 per barrel. A comparison of Tables 1 and 2 suggests that the importation of Canadian and Venezuelan oil is likely to reduce the market-clearing price by approximately 4.7 percent and domestic production by approximately 7.7 percent. Thus, it appears that imports from friendly foreign sources are not likely to lower the price of "Project Independence" dramatically.

Table 3 displays estimates of the market price for self-sufficiency if no monopoly at all existed in the oil industry—in other words, if price were just equal to long-run marginal resource cost. To estimate the zero-monopoly price in the base period, we took Nordhaus' estimate of "the competitive supply price for domestic petroleum"[60] of \$2.33 in 1970, and

59. Another possibility is that the MIT group implicitly assumed that long-run real marginal factor costs for any given production flow will increase over time from 36 to 68 percent more than producers' historical expectations of cost changes as reflected in α. (This possibility was implied in some comments by Charles L. Shultze, in which he argued that increasing marginal cost over time is a special characteristic of depletable natural resources. Although this may be a characteristic for any given property at any point of time, as note 51 indicates, we do not believe it is a necessary characteristic of the aggregate of producing properties considered over time.) The 1973 price of \$5.49 is the midyear weighted average of prices for "new" and "old" crude oil, calculated from *World Oil*, Vol. 178 (February 15, 1974), p. 73.

60. Nordhaus, "Allocation of Energy Resources," p. 557. Nordhaus notes that this price is the "long-run competitive supply price."

Table 2. Estimates of Market Price and Quantity of Crude Oil for the United States in 1980, Allowing for Imports from Canada and Venezuela, by Selected Elasticities

Prices in 1974 dollars; quantities in millions of barrels per day

Elasticity of supply	Elasticity of demand							
	0.08		0.1		0.5[a]		1.0	
	Price	Quantity	Price	Quantity	Price	Quantity	Price	Quantity
0.9	7.30	17.3	7.20	17.1	5.97	14.5	5.28	13.0
1.4	5.83	17.6	5.79	17.5	5.28	15.4	4.92	13.9
1.6[a]	5.53	17.7	5.50	17.6	5.11	15.6	4.82	14.2
1.8	5.30	17.8	5.28	17.7	4.98	15.9	4.73	14.5
2.0	5.13	17.8	5.11	17.7	4.86	16.0	4.66	14.7

Sources: Same as Table 1.
a. Authors' preferred estimate.

Table 3. Estimates of Market Price and Quantity of Crude Oil for U.S. Full Self-Sufficiency in 1980, Assuming Perfect Competition, by Selected Elasticities

Prices in 1974 dollars; quantities in millions of barrels per day

Elasticity of supply	Elasticity of demand							
	0.08		0.1		0.5[a]		1.0	
	Price	Quantity	Price	Quantity	Price	Quantity	Price	Quantity
0.9	5.87	19.5	5.82	19.3	5.13	17.3	4.72	16.0
1.4	4.48	19.9	4.47	19.8	4.31	18.8	4.18	18.1
1.6[a]	4.21	20.0	4.21	20.0	4.11	19.3	4.04	18.7
1.8	4.01	20.1	4.00	20.1	3.96	19.7	3.92	19.3
2.0	3.85	20.2	3.85	20.1	3.83	20.0	3.82	19.8

Sources: Same as Table 1.
a. Authors' preferred estimate.

converted it first into our zero-monopoly, 1971 base-period price by increasing it in proportion to the actual change in wellhead prices between the two years, and then into 1974 dollars by the procedure used to construct the base price underlying Table 1.

The estimated zero-monopoly price for full self-sufficiency in 1980 is \$4.11 (assuming $E_s = 1.6$ and $E_d = 0.5$), only 9.9 percent higher than the 1971 base-period monopoly price and dramatically lower than current

Table 4. Estimates of Market Price and Quantity of Crude Oil for Full U.S. Self-Sufficiency in 1980, Assuming Increased Substitution of Coal for Oil

Prices in 1974 dollars; quantities in millions of barrels per day

Elasticity of supply	*Elasticity of demand*							
	0.08		*0.1*		*0.5*[a]		*1.0*	
	Price	*Quantity*	*Price*	*Quantity*	*Price*	*Quantity*	*Price*	*Quantity*
0.9	6.13	14.8	6.07	14.7	5.29	13.0	4.83	11.9
1.4	5.19	15.0	5.17	14.9	4.83	13.6	4.58	12.6
1.6[a]	4.99	15.1	4.97	15.0	4.71	13.7	4.51	12.8
1.8	4.84	15.1	4.83	15.0	4.62	13.9	4.45	13.0
2.0	4.72	15.1	4.71	15.1	4.54	14.0	4.40	13.1

Sources: Same as Table 1.
a. Authors' preferred estimate.

prices. Hence, if antitrust or other governmental policies markedly reduced the degree of monopoly in the domestic crude-oil industry, self-sufficiency in 1980 would be achievable *and* compatible with lower costs than consumers are currently paying. In other words, even in the absence of cheaper Middle Eastern oil, the age of cheap energy for U.S. consumers need not be over.[61]

Table 4 estimates the effects of increased substitution of coal for crude oil on the 1980 full self-sufficiency price. Using the U.S. government's assumption[62] that coal production (in terms of millions of barrels per day oil equivalent) will be 11.0 MMB/d in 1980 and assuming that all the increase in coal production from 6.2 MMB/d in the 1971 base period will be used to replace crude oil, our estimate of the self-sufficiency price is $4.71.

61. Even for the most inelastic case in Table 3, the self-sufficiency price of $5.87 is much lower than the current $6.63 wellhead price, indicating substantial potential benefits to consumers of policies aimed at reducing monopoly markups in the domestic oil industry.

62. See "Project Independence Background Paper" (prepared for the Washington Energy Conference, February 1974; processed), pp. 13–14. The Office of Coal of the Federal Energy Administration has since revised its estimates to include three assumptions concerning coal production in 1980: business as usual—892 million tons; business accelerated—1,376 million tons; most likely—950 million tons. The last assumption is similar to the office's initial estimate of 962 million tons of coal per year, which converts to 11.0 million barrels of oil-equivalent a day.

SUMMARY

In sum, if the degree of monopoly in the domestic oil industry in 1980 is the same as it was in 1971, and if the government adopts policies that assure that the user cost inherent in crude oil is zero, then the 1980 long-run price for U.S. self-sufficiency will be $5.36 (in 1974 dollars) and U.S. production will be 16.9 MMB/d. If imports from friendly nations such as Canada and Venezuela occur in the same proportion to U.S. production as they did in 1971, then the price in 1980 will be $5.11. If, on the other hand, coal is increasingly substituted for crude oil, we estimate the 1980 self-sufficiency wellhead price will be $4.71. All of these estimates assume our preferred elasticities of supply (1.6) and demand (0.5). Since the January 1974 average wellhead price of domestic crude was $6.63, these estimates imply a decrease of between 19.2 percent and 29.0 percent in crude prices in the next few years. In other words, if speculative expectations can be stifled and the degree of monopoly kept at its 1971 level, self-sufficiency can be achieved at lower real costs to the consumers.

Moreover, if monopoly power could be eliminated by antitrust action, government regulation, the formation of a federally sponsored corporation to provide a competitive yardstick, or some combination of the three, then, as Table 3 indicates, the 1980 full self-sufficiency price is most likely to be $4.11—a decline of 38.0 percent from the January 1974 price of crude. Even in the most pessimistic (and unlikely) inelastic case presented in Table 3, the 1980 zero-monopoly price would be $5.87, or approximately 11.5 percent less than the 1974 price and only 57.0 percent higher than the base-period price. Thus, any policy that substantially reduces the degree of monopoly in the domestic oil industry could offer dramatic savings to consumers.

Of course, all empirical results assume that domestic production in 1980 involves zero user costs—that producers do not withhold production in order to garner higher profits in the future. This situation may occur fortuitously in 1980 if at that time entrepreneurs' views of the future happen to agree that withholding production is not profitable. On the other hand, such an outcome is by no means inevitable; accordingly, the U.S. government may need specific policies that assure it. These may involve (1) government regulation of wellhead price with the unalterable proviso that permitted price increases *must* be phased in at an annual rate

that is lower than current and expected rates of interest (so that discounted profits due to the price increase are negative), or (2) taxes on capital gains on oil reserves and windfall profits on production at rates in excess of 100 percent, or (3) both.[63] Such policies, operating in tandem with the breaking up of conglomerate energy corporations into independent individual production units advocated in the first half of this paper, will go a long way toward preventing positive user costs and their adverse impact on the production of energy resources at home and abroad.

Finally, and most important, the reader is cautioned that the objective of the second half of this paper has been to provide a range of crude oil prices in 1980. If the U.S. government actively pursues the policies we advocate, we expect the 1980 wellhead price of crude oil in the United States to range between $5 and $7 (in 1974 dollars) rather than between $10 and $12, as others have suggested. On the other hand, if the government permits a free market price for oil without altering existing conditions, the 1980 price for self-sufficiency could easily be even higher than $12 as the user-cost estimates of domestic producers encourage them to act as willing but silent partners in the OPEC cartel. In that case, domestic oil prices will in essence be set by the sheiks on the Persian Gulf, for we see no reason to believe that the OPEC cartel will unravel of its own accord.

A FINAL CAVEAT

The $5.36 price estimated for the self-sufficiency situation in 1980 involves an increase in annual production of crude oil of more than 75 percent from current levels. Aside from positive user costs, two factors may limit the ability and willingness of the industry to expand by 1980 along the long-run supply path embodying a constant degree of monopoly.

First, the implied increase in exploration activities between 1974 and 1980 may be unachievable at reasonably stable input prices, as bottlenecks develop in the input markets: shortages may occur in drilling rigs, or in the supply of geologist teams, or in the funds necessary for expansion.

In this connection, however, statistics show that the number of shut-in oil-producible zones on the U.S. outer continental shelf jumped from 14.3

63. Other policies could achieve the same objective—government-held buffer stocks that could be dumped if the price begins to rise, for one example. Once the principle of zero user costs is recognized and accepted, economists should be able to conceive of many alternative policies.

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percent of the total completions of producible oil zones in 1971 to 44.4 percent in 1972 and 44.5 percent in 1973,[64] while the number of completed wells continued to grow by some 300 per year from 5,718 in 1971 to 6,421 in 1973. This tremendous increase in readily available, but unused, productive capacity is compatible with the sudden appearance of large positive user costs in 1971 as OPEC actions began to escalate oil prices worldwide. Nevertheless, these shut-ins mean significant additional capacity already in place, and the remaining exploration and development costs necessary to achieve self-sufficiency by 1980 are thus significantly lower (and hence bottlenecks are less threatening) than the inferences of a simple comparison of estimated 1980 output with current production.[65]

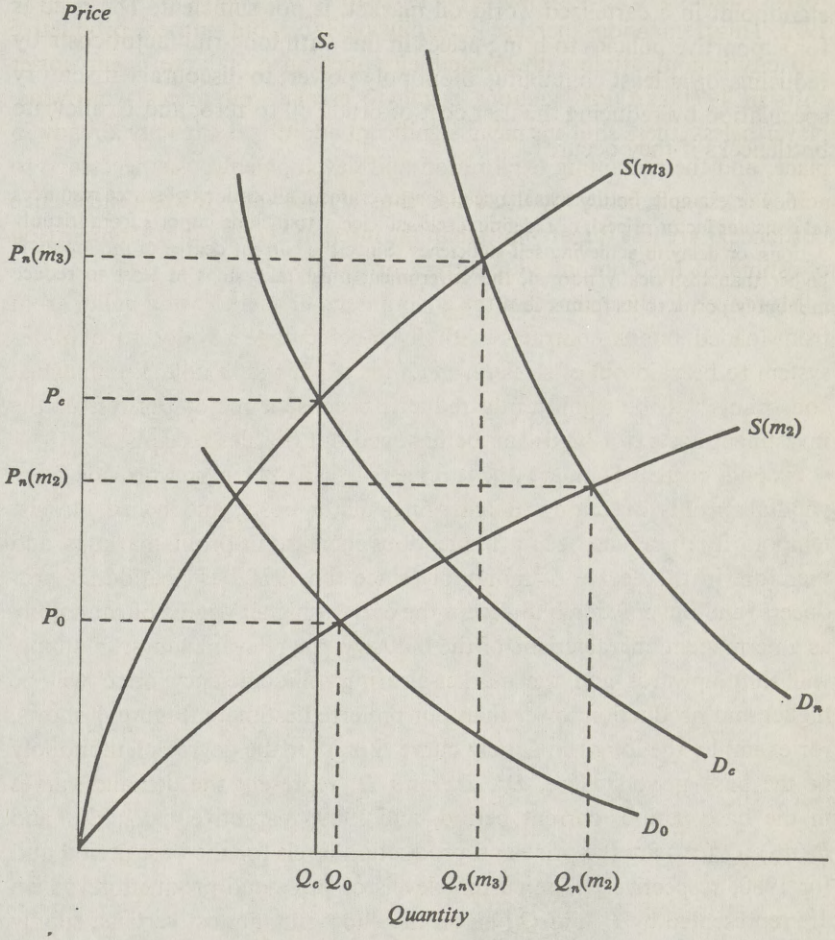
Moreover, to the extent that the government alters its leasing policy from front-loaded bonus contracts with fixed-percentage royalty to a bonus system to be paid out of sales revenues (as explained in note 39), financial constraints will be significantly reduced because a major portion of the investment costs (for land) can be financed out of sales receipts.

Second, current (January 1974) prices of $6.63 per barrel provide huge windfall profits over long-run marginal factor costs, and hence at least temporarily there has been a tremendous increase in profit markups and therefore in the degree of monopoly since the 1971 base period. If producers (and buyers) come to accept the current higher degree of monopoly as a permanent characteristic of the industry, the relevant long-run supply will shift upwards and the market-clearing self-sufficiency price will be higher and production lower than our preferred estimate. Figure 4 shows, for example, the long-run supply curve $S(m_2)$ for the degree of monopoly in the base period. Here, D_0, D_c, and D_n represent the demand curves in the base period, current period, and 1980, respectively; P_0, Q_0, and $P_n(m_2)$, $Q_n(m_2)$ are the price and production levels for the base period and for 1980, respectively. The current levels of price and production, which are represented by P_c and Q_c, lie on the short-run, almost vertical, supply curve, S_c, *and* on a long-run supply curve, $S(m_3)$, which represents a higher degree of monopoly (m_3) than obtained in the base period. If m_3 should

64. U.S. Geological Survey, *Outer Continental Shelf Statistics* (1974), p. 34. In 1965, for example, the ratio of shut-ins was 18 percent, and the trend was steadily downward until 1972.

65. If the United States had such a large percentage of its total productive facilities shut down, does anyone doubt that GNP could be increased by 75 percent by 1980 without severe bottlenecks?

Figure 4. U.S. Supply and Demand for Crude Oil, Assuming the 1974 Degree of Monopoly Becomes Permanent[a]



Source: See text for detailed explanation.

a. m_2 and m_3 = the 1971 and new, higher, 1974 degrees of monopoly, respectively. Other symbols are as defined for Figure 1.

persist through 1980, then the self-sufficiency price will be $P_n(m_3)$—which is higher than $P_n(m_2)$—and production will be $Q_n(m_3)$—which is lower than $Q_n(m_2)$. All of our self-sufficiency estimates are based on the assumption that no disruptive bottlenecks will occur and that monopoly will not intensify. Obviously, if these factors become important as 1980 approaches,

the government will have to develop policies to counteract them. Merely setting the goal of self-sufficiency, although desirable from the consumer's standpoint in a cartelized world oil market, is not sufficient. The need is for supportive policies to bring prices in line with long-run factor costs by reducing, or at least containing, monopoly power; to discourage inventory speculation by reducing the user cost of crude oil to zero; and to alleviate bottlenecks if they occur.[66]

66. For example, bottlenecks may call for government allocations of scarce resources (at constant factor prices), or redefining self-sufficiency to include imports from friendly nations, or delay in achieving self-sufficiency. Since the current degree of monopoly is higher than historically normal, the government must take steps at least to reduce monopoly power to its former level.

The CHAIRMAN. Dr. Erickson.

STATEMENT OF PROF. EDWARD W. ERICKSON, PROFESSOR OF ECONOMICS AND BUSINESS, NORTH CAROLINA STATE UNIVERSITY, RALEIGH, N.C.

Mr. ERICKSON. I will supply you at a later date a similar paper done for Brookings.[1] What I would like to do initially, Senator, is agree with Professor Davidson. This may seem strange since there is an old anecdote that if you took all the economists in the world and laid them end to end they would never reach a conclusion or an agreement. But I would like to agree with my colleague on one important aspect of his remarks. That agreement is with respect to the value of unitizing reservoirs, of passing a Federal regulation which requires mandatory unitization of oil and gas reservoirs in the United States—onshore and offshore as well—though off shore is less of a problem because the natural tendency is to operate the reservoir as a unit off shore.

There is no excuse that the Congress has not moved in that direction. I would like however to caution Senator Chiles that the natural unit of production is the reservoir, not the well, and State regulations typically focus on the well rather than the reservoir. In the past it has resulted in a tremendous waste of resources and also has been the vehicle in days that are now, I hope, long gone by, of restricting U.S. output in order to support the U.S. price. I would like to caution, though, one thing. With all due respect to the powers of the body of which you are Members, Congress cannot create resources by passing laws, and although it is certainly desirable to unitize petroleum and natural gas reservoirs, if you look prospectively at what is going to be happening onshore in the United States, more and more a larger and larger fraction of reservoirs are going to be produced on secondary recovery and tertiary recovery techniques.

Those techniques are automatically in the unitization categories. Before you can justify the economic expense of stimulating reservoirs in that fashion, it is necessary to achieve an agreement among the owners to designate an operator and then to operate that reservoir as a unit. So there is going to be a natural tendency in the direction of unitization. In any event, nevertheless, it would be desirable to impose mandatory, federally enforced unitization, but I would not expect that the world is going to come up roses overnight as a result of you doing a sensible thing.

Now, that also applies to offshore leasing. The general principle is that you cannot create resources by passing a law.

Offshore oil and gas are a significant fraction of existing domestic supplies over the prospective future. If we look at just the lower 48 States, offshore supplies are going to be a more significant fraction of domestic supplies, particularly if we were to lease offshore on the Atlantic coast, or if we were to accelerate development offshore in California. But even if we just maintained our stance where offshore production is centered in the Gulf of Mexico and accelerated leasing

[1] See p. 204.

there, offshore supplies will become an increasingly large fraction of the lower 48 domestic reserves of both crude oil and natural gas.

Now the question that you should bear in mind is what is going to happen if we change the rules under which that leasing is done?

I have spent a considerable amount of time and effort extensively examining offshore production both from the standpoint of its profitability, the economics of the costs and returns associated with operating offshore, and the way the leasing is done, that is, what the competitive conditions for leasing are. I agree with Professor Davidson that the front end lease bonus requires a tremendous amount of money. However, the evidence that I look at, or the way I interpret the evidence that I see, and I have tried to sift it as carefully as I can, is; first of all, despite the fact that front end leases-bonus require a tremendous amount of money, offshore activities are highly competitive. The Government seems to get the lion's share, and the lion's share includes sometimes more than 100 percent, of the excess between price and unit cost.

Sometimes companies bid on properties where there is no oil and there you have an infinite unit cost. Other times companies bid on properties where there is oil, but with hindsight, which is always 20–20, they realize that they would like it to have bid less, that they are actually losing money—not on their incremental expenditure, but on the total expenditure for that property.

So to believe that if we change the rules of leasing that somehow this would miraculously create new resources, or resources which do not now exist, I think is a terribly dangerous belief. We could certainly change the rules and we could probably even change the rules in such a way that there would not be any adverse effect upon the development of offshore oil and gas.

There is the danger, of course, of changing the rules and having an adverse effect, of slowing down the rate of domestic development. But we could possibly change the rules in such a way that there was no adverse effect upon the domestic development of oil and gas.

But what would happen if we do that? We would have exactly what we now have. We would have changed things around from the left side to the right side or from front to back but we would not, for a given rate of leasing, a given rate at which the Bureau of Land Management offers tracts for development, we would not get any more oil and gas, I do not believe.

There is no monopoly in offshore oil and gas and we cannot extract some increment of supply simply by changing the rules.

I again agree with Professor Davidson that it is very important to consider breaking the OPEC cartel. That, I think, is an essential ingredient of any U.S. policy. We must consider what effect our actions are going to have upon the stability of the cartel and the price at which foreign oil is available to the U.S.

There is a reason for concern about the OPEC price. And the reason for it is that despite the best efforts of people such as myself, people such as Paul Davidson, my friends at DRI, the people who did the Project Independence blueprint, we just do not know what is going to happen at higher prices for U.S. oil and gas. We do not have any experience. We don't have a sufficient track record of experience with

prices in, say, the $10 to $12 range or $8 to $12 range for oil to know what the domestic supply response over the long run is going to be.

The long run is important here despite John Maynard Keynes' warning that we are all dead in the long run, so why worry about it. The long run is important because the oil and gas industry is a very capital intensive industry, it requires a long time lag for it to adjust to a substantial change in incentives or difference in situations, and what we need to look at is not simply next quarter's unemployment or output, although I am not insensitive to what the unemployment rate in Detroit is going to be in March or July of 1975. We need to look not only at that, but we need also to look at what the domestic oil and gas situation in its total context vis-a-vis the world energy economy is going to be in 1980, 1985, and 1990. I urge you gentlemen to try and adopt that kind of long-run strategic point of view.

What are the strategies that we ought to be following to minimize the real resource costs for energy to the U.S. economy?

Now, given the uncertainties, to which I earlier referred, what I have done in my statement is say, OK, let's take a devil's advocate point of view. Let's acknowledge that one can fudge the numbers around and get all kinds of results. Let's take a reasonable look at the numbers and fudge them in with reasonable assumptions. I think all the assumptions are within the context of a reasonable man's consideration of the data. It looks like it is possible that even at $12 a barrel in the United States we are going to be importing someplace between 5 and 7 million barrels a day over the years to 1985. This is critically dependent upon the rate of growth of demand.

For the Brookings conference that Paul Davidson and I recently attended, I flew in. I could not catch the early morning plane up from Raleigh, and I had to catch the 10 o'clock plane, which goes to Baltimore, and I had a luncheon appointment prior to going over to Brookings so I wanted to take a taxi in rather than take a bus. I walked out and got in the taxi, I didn't tell the driver I was in a hurry. In fact, I had some things to review prior to the meeting. He drove at 75 miles an hour down the expressway from the Baltimore airport to Washington. We passed hardly anybody, and traffic was heavy.

I see those pieces of evidence lying around all over. The idea that the rate of growth for U.S. energy is going to fall to 2 percent is probably wrong. Thus, one of the assumptions I make is to let the rate of growth for energy be 3 percent, which is lower than recent experience, which allows some substantial price response but which, nevertheless, I suspect is realistic. I also assume that we are going to maintain the production of natural gas liquids. This is a critical assumption because NGL's are an important component of liquid hydrocarbon supply—a component of liquid hydrocarbon supply which is critically dependent on Congress coming to its senses and deregulating the wellhead price of natural gas. If we wish to maintain that supply in the future, Congress must deregulate the wellhead price of natural gas to maintain NGL's, etc., at 2.1 million barrels a day. Another assumption concerns how one fares in Alaska. There are different ways you can fare in Alaska. Some people think we are going to see 3 million barrels a day from Alaska in 1985. That is the Project

Independence blueprint. Others say things are going pretty well. It might be 3 million a day in 1980. You can run Alaska in at various rates. Regardless of how you do that, the problem comes up to the likelihood that we are facing approximately 6 million barrels a day of imports for the foreseeable future.

I don't care to look behind 1985 on a specific barrels-per-day basis.

Now, the question is, "What to do about that?"

With regard to domestic supply, I would like to remind you that in 1969 the Cabinet Task Force on Oil Import Control was convened, and the reason that the Cabinet Task Force on Oil Import Control was convened was because we had a problem, and we still have a variation on that problem. The problem we had at that time was as follows:

We were controlling oil on a quota system and imports of oil were limited nominally to 12.2 percent of U.S. consumption. Actually, what we had as a result of all of the exemptions for fuel oil and residual fuel oil, et cetera, was imports running at about 20 percent of domestic consumption and about 25 percent of domestic production.

It was realized that the kind of regulation that we then had was such that domestic production was not going to be able to keep up with the rate of growth in domestic demand and that we had to rationalize our position vis-a-vis the world oil economy if we were going to satisfy that rate of growth.

At that time, the U.S. price of oil was about $3 a barrel and the world price of oil was about $2 a barrel.

We did not feel that it was possible for U.S. production to grow sufficiently to match U.S. demand.

I was a staff member of the Cabinet Task Force and I went down to Texas and spent a great deal of time trying to figure out what the productive capacity of the United States was. And that is a very difficult job.

I asked questions which now I look back on with a sense of irony. The general feeling of the industry at that time was that what the Cabinet Task Force staff wanted to do was open up the U.S. energy economy to the world oil price, and force the U.S. price down to $2 a barrel. Gardeners do have some sense about how they would like to see the flowers arranged, and a more open U.S. oil economy probably was something that most of us as individuals would have been in favor of.

I suspect that freer trade was the preference of most of us on the staff. Nevertheless, that was not our charge. Our charge was as professional legal and economic analysts to look at the numbers as closely as we could and to say what would happen under alternative policies. One of those policies would be to go completely to energy independence. Although I do not think anybody at that time, in 1969–70, foresaw the exact events that have subsequently taken place, we did consider a policy to go completely toward energy autarchy. Autarchy would have required higher U.S. prices. I asked a large number of people what kind of supply response we would get out of the United States at $5 a barrel. $5 a barrel was out of sight. People just were unable to think in terms of $5 a barrel for oil in 1969 and 1970. They thought I was some kind of nut.

But I think you need that backtrack consideration, that supply response even at $5 a barrel for oil in 1969–70 was regarded to be substantially limited in the United States. And that was before the inflation of the early 1970's.

Now if you go to $8, $10, $12, supply response will pick up, and if you give time for adjustment and create the rules of the game such that people are confident how it is going to be played, that they are not committing resources on a will-of-the-wisp economic incentive, but they are looking at a permanent incentive structure, then it is conceivable that the supply response we would see would be substantially greater.

However, the question remains "What if we are wrong?" What happens if the numbers that say the United States could be independent at $12 a barrel, which were done by MIT and others, are incorrect. Then it is worthwhile looking at a devil's advocate point of view against the kind of backdrop that I have painted. In that situation, we are going to be continually dependent on imported oil, and it is going to be critical for us to do two things: One, to make sure that we are secure and, two, to get that oil at the least possible price.

Security is something I think can be handled through insurance and storage schemes and for the purpose of this statement I will assume that we do that.

I assume that we create security storage, whether it is steel tanks or how we do that is a matter that I will leave aside for the moment.

The next problem, then, is how do we try and get the price of world oil down from its current levels, and I would like to suggest that there is an easy way to do that.

I do not think, however, it is going to be easy. I think we have got to face some hard choices. The hard choices that we have to face are perhaps higher prices than we now face in the United States for domestic oil in order to get lower prices for that component of our supply which is imported. The way I would suggest that we do that would be to impose an oil import tariff. Because of the lags in supply response from the U.S. oil supply, I don't think we ought to go the whole route immediately with the tariff.

One cannot say what is the current and prospective competitive world price of oil. If we were to break the cartel, to what level would it fall? It might fall as low as $3 or $4, but it could easily be twice that. But a lower world oil price gives us a dilemma.

If the world oil price falls to, say $3 or $4 and the U.S. economy is totally open, then we are not looking at 6 million barrels a day of imports. The United States is now consuming 18 million barrels of oil a day. At rock bottom world oil prices, we would probably soon be looking at 15 million barrels a day of imports.

There is a requirement for some protection in the domestic industry. We would like to maximize the incentives for the cartel to come apart, to maximize the pressures upon the cartel. To do that, what I would recommend is that we impose a tariff that starts at 10 percent and gradually runs up to 50 percent over the next 5 years. At 50 percent, if the world price of oil were $6, then a 50 percent tariff would mean the U.S. price would be $9 a barrel, and although consumers would be paying $9 a barrel, the U.S. industry would be reasonably well pro-

tected, and the U.S. Treasury would be collecting $3 a barrel on the imported oil. But I caution against expecting immediate miracles. The cartel could remain stable and we could be paying $10 to $12 for domestic oil and $15 to $18 for imported oil.

In addition to a tariff, I think it is critically important we deregulate the wellhead price of natural gas. The importance of deregulating the wellhead price of natural gas is twofold. It operates on both the supply and demand side. First, we could have substantial new supplies that we otherwise would not have. Second, the demand for natural gas would go down. Natural gas is an important component in the total energy supply, the total energy balance of the U.S. economy.

The total demand for energy would go down. That would in itself create pressure on the cartel because there would not be the kind of spillovers that here now are to crude oil, so that deregulation of natural gas is an important component of a rational energy policy.

Also, I think decontrol of old oil is an important component of a rational energy policy.

Again, there would be demand dampening effects if the price for old oil were to go up. What some people regard as the "costs" of decontrol of old oil are more appropriately regarded as transfers within the U.S. economy. In addition to decontrol of old oil having demand dampening effects, it would, I think, be a healthy thing to do in terms of setting the rules of the game.

So here are the type of rules I would recommend that we adopt.

We are not going to engage in the kind of self-defeating hanky-panky that has characterized FPC regulation of the wellhead price, where we try to pick off old gas and new gas and have intrastate prices and interstate prices, prices on emergency sales, inept end-use controls and that whole clutter of self-defeating regulation. But rather to be straightforward that prices are going to equal costs, where costs are market generated prospective incremental costs for developing new supplies. We are not going to subsidize the consumption of energy. What we should try to do is get our house in order internally so that we may benefit externally with regard to the price which we pay for our imported oil.

Now, I realize that the oil industry is not one of the most popular groups in the nation at this time, and that it is widely regarded that some kind of punitive action would have to be taken with regard to the industry. I would recommend that what we do is eliminate percentage depletion, which is a very visible tax incentive, a subsidy to production in the United States. As an economist I previously would have said that elimination of depletion was an unmitigatedly desirable thing to do. Now it is not. The reason it is not is because, as a subsidy, it does expand domestic production and reserves. And the size of domestic production and reserves are an important determinant with regard to whether or not we are going to be able to lever down the world price. So if we were to remove depletion now, it has to be realized that that is not in our best interests with regard to having the strongest possible position vis-a-vis OPEC.

If we removed depletion now as a necessary step for decontrolling and deregulating, something else has to be substituted for it. I would

suggest that rather than a gasoline tax to dampen only demand, that an appropriate policy would be an oil import tariff at a very stiff rate. A tariff would have three incentive effects: first, to decrease domestic demand; second, to increase domestic supply; and third, to create a centrifugal force on the cartel. Such a policy, if we are lucky, may result in a break or an erosion in the world oil price.

The CHAIRMAN. Thank you, Dr. Erickson. Your prepared statement, of course, will be included in the record at this point.

[The prepared statement of Mr. Erickson follows:]

PREPARED STATEMENT OF EDWARD W. ERICKSON, PROFESSOR OF ECONOMICS AND BUSINESS, NORTH CAROLINA STATE UNIVERSITY, AND THOMAS J. GRENNES, ASSISTANT PROFESSOR OF ECONOMICS AND BUSINESS, NORTH CAROLINA STATE UNIVERSITY

INTRODUCTION

For purposes of public policy making, it is worthwhile taking Project Independence with a little skepticism. Anticipated reductions in the rate of growth of demand may not occur as swiftly, as significantly or as permanently as hypothesized. Anticipated increases in domestic supply may likewise fall short of expectations. A prudent man should examine the policy implications of alternative events. It is not hard to make a quite convincing case for something other than independence by 1985. The necessary assumptions are all within the realm of plausibility and are not contradicted by experience. If Project Independence is optimistic, the question then becomes one of formation of rational energy policy in the context of a significant international component in U.S. energy supply.

The most important element in the international component of the U.S. energy supply and demand balance is, and will be, crude oil and refined products. To provide a framework for what follows, we make a number of initial assumptions. These are:

1. The OPEC cartel remains stable,
2. The landed price of imported crude oil sets the price for domestic crude oil,
3. The domestic price for crude oil thus set is $12.00 per barrel in 1974 dollars in PAD District III, and
4. The 22 percent depletion allowance is eliminated.

These assumptions are political as well as economic. For both economic and political reasons they could be contradicted by events. But they allow us to forecast U.S. lower 48 crude oil reserves for the period 1975 through 1985. Application of a range of reserves to production ratios for crude oil allows us to bound likely U.S. yearly crude oil production over this period. If further assumptions are made about the size and timing of new Alaskan production, the availability of natural gas liquids and the growth of domestic oil demand, a time path for oil imports may be derived. This picture then forms a backdrop for discussion of rational energy policy.

AN ESTIMATE OF THE 1975–1985 U.S. PETROLEUM SUPPLY AND DEMAND BALANCE

The estimate of lower 48 crude oil reserves comes from work done for the Brookings Institution.[1] In this work, an econometric model of crude oil reserve holding was fitted to U.S. data for the period 1950–1968. The initial purpose of the model was to test certain hypotheses with regard to economic incentives. The model was then used to predict lower 48 U.S. crude oil reserves for the years 1969–1973, and to simulate 1975–1985 reserves under alternative sets of economic incentives. The alternative sets of economic incentives included alternative prices and alternative tax packages. The price and tax assumptions were:

1. Prices:
   (*a*) $8 per barrel,
   (*b*) $10 per barrel,
   (*c*) $12 per barrel, and

[1] See Edward W. Erickson, Stephen W. Millsaps and Robert M. Spann, "Oil Supply and Tax Incentives," *Brookings Papers on Economic Activity*, No. 2, 1974, pp. 449–478.

2. Taxes:

(*a*) No change in percentage depletion or expensing intangibles,

(*b*) Elimination of percentage depletion, but maintenance of expensing intangibles,

(*c*) Elimination of expensing intangibles, but no change in percentage depletion, and

(*d*) Elimination of both percentage depletion and expensing intangibles.

The predicted lower 48 U.S. crude oil reserves for the years 1969–1973 had the right trend—downwards. But the predicted reserves progressively overstated actual reserves. This is not surprising. There were at least three important factors in the 1969–1973 period which were not included in the econometric model upon which the predictions are based. All of these factors had a depressing effect upon lower 48 crude oil reserves. These factors included wage and price controls, the deliberations of the Cabinet Task Force on Oil Import Control and the giant discovery on the North Slope of Alaska.

Because the crude oil reserve stock at the end of one year is an important determinant of what crude oil reserves will be at the end of the next year, the policy simulations must be corrected for the over prediction of the model. The results of doing this are reported in Table 1 for the case of $12 per barrel oil and elimination of percentage depletion but maintenance expensing intangibles. Also reported in Table 1 are two alternative time paths of production under different assumptions regarding the reserves to production ratio. In addition, Table 1 also includes a projection of demand for refined products at a three percent annual growth rate.

TABLE 1.—PROJECTED U.S. DOMESTIC (LOWER 48) CRUDE OIL SUPPLY AND DEMAND

Year	Crude oil reserves [1] (billions of bbl)	Lower 48 crude oil production (millions of barrels per day)		Demand at 3 percent growth (millions of barrels per day)
		R/P=(10:1)	R/P=(8:1)	
1975	27.3	7.5	9.2	17.0
1976	28.6	7.8	9.7	17.5
1977	29.8	8.2	10.1	18.0
1978	30.9	8.5	10.4	18.5
1979	31.9	8.7	10.8	19.1
1980	32.8	9.0	11.1	19.7
1981	33.7	9.2	11.4	20.3
1982	34.6	9.5	11.7	20.9
1983	35.4	9.7	12.0	21.5
1984	36.0	9.9	12.2	22.1
1985	36.7	10.1	12.4	22.8

[1] Under the assumption of $12 per barrel as the price of oil and elimination of percentage depletion but retention of expensing of intangibles.

In recent years, the lower 48 reserves to production (R/P) ratio has been slightly in excess of 8:1. The lower the reserves to production ratio, the greater is production out of any given reserves base. The expected increase in advanced secondary and tertiary recovery activities may result in an upward trend in the R/P ratio in the next decade. This could; however, be offset by increased relative importance of offshore reserves and production. In our opinion, a range of R/P ratios from 8:1 to 10:1 is apt to bound expected experience. The R/P ratio in later years may be higher than that in early years. Expected crude oil production, given the simulated reserve base, under these two limiting R/P ratios is presented in the middle columns of Table 1.

In Table 1, demand for refined products at current prices is projected to grow at a rate of three percent per year. U.S. demand is currently running at about 16.7 million barrels per day (MMB/D). Based on econometric analysis of price response at lower prices, some observers have forecast lower future rates of demand growth. Prices have recently risen substantially. Long-run price responsiveness of demand, other things equal, is greater than short-run price response. The current recession may reduce 1974 demand below the long-run trend. But a reduction in the rate of growth of demand to three percent per year represents, in a situation unconstrained by quantitative restrictions, a substantial opportunity for long-run price response when compared to demand

growth in recent years. If prices were to be higher than current levels, incentives to conserve would be larger, and the growth in demand would be lower.

In addition to lower 48 crude oil production, future U.S. petroleum supply will include crude oil production from the Alaskan North Slope and lower 48 production of natural gas liquids and lease condensate. Some estimates place Alaskan North Slope production at 3.0 MMB/D in 1985. Others are more optimistic and believe that the 3.0 MMB/D may be reached by 1980. Natural gas liquids and lease condensate production is currently running at about 2.1 MMB/D. The future of this important suplement to crude oil supply is critically dependent upon the future course of wellhead price regulation for natural gas. If Congressional action promptly deregulated the field price for natural gas, it is possible that the supply of non-crude oil liquid hydrocarbons may be maintained or increased. If Congress continues to avoid deregulation of the wellhead price of natural gas, the supply of natural gas liquids and lease condensate may be expected to decrease.

Imports of crude oil and refined products are currently running at about 6.1 MMB/D. Consider a 1985 situation in which non-crude oil liquid hydrocarbons maintain their current level of 2.1 MMB/D, North Slope Alaskan production is 3.0 MMB/D, and domestic demand is 22.8 MMB/D. Then, depending upon whether the lower 48 R/P ratio is 10:1 or 8:1, the net demand for imported crude oil and products in the U.S. is in the range of 7.6 to 5.3 MMB/D. This is a rough guess. Each of the elements in the guess is subject to error. Depending upon the time paths of each of the elements in our calculation, the actual demand for imports may be outside this range on either the high or the low side. But in our opinion, in the absence of quantitative restrictions,[2] at a price in the neighborhood of $12 per barrel, U.S. demand for imports of crude oil and refined products could easily be in the neighborhood of six million barrels per day in each of the years 1975–1985.

In this devil's advocate analysis of Project Independence, our problem then is to accommodate to such a volume of imports.

PRICE AND SECURITY

There are two separate problems which must be taken into account when considering a volume of crude oil and refined products imports of six million odd barrels per day. First, there is the question of security of supply. Second, there is the question of at what price the supply is available. In a situation in which there is no intervention crude oil markets through tariffs or quotas, there is a direct trade-off between price and security of supply. Given normal supply and demand relationships, the higher is price, the less is demand, the more is domestic supply and the smaller are imports. Supply is more secure because imports are absolutely reduced and are a smaller fraction of domestic demand.[3] But the cost of increased security in the non-intervention case is a higher price for both domestic and imported oil.

If the price of imported oil is reduced there is a benefit in terms of the resource costs necessary to satisfy domestic demand. But the cost is increased insecurity of supply because imports are both absolutely and relatively a larger portion of domestic consumption. The traditional case for free trade is that all parties benefit by specializing in the production of their low cost products and rely on their trading partners for other prduocts. If trade partners are reliable, then import dependency is a virtue because trade releases domestic resources for more productive uses. But if partners are unreliable, import dependency is, of course, a matter of some concern.

These are fairly commonplace observations. But security of supply and price can be separated, although they are two often lumped together. In our subsequent analysis we assume that security of supply is achieved for any given level of imports through storage and insurance schemes such as the International Energy Program.[4] The problem then becomes one of securing whatever volume of imports we require at the lowest possible price.

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[2] Physical restrictions have in the past resulted from such polilces as gasoline rationing, mandatory oil import quotas, embargo, and market demand prorationing.

[3] This last depends upon only that the relative elasticities of demand and supply have the usual signs.

[4] It is not yet clear how effective the International Energy Program will be. On the surface, it is a fairly straightforward application of the insurance principle. Under some political circumstances, however, it could be perverse. Moreover it is apt to be asymmetrical. The responsibility for U.S. security of supply must rest primarily upon U.S. actions.

THE U.S. DEMAND FOR IMPORTS

The U.S. demand for imports is an excess demand. That is, it is the difference between domestic supply and domestic demand. In the numerical example discussed above, the U.S. excess demand—or demand for imports—was estimated to be approximately six million barrels per day over the 1975–1985 period. But this calculation assumed a price of $12 per barrel. At different prices, the demand for imports varies. We also assumed that the U.S. price was equal to the world price. The two prices must be equal under free trade, but trade barriers will raise the U.S. price above the world price.

In the broadest possible terms, the U.S. demand for imports is smaller and more elastic the larger is domestic energy supply and the smaller is domestic energy demand. The smaller and more elastic is the U.S. demand for imports, the lower is apt to be the world price of oil. Prices that are lower than they would otherwise be could occur from either of two sources. It is worthwhile to distinguish between these sources of pressure to limit price increases or to induce price decreases.

The first source, under the assumption that OPEC remains a cohesive cartel, is the rent maximizing motive of a rational monopolist to adjust price in the face of a changed elasticity of demand. The second is the possible effect of a relatively decreased U.S. presence in world oil markets, in the face of increases in world oil reserves and with prices far in excess of exporting country's costs, to induce instability in the OPEC cartel. The effect of the U.S. presence in the world oil market is also determined by the way in which the U.S. enters that market. This is a point to which we shall subsequently return.

There are a variety of energy policy strategies which will affect the size and elasticity of the U.S. demand for imports.[5] On the demand side, these strategies include:

1. A sales or excise tax on energy consumption (−),
2. Deregulation of the wellhead price of natural gas (+),
3. Deregulation of the price of old oil (+),
4. Reform of utility rate structures to bring prices more in line with costs (+),
5. A tariff on imported oil (+), and
6. Effective non-price rationing to reduce demand (+),

On the supply side, many of the same strategies appear. But their effect is not always beneficial. They include:

1. A sales or excise tax on energy consumption (−),
2. Deregulation of the wellhead price of natural gas (+),
3. Deregulation of the price of old oil (+),
4. A tariff on imported oil (+),
5. Effective non-price rationing to reduce energy demand (−), and
6. Tax or other subsidies for the development of conventional fossil fuels and substitutes (+).

A sales tax for gasoline is being discussed. In some quarters, a tariff on imports has been proposed. Rationing is frequently mentioned. Deregulation of the wellhead price of natural gas has been considered and will be considered again. An energy tax bill is before the Congress. The Congress could give direction with regard to the regulation of the price of old oil. Only utility rate structures are not amenable to immediate Congressional action.

The traditional analysis of the depletion allowance and the related special tax provisions enjoyed by the petroleum industry misses an important consideration.[6] In the current situation of the world oil market, the traditional costs of the depletion allowance should not be considered independently of its potential effect to reduce the cost of imported oil by making the demand for imports smaller adn more elastic than it would otherwise be. Depletion and other tax or non-tax subsidies do add to self-sufficiency. Nevertheless, we are opposed to the depletion allowance. This is for three reasons. First, elimination of the depletion allowance may be an essential ingredient in the political bargain required to accomplish other worthwhile policy steps. Second, retention of the depletion allowance sub-

[5] In terms of the goal of reduced imports, + is consistent with that goal and − is not. The effects of some policies are asymmetrical with regard to the demand and supply sides of the domestic energy market.

[6] For example, see Stephen W. Millsaps, Robert M. Spann and Edward W. Erickson, "Tax Incentives in the U.S. Petroleum Industry," in E. W. Erickson and L. Waverman, editors, *The Energy Question, Vol. 2, North America* (Toronto: University of Toronto Press, 1974), pp. 99–122.

sidizes domestic energy production without discouraging consumption at a time when conservation is required. And third, there is another policy option available—an oil import tariff—to achieve more efficaciously what the depletion allowance (or other tax or non-tax subsidies) might achieve. We are also opposed to effective non-price rationing. Such a policy treats the symptoms, not the disease. We feel that the cumulative effect of non-price rationing would be disastrous.

Two policies that have recently been discussed are a sales tax on gasoline and a tariff on oil imports. Both of these policies would probably initially raise the price of oil products to consumers. But beyond that, they are quite different. Their dynamics diverge. They should be considered separately, To this we now turn.

A GASOLINE SALES TAX VS. AN OIL IMPORT TARIFF

An oil import tariff dominates a gasoline sales tax. This is because a gasoline tax has a negative effect on domestic supply. To achieve a given reduction in imports requires a larger gasoline sales tax than import tariff. Moreover, because a gasoline sales tax has a negative effect on domestic supply, it has very little dynamic potential for inducing cartel instability. In addition, for any given level of imports, the dependency ratio (imports divided by consumption) is less for a tariff than for a gasoline sales tax. A sales tax puts all the burden of adjustment on consumption in the short run and on consumption and alternative nonconventional domestic energy supplies in the long run. A gasoline sales tax reduces the price received for domestic production and discourages the development of domestic productive capacity.[7] A sales tax is a tax which has negative effects on all production—both domestic and foreign. An oil import tariff is a discriminatory tax which, at any given world price of oil, discourages imports and encourages domestic production.

The really outstanding effect of an oil import tariff, however, is its potential to cause the world price of oil to be less than it would otherwise be. Because an oil import tariff can achieve any given level of reduction in imports at lower cost to consumers in terms of increased product prices, whatever the level of world oil prices, a tariff should be preferred to a gasoline sales tax by consumers. Because an oil import tariff results in higher domestic producer prices and production than would occur under an equivalent gasoline sales tax, a tariff should be preferred to a gasoline sales tax by producers. Because an oil import tariff results in some insulation of domestic prices from arbitrary and capricious reductions in the world price, a tariff should be preferred to a gasoline sales tax by policy makers concerned about stability of incentives for domestic supply. Because an oil import tariff has the potential of reducing world oil prices below what they would otherwise be,[8] a tariff should be preferred by policy makers concerned about meeting U.S. import requirements at minimum unit costs.

BALANCE OF PAYMENT CONSIDERATIONS

Under floating exchange rates, balance of payments effects of alternative energy policies should not be the determining factor in evaluating their desirability. The primary effect of changes in imports will be upon the exchange rate. In order to calculate an "oil deficit" it is necessary to know the value, not just the quantity, of imports. To determine the value of imports, an estimate of the elasticity of demand for imports is required.

The U.S. elasticity of demand for imports is not simply the U.S. demand elasticity for refined products. The U.S. is different in a very important respect from many other countries. The U.S. is a major producer of oil. It is U.S. oil productive capacity that makes the U.S. demand for imported oil different than the U.S. total demand for oil.

In most countries, including the U.S., the total demand for oil is generally considered to be inelastic. For those countries without significant oil productive

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[7] The distinction between the effects of a gasoline sales tax and an oil import tariff is essentially one of the distinctions between shifts in and movements along a function. Our analysis also depends on the proposition that the U.S. has some monopsony power in world oil markets.

[8] Such a potential reduction in world oil prices to the U.S. could come about as a result of cartel instability, simple monopoly maximization, or discriminating monopoly behavior. While the latter would initially benefit only the U.S., it is likely that the benefits would spread to other countries.

capacity, this makes the demand for imports inelastic. But the U.S. is a producer. This means that the U.S. demand for imports may be elastic.[9] If the U.S. demand for imports is elastic while other import consuming countries' demands for imports are inelastic, then price changes in the world oil market are asymmetrical with regard to the value of imports for the U.S. versus other non-producing countries. Higher world oil prices mean a smaller value of oil imports for the U.S. and larger values for oil imports for other non-producing counties.[10] Lower world oil prices mean a larger value of oil imports for the U.S. and smaller values for oil imports for other non-producing countries. Thus, if we should be lucky enough through use of an oil import tariff and other policies to induce a decrease in the world oil price, then we should not be surprised if the value of U.S. oil imports increases. Rather than to be viewed with alarm as a balance of payments problem, such a turn of events would be the symptom of success of a policy to reduce the real cost of energy to the U.S. economy.

If the world oil price were to fall so that the price paid for imports were $8 per barrel rather than $12 per barrel, a U.S. demand for imports with an elasticity of −2.0 would result in payments for imported oil rising from $72 million per day to $80 million per day.[11] But the U.S. would be receiving and consuming more oil at a lower unit cost per barrel rather than less oil at a higher unit cost. Simple common sense is sufficient to perceive that the former should be preferred to the latter. The problem with using balance of payments arguments to condition energy policy is not just that they affront economists, but more importantly they fly in the face of common sense.

INFLATION AND UNEMPLOYMENT

In the long run, energy policy will not have a major impact upon either inflation or unemployment. Inflation and unemployment are primarily the result of monetary and fiscal policy. At the margin, energy policy may affect the level and composition of employment. We earlier discussed the relative merits of a gasoline tax or an oil import tariff as a means to reduce U.S. oil imports at existing world oil price levels and to create incentives for the world price to be lower than it would otherwise be. An oil import tariff also has advantages as compared to a gasoline tax with regard to employment. For any given reduction in imports, a tariff results in lower consumer prices and higher producer prices than a gasoline tax. Thus, with an oil import tariff, there is a larger domestic oil industry and more employment in that industry. With an oil import tariff, there is also a smaller increase[12] in the price of oil products such as

[9] The elasticity of demand for imports, η_I, is given by:

$$\eta_I = \frac{C}{I}\eta - \frac{Q}{I}\epsilon_d$$

where

C = domestic consumption
I = imports,
Q = domestic production
η = the elasticity of total domestic demand,
ϵ_d = the elasticity of domestic supply.

If $C=17.0$ *MMB/D*, $I=6.1$ *MMB/D*, $Q=10.6$ *MMB/D*, $\eta=-0.1$ to -0.5, and $\epsilon_d=+0.5$ to $+1.0$, then the U.S. elasticity of demand for imports is approximately in the range of −1.0 to −3.0. In our opinion, an absolute value of 1.0 is a lower bound and the unconstrained U.S. elasticity of demand for imports exceeds unity. A wide range of alternative values for the factors which determine η_I yield an estimate in the neighborhood of −2.0.

[10] This principle appears to be contradicted by recent experience. In the first three quarters of 1973, the value of U.S. oil imports was $5.3 billion. In the subsequent three quarters, ending with the second quarter of 1974, the value of U.S. oil imports was $14.3 billion. Over this period the price of oil increased substantially. This apparent contradiction cannot be explained away by income growth, real GNP fell by about two percent over these quarters. The explanation for this behavior of the value of U.S. imports involves the distinction between short-run and long-run U.S. supply response and the fact that even short-run U.S. supply response was constrained by wage and price controls.

[11] This simple numerical example assumes that all imported oil is shipped in foreign flag tankers owned by nonAmericans. To the extent that this is not the case, each of the value of import numbers would be smaller, but their relationship would be the same. A superficial and costly way to reduce slightly the value of imports would be to require that some fraction of U.S. oil imports be transported in U.S. flag, American owned tankers. Such a requirement is contained in the proposed Energy Transportation Security Act. Such a policy would have all the misallocative effects of a tariff on shipping with none of the government revenue or potential benefits of a tariff on oil imports themselves.

[12] There is a possibility that an oil import tariff could result in lower oil prices in the U.S. than would otherwise occur. Such a result would depend upon the stability of the OPEC cartel, the competitive world oil price and the size of the tariff.

gasoline so that there is a smaller decrease in the demand for products which are complementary to oil products—say automobiles—and thus less transitional unemployment in these industries than would occur with a gasoline tax.

POLICY RECOMMENDATIONS

If the policy objective is to reduce U.S. oil imports in a way which has the minimum short-run dislocative effect upon the American economy and the maximum potential for minimizing the long-run resource cost of energy to the American economy, then we recommend the following policy package:

1. Adoption of an oil import tariff,
2. Deregulation of the wellhead price of natural gas,
3. Decontrol of the price of old oil, and
4. Rejection of any proposal to increase the gasoline sales tax.

Adoption of an oil import tariff is a policy strategy which dominates a gasoline sales tax for any given reduction in oil imports. This is because an oil import tariff encourages domestic production at the same time that it discourages domestic consumption. This means that the possibility of inducing cartel instability is increased. For these reasons, under present world oil market circumstances, an oil import tariff is a valuable policy option in its own right. It is certainly preferrable to a gasoline tax. Moreover, if percentage depletion is repealed, an oil import tariff would be necessary to offset the increase in import dependency which would otherwise occur.[13] Deregulation of the wellhead price of natural gas would also reduce import dependency and increase the elasticity of U.S. demand for oil imports. Decontrol of the price of old oil would have important announcement effects and would contribute to a decrease in the demand for imports.

It is the simultaneous increase in domestic supply and reduction in total domestic demand, together with the creation of an incentive for the world price to decline, which makes adoption of an oil import tariff, deregulation and decontrol an attractive policy package. The question remains at what level to set the tariff. We suggest that Congress might consider an initial oil import tariff of 10 percent which progressively escalates at ten percentage points a year until it reaches 50 percent in 1979. Adoption of such a strategy will either result in fuller achievement of the policy objective of self-sufficiency or in accruing substantial benefits from reduced world oil prices.

[Additional information referred to and subsequently supplied for the record follows:]

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[13] Percentage depletion does result in larger U.S. crude oil reserves and production than would exist in its absence. See E. W. Erickson, S. W. Millsaps and R. M. Spann, "Oil Supply and Tax Incentives," *Brookings Papers on Economic Activity*, 1974, No. 2, pp. 449–478.

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Oil Supply and Tax Incentives

THE WORLD ECONOMY now depends almost entirely on fossil fuels for its energy. Even according to the most optimistic assumption of the Atomic Energy Commission, fossil fuels, especially oil and natural gas, will be dominant sources of energy until well into the twenty-first century. The supplies and demands for energy are, however, intricately connected in terms of both fuels and locations, so that marginal changes in one part of the system elicit responses in other parts, especially affecting the United States, which is both the largest producer and the largest consumer. The stress on the system in 1973 and 1974 became apparent when world oil prices were raised sharply, intensifying interest in reducing U.S. dependence on foreign supplies. Events since then bear plain witness to this phenom-

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enon, as well as to the profound influence that governmental policies can have.[1]

On the supply side, a number of forces were at work. Nuclear power plants have not been delivered and installed on schedule, and those that have been installed have generally not had the anticipated reliability. Artificially low ceiling prices in the United States have induced shortages of reserves of natural gas and held down production.

Furthermore, environmental considerations have hampered the development of new sources of fossil fuels. They have curtailed the drilling program in the Santa Barbara Channel; delayed the construction of the trans-Alaska pipeline and the drilling on the Alaskan North Slope to estimate its oil and gas reserves; and clouded discussions of a Mackenzie Valley pipeline through Canada and delayed exploratory drilling in the Canadian Arctic.[2]

At the same time, challenges to the U.S. Bureau of Land Management postponed the sale of leases and thus delayed the discovery and development of new oil and gas reserves in the Gulf of Mexico, while the cut from 27.5 percent to 22 percent in the depletion allowance on oil and natural gas, in the Tax Reform Act of 1969, removed some part of the tax incentives for exploration, development, and production of domestic oil and gas.

All of these influences were complicated and reinforced by uncertainty. The deliberations of the Cabinet Task Force on Oil Import Control disturbed producers in the United States and left them uncertain about when and how the mandatory import control program would be relaxed; about the prospects for the state conservation regulations under which they were

1. A partial catalogue of the factors at work, many of them related to U.S. policy, also appears in the editors' introduction to Edward W. Erickson and Leonard Waverman (eds.), *The Energy Question: An International Failure of Policy*, Vol. 1, *The World* (Toronto: University of Toronto Press, 1974). Vol. 2 of *The Energy Question* focuses on North America. The papers in these volumes are the background against which energy problems are discussed here.

2. Our mention of a number of policies associated with environmental protection does not mean that we believe that they are a fundamental cause of the energy crisis (although we do not believe that all of them are necessarily optimal). Such policies have aggravated energy supply and demand adjustment processes in the United States, and, to the extent that U.S. problems are pivotal to the worldwide energy industry, have contributed to stress elsewhere as well. But they are at most second- or perhaps even third-order factors in the energy crisis. In our view, the nation can have enhanced environmental protection—at some cost—without drastic changes in either the level or rate of growth of real income.

accustomed to operating; and about the landed price, source, and volume of foreign oil against which they would have to compete. One result was the interruption in U.S. refinery construction at the very time when substantial new capacity should have been initiated.

Pressures came from the demand side, as well. Demand accelerated under the impact of automobile emission controls, which depress gasoline mileage. Restrictions on the production and use of coal, as well as the government's efforts to control end uses rather than rely on price rationing as a means of allocating short supplies of natural gas, spurred demand for low-sulfur fuel oils; but refining capacity, more and more pinched, was less and less able to meet the demand.

In some areas, demand and supply factors were inextricably entwined. Price controls in the United States distorted the normal economic incentives that determine the mix of refinery output, kept the price of crude oil below the market-clearing level, and finally evolved into a two-tier price system for "old" and "new" domestic crude oil with various categories of exemptions and incentives that affected production decisions.

Growth in the demand for electricity caused power companies to prolong the life of aging equipment, which is on average less dependable, to use older equipment more intensively than they would prefer, and to expand effective capacity with fuel-intensive internal combustion turbines.

The supplies and demands for coal, the fuel most readily substitutable for oil in some uses, were both affected by controls on power plant emissions, land reclamation standards, and mine safety laws.

Overlying these economic and policy matters, and interacting with them, were two significant psychological factors. One was the proclamation by alarmists marching to the beat of an imaginary drummer that the world was in imminent danger of running out of fossil fuels—this in face of new oil and gas strikes in Indonesia, China, Russia, Nigeria, South America, the North Sea, Australia, Alaska, Canada, and elsewhere. The other was the unaccustomed role of supplicant that the United States adopted in dealing with the oil merchants of the Persian Gulf.

In our opinion, the cumulative effects of these policies created the economic vulnerability conducive to the Arabs' use of the oil embargo as a political weapon; in that sense, it was a sequela, rather than a cause. But its demonstrated success changed the economics of policy planning—particularly with regard to the tradeoffs among security of supply and other policy objectives.

Project Independence and U.S. Supplies of Oil and Natural Gas

An evaluation of the costs and benefits associated with an undertaking such as Project Independence, which aims at total U.S. self-sufficiency in oil by 1980, is an exercise fraught with uncertainty.[3] In an admirable first approximation of the supply and demand balances involved, a study group at MIT acknowledge that all of their forecasts are necessarily imprecise.[4] The econometric models of supply and demand for fossil fuels are subject to error within the range of data upon which they were estimated, and the forecasts are well beyond the range of the price data.[5] The noneconometric estimates of availability and uses of fuels are not amenable to sensitivity analysis through parametric variation.[6] And the conjuncture within which

3. In the subsequent analysis and simulations, we consider only crude oil from conventional domestic sources, omitting exotic sources such as synthetic crude oil, oil shale, or tar sands.

4. The Policy Study Group of the M.I.T. Energy Laboratory, "Energy Self-Sufficiency: An Economic Evaluation," *Technology Review*, Vol. 76 (May 1974), pp. 23–58.

5. For example, there may be undeterminable biases in the econometric work on oil and natural gas supply done by Edward W. Erickson and Robert M. Spann, in "Supply Response in a Regulated Industry: The Case of Natural Gas," *Bell Journal of Economics and Management Science*, Vol. 2 (Spring 1971), pp. 94–121, and by Paul W. MacAvoy and Robert S. Pindyck, in "Alternative Regulatory Policies for Dealing with the Natural Gas Shortage," *Bell Journal of Economics and Management Science*, Vol. 4 (Autumn 1973), pp. 454–98. These biases might arise because of the definitional basis of the discovery series used and because wellhead price regulation by the Federal Power Commission caused real natural-gas prices to stabilize or decrease during the 1960s. Erickson and Spann used a series that credits subsequent extensions and revisions to the year of discovery. The closer one is to the present in such a series the fewer the years of extensions and revisions. The result may be that later years' discoveries are arbitrarily smaller than earlier years' discoveries. As a consequence, in a period during which real prices are declining, the estimated elasticity of supply may be biased upward. This problem is not so severe for MacAvoy and Pindyck because they model extensions and revisions separately. But the real price of natural gas was relatively stable over the period covered by their estimations. Thus, the trend for the 1960s may be only random deviations around a point on the natural-gas supply curve.

6. For example, the National Petroleum Council supply cases define average "price" so as to provide an average after-tax rate of return on average book value. "Price" is a slack variable to relate after-tax net profit and net investment as measured by total balance sheet assets from year to year in order to generate industry income statements. The analysis is not incremental in the sense that incremental discoveries or production are some well-defined function of incremental investment. The NPC supply cases are designed to cover investment expenditures out of current revenues. Despite the other merits of the NPC supply cases, the result is that the original NPC study is not susceptible to sensitivity analysis. See National Petroleum Council, *U.S. Energy Outlook:*

market forces will operate is uncertain.[7] Quantitative analysis must be supplemented by qualitative judgments.[8]

Critical uncertainties revolve around the following aspects of the problem: (1) the price and security of oil in world markets and its landed cost in U.S. markets; (2) whether U.S. natural gas markets will be allowed to clear through deregulation of the wellhead price; (3) the effects of environmental regulation and technology upon the unit costs (and permissibility) of utilizing certain energy sources; (4) the extent to which new supplies of oil and gas from conventional sources in the United States can be economically exploited; (5) the tax treatment of income from oil and gas operations (and other extractive aspects of the energy industries) and the effect of alternative tax policies on supply and demand balances; and (6) the resolution of the antitrust complaint filed against eight major oil companies by the Federal Trade Commission.

In this paper, estimates are made of the long-run response of oil supply to price and tax incentives. As in previous such estimates in this industry, it is assumed that markets are typified by competition among sellers.[9] The Federal Trade Commission considers the tax treatment of income from oil and gas operations a crucial determinant of the competitiveness of the petroleum industry. The degree of competition and tax policy also figure in the economic and environmental regulation of the development of offshore oil and gas reserves. Thus, before considering the effect of reducing or eliminating existing tax incentives on future balances of the supply and demand for energy in the United States, we must examine the question of competition.

A Report of the National Petroleum Council's Committee on U.S. Energy Outlook (Washington: NPC, 1972), Chap. 4.

7. With regard to conjuncture, Alfred Marshall notes, " . . .'we understand [conjuncture to be] the sum total of the technical, economic, social and legal conditions; which . . . determine the demand for and supply of goods . . .' " *Principles of Economics* (9th ed., Macmillan, 1961), Vol. 1, p. 125, note 1.

8. Many of the factors listed above may be regarded as elements that were held unchanged or included in the error term, for econometric estimations based on data from the 1950s and 1960s. Nevertheless, they form an important part of the data base. This means, however, that simulations based on estimations from this period must be treated circumspectly.

9. Those who have done econometric work on oil and gas supply (such as Paul MacAvoy, Franklin Fisher, and ourselves) are often also students of the economics of antitrust and industrial organization. Assumptions of competitiveness were not made without considerable thought.

Competition in the U.S. Petroleum Industry

The Federal Trade Commission advances a number of hypotheses with regard to competition at all stages of the U.S. petroleum industry, using data for the period 1951–71.[10] We deal here with the FTC hypotheses about the depletion allowance and vertical integration, cooperative rather than competitive behavior in gasoline marketing, and barriers to entry in refining.[11] This examination is important for at least two reasons. First, if the industry is in fact effectively competitive, the analytical and intellectual resources spent in the recent debate on the issue could better be allocated to more substantial issues of energy policy. Second, most simulations of energy balances under alternative policy scenarios (including those reported below) are based on econometric estimations that assume effective competition on the supply side of oil and gas markets.

THE DEPLETION ALLOWANCE

The FTC alleges that the depletion allowance is used by vertically integrated petroleum companies to "squeeze" independent refiners through manipulation of the price of crude oil.[12] The allegation relies on the logically inconsistent argument that an increase in the supply of crude oil induced by a depletion allowance results in a higher price for crude oil; but its venerated position in public policy debates makes it useful to address it in detail.[13]

10. See "Preliminary Federal Trade Commission Staff Report on Its Investigation of the Petroleum Industry," released as Senate Committee Print, *Investigation of the Petroleum Industry*, Printed for the Use of the Permanent Subcommittee on Investigations of the Committee on Government Operations, 93 Cong. 1 sess. (1973).

11. For additional discussion of competition in the U.S. petroleum industry, see the relevant papers in *The Energy Question*, Vol. 2.

12. See *Investigation of the Petroleum Industry*, pp. 17, 26, 29, 35, and Appendix B. Several members of the Brookings panel have wondered why we take the FTC allegations seriously, especially with regard to the depletion allowance. We feel compelled to take them seriously because the FTC takes them seriously. See FTC Docket 8934, In the Matter of Exxon Corporation et al., Complaint Counsel's Prediscovery Statement (July 18, 1973), pp. 93–95.

13. For its genesis, see, for example, Melvin G. de Chazeau and Alfred E. Kahn, *Integration and Competition in the Petroleum Industry* (Yale University Press, 1959), pp. 221–22. The basic proposition of the FTC argument was made repeatedly to the Cabinet Task Force on Oil Import Control. See Cabinet Task Force on Oil Import

The FTC argument starts with the fact that the depletion allowance allows crude-oil producers to deduct 22 percent of the value of their production from taxable income.[14] Does it pay a vertically integrated firm to set a high internal transfer price on crude oil to shift profits from refining to production, with its lower effective tax rate? The effect, according to the FTC, is to raise the price of crude oil and, by reducing the profitability of refining, to squeeze independent refiners out of the market.

Suppose that large, vertically integrated petroleum firms did attempt to behave in the fashion hypothesized by the FTC.[15] The internal transfer prices of crude oil would then exceed the costs (including a competitive return on capital) of producing crude oil, and new firms would be attracted to the industry. "Ratable-take provisions" prevent discrimination in purchasing crude by owners of gathering lines. A substantial body of evidence indicates that entry into the industry is relatively easy, even for small firms;[16] and, in fact, the number of crude-oil producers is quite large and fluctuates as economic conditions change.

Control, *The Oil Import Question*, A Report on the Relationship of Oil Imports to the National Security (1970), p. 80, note 25. We will try to put it to rest. But, as with all "free-lunch" arguments, it appears to have a life independent of facts or logic.

14. Prior to the Tax Reform Act of 1969, this percentage was 27.5 percent; the deduction cannot exceed 50 percent of net revenue. The crude-oil and natural-gas industries also enjoy the privilege of expensing intangible drilling costs.

15. The condition necessary for such a strategy to be successful is that each of the majors have a self-sufficiency ratio in excess of $(1 - \tau)/(1 - T - T\tau)$, where τ is the rate of percentage depletion and T is the corporate income tax rate. See Stephen L. McDonald, *Petroleum Conservation in the United States: An Economic Analysis* (Johns Hopkins Press for Resources for the Future, 1971), p. 192. If the values for τ and T are 22 percent and 48 percent, respectively, a firm would need a self-sufficiency ratio greater than 83 percent. Only two of the eight majors meet this condition; moreover, only four of the seventeen firms listed in Table II-5, p. 20, of the FTC report meet it. Thus, the possibility of intercompany compensation by means of side payments within the group of majors, or the top seventeen, is remote. Internal Revenue Service Regulation 1.613-3A requires that petroleum firms use arm's length prices or the "representative market or field price" as internal transfer prices for tax purposes. The effectiveness of this requirement depends upon IRS enforcement, and perhaps also upon private rulings by the IRS. Tax Analysts and Advocates, a public-interest tax-law firm, has recently won on appeal a suit requiring the IRS retrospectively to divulge private rulings; see *Tax Notes*, Vol. 2 (August 26, 1974), p. 3. Such private rulings will be published in *Tax Notes*, the weekly publication of Tax Analysts and Advocates.

16. See, for example, James W. McKie, "Market Structure and Uncertainty in Oil and Gas Exploration," *Quarterly Journal of Economics*, Vol. 74 (November 1960), pp. 543–71; Jesse W. Markham, "The Competitive Effects of Joint Bidding by Oil Companies for Offshore Oil Leases," in Jesse W. Markham and Gustav F. Papanek

The depletion allowance gave the majors at most 2.7 cents (now 2.2 cents) of tax benefit on their own production for every 10-cent increase in the internal transfer price. But every additional 10 cents paid to an independent producer for purchased crude oil gave them no benefit at all. At a simple average self-sufficiency ratio of slightly more than 50 percent—that is, where 50 percent of the oil processed is owned by the refiner—such a policy would be a net drain on profits.[17]

The problems raised by the FTC allegations are compounded by the discussion of the possibility of "passing on" supposedly higher crude-oil prices in the form of higher product prices. According to the FTC:

> De Chazeau and Kahn developed a simple model to examine this relationship. They determined that a company with a self-sufficiency greater than 77 percent would benefit from a crude price increase even if this increase were not passed on in the price of products at all. If 50 percent of the price increase were passed on, a company with a degree of self-sufficiency in excess of 38.5 percent would benefit from a price increase . . . based on the 27½ percent depletion allowance. . . .
>
> Using the identical model and substituting the present 22 percent depletion

(eds.), *Industrial Organization and Economic Development* (Houghton Mifflin, 1970); and Robert M. Spann and Edward W. Erickson, "Entry and Competition in Joint Ventures for Offshore Petroleum Exploration," available from the authors. Even price-leadership or dominant-firm oligopoly models presume that the dominant firm either can prevent entry or must include the responses of other firms to price-setting behavior in the calculus of costs and benefits. Moreover, strong evidence suggests that the majors, through joint ventures with smaller firms for lease bids on the outer continental shelf, have actually facilitated the entry of smaller firms into offshore explorations and production activity in the Gulf of Mexico. Such behavior would be strictly against the interests of the majors were they acting according to the FTC depletion-allowance hypothesis.

17. In this context, the self-sufficiency ratio is the fraction of a company's domestic refinery runs that are accounted for by its own domestic-crude production. The simple average self-sufficiency ratio, rather than an average self-sufficiency weighted by production or reserves, is the appropriate measure, because the variable of interest to any firm in terms of its own profitability is its own self-sufficiency ratio. Firms with low self-sufficiency ratios have supported the depletion allowance because in its absence they would have had to pay more for purchased crude oil. At given levels of prices, imports, and demand factors, the effect of the depletion allowance is to make more domestic crude oil available than would otherwise be the case. For the FTC hypothesis to hold, the major producers must then be willing to continue buying crude oil to support a given price, or support the price of crude oil by cutting production by an amount equal to the increased production of nonmajors and new entrants. This contradicts the original FTC argument because the only way the majors could produce the same level of refined product in such a situation is to buy crude oil from the independents. In either case the majors would be giving up their own production to subsidize that of nonmajors. Yet the original FTC contention was that the majors desired to shift profits from the refining segment of the industry to the production segment.

allowance only alters their conclusions slightly. If the price increase is not [sic] passed on, a company with a self-sufficiency in excess of 40.4 percent would benefit from a price increase.[18]

Over the period 1951–72, the real price of gasoline (excluding tax) fell by 25 percent and the ratio of the real price per gallon of gasoline to the real price per barrel of crude oil fell from 9.4 percent to 6.8 percent, a drop of 27.7 percent. The FTC depletion-allowance hypothesis appears neither to be internally logically consistent, nor to conform with the facts.[19] We will return below to the real effects of the depletion allowance.

Finally, the FTC arguments against the depletion allowance are out of touch with the literature.[20] The normal workings of the marketplace prevent the behavior they hypothesize. Most of the critics of the depletion allowance have argued for its repeal, not on the grounds that it increases the prices of crude oil, but on the grounds that it is a subsidy to the petroleum industry that imposes the usual misallocation.

Competitive Rather Than Cooperative Behavior

Perhaps the greatest puzzle with regard to the FTC allegation of cooperative rather than competitive behavior in the domestic petroleum in-

18. See *Investigation of the Petroleum Industry*, pp. 19, 20.

19. A rudimentary empirical test of the FTC hypothesis is to track the ratios of crude-oil stocks to crude-oil production, crude-oil stocks to refinery runs, refined-product stocks to refinery runs, refined-product stocks to total demand, and refined product to total domestic demand over the 1950s and 1960s. Although the refined-product stocks ratios rose during the 1950s, they declined during the 1960s, and the crude-oil stocks ratios declined over the entire period. Rather than demonstrating the inventory accumulation implicit in the FTC hypothesis about the depletion allowance, this pattern approximates the behavior one would expect from more efficient management of inventories in a geographically more closely connected national market. Saul Hymans has raised the perceptive point that since the depletion allowance did not change over the 1950–68 period, we should not expect to see major changes in these ratios. But the FTC hypothesis is that the depletion allowance has served to make crude-oil prices artificially high. In such a situation even if demand were shifting to the right over time, such price would induce inventory accumulation. Moreover, between 1950 and 1968, the real price of crude oil decreased. The depletion allowance and related special tax provisions represent a problem in the efficiency of resource allocation and a case study in the political power primarily of the nonintegrated firms, not of market power on the part of the majors.

20. See Stephen W. Millsaps, Robert M. Spann, and Edward W. Erickson, "Tax Incentives in the US Petroleum Industry," in *The Energy Question*, Vol. 2, pp. 99–122;

dustry is found in the demand conditions for gasoline. Gasoline is the most important refinery output, and its marketing is given special emphasis by the FTC. Real gasoline prices, including and excluding tax, generally decreased over the years 1951–72. The real price of gasoline, excluding tax, fell 25 percent from 26.1 cents to 19.5 cents per gallon over the period. Although nominal taxes increased from an average of 6.8 cents to 11.7 cents per gallon, the real price of gasoline, including tax, fell 6.1 cents per gallon, a decrease of more than 17 percent. For purposes of evaluating the competitive price performance of the gasoline market and the petroleum industry, gasoline prices excluding taxes are the relevant measure.[21] The real tax per gallon actually rose slightly over the 1951–72 period, so the price decline over this period in both the series may be attributable to competitively induced decreases in industry receipts per gallon.

Competitive behavior and performance in the domestic petroleum industry are also reflected in real refinery margins. Over the 1952–72 period, these fell by over 39 cents per barrel, or 31.7 percent.[22] The real price of crude oil, the principal noncapital refinery input, was roughly constant over this period. The overall profitability of the eight major refinery companies declined, but remained approximately equal to that for all manufacturing. At the same time, demand increased substantially. The behavior of refinery margins, long-run profit rates, and real gasoline prices in a period of expanding demand suggests how strong competition spurs the adoption of new technology. Since the majors now control the better part of refinery capacity, they were pivotal in this phenomenon.[23] If the real price of gasoline fell because the majors were aggressively expanding

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Spann, Erickson, and Millsaps, "Percentage Depletion and the Price and Output of Domestic Crude Oil," in *General Tax Reform*, Panel Discussions before the House Committee on Ways and Means, 93 Cong. 1 sess. (1973), Pt. 9, pp. 1309–28; and Erickson and Millsaps, "Taxes, Goals, and Efficiency," in *The Economics of Federal Subsidy Programs*, A Compendium of Papers submitted to the Joint Economic Committee, 92 Cong. 2 sess. (1972), Pt. 3, pp. 286–304.

21. For data on gasoline prices and taxes, see the American Petroleum Institute, *Petroleum Facts and Figures, 1971 Edition*, p. 468, and *National Petroleum News, Factbook Issue* (McGraw-Hill, May 1973), p. 101. The deflator is the consumer price index from the *Economic Report of the President, February 1974*, Table C-44, p. 300.

22. See *Investigation of the Petroleum Industry*, Table 10, p. 35, and *Economic Report of the President, February 1974*, Table C-49, p. 305.

23. See *Investigation of the Petroleum Industry*, Table II-3, p. 18, and Table V-1, p. 33.

refining capacity and competing for incremental shares of the gasoline market, the cooperative-behavior hypothesis falls. If the majors were cooperatively restraining expansions of refining capacity and the real price of gasoline fell because of expansions of refining capacity by nonmajors, the hypothesis of barriers to entry falls. In our view of the evidence, the real price of gasoline, refinery margins, and long-run profit rates declined because *both* the FTC hypotheses—about barriers to entry and about cooperative behavior—are wide of the mark.[24]

Our conclusions with regard to effective competition apply to the domestic U.S. petroleum industry. The substantial market power now being exercised in the world petroleum market resides in the governments of the producing countries. In our opinion, functional divestiture of the major oil companies—however defined—would contribute little to curtailing the market power of producing countries, or to mitigating the inflationary and other effects of its exercise.[25] The domestic petroleum industry is effectively

24. The cooperative-conduct hypothesis of the FTC is not well defined. If the allegation is that "cooperative conduct" on the part of the majors leads to a monopoly solution for price and output in the gasoline market, this is contradicted by considerable econometric evidence that prices for gasoline have been in the inelastic region of both the short- and long-run demand functions. See J. Ramsey, R. Rasche, and B. Allen, "An Analysis of the Private and Commercial Demand for Gasoline," Department of Economics Working Paper (Michigan State University, 1973; processed); James C. Burrows and T. A. Domencich, *An Analysis of the United States Oil Import Quota* (Heath, 1970); H. S. Houthakker and Lester D. Taylor, *Consumer Demand in the United States, 1929–1970* (Harvard University Press, 1966); H. S. Houthakker and P. K. Verleger, "Dynamic Demand Analysis of Selected Energy Resources," Working Paper (Data Resources, Inc., 1973; processed); and Louis Phlips, "A Dynamic Version of the Linear Expenditure Model," *Review of Economics and Statistics*, Vol. 54 (November 1972), pp. 450–58. Additional evidence indicates the implausibility of the FTC argument. Because of the increase in per capita disposable income over the 1951–72 period and the increasing suburbanization of American society, it is likely that a systematic change took place in the structure of demand for gasoline—that it became gradually less responsive to price. This possibility is supported by the findings of Ramsey and his coworkers. When demand becomes more price inelastic, the optimum profit-maximizing response in a cooperative market is to raise real prices. But the actual record of real prices in the domestic gasoline market over the 1951–72 period was one of progressive decline. Franco Modigliani has pointed out that the elasticity-of-demand test, strictly interpreted, discriminates only between effective competition and complete monopolization. The question then becomes whether the number of gasoline refiners and marketers is sufficient to qualify the market as a large-numbers case. In our opinion, it does.

25. See, for example, M. A. Adelman, "The World Oil Market," in *The Energy Question*, Vol. 1, pp. 5–40, especially pp. 10–18, 34.

competitive and it is in this context that public policy and the supply response to changed economic incentives must be considered.[26] In this regard, the special tax provisions enjoyed by the industry are a critical factor. To these we now turn.

A Model of Supply

In addition to prices, environmental regulation, and other legal and technical considerations, special tax incentives influence the activity of the petroleum industry. These incentives include the immediate writeoff of dry-hole costs and of some capital expenditures through expensing of intangible drilling costs, and the percentage depletion allowance.[27] In order to estimate the effect of these special tax incentives upon the crude-oil reserves held by the industry, we develop a model of crude-oil reserves stocks. Our principal objective is to derive an estimating equation for the long-run equilibrium stock of crude-oil reserves that contains only observable values of variables that are exogenous to the firm in the current time period.

THE ESTIMATING EQUATION

The relationship used to describe the long-run equilibrium level of desired oil reserves is

$$R^* = A_0 Z_1^{\eta_1} Z_2^{\eta_2}, \ldots, Z_n^{\eta_n}, \tag{1}$$

26. Our conclusion of effective competition in the private sector of the U.S. petroleum industry should not be construed as a belief that resource allocation in U.S. petroleum has been efficient. But the major inefficiencies of resource allocation result from failures in public policy or regulation. These have included wellhead ceiling prices for natural gas, the failure to unitize U.S. crude-oil reservoirs, market-demand prorationing, oil import controls, and special tax provisions. All but the first of these provide substantial benefits to the industry. In our opinion, the principal "credit" for implementing and maintaining these public policies resides with the independent producing sector and its role in state and national politics. This is not a pejorative comment: this sector has substantial interests that they have effectively protected. To make efficacious policy, policy analysts must understand the facts.

27. Percentage depletion is often used as a shorthand expression for the whole package of special tax provisions affecting the petroleum industry. Policymakers may

where

R^* = the long-run equilibrium level of desired oil reserves
Z_i = the prices, user costs, production restrictions, and other variables that determine R^*
η_i = parameters representing the elasticities of desired reserves with respect to its determinants.

The principal economic determinants of desired reserves are the expected price of oil, $\hat{P}$, and the "user cost" of oil reserves, C. User cost is a measure of the implicit price to the firm of capital embodied in oil reserves and is defined in its precise analytic form below. If, as in modern capital theory, desired reserves are constrained to be equally sensitive to changes in price and in user cost, the ratio of expected price to user cost, $\hat{P}/C$, would determine desired reserves.[28] In the empirical estimation of the model, we compare the constrained version with an unconstrained version in which the effects of price and user cost are estimated separately.

Domestic oil production was for years subject to production restrictions that limited the fraction of rated capacity at which wells could be operated. The typical measure of production restrictions for those states employing them is Texas shutdown days, K.[29] These production restrictions influence the desired level of oil reserves in at least two ways: they directly influence expectations about the price of oil; and they affect the value of reserves for

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properly wish to distinguish between percentage depletion and expensing of intangibles; in fact we do so ourselves in the simulations presented below. The likelihood in the 1974 session of Congress for reform of the special provisions affecting the taxation of income from oil and gas production is not high. The proposed Oil and Gas Energy Tax Act of the House Ways and Means Committee is apparently stalled in the House Rules Committee. Some of the same language appears in the general tax reform bill of the Ways and Means Committee, but its enactment in the 1974 session of Congress is also unlikely.

28. Robert E. Hall and Dale W. Jorgenson, "Tax Policy and Investment Behavior," *American Economic Review*, Vol. 57 (June 1967), pp. 391–414.

29. The current terminology is "market-demand factor," or MDF. Shutdown days are simply equal to (1 − MDF) times 365 days. If the market-demand factor is 50 percent, a well that is not exempt from restriction is allowed to produce at half of its rated capacity. For a discussion of some of the intricacies of market-demand prorationing, see Edward W. Erickson, "Crude Oil Prices, Drilling Incentives and the Supply of New Discoveries," *Natural Resources Journal*, Vol. 10 (January 1970), pp. 27–52; and McDonald, *Petroleum Conservation in the United States*.

any given price and user cost by restricting the rate at which reserves can be pumped out and sold.

For any given assessment of demand, production restrictions should raise the expected price of oil. Since we have no well-established way of measuring the formation of expected prices, $\hat{P}_t$, we settle for assuming that they are determined by the current price, P_t, and current and lagged production restrictions, K_t and K_{t-1}:

$$\hat{P}_t = f(P_t, K_t, K_{t-1}). \tag{2}$$

Since interest rates are positive, production restrictions reduce the value of reserves for any given expected price by limiting the rate at which reserves can be converted into revenues from the sale of oil. Thus production restrictions enter into the calculation of desired reserves directly as well as through their influence on expected price. Because of these two effects, the direction of the net influence of production restrictions on desired reserves is uncertain.

User cost. The tax incentives that are of particular concern in the present policy debate on energy, and that are a main focus of this paper, enter the oil-supply picture through their effect on user cost. The definition of the user cost of oil reserves, C_t, is[30]

$$C_t = q_t\left[\frac{r(1 - T\gamma) + \delta(1 - T\gamma - Tv)}{1 - T + T\tau}\right], \tag{3}$$

where

q_t = finding costs per barrel of additional reserves
r = the opportunity cost of committing funds to petroleum exploration, or the cost of capital
T = the corporate income tax rate
γ = the fraction of capital expenditure that can be expensed immediately
δ = the rate of depreciation of the capital stock or reserves

30. A rather lengthy proof of this formulation of user cost is available from the authors. For background on this relation, see Hall and Jorgenson, "Tax Policy and Investment Behavior"; Robert M. Coen, "Effects of Tax Policy on Investment in Manufacturing," in American Economic Association, *Papers and Proceedings of the Eightieth Annual Meeting, 1967* (*American Economic Review*, Vol. 58, May 1968), pp. 200–11; and J. C. Cox and A. W. Wright, "The Determinants of Investment in Petroleum Reserves and Their Implications for Public Policy," Working Paper (University of Massachusetts at Amherst, 1974; processed).

ν = the fraction of capital expenditure that is depreciable for tax purposes

τ = the rate of percentage depletion.[31]

Increases in user cost reduce the desired level of reserves. In turn, user cost is negatively related to the rate of percentage depletion and inversely related to γ, the fraction of capital expenditure that can be expensed immediately. For example, if expensing of intangible drilling costs were eliminated (while the depletion allowance was retained unchanged), γ would decrease and therefore ν, the fraction of capital expenditure that is depreciable for tax purposes, would increase; the net effect of decreasing γ, thereby increasing ν, is to increase C_t.[32]

The lack of adequate data on finding costs, q_t, complicates the measurement of user cost. Because of systematic variation in success ratios among PAD (Petroleum Administration for Defense) districts, average discovery sizes, average well depths, and costs per foot drilled, it is likely that average finding costs vary across PAD districts.[33] At the margin, however, net of locational and quality differentials, finding costs should be equal for all districts. In the estimations discussed below, district dummy variables, designated D_j, are used to pick up average cross-sectional variation.[34] The

31. For a more complete description of these data, see Spann, Erickson, and Millsaps, "Percentage Depletion."

32. The values for γ and ν do not sum to unity, however, because capital expenditure for oil development generally includes expensable, depreciable, and depletable items.

33. The PAD districts are defined roughly as follows: District 1 is Appalachia and the East Central Coast; District 2 is the midcontinental states; District 3 is the Gulf Coast and Southwest; District 4 is the Rocky Mountain area; and District 5 is the West Coast states and Alaska and Hawaii.

34. This approach differs from that used in the report prepared for the U.S. Treasury Department by CONSAD Research Corporation, "The Economic Factors Affecting the Level of Domestic Petroleum Reserves," Pt. 4 of *Tax Reform Studies and Proposals, U.S. Treasury Department*, Joint Publication of the House Committee on Ways and Means and the Senate Committee on Finance, 91 Cong. 1 sess. (1969). The CONSAD study used discovery-development costs per barrel of oil for 1947–63 from *Petroleum Outlook* for September 1964. This series has considerable yearly fluctuation, probably due to year-to-year changes in the success rate and average discovery sizes of the wells. In its estimation, CONSAD developed exponentially weighted moving averages of q_t to represent producers' expectations of the costs of finding new reserves. This technique smoothed the series somewhat (pp. 7.17–7.25). A linear regression of CONSAD q_t numbers on time yielded $q_t = 1.13 + 0.0106\ YEAR$ ($r^2 = 0.033$), where q_t is in dollars per barrel and $YEAR = 0$ for 1950 and 15 for 1965—that is, a rise of one cent

time-series problem is more difficult. There is no adequate time series on q_t, although it probably has been increasing.[35] We omit q_t from our estimation, in effect assuming it is constant over time. The logic of the relations among q_t, price, and the term in the brackets of the user-cost expression, equation (3)—designated [*B*]—is that price and q_t are positively related, while [*B*] and q_t are negatively related.[36] Omission of q_t from the estimations introduces an indeterminate set of biases in the estimated coefficients for price and tax incentives.[37] Embedded within our coefficients on price and user cost is a set of facts about finding and development costs. The assumption we make in the simulations reported below is that this set of facts is well behaved over time and continuous with respect to changes in economic incentives.

Actual reserves. It takes time to bring actual reserves, R_t, to the level of desired reserves. Actual reserve levels, R_t, are assumed to adjust to desired reserve levels, R_t^*, according to the following equation:

$$R_t/R_{t-1} = (R_t^*/R_{t-1})^{\lambda}; \; 0 < \lambda < 1. \tag{4}$$

---

per year. Quadratic regression equations were no better. The CONSAD results indicated that reserve holdings were insensitive to tax-induced changes in user costs. For a discussion of these results, see Erickson and Millsaps, "Taxes, Goals, and Efficiency," and Spann, Erickson, and Millsaps, "Percentage Depletion."

35. In his study of drilling costs, Franklin M. Fisher does find substantial depth-favoring technological change. See his *Supply and Costs in the U.S. Petroleum Industry: Two Econometric Studies* (Johns Hopkins Press for Resources for the Future, 1964), Pt. 2, and his "Technological Change and the Drilling Cost-Depth Relationship, 1960–6," in *The Energy Question*, Vol. 2, pp. 255–64. Since unit finding costs are inversely related to size, these observations are partially confirmed by the trend to smaller average discoveries at approximately constant real output prices. The Fisher findings indicate a substantial technological offset to any tendency toward increased finding costs. The best prospects are, however, drilled first. Gordon Kaufman and Krishna Challa of MIT have found in their investigations of sampling without replacement that average discovery size *within* a geologic play is a tight and strongly decreasing function of time (unpublished data). This does not mean that discoveries are insensitive to economic incentives. The economic decisions about which plays to drill and the rate at which to drill them must still be made. But it does suggest that, with some random variations, finding costs may be increasing over time.

36. For a discussion of the terms, see Spann, Erickson, and Millsaps, "Percentage Depletion," pp. 1318–19. However, for the purposes of the estimations reported below, we will continue to denote user cost as C_t.

37. To the extent that the direction of these biases can be inferred from simple correlations, the coefficient on price is probably biased downward and those on user cost and speed of adjustment upward.

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The parameter λ is the adjustment coefficient. The larger λ is, the speedier is the rate of adjustment.[38]

Substituting equation (1) into (4), representing the Z_is by the determinants of desired reserves just discussed, and taking logarithms, leads to the following estimating equation containing only observable variables:[39]

$$(5)\quad \ln(R_{t,j}) = d_0 + d_1 \ln(P_{t,j}) + d_2 \ln(C_t) + d_3 \ln(K_{t,j}) + d_4 \ln(K_{t-1,j}) + d_5 D_j + d_6 \ln(R_{t-1,j}),$$

38. If reserves are insensitive to tax-induced changes in user cost, the speed with which the industry moves from actual to desired reserves is of little consequence. If, however, the relationship is more sensitive, knowledge of the adjustment speed becomes more important, especially to managers of energy planning. In their earlier work, CONSAD assumed a rapid adjustment—within one year. We prefer to estimate the adjustment speed, and our model allows us to do so. The CONSAD assumption is based on Almon's finding that capital investment in petroleum and coal showed the shortest lag of any standard industrial classification industry group, with over 95 percent of investment occurring within one year of authorization. Given Almon's basic assumptions that expenditures come entirely from previous appropriations, that no capital expenditure is made without an appropriation, and that appropriations are eventually spent, her finding concerning the expenditure-appropriation data for the petroleum industry is not surprising. To get an appropriation, geological exploration, lease acquisition, and the like must be completed. A positive change in economic incentives causes increased production out of existing reserves and drilling out of the inventory of existing prospects, as well as accumulation and drilling of new prospects. For a significant change in economic incentives, the latter component of the adjustment process probably dominates. Thus, although the time required to bring a well into production, once the decision to drill has been made and the project funded, is quite short—as little as two months in some cases—the conclusion that adjustments in reserves are largely accomplished within each year does not necessarily follow from Almon's results. Our kind of statistical estimation of the speed of adjustment, however, may not be completely satisfactory either, because the historical adjustment process was probably significantly affected by the rate of offshore leasing and by market-demand prorationing. These elements of the conjuncture have changed, and the estimated adjustment speed may be too low for current conditions. See Shirley Almon, "The Distributed Lag Between Capital Appropriations and Expenditures," *Econometrica*, Vol. 33 (January 1965), pp. 178–96.

39. The estimations are done directly in terms of current and lagged reserves. Intuitively, estimation in terms of first differences for reserves might seem appealing, but the model developed here is for the stock of reserves. For a model that deals with the flow of discoveries, see Robert M. Spann and Edward W. Erickson, "Joint Costs and Separability in Oil and Gas Exploration," in Milton F. Searl (ed.), *Energy Modeling: Art, Science, Practice* (Resources for the Future, 1973). There is a recursive relationship between production, discoveries, and reserves that allows the independent estimation of only two of the three.

A more detailed development of the model presented in the present paper is available from Edward W. Erickson.

where

R = proved oil reserves in thousands of barrels[40]
P = deflated average wellhead price of oil per barrel[41]
C = user cost of oil reserves[42]
K = Texas shutdown days, a measure of the severity of production restrictions[43]
t = a time subscript
j = a subscript denoting PAD district
D = a vector of district dummy variables.

The coefficients in the estimating equation, (5), are related to the parameters, η_i and λ in equations (1) and (4), as follows:

$$d_i = \eta_i\lambda \text{ for } i = 1, \ldots, 5$$

$$d_6 = 1 - \lambda.$$

Thus, the coefficients d_1 and d_2 in the estimating equation directly measure the short-run elasticity of oil reserves with respect to prices and user costs. The long-run elasticities of reserves with respect to prices and user costs are given by $d_1/(1 - d_6)$ and $d_2/(1 - d_6)$.

40. American Gas Association, American Petroleum Institute, and Canadian Petroleum Association, *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada and United States Productive Capacity as of December 31, 1970*, Vol. 25 (published jointly by AGA, API, CPA, 1971), Table III, p. 25, and Table III-2, p. 27.

41. American Petroleum Institute, *Petroleum Facts and Figures, 1971 Edition*, pp. 86, 87, and *Economic Report of the President, January 1973*, Table C-48.

42. The real interest rate in year t is computed by taking Moody's Aaa bond rate and subtracting out the expected rate of inflation defined by $w_0\dot{P}_t + w_1\dot{P}_{t-1} + w_2\dot{P}_{t-2}$, where $\dot{P}_{t-i}$ equals the rate of inflation (from the wholesale price index) in time $t - i$ and $w_0 = 0.480$, $w_1 = 0.327$, and $w_2 = 0.193$. The weights were derived by summing the first twelve, the second twelve, and the third twelve monthly digits as reported in William P. Yohe and Denis S. Karnosky, "Interest Rates and Price Level Changes, 1952–69," *Federal Reserve Bank of St. Louis Review*, Vol. 51 (December 1969), Table 2, p. 37. The weights were constrained to be in the same proportion as the sums computed above subject to the constraint $w_0 + w_1 + w_2 = 1$. The percentage depletion allowance equaled 0.275 for the period 1950–68. The values for γ, ν, and δ were taken from CONSAD Research Corportation, "Economic Factors," p. 7.19.

43. The data come from a letter to the authors from the Texas Railroad Commission, Austin, Texas.

EMPIRICAL ESTIMATES

The empirical estimates of the model seek answers to two questions. First, are long-run petroleum reserves sensitive to tax-induced changes in user costs? Second, what is the empirical relation, if any, between price and tax incentives? These questions are of interest for a number of reasons. In their evaluation of Project Independence, the MIT Energy Laboratory group concentrated on price incentives. But if, in the wake of the discussion of further reform of the tax treatment of income from oil operations, the provisions are changed, the domestic balance between oil and other fuels will change; and there will be expectations and perhaps realizations of similar changes for other fuels such as natural gas, coal, and uranium. These would be important to energy-policy planners, for they would alter the balance between domestic and foreign sources of energy over the transition period of Project Independence and, furthermore, affect its length.[44]

The unconstrained model. Unconstrained estimation of the model using pooled cross-sectional and time-series data from 1950–68 yielded the following:

$$
\begin{aligned}
(6) \qquad \ln R_{t,j} = {} & 1.41085 + \underset{(0.71076)}{0.10169} \ln P_{t,j} - \underset{(0.02802)}{0.06929} \ln C_t \\
& - \underset{(0.08308)}{0.06666} \ln K_{t,j} + \underset{(0.07663)}{0.07607} \ln K_{t-1,j} \\
& + \underset{(0.04025)}{0.90185} \ln R_{t-1,j} - \underset{(0.26896)}{0.48685} D_1 \\
& - \underset{(0.20352)}{0.12483} D_2 - \underset{(0.21048)}{0.151921} D_4 - \underset{(0.20132)}{0.095101} D_5.
\end{aligned}
$$

$R^2 = 0.9991$; standard error of estimate = 0.00238; degrees of freedom = 85.

44. An additional reason for concern with the first hypothesis involves the CONSAD finding that desired reserve holdings were insensitive to elimination of tax incentives. In contradiction to this, and also related to the second question discussed here, are the statements by some industry spokesmen that seem to imply that taxes have more influence than prices. For example, in a June 1973 statement prepared for presentation before the Senate Committee on Interior and Insular Affairs, Richard J. Gonzalez wrote: "Because of unusual risks and the long time lag, investments in petroleum involve much more uncertainty concerning prospective returns than most other businesses. For this reason, price alone is not an adequate incentive for investment of funds."

Here and in the following equations, the numbers in parentheses are standard errors.

The estimate of the price elasticity of the long-run equilibrium stock of reserves (found by dividing the price coefficient by one minus the coefficient on lagged reserves) is approximately unity and is consistent with estimates from other models.[45] A 10 percent increase in price results in approximately a 10 percent increase in discoveries, reserves, and production.[46]

The user-cost coefficient is negative and statistically significant. The estimate of the long-run user-cost elasticity of reserves (found by dividing the coefficient on user cost by one minus the coefficient on the lagged reserves variable) is −0.71. Thus, in the unconstrained estimation, a 10 percent increase in user cost results in approximately a 7 percent decrease in reserves.

The coefficients on production restrictions are unsatisfactory. The positive sign on lagged production restrictions and the negative sign on current restrictions have no obvious interpretation, and in any case, net out to a very small impact.[47]

45. See, for example, Spann and Erickson, "Joint Costs," in *Energy Modeling;* Erickson and Spann, "Supply Response"; and Edward W. Erickson, "Economic Incentives, Industrial Structure and the Supply of Crude Oil Discoveries in the U.S., 1946–1958/59" (Ph.D. dissertation, Vanderbilt University, 1968), in which the estimated long-run price elasticities of crude-oil production and discoveries are less than the estimate of the price elasticity of long-run equilibrium reserve stocks estimated here. This difference arises from the downward sloping value of the marginal product curve for reserves as capital stock.

46. In the future, the ratio of ultimate recovery to original oil-in-place may increase because of price incentives or technological change. A price-induced increase in the recovery rate would result in upward revisions of proved reserves. Charles Schultze has pointed out to us that the proportion of additions to annual reserves in recent years accounted for by "revisions" has grown steadily. The National Petroleum Council estimates that, within plus or minus 5 percent, revisions represent secondary reserve additions. At relatively constant real prices for crude oil, and with the cut in percentage depletion in 1969, this pattern of revisions appears to represent the benefits of technological change. A larger proportion of these reserve additions have recently been in older fields. This pattern may change under the new price regime; but further technological development, in response to economic incentives, is likely to raise feasible recovery rates. Our estimations implicitly include the expansion of secondary and tertiary reserves, although technological change is not explicitly modeled.

The NPC estimates are from *U.S. Energy Outlook: Oil and Gas Availability* (NPC, 1973), p. 188.

47. We must confess that this result may be the consequence of one ad hoc assumption we made—that the effects of production restrictions could be estimated using a two-parameter lag distribution. Although the lag structure for production restrictions

The estimate of the speed-of-adjustment parameter, λ, is approximately 0.10. (The coefficient on lagged reserves is $1 - \lambda$ and is approximately +0.9.) Thus, adjustment from actual to desired reserve levels proceeds relatively slowly: approximately 10 percent of the gap between the two is closed each year.[48] At this rate it would take about seven years to accomplish 50 percent of the total desired change. It must be remembered, however, that the rate of adjustment may be affected by factors such as the amount of offshore leasing, which has shifted in a manner that may have increased λ. In addition, the incentive to adjust may be affected by the magnitude of a price change, and recent changes have been well outside the range of past experience. Even if the prospective speed of adjustment for the stock of reserves were 50 percent faster than that indicated by our estimations, it would be relatively slow and a serious constraint upon policymakers with, say, five-year horizons.

The constrained model. In the unrestricted estimates just presented, the coefficients on price and user cost are not precisely equal. On the hypothesis that an economic incentive is an economic incentive, alternative estimates can be made with the coefficients on price and user cost constrained to be equal. The efficiency of this restriction can be tested using the weak mean-

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on reserves in past periods may be substantially more complicated, we felt that the data series was insufficient to estimate a more complex lag structure. In addition, as a result of such practices as calendar-day testing, actual production restrictions in recent years may not have been as onerous as nominal production restrictions appear to indicate. For a discussion of calendar-day testing, see Erickson, "Crude Oil Prices," pp. 44–49, and for a discussion of related aspects of the administration of production restrictions, see McDonald, *Petroleum Conservation in the United States.*

48. There is a distinction between the speed of adjustment of the reserves stock to the desired level of reserves and the speed of adjustment of the rate of discoveries to the desired rate of discoveries. The former will always be slower than the latter. Cumulative production and lagged reserves are positively related, and the inclusion of lagged reserves in a pooled time-series and cross-section estimation biases the coefficient on lagged reserves toward unity. This tendency is partially offset by the inclusion of PAD district dummies. Although they are individually insignificant, the district dummies all have the anticipated sign, and their inclusion or exclusion should be judged as a package. As such, they are significant. In addition, to the extent that the coefficient on lagged reserves is biased toward unity, the speed of adjustment is biased downward. Whether or not this is a desirable result depends upon the symmetry of policymakers' loss functions with respect to the date of attainment of target reserve levels.

square criterion.[49] The constrained estimate of the oil-stock reserves equation, again estimated with annual data for 1950–68, is

$$
\begin{aligned}
(7) \qquad \ln R_{t,j} = {} & 1.36664 + 0.07253\,(\ln P_{t,j} - \ln C_t) \\
& \quad (0.69507) \quad (0.02621) \\
& - 0.05874 \ln K_{t,j} + 0.07083 \ln K_{t-1,j} \\
& \quad (0.07931) \qquad (0.07467) \\
& + 0.90414 \ln R_{t-1,j} - 0.45129 D_1 \\
& \quad (0.03947) \qquad (0.24635) \\
& - 0.10710 D_2 - 0.136021 D_4 - 0.08167 D_5. \\
& \quad (0.19566) \quad (0.20411) \quad (0.19636)
\end{aligned}
$$

$R^2 = 0.9990$; standard error of estimate = 0.00236; degrees of freedom = 86.

Judging on the basis of the mean-square criterion, one cannot reject the hypothesis that price and user cost enter the determination of reserves symmetrically.[50] The constrained equation, (7), does as well in tracking reserves over the sample period as the unconstrained equation, (6). Since symmetry has a theoretical appeal and the empirical estimates in no way refute it, equation (7) will be utilized in the projections offered below.

The constrained long-run elasticity of price and user cost are plus and minus 0.76, respectively, lying between the individually estimated elasticities from equation (6). Thus a 10 percent rise in price or decline in user costs leads, eventually, to a 7.6 percent rise in the supply of reserves. The estimated adjustment of reserves to their long-run desired level is slow, just as in the unconstrained equation. The speed-of-adjustment parameter, λ, is again 0.10, indicating it takes seven years to accomplish half the adjustment of reserves to their desired level. There is similarly little change in the other coefficient estimates. The estimated effect of production restrictions is again unsatisfactory, as it was in the unconstrained estimates. In the simulations that follow, however, we set production restrictions equal to

49. See Carlos Toro-Vizcarrondo and T. D. Wallace, "A Test of the Mean Square Error Criterion for Restrictions in Linear Regression," *Journal of the American Statistical Association*, Vol. 63 (June 1968), pp. 558–72; and T. D. Wallace, "Weaker Criteria and Tests for Linear Restrictions in Regression," *Econometrica*, Vol. 40 (July 1972), pp. 689–98.

50. The calculated noncentral F-statistic is 0.123 with degrees of freedom equal to 1 and 85. The noncentrality factor equals $m/2$, or 1/2, since m equals the number of constraints.

Table 1. Actual and Predicted U.S. Oil Reserves, 1969–74[a]

Billions of barrels

Year	*Actual*	*Predicted*
1969	29.2	30.6
1970	28.9	30.3
1971	27.9	30.2
1972	26.2	30.0
1973	25.2	29.8
1974	...	30.6

Sources: Actual reserves are from American Gas Association, American Petroleum Institute, and Canadian Petroleum Association, *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada and United States Productive Capacity as of December 31, 1973*, Vol. 28 (published jointly by AGA, API, CPA, 1974), Table III, p. 25, and Table III-2, p. 27. Predicted reserves are derived from text equation (7).

a. Lower forty-eight states only.

zero so the estimated coefficients do not directly affect the 1975–85 predictions.

Table 1 illustrates the tracking record of equation (7) for 1969–73, the first five years after the end of the estimation period. The principal policy change that occurred in this period was the reduction of the depletion allowance from 27.5 to 22.0 percent in the Tax Reform Act of 1969. This change is reflected in the user-cost measure employed in the equation. On the other hand, a number of other events of this period may have influenced the development of reserves but could not be reflected in the model. These include the removal of restrictions on oil imports, the Alaskan discovery (whose reserves are not included in this model) followed by the extended uncertainty over building the oil pipeline, and the imposition of wage and price controls. All these increased the uncertainty of expectations in the oil industry;[51] and the controls created, in addition, some shortages of inputs for the discovery and development process. These factors may help explain the growing overprediction of reserves by the model shown in Table 1. Since the model is basically concerned with long-run equilibrium responses, we do not regard the prediction errors during this period of turmoil in the industry as particularly significant. Our main interest centers on comparisons of long-run reserves under alternative prices and tax incentives, which can be made even without considering short-run disturbances that cannot be accounted for in the model.

51. For a discussion of the importance of expectations, see Erickson and Spann, "Supply Response," p. 116, note 43.

Policy Simulations

This section reports the results of using equation (7) to project the supply of U.S. oil reserves (again, exclusive of those in Alaska) under alternative sets of tax policies relating to the oil industry and of future oil prices. Case A assumes the continuation of the depletion allowance at its current level, and expensing of intangibles; case B eliminates the first but maintains the second; case C drops the expensing of intangibles, but assumes a depletion allowance at the current 22 percent level; and case D eliminates both provisions.[52] The alternative prices are $8.00, $10.00, and $12.00 per barrel in 1974 dollars in PAD District 3.[53] Alaska is omitted from the projections because it was not included in the data for the estimation of the coefficients upon which the projection simulations are based. The simulations for the four cases for the period 1975–85 are presented in Tables 2 through 5 and take off from the projected level of reserves for 1974 of 30.6 billion barrels, shown in Table 1.[54] The tax changes and price levels that are modeled in the tables are maintained from the beginning of 1975.

Under all sets of projections, reserves increase noticeably over the next decade as the effect of higher prices, at all the assumed prices, dominates even the rise in user cost induced by the elimination of all tax incentives assumed in Table 5. Under the most favorable conditions for expanding supply—the $12 per barrel price and the maintenance of present tax incentives, shown in Table 2—reserves rise by roughly 55 percent between 1974

52. Elimination of percentage depletion is equivalent to setting the depletion term, τ, in the user-cost formulation equal to 0.032. The point at which all depletion is claimed as cost-based depletion would be that point at which the allowable deductions for cost and percentage depletion are equal. Based on an estimate that percentage depletion has allowed about 85.6 percent excess recovery of outlays over cost depletion (CONSAD, page 7.31), this breakeven point would occur when percentage depletion was 14.4 percent of the current rate. Eliminating expensing of intangibles decreased γ and increased ν. The total effect of eliminating both expensing of intangibles and percentage depletion is to increase user cost by 44.9 percent.

53. Prices for PAD Districts 1, 2, 4, and 5 are established by application of the relative price differential in 1968 between prices in PAD District 3 and the other four PAD districts.

54. Although the depletion allowance did not change over the period on which our estimations are based, it is possible to simulate the effects of changes in user cost induced by tax policy because there was substantial variation in user cost in our data due to changes in real interest rates and in the general corporate tax rate.

Table 2. Estimates of U.S. Domestic Crude-Oil Reserves When Percentage Depletion and Expensing of Intangibles Remain at 1974 Levels, by Alternative Prices, 1975–85

Billions of barrels

Year	*Price per barrel*		
	$8.00	*$10.00*	*$12.00*
1975	31.5	32.1	32.5
1976	32.4	33.5	34.3
1977	33.3	34.8	36.1
1978	34.1	36.0	37.7
1979	34.8	37.2	39.3
1980	35.4	38.3	40.8
1981	36.1	39.3	42.1
1982	36.6	40.3	43.4
1983	37.1	41.1	44.6
1984	37.6	41.9	45.7
1985	38.0	42.7	46.8

Sources: Simulations discussed in the text.

Table 3. Estimates of U.S. Domestic Crude-Oil Reserves with Elimination of Percentage Depletion, by Alternative Prices, 1975–85

Billions of barrels

Year	*Price per barrel*		
	$8.00	*$10.00*	*$12.00*
1975	31.2	31.7	32.1
1976	31.7	32.7	33.6
1977	32.3	33.7	35.0
1978	32.7	34.6	36.3
1979	33.2	35.5	37.5
1980	33.6	36.3	38.6
1981	34.0	37.0	39.7
1982	34.3	37.7	40.7
1983	34.6	38.3	41.6
1984	34.9	38.9	42.4
1985	35.1	39.4	43.2

Sources: Simulations discussed in the text.

Table 4. Estimates of U.S. Domestic Crude-Oil Reserves with Elimination of Expensing of Intangibles, by Alternative Prices, 1975–85

Billions of barrels

Year	Price per barrel		
	$8.00	*$10.00*	*$12.00*
1975	31.0	31.6	32.0
1976	31.5	32.5	33.3
1977	31.9	33.4	34.6
1978	32.3	34.2	35.8
1979	32.6	34.9	36.8
1980	32.9	35.6	37.9
1981	33.2	36.2	38.8
1982	33.5	36.8	39.7
1983	33.7	37.3	40.5
1984	33.9	37.8	41.3
1985	34.1	38.3	42.0

Sources: Simulations discussed in the text.

Table 5. Estimates of U.S. Domestic Crude-Oil Reserves with Elimination of Both Percentage Depletion and Expensing of Intangibles, by Alternative Prices, 1975–85

Billions of barrels

Year	Price per barrel		
	$8.00	*$10.00*	*$12.00*
1975	30.7	31.2	31.6
1976	30.8	31.8	32.6
1977	30.9	32.3	33.5
1978	31.0	32.8	34.4
1979	31.1	33.3	35.2
1980	31.2	33.7	35.9
1981	31.3	34.1	36.6
1982	31.4	34.4	37.2
1983	31.4	34.8	37.8
1984	31.5	35.1	38.3
1985	31.5	35.3	38.8

Sources: Simulations discussed in the text.

Table 6. Differences in U.S. Domestic Crude-Oil Reserves under Alternative Levels of Tax Incentives and of Prices, 1985

Billions of barrels

Assumption about tax incentive	*Price per barrel*		
	$8.00	*$10.00*	*$12.00*
(1) Maintenance of both depletion allowance and expensing	38.0	42.7	46.8
(2) Elimination of both incentives	31.5	35.3	38.8
(3) Absolute difference (1) − (2)	6.5	7.4	8.0
(4) Relative difference (3) ÷ (1) (in percent)[a]	17.2	17.2	17.2

Sources: Tables 2 and 5.

a. Percentages are calculated from unrounded data.

and 1985. The absolute effect of tax incentives is greater at higher prices. For a summary comparison, Table 6 presents the absolute and relative differences in 1985 reserves for the three assumed price levels for our two extreme cases.[55] At $10.00 per barrel, the difference between maintenance of the two most prominent tax incentives enjoyed by the domestic industry and their complete elimination is 7.4 billion barrels of reserves in 1985, or roughly a 17 percent reduction in reserves. At $12.00 per barrel, the difference is 8.0 billion barrels and also 17 percent.[56] If, as a very rough estimate,

55. These cases are extremes only with respect to the situations that we simulate. On the basis of our results, some observers might wish to increase tax incentives to the oil industry. Care must be taken in interpreting the simulations. For the status-quo case (Table 2), the $12 price is 50 percent higher than the $8 price. But this does not mean that 1985 reserves should be 50 percent larger in the $12 column than in the $8 column. In percentage terms, the $12 price represents slightly more than twice as large an increase over the 1973 real price as does the $8 price. The absolute magnitude of the increase in reserves over the status-quo predicted base reserves in 1974 (Table 1) is slightly more than twice as large at the $12 price as at the $8 price. This in turn means that the percentage increase in reserves is slightly more than twice as large as well.

56. The MIT analysis, "Energy Self-Sufficiency," found that 1980 market-clearing prices ranged between $9 and $13 per barrel of crude-oil equivalent depending upon which combination of supply and demand forecasts was used. The Erickson-Spann econometric supply forecasts for crude oil used in the MIT analysis were an extrapolation significantly beyond the range of the data upon which they were estimated (as are the simulations above), and contained a weak implicit assumption that the exploration, development, and production stages of the industry were fully adjusted to the new price level. They did not include the effects of the Tax Reform Act of 1969. We are not here criticizing the MIT analysis. We ourselves performed the basic simulations of the Erickson-Spann model that were an input to that analysis; and those simulations represented the estimates readily available at the time. The Erickson-Spann model of crude-

we assume that annual production is 10 percent of reserves, the elimination of all the incentives would reduce oil production by between ½ billion and 1 billion barrels per year in 1985 compared with its level with present incentives maintained.

While tax incentives thus have a substantial effect on estimated future reserves in the lower forty-eight states, their importance is much reduced when viewed against the total U.S. energy supply. It is not improbable that prospective reserves on the Alaskan North Slope are equal to the total reserves in the lower forty-eight states. At current and expected prices, these North Slope reserves probably would be developed and produced even if all tax incentives were eliminated.[57] Thus, the elimination of both percentage depletion and expensing of intangibles would make total U.S. crude-oil reserves in 1985 approximately 10 percent less than they would otherwise be. Since crude oil represents about 33 percent of total U.S. energy supply, dropping these tax incentives might make a 3 to 5 percent difference in the 1985 U.S. energy balance.[58]

Conclusions

Many factors have contributed to the recent stress on energy markets. They represent elements in the conjuncture of the energy industries. And, as they impinge on the industry, they create conditions that make forecasts of future supply and price quite uncertain, whether based on econometric models or on the judgment of informed observers relying on their own experience. Events of the last several years indicate how sensitive energy balances are to changes in these conditions. Acknowledging this, we believe it is nonetheless useful to examine some aspects of the oil-supply situation that are amenable to analysis.

Empirical tests are not consistent with the popular hypothesis that the

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oil discoveries was then the model most amenable to policy simulations and sensitivity analyses. But, compared to the MIT analysis, the results presented above suggest that if self-sufficiency is a policy goal it will have to be defined more flexibly, delayed longer, or achieved at higher cost.

57. See M. A. Adelman, Paul G. Bradley, and Charles A. Norman, *Alaskan Oil: Costs and Supply* (Praeger, 1971).

58. This figure is illustrative only. It cannot be calculated with precision, because of the problems associated with forecasting total energy demand and the fact that elimination of the tax subsidies for domestic crude oil might mean also dropping the corresponding subsidies for coal and natural gas. We have not modeled coal or natural gas.

U.S. petroleum industry is ineffectually competitive at every stage. At the producing stage, which is particularly relevant to the evaluation of Project Independence, higher prices raise both output and rents. In the long run, rents are a cost to the industry. For prospective offshore activity, these rents will on average be captured by society in the form of lease bonuses and royalties, because the industry is competitive. Any attempt to limit the generation of rents through price regulation is apt to impede market adjustment and create imbalances similar to those now chronic for natural gas. Focusing on the doubtful hypothesis that private monopoly power is the basic source of recent dislocations in energy markets is likely to delay and compound the formulation of energy policy.[59] But even acceptance of the proposition that the U.S. petroleum industry is effectively competitive does not assure that efficacious policies will be formulated and implemented. In this regard, agriculture is an instructive, if disheartening, example.

Over a significant period, existing onshore supplies of oil and gas will continue to be a major source of domestic supplies. Eliminating the special tax provisions that favor the petroleum industry would reduce the rents that will accrue because of higher domestic prices, and also increase the efficiency of resource allocation between oil and other industries. The drawback is that such a policy change would noticeably reduce the development of incremental oil supplies, particularly for investments aimed at increasing the fraction of ultimate recovery of oil in place from its historic ratio of 30 to 35 percent. Nevertheless, on balance, we believe that the special tax breaks should be eliminated. They impede the rational discussion of national energy policy, result in a misallocation of resources, and in any case are unlikely to be the important determinants of prospective offshore and Alaskan supplies.[60] In our view, their elimination would be worthwhile.

59. For a discussion of the role of OPEC in these events, see James T. Jensen, "International Oil-Shortage, Cartel or Emerging Resource Monopoly?" *Vanderbilt Journal of Transnational Law*, Vol. 7 (Spring 1974), pp. 335–81. Jensen's analysis should be compared to the papers on the world oil market in *The Energy Question*, Vol. 1, especially Pts. 1, 3.

60. We do not calculate the social cost of this misallocation because we do not have the values for the elasticity of demand and demand-shifter coefficients, including our own, to justify such an exercise. For a dollar estimate of the social costs of the 1971 tax subsidy package for the petroleum industry, see Spann, Erickson, and Millsaps, "Percentage Depletion." At higher prices, social costs would be larger. Nor do we model the contribution of percentage depletion and expensing of intangibles to self-sufficiency under Project Independence, because we do not have a definition of "the capacity for energy self-sufficiency." Futhermore, we do not know the future role of crude oil in the overall energy balance with other fuels.

As our estimations indicate, actual reserves adjust slowly to their desired level. This means that under any feasible definition and implementation of a policy of energy self-sufficiency, imported oil will have to be significant in U.S. energy balances for a decade or more, a period as long as, or longer than, the era of mandatory oil import quotas. The landed cost of foreign oil is apt to be subject to considerable variation during this period, making the development of an appropriate policy on oil imports especially important.[61] Such a policy must be set in the context of a cohesive and consistent overall national energy policy that will permit substantial flexibility of prices in energy markets.

61. For analysis of a proposal that relies on market incentives and private initiative to attempt to achieve maximum efficiency, flexibility, and planning focus, see Daniel H. Newlon and Norman V. Breckner, "The Oil Security System: An Oil Import Policy for the United States," Research Contribution 255 (Institute of Naval Studies, Center for Naval Analyses, January 1974; processed).

The CHAIRMAN. Mr. White.

STATEMENT OF LEE C. WHITE, CHAIRMAN, ENERGY POLICY TASK FORCE OF CONSUMER FEDERATION OF AMERICA

Mr. WHITE. Mr. Chairman, and members of the committee, I should say at the outset that I am here in my capacity as spokesman on behalf of an ad hoc coalition that came into being about a year and a half ago with the avowed purpose of trying to set forth the consumer's views on many of these energy policy issues that are now before the country and especially before the Congress. Many of these are very large membership organizations, the Steelworkers, UAW, the municipally owned and operated electric systems and gas distribution systems, the Conference of Mayors, and farm organizations. Nobody can delude himself that there is such a thing as a "consumer interest." We are all consumers and these consumer interests frequently conflict. I cannot claim that I have checked with every one of the organizations that have come together and got their approval of everything that I say.

With that caveat, though, I think that there are some basics upon which we are agreed and I will hit some of those. Sometimes I go off the pavement and go on my own so don't be surprised if some people disavow some of the things that I have to say because I spend quite a bit of my time being disavowed.

It is a little bit uncomfortable to have to follow two economists and even more uncomfortable to have to say I agree virtually with one of them. I don't know where you found Dr. Davidson, but more power to him, I think his presentation is very basically a sound one, in a large measure because it fits my own biases and prejudices and recommendations. I will try not to be repetitious and I do not think I need to add a great deal to what he had to say.

I don't share his view, however, about the lack of a need to begin to tighten our belt in the United States in a real way and I do support some type of tough measure that would demonstrate not only to the world and to OPEC, the international oil cartel, but to ourselves and to the people in this country that we are indeed aware of the fact that we have entered into a new era.

We will not ever again I think be oblivious to the energy that we use. We have been profligate in the past not because we are wicked or venal or stupid, because we had no reason to recognize we were moving into such a situation where energy was so crucial and all the economists stacked on the top of a pinhead and all the congressional people and all other spokesmen could not have done anything nearly as effective as having to sit in the gasoline lines last year bringing to our attention the fact that we are terribly vulnerable to the amount of energy that is available.

My particular pitch has to do more, I think, with the short run than with the long run, but I will be delighted to discuss that, too, if there are questions on that aspect.

In the short run, it seems to me that it is absolutely essential for the Nation, especially the President and his administration, to recognize that there are not two separate problems, one called inflation and one called energy; they really are right together.

Just a couple of figures. They are not all free of controversy or dispute.

If we deregulate natural gas, as Dr. Erickson suggests—and by the way, lest there be any doubt about it, I am vigorously opposed to that—the estimates range from a cost to the consumer, to everybody, consumer and the Nation, in the first year, and the years succeeding, of a minimum of $5 billion—that is a Library of Congress study released by Congressman John Moss about 2 weeks ago—to somewhere between $9 and $11 billion, which is the estimate of the Assistant Chief Economist of the FPC, David Schwartz, who testifies before many congressional committees.

That is big money. We are talking $5 to $10 billion annually on top of what we are already paying for everything else.

As to the oil side of the petroleum picture, when a year ago tomorrow the Federal Government increased the price of old crude oil from $4.25 to $5.25, that cost us between $2½ and $3 billion annually. Old oil was increased to provide some sort of incentive. It is a little mind-boggling to think you can have a retroactive incentive, you can go out and find something in the past because the price has gone up. But if that is startling, and it is, even more remarkable is the technique that the Government chose to carry out the mandate that Congress gave it to fix equitable prices for new domestically produced crude oil.

It is a very simple technique they use. The Cost of Living Council thought it up and FEA has now ratified it and endorsed it. It says:

> We hereby find that the price of new crude oil, in accordance with our obligation to fix it at an equitable rate, shall be whatever the market fixes it at. If the market fixes it at $6, that is what it is.

It so happened the market did not fix it at $6, it is about $10.50 fixed not by the FEA, Cost of Living Council or indeed by Congress, but instead by the International Oil Cartel, the villains in our opera at the moment.

The Administrator of FEA is presently being sued by Consumers Union because of his failure to implement that mandate. It is not an authorization, it is a directive.

As you will recall, earlier this year Congress did something that I think is extraordinary. I have been around here for 20 years. I have never seen the Congress fix a price by statute. Five hundred and thirty-five members came up with $7.09 as a price for new oil. $7.09, fairly detailed and precise.

The vote was 67 to 32 in the Senate and over a hundred vote majority in the House. Then President Nixon vetoed it in March.

The Senate failed by eight votes to override that veto. I do not know how it would have gone in the House. But I think regardless of that fact, the Congress was reflecting an attitude of the people in this country, and that is that $9, $10, and $11 for a barrel of oil did not seem right.

These are very rough calculations, but that veto which affected about 40 percent of the domestically produced oil I think comes to something like $2 billion a year.

Again these are fairly good sized numbers. If you take the time to add them up, you can see that the impact on the economy is not inconsequential. In fact, it is pretty significant.

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If I may, I would like to shift to what is more of my bag anyhow, and that is where this hits, where it falls. It does not fall somewhere in the air, in the atmosphere, it falls on people, and it will come as no surprise to this committee or to anyone else to know that it falls more heavily upon those who are at the lower end of our economic scale.

There is no dispute about it. People who are earning less than $3,000 a year pay a great deal higher percentage of their income, their monthly budget, for energy than do those who are more affluent.

To those who say, "Let the market kind of work this thing out and everything is going to be all right," I don't know whether it will be all right.

We are in a recession. We have been in a recession and it does not look like it is getting better. We are still going deeper. We have not bottomed and started to come out.

I don't see how we can ignore the consequences, especially of those people who are on fixed incomes and who just cannot make it.

I am pleased, Mr. Chairman, by your own proposal to provide at least a respectable amount, $75 million, to help people live through the winter.

I hope that there is some way in this final week of the Congress where your amendment can be tacked on to one of the last trains for the Orient. This should not be ignored and it is not something that ought to wait until the Congress returns and is reorganized next year.

The CHAIRMAN. May I make the point that at this point it seems to be tied to the question of what happens to the deregulation of natural gas.

We can get the $75 million by agreeing to take up the deregulation but——

Mr. WHITE. Well, you know how to put me on the spot, don't you?

The CHAIRMAN. Your position is far different from mine.

Mr. WHITE. It is a tough one and I would hope if the Congress is unwilling or unable to get to your bill the President would use some of the discretionary funds that are available to him, and although we are not here to discuss OEO, it seems to me almost unthinkable this administration would let OEO go down the tube.

My statement has some information in it that was put together by a group funded by OEO and FEA that went around the various State energy offices throughout the country, not all of them, but samples, to determine how they handled the people problem last year and how they are handling it this year.

It is very, very uneven and erratic. I think the State of Maine has shown a little bit more imagination and initiative than some, but there is still a long way to go, and it is, I think, something that a Congress focusing on cosmic and global considerations cannot ignore.

I was in a hearing before Secretary Morton, serving as chairman of the Energy Resources Council, last week, and a woman from Baltimore who works with poor people said she only had two recommendations after hearing all of the high-powered witnesses. The first was that they would talk in English because nobody she knew including herself, understood what retrofit meant, and, secondly, while we are working out all of these enormous policies, if there are any bandaids left over to get her people through the winter, she would appreciate our throwing a few her way.

Well, she was very colorful in her language and I must say I think she touched on a significant point. I would not want to have Congress or this committee believe that its most important consideration is in terms of reaching national energy policies because we have to stay alive while we are looking to the future.

As far as the future goes, I think that it is absolutely essential that we continue to have controls. If we do not have enough fuels available, I tend to agree with Dr. Davidson, there is a great deal that is in the ground and that one of the things Congress has either been unwilling to do, and it is tough, or incapable of doing, and that is coming up with a set of standards and rules.

To those who have complained that the little old Federal Power Commission was responsible for all of the natural gas shortage and all of the other ills of the energy world, may I say that modesty would not permit me to take all of that credit, and more important I think are some of the other considerations, not the least of which is the expectation that deregulation is coming.

Two things happened in 1968. For the first year the United States consumed more natural gas than it added by way of proved reserves, and this whole reserve business is an enormous shell game—no pun intended. It is as Dr. Davidson suggested, a very, very tricky business to find out what we do have. But it was accepted in 1968 that we used more than we added to our national reserves, and the second thing happened, Mr. Nixon was elected President, and he openly campaigned suggesting regulation was going to be different under him.

So one cannot condemn the industry for its expectations.

I think it is up to the Congress to resolve it. I hope it does not resolve it by saying, you are right, we are going to deregulate. But you do have to tell them what the rules are.

If there is one point where I and the producing segment of the natural gas and oil industry come together, it is the need to know what the rules are and to lay them out. I suspect there is an awful lot of gas that is being held back, that is a very natural, logical thing to do.

I am not going to suggest if I were in that business I would not be doing it. When you are in business to make a profit that begins to be an important consideration in your policies and programs, and so please, for goodness sake, if we can get into the next year, let's come up with a natural gas policy that hopefully will be as wise and as efficient and as effective as we can.

Let us not continue to not meet that problem.

If I may, I would like to talk about an issue that doesn't quite go to your committee's responsibility but I think it is there in a very real way and it has to do with national and public attitudes.

I think our people in this country like any other people are willing to make sacrifices and to do what their leadership convinces them ought to be done. It is hard to do so if you believe you are being taken or made a sucker of. To the extent that people are asked to sacrifice, asked to make changes in the lifestyle, at the same time that petroleum companies' profits are making all records, it is very, very difficult. And I think that therefore, one of the considerations that ought to go into coming up with policy decisions is not what 81 percent of the people say that they want, but what we really believe can be sold to the people as a reasonable policy that ought to be adopted.

I do not want to be too critical of President Ford because he has inherited a tough assignment and there is little reason to be encouraged. Hopefully the meeting at Camp David this weekened produced some options for him to consider.

I hope he will spend an enormous amount of time, because these are not simple matters and he is going to get a lot of conflicting counsel and advice. I hope he does. And he will make some recommendations to Congress and Congress will move rapidly on it. But it ought to bear in mind the impact on the national psyche and its willingness to accept what its leaders tell them.

Finally, from my statement, is the unemployment impact. Regardless of what we comfortable, wise people here think, there are today people in the United States who are unemployed, not only because of the recession, we have some people who are unemployed, in large measure, because there are not adequate fuels and particularly natural gas.

The State of North Carolina is especially hard-hit. South New Jersey is hard-hit. I am not familiar with other areas. But I know there are many others.

To those people who are out of work, I do not think we can say, well, maybe we have some long-range policies and maybe the market will straighten these things out. I am delighted to see that the administration has moved recession up into the No. 1 position and thereby lowered inflation to No. 2. But here I think I would urge strongly that the Congress continue in effect the Fuels Allocation Act, it has been extended for 6 months. I do not know whether the President signed it. I am sure he will.

The administration reluctantly agreed to it. I hope that during these difficult times he will be willing to interfere with the marketplace.

It does not trouble me to have to do so on occasion. I cannot conceive of a more difficult personal assignment than making allocations of something that is essential when there isn't enough to go around, and yet we had better do that if we want to have some equity, some fairness, some reasonable sharing of these burdens.

So somewhat prematurely may I urge the Congress when it reassembles in January to focus very sharply on this and if they wait until the deadline again, there will be some dislocation.

Again, this is slightly off your beat.

I would like to mention two things that my associates referred to. One is the royalty concept of bidding. Royalties rather than bonus bidding is, I think, a useful mechanism. It is not a panacea, it is not going to solve everything, but I would like to go one step further and suggest that the Federal Government, because it holds in trust for all of us enormous gas and oil deposits, ought to be much more wise, flexible, energetic, and aggressive in managing it for us.

I would like to see, for example, an extension of what this current administration did do, and I think wisely. Last year it took some royalty oils, oils that it owned, because it was public land, it was controlling under a stewardship for use, and it allocated those oils to independent refiners who were in short supply. I think that was useful. I would like to see that expanded and I would like to see the same concept with natural gas.

If the Federal Government's Department of Interior, through the Bureau of Land Management, as stewards for us, has control of 16

percent of the natural gas that comes out of the offshore areas, public land, why does it not insist that natural gas go where conscience and judgment tells them it ought to go. Even though it is tinkering with the market, so be it, let's tinker with the market.

On the question of a Federal gas and oil corporation, it is a subject near and dear to my heart and I was heartened by Dr. Davidson's enthusiastic support of it.

I would say to Senator Chiles that in my discussion of the Federal oil and gas corporation, I do not look to Amtrak or the Postal Service as my model, I look to TVA. I am an alumnus of TVA and TVA has demonstrated, not free of controversy, but has demonstrated people can be hired by the Federal Government and can operate successfully.

I don't think they are better people than operate other electric utilities, but I do think they are different in their direction. They are chartered by Congress to do something different and I would like to see somebody who is in the oil and gas business, who is there not exclusively because profit is their driving spring, I would like to see somebody who is told by the people what they have to do is to find oil and gas because it is there.

Right now, your 2 States, may I say, Senators, together with 11 others, are being told by the Interior Department, "We are going to go offshore in the Atlantic," and many of the States are saying, "Wait a minute; we don't even know what is out there yet, and can we have at least the opportunity to find what is out there."

I am told that when the Governors and their representatives of the 13 Coastal States met with President Ford in the White House about 2 weeks ago, they asked for that information and were told, "There is some data, it is not drilling, it is just geological and seismic data, but unfortunately it was under a contract and we cannot make it available to you because it is proprietary."

The States along the east coast are being asked to permit drilling when there is data that won't be made available to them. I do not think the answer is not to have drilling. I think in all likelihood it will emerge in such a fashion that we can reach a rational judgment that this can and should be done in an environmentally sound way.

If there were a Federal corporation doing that drilling and that testing and that assessing, I do not know that the people of Florida or Maine would have a brass band to welcome the Federal corporation, but I think they would have more confidence in what they had to say than they would if it were Exxon or Phillips or Texaco doing it.

So, if I may, I endorse my colleague's comments on that point heavily.

I would rather stop on that note than any I can think of because I really believe that this is an essential step, it is not a very politically palatable thing at the moment, but a lot of things are not politically palatable, that all of a sudden with some exposure and with some need become far more desirable and the first thing we know they are law.

Thank you.

[The prepared statement of Mr. White follows:]

PREPARED STATEMENT OF LEE C. WHITE, CHAIRMAN OF THE ENERGY POLICY TASK FORCE OF CONSUMER FEDERATION OF AMERICA

Mr. Chairman and Members of the Committee: My name is Lee C. White, and I am here today in my capacity as Chairman of the Energy Policy Task Force

of the Consumer Federation of America. Our Task Force has 29 member organizations (Appendix A), and our expressed purpose is to ensure that the consumers' views are expressed and considered in the energy policy debates currently taking place and, in particular, within the Congress. We recognize that there is no necessary single "consumer interest" in any of the numerous issues that comprise the energy policy debates; nevertheless, we have undertaken to do the best job in assessing and stating the views of the consuming public and, as the broad base of our membership suggests, we do indirectly represent millions of Americans.

If there is one important lesson that we have learned as a nation in our exposure to what is loosely called our energy crisis, it is that the elements of that crisis are individually and collectively complex and reach across nearly every aspect of our national life. Any proposed solution can involve as many substantive areas as international relations, tax policy, anti-trust principles, environmental concerns, regulation of business by government, impact on employment, impact on the gross national product and impact on individuals and our national life style.

It is, of course, highly appropriate for this Committee to focus on the impact of various proposed solutions to the energy problems of the Nation on our fiscal policy, both as it relates to the Nation and as it affects individual citizens, but especially those at the lower ends of our economic scale. The shifting of billions of dollars from the oil importing countries of the world to the exporting nations raises a specter of potential world depression, disruption, and even warfare. I have assumed, however, that the Committee's primary concern is on the impact on the Nation and its citizens.

The first topic I should like to discuss is the proposal by the Administration and by some Members of Congress that the prices at which natural gas is sold at the wellhead should be deregulated. This is a very controversial issue politically, and one that has been hotly contested both inside and outside of Congress. According to a study by the Library of Congress, made available by Congressman John Moss, the additional cost to consumers in the event of deregulation of "new" gas would be over $5 billion annually.

The Assistant Chief Economist of the Federal Power Commission has estimated, in Congressional testimony, that the annual cost would be between $9.2 and $11.2 billion annually. Those of us on the consumer side of the deregulation issue are satisfied that the financial burden on consumers will be enormous and have requested President Ford to submit an Inflation Impact Statement on the consequences of a deregulation recommendation, which he made in the very same address to a Joint Session of Congress in which he pledged to submit inflation impact statements with every major recommendation that he or his Administration made. Thus far, no such statement has been forthcoming. Perhaps this Committee will have more success in securing from the President his view as to what the burden will be on the economy and on the purchasers of natural gas, should his recommendation become law.

Since these significant increases in the cost of natural gas did occur at a time when profits of major petroleum companies are breaking all records, there is an extra dimension to this particular proposed solution to the energy crisis. This is probably not capable of measurement but there is the national attitude about such a problem. In addition to the fiscal impact, every suggested piece of energy legislation ought to be assessed in terms of its acceptability by the public. Undoubtedly, there are and will be things that must be done that are not going to be well received, but the legislative process should take into account the burdens on various elements of our total society and how those burdens are perceived. The point is that Americans will be most responsive to appropriate leadership and, undoubtedly, will accept certain burdens and sacrifices, but not if they believe that someone is making suckers of them.

Similarly, one of the proposals floated as a trial balloon by Administration spokesmen, elimination of ceilings on "old" oil, now fixed at $5.25 per barrel. When the Administration lifted the price from $4.25 per barrel, a nice 25% increase a year ago tomorrow, the burden on the consumer increased by $3 billion. The Federal Energy Administration last June, under threat of a law suit under the Freedom of Information Statute, made public its data and alleged economic justification for the $3 billion Christmas present. The "justification" was almost laughable. The Administration's response to the Congressional mandate to fix equitable prices for "new" oil is even more mind-boggling.

The Administration's view is real simple: it finds that the equitable price is whatever level the market place fixes the price. Earlier this year, the Congress by overwhelming votes (67 to 32 in the Senate, and by a majority of over one hundred votes in the House) took the highly unusual step of fixing the price of "new" oil at $7.09 per barrel. Unfortunately, then-President Nixon vetoed the bill in March and the vote to override in the Senate failed by eight votes.

If one uses the very rough formula that a dollar a barrel change in the price of "old" oil has an impact of $3 billion, the elimination of controls on "old" oil could mean increased burdens on the economy of $15 billion annually, assuming the price would rise to the approximately $10.50 per barrel that is the uncontrolled new crude price. Since roughly 40 percent of the domestically produced crude oil is "new", a change in that price of $1.00 would be roughly a $2 billion impact; thus the Nixon veto of the Congressionally-fixed $7.09 per barrel has cost and will continue to cost roughly $6 billion annually.

Another aspect of the oil pricing situation that has had a heavy inflationary impact has been the "released oil" decision. This arrangement, which is intended as an inducement to the industry to produce more oil domestically, permits a barrel of "old" oil to be priced at "new" oil prices for each barrel of "new" oil produced. This is estimated to have cost an extra $2 billion annually, if the base for the "old" oil were retained at the $4.25 price.

With the limitations on drilling rigs, steel and other limiting factors, it is difficult to understand why these special incentives are required. Additionally, the Congress, in enacting the stripper oil exemption from controls, has added significantly to oil old costs. Again using the $4.25 price, the estimated extra cost is in the range of $2 to $2.5 billion per year.

The question of what is a proper incentive is, of course, very difficult to determine, and intervention in the "free market" is a step that a nation built on the free enterprise system takes with great reluctance. Nevertheless, the impact of our present pricing arrangements—especially as interpreted and implemented by the Administration—has been the prime contribution to our runaway inflation. Even though we cannot, despite Secretary Simon's fondest wish, have much influence on the world price fixed by OPEC, an international oil cartel, we should move to a significantly reduced dependence on imported oil. And most important, we must continue controls and insistence that they be implemented as intended by Congress.

I believe it would be helpful at this point to suggest that, so far as I know, it is not the position of consumer spokesmen or advocates that fuels and energy ought to be under-priced or kept at some ordained subsidized levels. Rather the position is that it is improper and contrary to our national sense of propriety to permit prices during times of shortage to be unreasonably high and to produce exorbitant profits. The consuming public may have wasted energy, but it is not, somehow or other, the villian that ought to be made to pay some tribute by way of atoning for any sense of profligacy. The approach ought to be that during this period of energy shortage, the public must be protected against uncontrolled prices for commodities as essential to health and well-being as energy.

Up to now, this statement has been focusing on the national implications of oil and gas pricing. But perhaps an aspect of the current situation that warrants careful attention by the Congress is the impact on individuals, especially those who are least able to absorb these steeply increased costs. The disproportionate burden that has been placed on people with low and moderate incomes by the current high cost of energy must be faced and dealt with. It is apparently necessary to state and continue to state what is so obvious—the poor and near-poor suffer more than the rest of us when prices increase. Their suffering as a result of high energy prices is particularly acute. As found by the Washington Center for Metropolitan Studies, the homes of the poor are poorly insulated, the poor pay a larger proportion of their income on energy, they pay a higher price per unit, and they lack the resources to invest in conservation measures.

This finding was made prior to the Arab oil embargo. Since then home heating oil has risen from around 25 cents to 42 cents a gallon; propane has risen somewhere between three and four hundred percent; and coal, a commodity used in approximately 1.8 million individual residences, has tripled or quadrupled in retail price. Gas and electricity have also experienced significant increases.

Unfortunately, the true impact of increased energy costs upon the poor will not be known until the middle or the end of this winter. Last year, fortunately, we had a mild winter and, in addition, we were able to escape the impact of high

energy costs for nearly half of it. This year a colder winter and higher costs could produce near catastropic results. For example, the Kansas State Energy Office reports that many fuel dealers have not been paid for fuel that was delivered last winter.

In Pennsylvania last year, the State Energy Office received calls from over 500 home owners, many of whom were out of fuel and unable to pay, or unable to obtain credit which could have enabled them to pay. Pennsylvania, without additional resources, solicited funds from private charities in order to help people pay for fuel. Other states with hot lines, such as Maine, also experienced a flood of phone calls and already this year report calls from many persons who are in need of fuel or who are experiencing credit problems.

The situation is not confined to petroleum products alone. Electric utilities, as well as fuel dealers, report growing unpaid bills in the face of increased costs.

If this were not enough, there is a virtual lack of Federal resources and new programs to help alleviate this situation. Last winter, the Office of Economic Opportunity identified energy as a people problem and attempted to implement programs to deal with it. Project FUEL, in Maine, insulated over 3,000 homes using a small grant from OEO and free labor from the Department of Labor Manpower Training Programs. FUEL reported that in the first winter alone, the average cost of insulating a home was more than recouped by savings on fuel bills.

Unfortunately, OEO has been unable to fund this program fully this year, and it will operate at only one-fourth the level of effort of last winter. In Bridgeport, Connecticut, and in other communities around the country, Community Action Agencies granted or loaned funds to the poor to pay for fuel bills, assisted the poor in obtaining welfare benefits, or guaranteed fuel payments to dealers. Bridgeport alone received over 300 calls of distress from low income people. In Jacksonville, Florida, and on Indian reservations in South Dakota, bottled kerosene used to heat homes has become virtually unavailable. In Jacksonville, the Community Action Agency worked out a program to bottle and distribute kerosene.

Although some states and local communities have been responsive and responsible, OEO remains the only Federal agency with an energy program for the poor. It is disturbing, and perhaps even outrageous that the Administration, at last report, continues to support the scheduled demise of this agency.

According to the results of a survey by the Paul Douglas Research Center, funded by OEO, the poor have also been the victims of a series of legal and quasi-legal abuses. Refusal of credit, insistence upon investments in larger storage tanks, refusal to take new customers, closings of needed gas stations in rural and low income areas have been reported on a wide-spread scale. The Federal Energy Administration is increasingly focusing its enforcement efforts at refiners and will, thus, be unable to monitor these abuses which tend to be aimed at low income consumers.

It should be noted that the Federal Energy Administration, under Section 18 of the FEA Act, is required to assess economic impacts of its actions on "low and middle income families." To our knowledge, FEA not only lacks the capacity to make this assessment, but has shown no indication it intends to do so. In all fairness to FEA, the Office of Special Impact/Consumer Affairs has quite recently been able to form an interagency task force on energy problems.

In developing actions on energy policy to assist the poor, there appear to be three alternatives: (1) let the present situation continue and hope not too many people will freeze or live in squalor as a result of the increased costs; (2) exercise more positive control over costs so that the price of energy can be brought down to a level at which the poor can begin to afford it; or (3) implement new human resources efforts aimed at assisting the poor to pay for basic energy they are now unable to afford. These last two are not mutually exclusive and I would hope they can both be pursued.

Senator Muskie's proposal for a 75 million dollar appropriation to provide immediate and direct assistance should be enacted promptly and, although this is the very tail end of the Congressional Session, I would hope that there would be some way open to permit consideration of such a needed and humanitarian proposal. Failing that, we would hope that the President would find some funds in discretionary money made available to him to alleviate the very difficult circumstances some families will inevitably find themselves in during the remainder of this winter season. It would be unthinkable for people to freeze to death or experience extreme hardship in a nation as affluent as the United States.

One other aspect of this problem that I should like to touch briefly—although its importance merits careful consideration by this Committee and Congress—deals with unemployment attributable to inadequate fuels and energy. There are, for example, industries in south New Jersey and North Carolina that will be experiencing sharp unemployment as a result of the inadequate supply of natural gas. Efforts are being made, and certainly should be intensified, to find substitute fuels. As yet, I am not aware that the magnitude of the impact of energy shortages on unemployment has been measured.

Undoubtedly, however, this is something that must be done and, as distasteful as it may be, we are going to have to continue a program of allocating energy, at least for the short term, meaning the next three or four years. As critical as I have been of the Administration, I do believe that the basic decision reached last year which emphasized fuels for industrial purposes and, thus, jobs over the use of gasoline for automobiles was the proper emphasis. I have been less enthusiastic, however, about the Administration's timid attitude about the continuation of allocation authority for the Executive Branch. The extension of the Fuels Allocation Act for the additional six months from the scheduled termination date of February 28, 1975, hopefully, will afford the Congress an opportunity to examine how the program has functioned and to ensure that it is continued.

In concluding, Mr. Chairman, may I say that there is nothing easy or simple about the energy crisis—neither its causes nor its cures. Clearly, there is a very significant impact on our nation's economy and on the ability of many of our citizens to survive. These are urgent issues and I hope that the interest of this Committee will continue and that it will make a significant contribution to the various range of solutions that must be adopted, and really without much more delay. Leadership normally comes from the Executive Branch and there are some positive signs that President Ford and his Administration are about to come forward with some recommendations. We hope so and we hope also that the Congress will consider these proposals carefully and on an expedited basis.

Thank you.

APPENDIX A

Energy Policy Task Force Member Organizations

Adams Electric Cooperative, Inc.
AFL-CIO.
Allegheny Electric Cooperative, Inc.
American Federation of State, County and Municipal Employees AFL-CIO.
American Federation of Teachers AFL-CIO.
American Public Gas Association.
American Public Power Association.
Consumers Union.
Cooperative League of the USA.
Industrial Union Department AFL-CIO.
International Association of Machinists and Aerospace Workers AFL-CIO.
International Brotherhood of Electrical Workers AFL-CIO.
Kansas Municipal Utilities.
Lincoln, Nebraska, City of.
Maritime Trades Department AFL-CIO.
Minnesota Farmers Union.
National Farmers Organization.
National Farmers Union.
National Rural Electric Cooperative Association.
Northeast Public Power Association.
Northwest Public Power Association.
Oil, Chemical and Atomic Workers International Union AFL-CIO.
Service Employees International Union AFL-CIO.
Tennessee Valley Public Power Association.
Textile Workers Union of America AFL-CIO.
United Auto Workers.
United States Conference of Mayors.
United Steelworkers of America AFL-CIO.
Wisconsin State AFL-CIO.

The CHAIRMAN. Gentlemen, I think you have presented us with some stimulating and interesting and persuasive testimony on both sides.

Although there are only two Senators present, I think I will still invoke the 10-minute rule so there can be a fair share of the time that is left.

I will begin with 10 minutes of questions and then yield to Senator Chiles. Other Senators may come in.

Gentlemen, there is no doubt in your testimony, as well as being common knowledge, that the oil companies concerned exert considerable power in our society and more competition would be desirable. Let me ask all three of you, explicitly, is the industry controlled by a few firms who manage to restrict output in order to keep prices higher?

Mr. ERICKSON. No, the industry is competitive, and in that context it is important to look at the speculation issue which Commissioner White and Professor Davidson have raised.

If that is a real problem, the way to solve that withholding of natural gas supplies is to left it fall of its own weight, and the way it will fall of its own weight is to create the price incentive to bring that gas and oil forth.

If those alleged withheld supplies are in fact the case, then prices will fall as a result of the very simple principle: you cannot bring supplies forth in the market in which there is any kind of normal demand relationship that slopes down to the right without those increased supplies causing prices to fall. So that, first, monopoly is not a problem with regard to the U.S. petroleum industry; it is a problem with regard to OPEC, but that is a problem of countries, not companies. And, second, if, as Commissioner White suggests, and Professor Davidson suggests, there are supplies of oil and gas held off the market on a speculative basis, the way to solve that problem once and for all on a permanent basis is to create the incentives to get them in the market, and if they are there the prices fall. If they are not we will have learned something.

The CHAIRMAN. Is it a fact that over the last year, notwithstanding the unprecedentedly high prices and profits, that the production of crude oil in this country has declined.

Mr. ERICKSON. That is correct, yes.

Mr. DAVIDSON. Can I respond to both questions? I think there are more producers—if one looks at numbers—there are more producers onshore than there are offshore, and more than in OPEC. But that is the wrong thing. There is a confluence of interests here. Particularly, everybody observes these higher prices, and the OPEC cartel is the coordinating force.

Now for years, it was the Texas Railroad because there just were too many but OPEC has taken over that role and Texas Railroad hasn't let go, but has modified its role. The question is, all right, we all agree because of controls there is speculating going on. If you somehow remove controls, do you remove speculation and free markets do not speculate? Well, history is replete with free market speculation, gold being one fine example right now, which has in essence been freed from Government regulation. Whether it be control by private groups,

for example, cornering the market, or Government, and you are not going to get rid of it merely by getting rid of Government controls. In my view speculation will continue.

I give a case in my testimony of the "Centre Point" office block on the corner of Tottenham Court Road and Oxford Street. The real estate market is uncontrolled in London, basically, yet that block has been empty for 12 years, and the reason for it is that the developer, a man named Harry Hymes, has found that the price per square foot is rising faster each year, and the capitalized value of the unused building increases by more than the building would, if the space was leased out on long-term supply contracts. It is more desirable to hold the thing off the market and get a windfall speculation on it year after year. And so he does and that merely exacerbates the shortage.

Given the present situation, oil in the ground is better than money in the bank, or even gold, and you are not going to get people off that. And OPEC, you see, despite a 15-percent production capacity surplus, continues to raise the price, and just last Thursday raised the price again. Why? Now they want to catch up themselves on the inflation. And as long as people believe that OPEC can continue to do that, and there is no evidence that they can't, they continually have had more and more excess capacity and the price has continually risen. And as long as that goes on, American producers will, as Commissioner White quite correctly pointed out, be willing to go along because it is more profits for their stockholders and there is no way of avoiding that.

What you have to do is create a situation, a rule of the game which says, "Fellows you cannot make money on speculation and that can be done as I have suggested."

Moreover, even if you accepted the Erickson argument, we are going to pay the speculators off for withholding, let the price jump, and we won't have any more speculative withholding. All you will do is teach other commodity producers the way to hold the public up for ransom. You cannot deal with kidnappers. You cannot. And if this is speculative withholding I think everyone of us here agrees that you cannot afford to pay them off. You cannot. Because if you pay them off you are only going to encourage it to occur again. Why not go to $12 or $15 a barrel? As long as they control the alternative sources of supply they will whipsaw the fossil fuel consumers until they have extracted all of the income and wealth they think they can. At that stage I would agree prices will stop rising but it will be at the expense of the American consumer.

Let me add one further thing. On the MIT study, since Professor Erickson brought it up, I am sure he did not know, but MIT put out a second edition which just came out a few days ago, and it is an interesting second edition because it modifies their first edition considerably.

In the first edition they said $10 to $12 a barrel. At the present time they are talking about after the dust settles and certain policies which will break the cartel, in essence they say they expect $5 to $6 a barrel of oil by 1980, not with complete self-sufficiency, some import. They also point out something that we all three have argued, that it is all a question of redistributing the wealth domestically between producers and consumers and internationally, and they see no reason to give the

kind of distribution that current deregulation would do. And what they come out to with a slightly in between position here phased deregulation. And when I asked Paul McAvoy of MIT "What does phased deregulation mean," he says, "I can tell you what the price in the free market will be in 1980 or 1985 and we can move up to it very slowly so that you do not get any speculative windfall."

My argument was we could raise the regulated price very slowly. If you can identify what the free market price is, you don't need it, you can use the regulated price and move it up to make sure if there are any accidents nobody makes a windfall out of it, and phase deregulation it seems to me, is just the other side of the coin of, what shall I say, efficient regulation.

Mr. WHITE. I wouldn't want my silence to suggest that I share the implicit view here that the industry is not monopolistic in character. I don't think so.

Congress has had plenty of testimony. For example, in the approximately eight major gas producing areas of the United States over 80 percent of the production is controlled by four major companies. These majors are not the same majors in each of the eight, but they are the same majors that sell oil to the market.

It turns out they are not only now selling oil to the market, but they are acquiring coal interests and probably have got the largest coal holdings in the country. And just so it won't be incomplete, some of the largest uranium holders are petroleum companies.

For all I know that might be not a bad solution because if I were running Gulf Oil, I might want to switch from being Gulf Petroleum to being Gulf Energy, on the thesis that I wasn't hired to preside at the demise of my particular corporation. I do not think that is necessarily a public position, a national position, and what is astonishing to me has been the unwillingness of the Federal Government and Congress really to delve deeply into that basic policy issue. It is not the type of issue that should be resolved by default because we do not say to Continental Oil Co., the 10th largest oil company, when it acquires Consolidation Coal, the second largest company, "Don't do that." We didn't say, "Lets take a look at it." I hope again this committee and the Congress will recognize that these are terribly basic issues and they are controversial.

I know exactly how I feel on some of these issues. But there are some fairly rational people that hold different views.

The important thing for our policysetting mechanism in the Nation, which is the Congress, is to look at these things and fairly soon.

There is no way to turn the clock back. If we can add any sense of urgency about exploring that very big question, I will do so. Senator Moss has introduced legislation which would break up the vertical integration of petroleum companies, when Exxon produces themselves. Exxon transports themselves, and Exxon refines themselves. Exxon distributes. Exxon sells gasoline, sells to me, there is an awful lot of opportunity for something less than arms-length negotiation.

The CHAIRMAN. The second question, and your answers may go over my time limit, but I will put the question in any case, then yield when you are finished to Senator Chiles.

All of you touched in one way or the other on the question of, "What is our potential domestic supply, how can it be maximized, or can it, and what would it take to get it?" I wondered if I might have a response from each of you on this question in this context. It is related, of course, to what our policies ought to be externally, how much oil do we have, how much more can we expect, how can we get it, how can we make it available, so it will impact upon the price of oil here and hopefully upon OPEC prices, too.

Mr. DAVIDSON. Well, Senator, there are some statistics on page 3 of my statement and in our study we have some and we use USGS data and the evidence is the present state of technology, if we use 1972–73 prices, economically recoverable oil, is somewhere between 60 and 120 years. If we believe the proved reserve statistics and probable reserves statistics, and there is good reason historically they have always been underestimated, and there is good reason to expect them to be underestimated now.

Even if there is no improvements in technology, we should have sufficient oil for—certainly until the turn of the century and probably way beyond that. But historically, again, this has been an industry domestically with potential oversupply, not with shortages.

I have here an article from the Wall Street Journal of December 1970, which said that, quoting USGS again, "that if wells which were under Louisiana jurisdiction were to be switched to Federal jurisdiction"—which they finally were—"within a few days 150,000 additional barrels per day would be produced out of the same wells, and within a year, when more gathering facilities were added, 350,000 additional barrels per day."

As soon as the wells were switched, however, which also had to be a period of phase 2, instead of increased production, it fell by 175,000 and close to 300,000 by the end of the year.

There is an awful lot on tap that we don't even have to look at right now. The naval petroleum reserves is a Government shut-in, so to speak. I think in the short run there are plenty of reserves. I refer you to the Fortune Magazine piece which suggests how much there is. In the long run there is certainly much and that is without an assumption of technological progress and the answer here seems to me has been in the past—we may assume progress is going to stop—but history has always told us that technological progress accelerates over time.

The CHAIRMAN. Let me ask the question of you more specifically: Are there sufficient reserves in this country so that if annual production were maximized, that it could meet the annual growth in our energy requirements of 3 percent?

Mr. DAVIDSON. For how long? For how long is really the question. And what I am saying is on the assumption there is not a shortage of drilling rigs, et cetera, if I am correct, an awful lot of shut-ins which will permit you to take some time to get this new stuff onstream, yes; there is at least 165 billion barrels, according to Fortune Magazine's estimate, of economically recoverable reserves in the lower 48, now known at 1972 prices.

We are using—well, proved reserves are about 35 billion and they are talking about five times that amount. So clearly we could go through the end of the century without any difficulty and one of the

evidences is, you see, the oil companies have not denied it. They bought up all of the shale land and what have they now told us, they will not put shale onstream, they are sitting on the properties. Why? Because there is enough oil and gas around at a price below the Btu cost of shale to make it worthwhile to exploit that and they are now willing to sit around and hold shale.

We do not have to go to esoteric fuels in the near future, there is plenty of fossil fuels here. The problem is can you get it out, at what price, and from Congress' standpoint it should be at the cheapest price which permits merely a fair rate of return.

I do not want to exploit these companies, but I do not want them to exploit me as a consumer, either.

Mr. ERICKSON. The shale problem is perplexing. Let me offer an alternative suggestion. I took a devil's advocate point of view in my statement which said: Suppose the cartel holds together? The cartel may not hold together on its own. I understand that Secretary Simon believes that there is strong pressure for the cartel to come apart. There certainly are big new oilfields being found in Mexico and Ecuador and the North Slope and Borneo may come in, Alaska is going to be available sometime; oil and natural gas off Australia and the Sea of Japan and South China Sea and elsewhere.

Those incremental supplies, regardless of whether they are directly available in the United States, may be sufficient to break the cartel through the Archimedean principle to which I referred earlier. I don't know. No one can confidently predict that. That is a question which only experience will tell us. Petroleum companies maximize profits, but those profits in the long run are competitive profits, profits at a competitive rate of return. Although as a result of essential policy failures in the last several years there have been shortages which have created substantially higher temporary profits for the oil companies, those profit rates will return to a competitive level.

If I were on the board of directors or an executive of one of those companies and had the kind of data that they make decisions on, again the decisionmaking data are educated guesses, they do not make decisions on proved reserves, they make decisions on probable and possible reserves, I would be very nervous about committing substantial amounts of money to the development of shale oil at $12 a barrel or more when the world price of oil may fall to, say, $6 a barrel and I would be sitting on top of a $6 a barrel net loss on every barrel that I produced.

There is no way that you can make that up on volume. So that I would suggest that there are very logical reasons why we may see Texaco, for example, saying, "I think I will hold off on shale," and one of those logical reasons may be the stability of the world price at its current level.

I spoke earlier about speculation breaking under its own weight. I think that is still an apt statement. I would recommend we do a little bit to help it, and my suggestion on helping it would be: Impose an oil import tariff. In that sense I think President Ford has been dealt with less than fairly. People will say "President Ford is not very with it because he doesn't want a gasoline tax." In my opinion, President Ford has demonstrated very sound reasoning. A gas tax would be a

stupid policy. We can achieve the same results much more efficaciously with an oil import tariff rather than with a gasoline tax.

Mr. DAVIDSON. Can I add a point on the oil shale? The Wall Street Journal of January 9, 1974, "Oil shale leases draw high bid of $210.3 million, which comes out to be $41,324 per acre."

Years ago I was in Continental Oil when we had to make a decision on property bidding. If they were so worried about these things, why are they now willing to pay $41,324 and acre to get control of that property when they were worried about whether $11 oil would exist for a very long time.

It seems to me very strange within less than 12 months, companies who were willing to pay what are fantastic prices for unproved reserves are suddenly finding when they redid their sums that they were wrong in guessing that they ought to buy it.

What I observe here, it pays to buy a lease and sit on it to prevent anybody else from producing out of that property.

Mr. WHITE. There is another piece of this, if I may, Mr. Chairman, that goes back to the earlier idea of the Federal involvement on an active basis.

I do not know that I share Dr. Davidson's enthusiasm about how much is out there to be discovered if we can only have the right combination of circumstances and price and so forth, and I think, for example, that the Congress has wisely embarked on the course of $2 billion annually for research and development to get alternative techniques to fossil fuels and I think that frankly we should not rely on what are the estimates of what is here and available in the lower 48 and elsewhere in the world. But again harking back to one of my happiest themes, a Federal involvement, it seems to me, is, as Mrs. Mink proposed in the House, a corporation to develop technologies for taking shale and processing oil from it.

Why should we not as a Nation make the investment that is necessary to find out what it's all about, instead of using, as we almost always have done exclusively, private contractors to do this? If it is important enough for our well-being to have naval petroleum reserves to protect us in the case of military necessity, can we not also have economic security as a factor that would have a Federal entity developing resources that are ours to be used when we need to?

There isn't a soul alive today who might agree with Dr. Davidson's optimistic judgment about what is there, but when the embargo comes, as it did last year, and for all I know it will come again, we have the United States sitting here very, very nervous about whether our international policies will be well served, and I would recommend that our President not embrace Mrs. Meier when she comes here; what happened to England is going to happen to the United States.

Why should we not undertake to develop our own capacity to meet our needs on some rational basis? I do not think we ever ought to get to the level of total independence, as the Project Independence name suggests, but I do believe we have to move in that direction. So I would not want the relatively rosy optimistic view of what is here and can relatively be easily obtained to stand without those extra factors having been mentioned. And once again I think it demonstrates why there ought to be a Federal corporation.

I don't think you can ask Shell Oil Co. to sit on its reserves for 10 years, but I think we can ask the Federal Corporation to sit on their reserves for 10 years, if indeed it is in our national interest to do so.

Mr. ERICKSON. Two comments; one with regard to the Federal Oil and Gas Corporation. It does take time to develop such an operation. If we were to fund immediately a Federal Oil and Gas Corporation at the same level as TVA now is funded, and if it could spring into being overnight, if you could take an action tomorrow which would have on January 1, 1975, such a corporation, devoted to oil and gas exploration and production, in existence, it would be about the 18th largest firm in the industry. I think that is an indication of the kind of impact we could expect it to have.

You are fooling yourself if you think that is going to solve the problem.

The second thing is with regard to oil shale. According to Professor Davidson's arguments, Exxon would never pay $100 million or more for offshore oil leases they drill and find dry. No one would ever drill a dry hole in the oil industry because their knowledge is so perfect.

The CHAIRMAN. Senator Chiles.

Senator CHILES. I know now we are talking about, and maybe you were talking about it too, Professor Erickson, some kind of a guaranteed price that would guarantee to our domestic companies if they went out and searched for the new resources and everything and developed the shale and other things, that we would guarantee this price so that they would know that if they put in the capital and everything that they would need to put in, and it looks like to me that we are talking about the guarantee price at $11 or $12 a barrel, or something like, my question is, if we are going to do this, is what we are attempting to do just to redistribute the income and hold it within this country in doing that, and I still wonder even if we guaranteed the price, if the Archimedean principles start coming into being, and because it would start coming into being, if you guarantee that price, doesn't that tell our domestic companies, "Don't go too fast, don't discover too much, don't bring too much on line," because you do bring in the Archimedean principle, and, therefore, it would have to drop down.

So doesn't that sort of lock us into the higher price without really saying that we are going to be less dependent on the Arabs, because it almost seems to me economically you tell that domestic company, "don't put too much on line, we've got a good thing going and let's continue with that and let's continue, we will just be able to project our profits out for many, many years, and if we bring too much on line, while we have cut back maybe on our foreign sources, again we are bringing in." So the cartel does break, and so they then say, "Look, we will give you oil at $6 a barrel." Isn't there then going to be a demand on the U.S. public to say, "Wait a minute, we are going to go after that oil."

I would like to have your comments.

Mr. ERICKSON. I would like to comment.

You asked me a twofold question.

Let's talk about company behavior and company response first.

Over the period 1950 to 1970 the real price of gasoline, that is, adjusted for inflation, in the United States, fell by approximately 25

percent net of taxes, and real refining margins fell by approximately a third. So what we are looking at was the benefits of competition under conditions of increased technology.

Now, every third Thursday of the month, practically, in the Oil and Gas Journal or in the National Petroleum News, there would be an editorial railing against the evils of the incremental barrel. And it was the result of everybody trying to get what they could which generated those incremental barrels of refined products which forced refinery margins and the real price of gasoline down.

So that I am not terribly worried about the competition problem.

The second problem is with regard to price guarantees.

I am opposed to price guarantees, guaranteeing the price at $12 or $10 a barrel.

Senator CHILES. Just one second before you go into that.

Wasn't the Oil and Gas Journal talking more about the independents than anyone else? Weren't the big companies, the big four, the big seven, weren't they making money because they were the ones that were in the distribution and they were making their money out of distribution rather than what they were taking out of the ground. Weren't they making money during that time so they were not trying to do much with that other than to get more of those incremental barrels because they were getting the ticket price plus what they were getting in the distribution process, which is where they were making their money.

So it seems to me that again they were the ones that were benefiting by that and that is why it could continue.

Mr. ERICKSON. If one looks at the long run profitability of the oil industry, say the eight largest firms, the firms that are named in the FTC complaint, those firms were not exceptionally profitable over that period of time.

I think everybody here agrees that the last few years are an Alice in Wonderland situation, but over the two decades, 1950 to 1960 into the early 1970's, those eight firms were earning on an average about 11 percent on their stockholders' equity, and that was about equal, as near as an economist can estimate it, using the kind of techniques that are used in public utility rate cases—that was approximately equal to their cost of capital.

Now that is what a competitive market tries to do, to insure that prices are equal to cost. When prices are equal to cost, then the rate of profit is equal to the cost of capital, and that is essentially what we have seen.

What I think you have done, sir, is turn around the FTC argument. They argue that the companies make no money in refining and distribution but make all of their money in production, and that that is an evil of integration.

I agree that the companies are vertically integrated. I do not see any pernicious evil in that.

It seems to me that what we have seen over time is a development of an organization in this industry which is justified by its cost advantages. If it weren't we would not see so many firms with that basic structure.[1]

Mr. DAVIDSON. Well, the trouble with arguing from a historical antidote, it is never really clear. What one observed, I was with the

[1] Additional information supplied by Professor Erickson may be found on p. 262.

Continental and we moved from a domestic producer to an international producer in the 1950's and 1960's, was that the industry was becoming much more competitive than it was and than it is now, for a number of reasons, including the fact that people who were small like Continental were suddenly getting big.

There were suddenly places outside of the United States to find oil and there were good markets outside of the United States to get it and Louisiana was expanding back and Texas wasn't able to contract sufficiently and that created problems. Also costs were going down so prices were going down and it was a question of keeping these together.

There were all sorts of things happening. No question that the industry was getting more competitive in their early and midsixties. FPC was very successful in controlling natural gas prices in that time and bringing it down because it was basically a free ride at this point in time.

Now it is noncompetitive or the monopoly profits are great.

Professor Erickson says the current situation is an Alice in Wonderland. I hope he is right. But one has to be careful that this does not get capitalized into a belief that a normal rate of return that oil companies ought to earn because they are more risky or more social or else if they do stockholders bid up the price of stocks and the rate of return always becomes competitive, the market for equity is competitive. I agree with you there. But that is not the market for oil so rates of return on equity always, if the stock market is doing a good job, will show if all companies are doing well.

I think it may be in the 1960's and in the 1980's but I am not willing to let it to fate, I want to encourage competition by direct policy.

May I also add one further thing. Continental, and Continental controls coal, and in the 1960's coal was a competitive source—and it isn't anymore and I think that changes the whole picture again.

The CHAIRMAN. I would like to ask one other general question and then a few specific ones to see if we can conclude.

One on the conservation side. We haven't said much about that this morning.

I take it that there is a floor on the amount of oil that we can conserve without biting into the economy. I would like to know what your estimate is. The popular figure at the moment is we ought to reduce our consumption by a million barrels a day.

Is that maximum in terms of what I am talking about, the impact on the economy, jobs, production and so on? How much can we realistically save?

What steps do we need to take by way of direct policy to achieve those maximum savings without hurting the economy? And the answer I assume will vary greatly depending upon whether they are talking about short term or long term.

I am interested in both, but more in terms of the short term for the moment.

Would you like to address that?

Mr. DAVIDSON. When you say "conservation" you have to say for what purpose.

If it is for the purpose of breaking OPEC, and solely for that purpose, I think it is foolish.

The CHAIRMAN. It can't be done?

Mr. DAVIDSON. That will not do it.

OPEC has excess capacity and will want to raise the price and it is not very efficient and we are brimming with gasoline, you know.

Every vessel in the free world is now filled to the top with crude oil and what you are saying, if the Arabs want an embargo we will embargo ours by a million barrels a day. Why don't we let the Arabs worry about this. If you are saying that we are wasteful——

The CHAIRMAN. On balance of payments.

Mr. DAVIDSON. Balance of payments is a problem but that again is something that must be handled financially.

If you do anything to cut demand drastically, there has to be immediate impact: Ski resorts in Maine, travel in general, all of this will have an impact, and so forth.

The question is why. It will improve the environment and some people would like to do that.

If you had a good public transportation system then you could use that method for moving people. But you do not have these alternatives.

I would say that the thing to do is not cutback; there is no reason.

If you want to reduce gas guzzling put a tax on cars so that over time the stock of cars will change.

There is no need, immediate need to cutback, it seems to me, and any cutback, be it a million barrels a day or not, will merely aggravate the already high unemployment level, and I think it is too high now and I would not encourage anything that would aggravate it even one-tenth of 1 percent in the unemployment rate.

The CHAIRMAN. So you are not for conservation at all?

Mr. DAVIDSON. Not for the purpose of solving the energy problem. I might be for the environmental reasons or for public transportation, but that is something else again, and if you are talking about energy and unemployment and so on, the answer is that in my view that is a very poor inefficient method of solving those problems.

Mr. ERICKSON. My anecdote is being proven wrong. Here we come to the end of our testimony and Professor Davidson and I are very much in agreement on this particular point. Conservation for conservation's sake, because it is, "good," like motherhood, I think would be foolish.

I cannot add very much to what he suggested.

Mr. WHITE. I would like to record a dissent. I really do not think that we have our situation well enough lined up and so long as we are still relying on external sources for something like a third of the oil that is consumed here, a third that is consumed in the United States, I think we really have to come to grips with realities.

None of us at this end of the table, I think, are engaged in negotiations in the world and I just simply believe that we have to take a step that will indicate to the cartel that we can handle this problem. We do not live on an island and we cannot say "the hell with Japan" or "poor old Japan, down the tube." There is France and Britain. We have a sense of responsibility, I believe, to the world and the family in which we live, dictates that we not, especially since we are all getting sick and tired of the one massive statistic about how 60 percent of the world's population uses a third of the energy. I also believe that we have found ourselves in dislocation.

Right now there is a very good-sized dispute in Congress and before the Federal Power Commission as to whether natural gas and other fuels should be substituted for it, and there aren't very many that can be used for fertilizer production, and for us to say we have plenty of it, let's don't kind of cut back, I don't think is the prescription for today's situation and certainly this whole problem of the breaking of the international cartel, I think has got something to do with breaking the domestic cartel, too.

We all know one of the reasons that domestic oil is selling at $10.50 a barrel is not because it cost that to produce but because they have a nice ceiling fixed for them in Vienna or Algiers. So to walk away, saying, "Well, what the hell, everything is OK, we don't have to cut back," I think would be misleading, and I don't want to be a part of that.

Mr. DAVIDSON. Let me add, if you cut a million barrels a day, we are importing from the Arab countries something like 4 million barrels a day, and they are selling it to us at $9 plus transportation, as long as the demand is inelastic you cut back by 25 percent, if they can raise their price by more than 25 percent, they will get more revenues, you will exacerbate the foreign exchange problem and what you will prove is OPEC is still in a stronger position than you are, you will have shown you cannot stand up to them, and this is the problem.

We thought 6 months ago that when they were generating too much supply the price would drop, after every vessel and tanker were being moved at a slower rate across the ocean merely because there was no place to deliver it, and OPEC continued to raise the price.

They know the price is elastic and what you have to do, if you can get domestic supply, you can stop buying from OPEC and solve this problem and keep jobs.

It is the domestic supply you have to work on.

I agree with Mr. White there is the problem of being a prodigal consumer in a world of scarcity among other nations and this is a distribution problem. But going without is not going to help the people in Africa saying, "We will deny ourselves so we can get somewhat closer; one day a week without food so we know how starvation feels." That isn't going to help them.

That is a completely different issue and we ought to keep those issues separate.

Mr. WHITE. I think they do come together partly as has been suggested, and I agree, we do not know whether this cartel is going to break. I never thought that Secretary Simon, bless his heart, knew what he was talking about when he said prices were coming down. When the managers go to Harvard Business School or who are likely to go to Texas—Austin, Tex.—and watch the Texas Railroad Commission, you don't have to be a bloody genius if you have control over production with a little spigot and demand is relatively firm, to know tha you will have enormous impact on prices. But there is a breaking point and I think we ought to contribute to finding that breaking point, and I think that the extent that we do not import it will add an inducement to the domestic production and I am, therefore, slightly appalled that you would suggest we ought to say, we should say once

again our leaders have been giving us a phony story, plenty of this stuff is already coming out of our ears.

Mr. DAVIDSON. As I say, that is what the statistics show.

One of the first jobs I had when I was with the company, they sent me around to every refinery they owned because they felt an oil economist must observe what a refinery looks like, and they never sent me down to a drilling rig, so I must admit I can only go by the statistics, I do not know what a drilling rig looks like except in a picture.

The CHAIRMAN. I think that issue has been very well illuminated and I appreciate that.

Let me ask some specific questions.

Does it make any sense to have a program of oil storage of say 6 months supplies?

Mr. DAVIDSON. I think the answer is we already have, but we store it underground and it is a lot cheaper to store it underground than above ground.

During the Second World War, I repeat, we were able to produce fields at greater MER because there was a shortage. We have the Elk Hills, which is an underground storage. There is plenty of storage underground.

The CHAIRMAN. Let me ask you this:

Are they the kind of stores that would enable us, say, within a reasonable period of time, whatever that may be, to suddenly make up for a sudden loss of imported oil on the magnitude of 1, 2, 3 million barrels a day?

Mr. DAVIDSON. I have a statement here by Professor Adelman who is also an expert in the field, which he gave to the conference board, in which he said in the last embargo that if the Railroad Commission had changed and the Navy had opened the naval petroleum reserves one-half of the lost imports could have been made up in a few days just by changing the Railroad Commission.

He did not even go to offshore, just Texas and Elk Hills. The answer is there is a lot underground.

Mr. WHITE. Also if I may suggest, Mr. Chairman, this argues for the Federal Government doing two things:

One, developing a competence to handle this field, and I hope that we do not let the Federal Energy Administration slide off into nothing. This kind of looks like it might be headed that way. It was jerry-built. But this I must say, partially in answer to Dr. Erickson, is one of the reasons I think we ought to have a Federal Oil and Gas Corporation and he says still it would not have significant impact. All I can tell you, I was the first one to propose that and that was 6 years ago. If it had been enacted 4 years ago at least we would have developed some of the competence that is responsive to government to be able to wrestle with some of these problems.

I cannot think of anything more astonishing than the manner in which our multinational corporations deal and we in the United States sit back wondering, I wonder what is going on in those meetings.

Now that is changing because the multinationals are being kicked out.

I think the Federal Government has had its eyes opened and has been stirred.

I hope we do not lose our enthusiasm because if Dr. Davidson's boundless optimism happens to work out, we are going to sit back a little bit and I don't think we ought to, I think we ought to develop the capacity to put these reserves into the line.

One of the most frustrating things in the whole Federal establishment is up to now there has really been no "or else." Presidents and Commissions and Congressmen and Senators can plead with the industry to do more, but it is a plea. You say, "Come on, fellows, would you, please?" And they say "If you get that damn incentive up high enough, of course we will!"

You say, "I guess we'd better get the incentive up." We have one fellow who says, "Let them have this one and if they don't behave, they will have demonstrated they were hanging back."

I don't think a Federal establishment can at this time for this type of commodity so essential to the Nation's well being and safety undertake to leave everything like it has been.

Mr. DAVIDSON. I do not know if you were on the second southern Louisiana case or not, but the producers there on the second one, I believe, signed an agreement saying if you raise the price up to——

Mr. WHITE. Twenty-six.

Mr. DAVIDSON [continuing]. We will provide all of the supply that is necessary.

Mr. WHITE. In blood.

Mr. DAVIDSON. They signed an agreement and then the supplies dropped off. So we have the evidence that price increases do not necessarily——

Mr. ERICKSON. I want to go back to what you originally asked about the storage.

Yes, I think it is important to have a storage program and I would agree with Professor Davidson, in part, that it will be desirable to have some Federal initiative with regard to revamping our conservation practices and Federal oil and gas production and conservation law in effect. I would recommend very strongly in this regard you might want to listen to some testimony by a professor of economics at the University of Texas who is probably one of the leading academic authorities on conservation regulation. That is Steven McDonald.

By all means I think we need some storage. I do not think in the ground storage is sufficient, underground storage in the form of undeveloped reservoirs. I think we need above ground storage. We do have a security problem and we have to have a better insurance program than we now have.

The CHAIRMAN. Senator Hollings has submitted some questions which I am also interested in so let me put them.[1] They are a little more specific.

First, are the large number of shut-in wells due to equipment shortages and expanded drilling activities or is it industry withholding?

Mr. DAVIDSON. I guess I ought to answer that since apparently I brought it to media light in the Brookings study. We happened to stumble across some statistics which was very surprising, that be-

[1] See p. 259 for a complete list of answers to Senator Hollings' questions.

tween 1971 and 1972, according to the Department of Interior, the number of shut-in wells mainly in Louisiana, the gulf, increased by 2,000. Since there were only 400 new ones these were mainly producible wells that were shut in and classified as producible, that is by a USDS inspector who has gone there and looked at data. Yes, at current prices you could open this up and make a profit by running them.

The question is why are they shut in, and that there are no statistics about.

I think they are withholding.

When the media got hold of it, CBS-Cronkite nightly news, they sent investigative reporters. I spoke to them after they went down to the Interior and also spoke to people in the industry.

The Interior people said that was because we switched from the Louisiana to Federal.

I have already indicated the Wall Street Journal said that should have increased production flows and not decreased them.

The industry said no, that was not the reason, the change of jurisdiction, there were technical reasons for these things to be shut in and that was it.

So the answer you get is technical reasons. There is no way of checking it.

Again these are the reasons we need an independent audit of some sort and until we have that it is very hard to believe that 2,000 of 5,000 wells were suddenly technically defective in some way and were shut-in in a 12-month period.

The CHAIRMAN. Did you want to comment?

Mr. ERICKSON. I am more inclined to believe there is something to the switch from our State jurisdiction to Federal jurisdiction. Under State jurisdiction the well is regarded as the unit of production. As I indicated earlier, that is just not economically and physically the case. The reservoir is the unit of production. I think that the switch in jurisdiction created some wells that were supernumerary in terms of contribution to total output.

In fact, although the number of shut-in wells took a big jump, production increased out of the remaining wells, which suggests that the jurisdictional problem did have some bite to it.

Again, I am sure there were probably technical and definitional reasons as well.

Mr. DAVIDSON. Let me say I agree, the remaining wells now pump more and it was more profitable to shut in these wells, no question about that, but that is not the question. The question is these wells were producible, all of them operating under Louisana jurisdiction, which had restrictions on how much they could produce.

The Department of Interior said, if we put them under Federal jurisdiction which was more liberal, we could increase production and they would still be profitable. They did that. And the company said no, we want this kind of profit stream and shut them down.

Nobody denies there is more profit.

Mr. ERICKSON. I think it is a little dangerous to rely on third hand things out of the Wall Street Journal.

I did spend a great deal of time while I was working for the Cabinet Task Force, trying to determine exactly what excess capacity in the United States was.

It is very tempting, as I suspect is the basis for the newsstory, to take production of say, 10 million barrels a day and divide that by a market demand factor of 0.5 and conclude that if the market demand factors were 100 percent, we would have productive capacity of 20 million barrels a day. That wasn't the case. It was a much more sophisticated and complicated problem.

There were wells whose market demand factor was 50 percent, whose production rate was falling. If you increased the market demand factor to 100 percent there was no immediate way you could get any more oil out of those wells. So to naively do that kind of numerical calculation and say that if we were to increase market demand factors suddenly we could create oil, is just naive.

Mr. DAVIDSON. I must add one bit of information, the Oil and Gas Journal, who would hardly be considered impartial, but they did point out, in this June 21, 1971 issue, when some of these Louisiana wells were moved, the remaining Louisiana wells allowable offshore were raised substantially, production on the remaining was raised substantially to take in the slack for what was lost on the Federal ones without any losses, and this was done by the recommendation of the industry that they could produce more out of the remaining Louisana wells.

The prorationing allowable formulations have nothing to do with energy engineering, they are depth bracket allowances which is a method of maintaining prices and this is not third hand information, this is industry information.

Mr. WHITE. It is a very difficult thing to prove, Mr. Chairman, but if I were there, if I happened to be the president of one of these companies and we had a quasi-legitimate basis for saying let's don't use that well now, let's cap the thing and hold it for a bit. I would not have to be evil or venal or wicked or illegal or immoral, I would be prudent, because I really believe down in my gut that about next year this is going to be decontrolled and it is going to be worth more, and if I have other places to put my money, for example, the North Sea, or off the coast of Ecuador why shouldn't I, and you do not have to engage in the devil theory. These are logical, reasonable things and, as I say, the proof has been terribly difficult.

Secretary Morton is frustrated because everybody pounds him over the head and he sends out his 55 Coast and Geodetic people to find out and they get all kinds of explanations, some of which I am sure are probably accurate and some are the best reason that could be offered. I would not expect if I were running a company and I had people working for me, when the Federal inspector came that I would give him the reason that the company has got a policy of going as slowly as they possibly can on production of this because it is going to be worth more later on. He would have other good reasons. If he did not, I would fire him.

All you have to do is operate a little bit on instinct and fantasize how you would act there and all of a sudden there is probably some explanation for capped wells.

The CHAIRMAN. Isn't the question really without proving or disproving the devil theory, the exercise of prudent business judgment results in certain production of domestic oil and the Nation requires a higher production, and the capacity for that higher production is there.

Isn't that really the question?

Mr. WHITE. Yes.

The CHAIRMAN. How to achieve that higher production.

Mr. WHITE. And to have the competence in-house, in the Government, people who are paid by the citizens, who can reach those judgments and take a look at them and say, well, this guy is correct and this one is marginal and this one is wrong.

I think we will all be better served and there is no doubt about the lack of national confidence.

We have a whole lot of lack of confidence in a lot of other institutions, but they are not immune, in fact, they might be well up on the list.

The CHAIRMAN. Senator Hollings has some other questions, but my time has run out. I will submit them to you so that you can answer them for the record.

[The information referred to follows:]

QUESTIONS SUBMITTED BY SENATOR HOLLINGS TO PAUL DAVIDSON, PROFESSOR OF ECONOMICS, RUTGERS UNIVERSITY, WITH RESPONSE

Question 1. Are the large number of shut-in wells due to equipment shortages and expanded drilling activity, or is the industry withholding?

Answer. As far as I know no one has claimed that most of the shut-ins are due to equipment shortages and expanded drilling activity. In fact the greatest statistical increase in producible shut-ins on the Outer Continental Shelf occurred between December 1971 and December 1972, a period when equipment shortages and drilling activity was not unusually high.

It should be noted, however, that on December 12, 1974, Dr. V. E. McKelvey, Director of the U.S.G.S. Department of the Interior issued a news release on why the sudden increase in the statistics on producible shut-in wells between 1971-72. Dr. McKelvey stated that this "did not reflect an actual increase in these shut-in wells; rather a change in the method of reporting statistics on oil and gas wells by the U.S.G.S. including a change in the definition of a shut-in well. . . . Until 1972 the statistics on shut-in well completions did not include those left standing due to drilling on platforms, planning for secondary or other injection projects, delays in facilities, well plugging by said or having an excessive gas-oil ratio. . . . In 1972 the Surveys Conservation Division made the decision to expand the definition of a shut-in well to include a large number of wells that were not actually producing that year, but which were not permanently plugged with cement and abandoned. . . ."

The news release goes on to note that "McKelvey said that wells were shut in for three major reasons: reservoir problems, mechanical problems, and waiting on facilities." McKelvey is then quoted as saying "Reservoir problems involve reservoirs that are depleted through pressure losses when totally enclosed or trapped. Without sufficient pressure the oil cannot flow. . . . Also under certain conditions, some oil reservoirs produce excessive gas, which may result in waste either in the reservoir or as flare gas."

"Mechanical problems—the biggest single reason for shut-in wells—often involve wells that are choked by flowing sand. Also . . . wells have to be shut in because of the need for repair. For example, many wells are obstructed by tools lost through wireline and small tubing operations."

"A third problem category—*although responsible for only a small percentage of shut-ins* is because of a wait for new facilities." (Emphasis added.)

I believe that Dr. McKelvey's statement should be viewed with a jaundiced eye for it raises more questions than it attempts to answer. These questions include:

(1) The Outer Continental Shelf Statistics' table in which the producible shut-ins were reported did contain a "Note" that there was a change in the definition of these statistics in 1966, but has no indication of any change in definitions in 1971. Moreover on pp. 1–2 of this *Outer Continental Shelf Statistics* report there is an "Introduction" which spells out in some detail changes that have occurred in O.C.S. wells since 1945, but contains no mention of a change in statistical definition in 1971. Any good statistician would have noted a change in definition at the time they occurred! Is this an expost rationalization?

(2) The statistics under discussion are for *producible* shut-ins and not service wells. Thus to the extent that "wells left for secondary or other injection projects" are involved, if these shut-ins are for injection purposes, the particular wells cannot be producible. Moreover, even if these wells are economically producible by secondary recovery methods *at 1972 prices*, why after more than two years and higher prices have these wells not been made active again?

(3) Since we are talking about *producible* shut-ins, Dr. McKelvey's introduction of the change in definition of shut-ins because of "pressure depletion" or "reservoir problems . . . [were] without sufficient pressure, the oil cannot flow" appears to be irrelevant. Similarly his inclusion of wells that were not producing "but which are permanently plugged with sand and abandoned" is also irrelevant. The discussion is about *economically producible* shut-ins, not abandoned wells. Who abandons producible wells?

(4) If before 1972 *producible* shut-ins did not include those "left standing due to drilling on platforms, delays in facilities, well plugging by sand or other mechanical problems or having an excessive gas-oil ratio" as Dr. McKelvey suggests, why were there 953 producible oil wells and 609 producible gas wells in 1971? These 953 oil and 609 producibles were not *abandoned.* They were considered producible but shut-in for reasons other than those listed by McKelvey. What other reasons are left?

(5) If mechanical problems are the "biggest single reason" for shut-ins, i.e. if sand cleaning or repairing is needed, why haven't these wells been cleaned and repaired in the last two years? Surely it is less expensive to clean or repair an existing well that is known to be economically profitable to work, than to drill a new well.

All wells have to be taken out of production for short periods of time in order to make repairs, to remove sand and silt, etc. But two years does seem unreasonably long for cleaning and repairing, especially given the critical shortage of domestic oil and natural gas.

(6) Producible shut-ins that have "excessive-gas-oil-ratios" are quite flush wells. Such shut-ins are compatible with speculative withholding of natural gas and its concomitant oil, especially since the 2nd Southern Louisiana gas decision of the FPC which permitted a significant rise in regulated natural gas prices and suggested further additional rises (and even deregulation) could be brought about, if supplies did not expand rapidly at the regulated price.

(7) McKelvey suggests that shortage of collecting facilities, equipment, etc. account for only a small percentage of the shut-ins. They should be not much greater in 1971 when the shut-in ratio on the OCS was 14% then in 1972 or 1973 when the ratio jumped to 44%.

There is no doubt in my mind that there is a rationalization for every producible shut-in—no producer is going to admit that the shut-in is due to speculation rather than due to a technical reason. Nevertheless the failure of the industry to correct these "technical" factors on *producible* shut-ins over a period of two years when the nation has a critical gas shortage suggests that if the producers are not speculatively withholding, then they are highly inefficient at maintenance, repair, and installing collecting facilities on the OCS, and therefore it is the inefficiency of the producers and not the stinginess of nature that is causing the current domestic oil and gas shortage. In other words, the producers are either speculating or operating their producible wells in a grossly inefficient manner. In either case the U.S. economy is suffering as a result.

Question 2. Do states set allowables?

Answer. In Texas and Louisiana, the major producing states, allowables are set by a state regulatory body. It should be clearly understood, however, that allowables are set by a "depth-bracket-allowance" formula that has little or nothing to do with MER. In fact, as the *Oil and Gas Journal* (June 21, 1971 issue, p. 76) pointed out in 1971, Louisiana changed its depth bracket formula in order to improve the return on investment on certain wells and not for reser-

voir conservation reasons. Allowables have, since their inception, been a price supportive-profit guaranteeing device, and its relation to pressure conservation is insignificant.

Question 3. Is production below allowables even now? What justification do the companies give for such lower production?

Answer. Allowables only set a legal maximum for daily production. Producers are free to produce any quantity below the allowable they want. They do not have to justify to the regulatory body why they produced less than the allowable.

Production currently is less than maximum allowables in some fields. According to p. 110 of the December 1974 issue of *Fortune* magazine, maximum allowables is set at 240,000 barrels per day for the East Texas field while operators are currently allowed to produce at only 86 percent of that level. Since at any point of time some wells may be shut-in for maintenance and repair it is very likely that in any month actual production could be below that 86% level. Moreover, according to *Fortune* magazine, Exxon has estimated that this field could produce 400,000 barrels a day without jeopardizing reservoir pressure.

Question 4. Do you have any evidence other than the FPC study that producers are deliberately slowing development—in spite of industry claims of vast exploration and development expenditure increases?

Answer. Except for the FPC, there is no direct evidence that producers are deliberately slowing development. Of course, there have been numerous news stories regarding energy companies paying huge bonuses (as high as $41,000 per acre) for shale lands and then announcing a few months later that they are abandoning plans to develop these shale lands—although the companies are not abandoning the leases.

On p. 55 of the May 21, 1974 issue of the *New York Times* there was a report of a study done by the Council on Economic Priorities indicating that coal companies (including subsidiaries of Continental Oil, Shell, Sun Oil, Gulf and Atlantic Richfield) had 20 billion tons under Federal leases and "have left them 'virtually untouched' awaiting speculative profits."

Since the publication of my Brookings study I have been contacted by some independent producers who operate "farm-out" leases for the majors. These independent producers claim that they want to increase *production* from their wells, but are limited by the majors to how much they can produce by the perpetual call clause of their "farm-out" contracts. I have no idea how widespread this practice is—but it does suggest a deliberate policy by the majors to withhold production.

The CHAIRMAN. May I say that I regret we did not have better attendance on the part of the committee. I found this a very stimulating, illuminating discussion this morning. I personally appreciate it and I would commend the record to anyone who would like to get further enlightenment on this. I think the fact that there was a clash, difference of opinion, simply adds to the value of the record as far as I am concerned.

[Additional information supplied by Professor Erickson follows:]

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January 6, 1975

Senator Edmund S. Muskie, Chairman
Committee on the Budget
U.S. Senate
Washington, D.C. 20510

Dear Senator Muskie:

Thank you for the opportunity on December 18 to testify before the Committee on the Budget.

At that time I promised to provide the Committee with copies of a recent Brookings paper, "Oil Supply and Tax Incentives," which I co-authored. I am sending 20 copies under separate cover. An additional single copy of the article is here enclosed. Also enclosed is a copy for the record of a letter to Senator Chiles clarifying my answers to several points which he raised.

In the prepared statement and in my oral testimony, I tried to make a number of points. I would like to summarize those points here. The points were:

1. The depletion allowance and other special tax provisions enjoyed by the petroleum industry have had a positive effect upon U.S. oil and gas reserves.
2. The U.S. petroleum industry has been and is effectively competitive.
3. The energy crisis and the recent high profits of the U.S. petroleum industry are the result of policy failures, and profits can be expected to return to normal levels as the market adjustments to changed circumstances which typify a competitive industry take place.
4. Even at the level of prices now prevailing, there is a strong likelihood that the U.S. will continue to require substantial amounts of imported oil.
5. Because the industry is competitive, it is foolish to believe that ad hoc rules changes such as altering bidding arrangements for offshore leasing (or even antitrust action) will themselves miraculously result in an increment in domestic supply.
6. In a broader context, however, the domestic energy supply and demand balance is sensitive to the rules of the game. If the depletion allowance is eliminated, the U.S. energy balance will deteriorate and we will be more vulnerable to unilateral OPEC price action unless some offsetting policy step is taken.

7. To achieve any given reduction in imports, an oil import tariff is a superior policy instrument to an increased gasoline tax.

8. If we wish to minimize the overall, long-run, total energy costs to the U.S. economy, a rational policy package might include:

   a) an oil import tariff,
   b) deregulation of the wellhead price of natural gas, and
   c) decontrol of the price of old oil.

9. Such a policy package might help reduce, or restrain any increase, in the world oil price, but only experience can reveal whether this will be so.

10. Because we are operating so far outside the range of historical data, any precise predictions with regard to the size, direction and timing of price and output effects must be viewed with a jaundiced eye. Precisely for this reason, it is important that a rational U.S. energy policy be structured so that any breaks of the game which might accrue to us at least go in the right directions.

This last point is especially important. It is very likely that foreign supplies of crude oil will continue to be an important element in the U.S. energy balance. We therefore have a very strong interest in gaining access to those supplies on the most favorable possible terms. In order to accomplish that end, it is important that we put our own house in order. We have ample evidence with regard to the debilitating effect of price controls -- particularly in the energy field. From all of the standpoints of (1) overall domestic energy supply and demand, (2) the level of oil imports, (3) the potential for making the world price of oil lower than it might otherwise be, and (4) coming to grips with the real dimensions of U.S. energy policy, it is worthwhile to (a) deregulate the wellhead price of natural gas, (b) decontrol the price of old oil, and (c) opt for an oil import tariff rather than a gasoline tax.

Respectfully and sincerely yours,

Edward W. Erickson

Edward W. Erickson
Professor

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Enclosure

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Senator Lawton Chiles
Committee on the Budget
United States Senate
Washington, D.C. 20510

Dear Senator Chiles:

In our discussion on December 18 during my testimony before the U.S. Senate Committee on the Budget, you raised several very interesting points. I am afraid that my answers at the time were inadequate and I would like to take this opportunity to address in more detail the concerns you voiced.

As I recall, during the discussion of the competitiveness of the domestic petroleum industry, you particularly questioned whether or not the value of oil import tickets during the period of mandatory oil import controls did not provide the major oil companies with a means which permitted the creation of monopoly power in refining and distribution.

I do not believe that such was the case. It is true that oil import tickets -- during the period when imported oil was less costly than domestic oil -- had considerable value. This value was, in effect, a subsidy to the domestic refining industry. The logic of such a subsidy is that, in a competitive industry, it reduces industry costs and is passed through to consumers in the form of lower output prices. The access to imported crude oil at world prices lowered the costs of creating refined product.

In the marketplace, a gallon of gasoline made from imported oil is indistinguishable from a gallon of gasoline made from domestic oil. Refiners costs were lower as a result of access to imported crude oil. To gain this access, however, they had to earn tickets by creating refined product. The creation of refined product -- by a simple Archimedean principle and together with technological change -- put downward pressure upon real refinery margins and product prices net of tax. The subsidy -- or cost advantage -- which resulted due to access of imported oil was passed through to consumers of petroleum products. It does not matter what route an increase in supply takes to get to the marketplace, it must cause prices to be lower than they would otherwise be. Real product prices and refinery margins fell considerably during the 1950's and 1960's.

As you know from my testimony, I also view the depletion allowance as a subsidy to a competitive industry. In a completely closed domestic oil economy (i.e., no imports), and in the absence of state limitations on oil output due to market demand prorationing, the depletion allowance would have resulted in

lower domestic crude oil prices than otherwise would have obtained. This is in part because the domestic crude oil industry is effectively competitive. In the current situation, where market demand prorationing is not restrictive and the economy is open to imports, the existence of the depletion allowance causes U.S. reserves and production to be higher than they otherwise would be and imports to be correspondingly lower. In the presence of both market demand prorationing, and mandatory oil import quotas there was a combination of the effects of prices being lower than those that would have existed had the United States been self-sufficient in energy and domestic reserves being higher than they would otherwise have been.

The logic of the problem is quite straightforward. The tax subsidy through the depletion allowance caused the domestic supply of reserves to be greater. The greater supply of domestic reserves caused both the domestic price of crude oil and the quantity of crude oil imported to be lower than they otherwise would have been. The existence of market demand prorationing complicated this problem -- and did so at considerable real resource cost to the American economy -- but the essential relationship which results from a subsidy to a competitive industry holds with regard to either the depletion allowance or the value of import tickets.

The problems of market demand prorationing permeate any discussion of the post World War II history of the U.S. petroleum industry. Through a series of unfortunate historical accidents, conservation regulation in Texas and Louisiana and some other states was organized around units of production which were defined as individual wells rather than reservoirs. This administrative arrangement was further complicated when there was a surplus of U.S. crude capacity and production was restricted to market demand. It is now generally recognized by geologists, petroleum engineers, economists and state regulators that the reservoir, not the individual well, is the technical unit of production. But much state "conservation" regulation is still based upon the idea of the well as the unit of production. Your state, Florida, is fortunate in that this important principle of the reservoir as the unit of production for conservation regulation is well implemented in the operation of oil and gas production. The Jay Field is an example with which I am familiar. Other states with longer histories of oil production are not so fortunate.

The wastes of well based "conservation" rules applied under market demand prorationing are well known. If even a fraction of the explanation for the offshore shut-in wells problem we discussed is a result of the switch from state to Federal regulation, this is damning evidence with regard to historic state practices.

It is the opinion of some knowledgeable observers that there has been considerable marginal improvement in state regulation in the old market demand states. But this is a matter of national concern. It is crucial that our domestic oil and gas production be as efficient as possible. In this regard, Florida is exemplary.

The most direct way to achieve maximum efficiency is through explicit recognition of the reservoir as the unit of production and adoption of the

Maximum Efficient Rate (MER) as the principle which controls production. Market demand factors are now, with few exceptions, set at 100 percent, and (subject to possible problems associated with price regulations involving the artificial distinction between old and new oil) there is every incentive to produce as much as possible. It is unclear, however, what, if any, systematic relationship there is between MER's and 100 percent market demand factors. It is my surmise that current production rates and MER's, conditional on past development, might be quite close. But this is a subject which is certainly worthy of hearings. It is worthwhile to encourage state regulators in the historic market demand states to be as progressive as possible. Moreover, the machinery for market demand prorationing remains in place. Now is the time to eliminate it.

These lessons from the past are important. There is a dangerous tendency for us to seek costless solutions to our problems. Two examples which spring to mind are the outcries with regard to both "monopoly" in the energy industries and "speculative withholding" of domestic oil and gas supplies. It is tempting to believe that by some miraculous process resources can be created by the stroke of a pen, a regulatory rulemaking, the passing of a law, an executive order or a court decision. Such is not the case.

There is monopoly power today in the world petroleum industry. But it resides in the governments of the producing companies. Divestiture of the major oil companies from their pipelines, refineries, producing properties or service stations would have no discernible effect to make the domestic petroleum industry more effectively competitive. In fact, contrary to the views of the Federal Trade Commission, the press, and others, the most significant competitors of any one of the major oil companies are the other majors. And that competition is vigorous, effective and socially beneficial. It does Americans a disservice to lead them to believe that there is some easy panacea -- such as antitrust action -- to our energy policy problems. The truth is that the creation of domestic resources and the purchase of security of supply is a costly and time consuming process.

Because the creation of resources is a costly and time consuming process, I am not very impressed by arguments whose weight must be borne by the reed of "speculative withholding". It is true that were I a rational operator in the oil and gas producing industry, I would search for the most advantageous terms for the sale of my output. Along with other contract provisions, price is clearly one of the most prominent terms. And this includes expected future prices as well as present prices. Such are the natural workings of a competitive marketplace, and they are no different for oil and gas than they are for a farmer deciding what and how much to plant and when and where to bring it to market.

In my opinion -- viewed against a long-run policy framework and the magnitude of the problem of energy policy -- speculative withholding of oil and gas is not a quantitatively significant phenomenon. However, with regard to natural gas, to the extent that there exist some uncommitted potential reserves, reserves committed on short-term contracts in the intrastate market, and

undrilled prospects, this is a plus factor with regard to the benefits of Congressional deregulation of the wellhead price of natural gas. It means that there would be some relatively immediate supply response to the interstate market in the event of complete and unequivocal deregulation of the wellhead price of natural gas. Such a short-run supply response, of whatever magnitude, would be in addition to the beneficial effects of a longer-run supply response together with market directed allocation of our scarce natural gas resources to their highest valued uses.

Two things, however, must be remembered. First, the whole natural gas situation is the result of the inappropriate application of an ill-fitting regulatory scheme to a competitive industry. Second, the basic problem with natural gas is a long-run problem which requires - regardless of whether or not uncommitted reserves are quantitatively significant in the short run -- a long-run solution. Contrary to the opinion of many, what is required is not either marginal tinkering with the existing regulatory framework, or an extension of additional layers of stifiling regulation upon the operation of natural gas field markets. What is required is Congressional action to sweep away the source of our problems. The ninety-fourth Congress should move at once to deregulate the wellhead price of natural gas. Such a move would be a beginning in terms of starting rationally to cope with the energy and related policy problems typified by the economic dislocation and unemployment caused by natural gas curtailments.

I must again emphasize two additional things. First, deregulation of the wellhead price of natural gas would only be beginning. Second, while natural gas deregulation is important and justified in its own right, it is equally -- perhaps more -- important as a principle.

With regard to beginnings, there are a large number of other important energy policy matters which deserve the attention of Congress. These include tax policy, the relation of the United States to the world oil market, sensible strip mining legislation,* offshore drilling, deepwater ports, leasing of Federal acreage, refinery, siting, relations with Canada, Mexico and other Western

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*If I correctly understand President Ford's veto of the strip mining bill, it was based on the premise that prospective coal supplies should not bear the burden of correcting the retrospective evils of strip mining. I strongly feel that prospective coal production should be consistent with the principles of environmental protection. I also strongly feel that the past degradation of the environment should be corrected and that previously strip mined land should be reclaimed to the extent that it is economically justifiable and technically feasible. But I concur with President Ford's veto. The costs of prospective environmental protection should be borne as a part of the cost of prospective coal production. The cost of retrospective correction of past social mistakes should be financed from general revenues. To do otherwise will needlessly increase our dependence upon imported oil and is apt to contribute to a situation in which the cost of that oil is higher than it might otherwise be.

Hemisphere energy producers, security of supply, and compulsory conservation regulation which recognizes the reservoir as the unit of petroleum production. In some cases, Congress would be breaking new ground. In others, Congress could be continuing previous legislative activities by either ratifying existing procedures or modifying old practices. But it is important that Congress get underway, that Congress realize that there are no immediate miracles to be wrought either by jawboning at phantom speculative withholding or slaying imaginary dragons of monopoly, and that Congress proceed on a course that is consistent with the principles of how things get done in American society.

This last, the matter of principles, is vitally important. There is a tendency, in Congress and elsewhere, to respond to the problems of policy and regulatory failures by more regulation and additional ad hoc policies. Such a response only prolongs and worsens the situation and makes its ultimate remedy more difficult and costly. A case in point is the proposal for a Federal Oil and Gas Corporation. FOGCO is an ill-conceived idea. In terms of size and start-up time, its positive impact upon our current problems would be inconsequential. In addition, creation of a FOGCO would exacerbate the current and prospective situation by creating additional uncertainty with regard to the future climate for private investment decisions. The likely net effect of FOGCO would be negative. I can conceive of an economic environment in which FOGCO is ineffective and private initiative is traumatized. Such an environment could then be a justification to some for further, subsidized expansion of FOGCO. At the end of that road, of course, is the nationalization of the domestic industry on the grounds that it has been demonstrated that such an arrangement is the only one which will "work".

Nothing could be further from the truth. In addition to being blessed with a rich continent and a political system which is superior to any alternative, America has prospered because our economic system encourages the natural ingenuity of our people to yield maximum social returns. The dominant form of resource allocation in the United States relies upon the private initiative of individuals and corporations operating through the competitive free enterprise market system. The results have been outstanding. In some areas, they can be improved upon. We could, however, by ill-considered actions, begin to jeopardize seriously the economic and social robustness of our nation. Other countries have been less fortunate in their choice of institutions that I hope that we will be. I believe that we are, as always, in a critical era of choice. To create a FOGCO, however pure the intentions, would in my opinion be an unfortunate step down the road toward the Anglicanization of our economy.

I am confident that you and your colleagues in Congress will affirm the principles upon which policy will be made, make the rules which guide the operation of the system, set priorities and initiate policy. A place to start is with the deregulation of the wellhead price of natural gas.

Respectfully and sincerely yours,

Edward W. Erickson

Edward W. Erickson
Professor

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cc: Senator Edmund S. Muskie

The CHAIRMAN. We received a statement of testimony from Mr. John Sawhill, the Federal Energy Administrator. Mr. Sawhill was asked to testify, but was unable to appear personally. His statement will be included in the record at this point as if it were read.

[The statement of Mr. Sawhill follows:]

STATEMENT OF HON. JOHN C. SAWHILL, ADMINISTRATOR, FEDERAL ENERGY ADMINISTRATION

Mr. SAWHILL. Mr. Chairman and members of this committee, I appreciate this opportunity to present to you this statement concerning the effect that various energy policies will have on the U.S. economy. As you are well aware, energy is an integral part of the U.S. economy; it is an essential ingredient in the production of all our goods, and it intimately affects the life of every consumer.

As you know, the Federal Energy Administration (FEA) has recently completed the Project Independence report. Project Independence was initiated to evaluate the Nation's energy problems and to provide a framework for developing a national energy policy. To date it represents the most comprehensive energy analysis ever undertaken. Although the report does not recommend specific policy actions, it does allow tradeoffs to be made among several alternative courses of action. Each of the courses of action is evaluated according to a number of criteria. One important criterion is the effect of particular strategies on the behavior of the economy.

During Project Independence, the Federal Energy Administration carefully evaluated what the energy situation in the United States between now and 1985 would be if we were to take no new actions. In response to the results of this evaluation, several alternative energy strategies were considered and analyzed in terms of their effects on the U.S. economy. In this analysis our domestic policy alternatives are weighed not only in terms of our vulnerability to supply disruptions, but in terms of many other important factors such as the economic and social impacts, environmental effects, and regional differences of the alternatives. The Project Independence report presents the impacts of these four very different strategies.

The Federal Energy Administration has also recently completed a comprehensive energy plan for the U.S. Congress as required under the Federal Energy Administration Act of 1974. This report was developed in the overall context of the strategies presented in the Project Independence report.

ECONOMIC GROWTH

The overall growth of the economy is one of the chief means of improvement in the material well-being of the American consumer and has also proved to be important in alleviating poverty over the last two decades. However, two different aspects of economic growth should be distinguished: The shortrun growth behavior of the economy is affected by the business cycle and the economy's reaction to monetary and fiscal policy; the long-run behavior is determined by the expansion of the labor force and the productivity of the workers.

Energy strategies would be expected to have an impact on both the shortrun and the longrun growth rates. In the shortrun, an accelerated supply strategy as outlined in the Project Independence report, to the extent that it increases productivity in a slack economy, could reduce unemployment and lower inflation by reducing shortages. To the extent that it increases demand in an overheated economy, it could raise inflation without relieving unemployment. The accelerated supply strategy would increase the longrun growth rate to the extent that the investments in energy supply were on balance more productive than the average investments in the economy.

The conservation strategies, as outlined in the Project Independence report, reduce the demand for energy. Unlike the reduction for demand brought about by embargoes and artificial disruptions in supply, there is no necessary relation between the institution of an energy conservation policy and real economic growth. To the extent that conservation reduces waste and to the extent that substitutes are available for the conserved resources, conservation strategies will not diminish real economic growth or employment. They would, however, lead to less pressure on the domestic environment and reduce the rate of depletion of domestic resources.

Under the base case scenario in the Project Independence report, at $11 per barrel for imported oil, economic growth is projected to recover slowly from its present low rate but would not obtain the high growth rates of the recent past. Despite the stimulating effect of high oil prices on investments in energy production, the dampening effect on investments in other sectors would be so great that the growth would be inhibited relative to the $7 per barrel case. Productivity with $11 oil would, however, continue to increase, although at slower rates than in the past. The impact on growth of a reduction in imported oil prices from $11 to $7 would be expected to be pronounced and positive. Real economic growth, real consumption, and real investments are all projected to be higher in a $7 situation which does not involve the dampening effect of higher oil prices.

In this overall context of economic growth, I would like to discuss the effect of the following proposed energy actions on output, employment, prices, and growth within the U.S. economy over the next decade. The actions that are listed below are grouped into five major categories: Demand actions, leasing actions, supply actions, fiscal and regulatory actions, and contingency planning actions. Each of these actions is discussed separately in an appendix [1] to this statement in terms of a brief description and impact assessment for each particular action.

ENERGY ACTIONS

Demand actions. 1 million barrels per day import reduction in 1975, coal conversion program, 55 mi/h speed limit, traffic control measures to conserve energy, auto labeling program, auto fuel economy program, industry conservation plans and energy audits, Federal energy management program, minimum standards for federally insured housing, appliance labeling program.

Leasing actions. Outer Continental Shelf leasing program, coal leasing program, oil shale leasing program, geothermal leasing program.

See p. 282.

Supply actions. Naval petroleum reserve development, incentives to secondary and tertiary recovery of crude oil, surface mining legislation, deep water port facilities legislation, Arctic gas pipeline study.

Fiscal and regulatory actions. Natural gas deregulation, Defense Production Act amendments, nuclear plant licensing legislation, modification of utility rate schedules.

Contingency planning actions. International energy program.

These programs will affect the overall levels and rates of growth of output (production) and employment in two ways. First, price level and rate of inflation impacts will have significant feedback effects on the economy. Second, the direct shifts brought about by these programs in the demand for and/or supply of alternative goods and services will have important multiplier effects on the economy at large.

The impact on the economy of the first of these effects is presented in table 1 below, which reports and compares for a number of macroeconomic variables what can be expected with the business as usual scenario described in the Project Independence report and for the case of an $11 price of imported crude oil.

The main results reported in table 1 can be summarized as follows:

(1) The collective enactment of all the actions above would lead to a higher gross national product in current dollars in all years between 1975 and 1985.

(2) Real gross national product in 1958 dollars would be lower until 1972, however, with the higher gross national product in current dollars reflecting only price levels and the rate of inflation.

(3) Beginning in 1979, real gross national product would be higher in that the actions lead to an abatement in the rate of inflation over the long run.

(4) The unemployment rate would be 0.1 percentage points higher in 1976 and 1977, but starting in 1979 it would be either 0.1 or 0.2 percentage points lower.

TABLE 1

[Key—A=CEP; comprehensive energy plan scenario; B=BAU; business as usual scenario from Project Independence Blueprint; D=A—B; percent=D/B×100]

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Personal consumption expenditures (durables):											
A	140.8	150.8	173.0	191.2	209.0	222.5	243.6	273.7	304.7	341.8	382.3
B	141.2	151.8	174.6	192.6	208.9	221.1	236.9	260.9	284.8	313.8	342.7
D	−.3	−1.0	−1.5	−1.4	.2	1.4	6.6	12.8	19.9	28.0	39.7
Percent	−.22	−.66	−.88	−.71	.08	.63	2.80	4.91	6.99	8.93	11.57
Personal consumption expenditures (nondurables):											
A	420.5	458.7	502.9	541.0	578.7	618.1	656.9	700.6	745.1	795.4	849.4
B	417.0	451.5	491.1	531.5	572.4	613.7	655.3	703.5	752.4	810.2	870.5
D	3.5	7.2	11.8	9.5	7.2	4.4	1.6	−2.8	−7.3	−14.7	−21.1
Percent	.84	1.59	2.40	1.78	1.26	.71	.25	−.40	−.97	−1.82	−2.43
Personal consumption expenditures (services):											
A	409.8	453.2	498.3	545.0	592.8	643.2	697.7	756.2	820.3	890.1	967.7
B	409.2	451.7	495.8	542.6	591.0	641.7	696.2	754.6	818.0	888.3	965.6
D	.7	1.5	2.5	2.3	1.8	1.5	1.5	1.6	2.3	1.8	2.1
Percent	.17	.34	.50	.43	.31	.23	.21	.21	.29	.21	.22
Personal consumption expenditures:											
A	971.2	1,062.8	1,174.2	1,277.2	1,381.5	1,483.8	1,598.2	1,730.5	1,870.1	2,027.4	2,199.4
B	967.3	1,055.0	1,161.5	1,266.8	1,372.3	1,476.5	1,588.4	1,719.0	1,855.1	2,012.2	2,178.8
D	3.9	7.7	12.7	10.4	9.2	7.2	9.8	11.5	15.0	15.1	20.6
Percent	.40	.73	1.10	.82	.67	.49	.61	.67	.81	.75	.95
Fixed private nonresidential investment:											
A	182.6	199.0	229.6	266.3	301.0	336.6	373.3	413.8	456.8	503.3	554.6
B	182.3	198.4	228.9	266.0	301.1	335.4	370.5	409.6	452.7	500.7	553.9
D	.4	.6	.7	.3	−.0	1.2	2.9	4.2	4.1	2.6	.6
Percent	.20	.31	.31	.10	−.01	.36	.77	1.03	.90	.51	.12
Investment in producers durable equipment:											
A	119.6	131.9	154.8	180.2	204.5	229.1	253.2	279.7	307.9	338.7	372.7
B	119.3	131.3	154.0	179.4	203.7	227.6	251.2	277.3	305.8	337.5	372.5
D	.3	.5	.8	.8	.8	1.5	2.1	2.5	2.1	1.2	.2
Percent	.24	.40	.54	.43	.40	.65	.82	.89	.69	.35	.06
Private nonresidential structures:											
A	63.1	67.1	74.8	86.1	96.5	107.5	120.1	134.1	148.9	164.6	181.9
B	63.0	67.1	74.9	86.6	97.3	107.8	119.3	132.3	146.9	163.2	181.5
D	.1	.1	−.1	−.5	−.8	−.3	.8	1.8	2.0	1.4	.4
Percent	.11	.11	−.16	−.60	−.87	−.25	.67	1.34	1.33	.86	.23
Investment in residential structures:											
A	50.0	58.4	70.3	76.0	84.2	87.1	92.0	97.2	102.3	111.0	116.5
B	50.8	60.9	74.4	80.2	84.4	84.3	87.2	93.5	100.3	121.1	119.9
D	−.8	−2.5	−4.1	−4.2	−.2	2.9	4.8	3.7	2.0	−1.0	−3.5
Percent	−1.54	−4.04	−5.50	−5.22	−.25	3.39	5.48	3.98	1.97	−.91	−2.89

Change in business inventories:											
A	8.2	6.5	7.2	10.4	10.6	11.4	11.9	13.0	14.2	15.5	16.7
B	8.3	6.7	7.6	10.3	10.7	11.1	11.6	12.4	13.6	14.9	16.4
D	−.1	−.2	−.4	.1	−.0	.3	.3	.7	.6	.6	.3
Percent	−1.42	−3.59	−4.98	.89	−.17	2.81	2.76	5.32	4.39	3.95	2.10
Federal Government purchases for national defense: (B=A)	84.3	89.4	99.7	103.1	111.6	120.7	130.6	141.0	152.4	164.6	177.8
Federal Government purchases except for national defense: (B=A)	41.7	44.4	47.9	52.5	58.0	64.1	70.8	78.2	86.3	95.2	105.1
State, local government purchases of good and services:											
A	218.1	242.5	269.6	301.5	335.6	373.0	409.8	448.6	490.2	538.4	594.3
B	217.8	241.5	267.8	299.1	333.9	371.7	408.9	446.8	487.2	534.6	591.0
D	.3	1.0	1.8	2.3	1.7	1.3	1.0	1.7	3.0	3.8	3.3
Percent	.13	.41	.68	.78	.52	.34	.24	.38	.61	.70	.56
Gross national product:											
A	1,557.8	1,706.7	1,901.2	2,098.6	2,298.7	2,498.0	2,710.8	2,951.2	3,204.8	3,494.5	3,808.6
B	1,554.2	1,700.0	1,890.2	2,088.6	2,286.8	2,483.8	2,691.4	2,929.1	3,180.8	3,474.1	3,787.3
D	3.6	6.6	11.0	9.9	11.9	14.2	19.4	22.1	24.1	20.5	21.3
Percent	.23	.39	.58	.48	.52	.57	.72	.76	.76	.59	.56
Implicit price deflator—(gross national product):											
A	1.856	2.001	2.128	2.233	2.340	2.447	2.559	2.676	2.799	2.931	3.070
B	1.851	1.990	2.111	2.219	2.329	2.442	2.557	2.674	2.797	2.987	3.063
D	.005	.011	.017	.015	.011	.005	.002	.002	.002	.004	.007
Percent	.26	.53	.81	.66	.46	.21	.09	.06	.07	.14	.21
Gross national product (1958 dollars):											
A	839.4	852.9	893.3	939.6	982.3	1,020.7	1,059.3	1,102.7	1,144.7	1,191.9	1,240.5
B	839.7	854.1	895.4	941.3	981.7	1,017.1	1,052.6	1,095.1	1,137.0	1,186.7	1,236.2
D	−.3	−1.2	−2.0	−1.7	.6	3.7	6.7	7.6	7.8	5.3	4.3
Percent	−.03	−.14	−.23	−.18	.06	.36	.63	.70	.68	.45	.35
FRB production index (total):											
A	1.247	1.246	1.310	1.400	1.479	1.547	1.610	1.685	1.757	1.841	1.927
B	1.248	1.249	1.315	1.405	1.479	1.537	1.592	1.663	1.734	1.824	1.914
D	−.001	−.003	−.005	−.005	0	.010	.018	.022	.023	.017	.013
Percent	−.05	−.24	−.42	−.35	.03	.63	1.14	1.34	1.32	.92	.69
Housing starts, private including farm (total):											
A	1.517	1.675	1.973	2.046	2.175	2.163	2.240	2.279	2.342	2.448	2.453
B	1.554	1.762	2.100	2.142	2.152	2.069	2.114	2.199	2.307	2.486	3.535
D	−.037	−.086	−.126	−.096	.023	.094	.126	.080	.035	−.038	−.082
Percent	−2.38	−4.89	−6.02	−4.50	1.09	4.56	5.98	3.66	1.53	−1.53	−3.24
Average yield on new issues of high-grade corporate bonds:											
A	10.50	10.30	9.96	9.49	9.08	8.83	8.63	8.60	8.64	8.69	8.72
B	10.39	10.09	9.68	9.31	9.09	8.96	8.80	8.70	8.69	8.69	9.69
D	.11	.21	.29	.18	−.01	−.13	−.17	−.10	−.05	0	.02
Percent	1.04	2.08	2.95	1.98	−.11	−1.43	−1.89	−1.16	−.59	−.03	.28
Average market yield on U.S. Government 3-month bills:											
A	7.87	7.36	7.69	7.54	7.72	7.75	7.57	7.53	7.36	7.33	7.34
B	7.64	7.04	7.25	7.37	7.61	7.67	7.43	7.38	7.23	7.27	7.26
D	.23	.32	.44	.17	.10	.08	.14	.15	.12	.07	.09
Percent	3.00	4.58	6.08	2.34	1.36	1.08	1.93	2.00	1.71	.90	1.19

TABLE 1—Continued

[Key—A=CEP; comprehensive energy plan scenario; B=BAU; business as usual scenario from Project Independence Blueprint; D=A—B; percent=D/B×100]

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Unemployment rate (all civilian workers):											
A	6.4	7.2	7.2	6.7	6.4	6.3	6.2	6.1	6.0	5.9	5.8
B	6.4	7.2	7.1	6.6	6.4	6.4	6.4	6.3	6.2	6.1	5.9
D	.0	.0	.1	.1	.0	—.1	—.2	—.2	—.2	—.2	—.1
Percent	.13	.58	1.08	,1.03	.12	—1.67	—3.06	—3.88	—3.91	—2.95	—2.19
Federal Government surplus or deficit (—), NIA accounts:											
A	—1.0	—3.6	6.0	14.5	22.3	26.6	36.4	44.2	49.9	59.8	71.0
B	—1.6	—4.2	5.0	14.4	20.7	23.4	30.9	38.2	43.3	55.7	67.0
D	.6	.6	1.0	.1	1.7	3.2	5.6	6.0	6.6	4.0	4.1
Percent	36.85	14.06	19.75	.81	8.15	13.49	13.15	15.80	15.33	7.25	6.07
Personal income:											
A	1,262.3	1,380.9	1,511.3	1,642.5	1,782.4	1,923.1	2,072.3	2,239.3	2,420.0	2,618.0	2,828.6
B	1,259.1	1,374.5	1,501.1	1,633.7	1,774.6	1,916.4	2,064.4	2,232.1	2,408.4	2,611.0	2,817.4
D	3.2	6.4	10.3	8.9	7.8	6.7	7.9	7.3	11.6	7.0	11.3
Percent	.25	.47	.68	.54	.44	.35	.38	.32	.48	.27	.40
Disposable personal income:											
A	1,074.6	1,175.8	1,286.4	1,395.4	1,513.2	1,627.8	1,747.6	1,889.3	2,039.8	2,203.1	2,376.0
B	1,071.9	1,170.4	1,277.8	1,388.0	1,506.7	1,622.6	1,741.6	1,884.7	2,031.2	2,199.6	2,368.4
D	2.7	5.4	8.6	7.4	6.5	5.2	5.9	4.6	8.5	3.6	7.6
Percent	.25	.46	.67	.53	.43	.32	.34	.25	.42	.16	.32

Personal saving as a percentage of disposable personal income:											
A	7.0	7.1	6.3	6.1	6.3	6.5	6.2	6.1	6.1	5.8	5.3
B	7.1	7.3	6.6	6.3	6.6	6.7	6.5	6.5	6.4	6.3	5.8
D	−.1	−.2	−.4	−.3	−.2	−.1	−.2	−.4	−.3	−.5	−.6
Percent	−1.80	−3.14	−5.48	−3.97	−3.20	−2.15	−3.72	−5.86	−5.32	−8.46	−9.67
Wholesale price index (all commodities):											
A	1.911	2.101	2.273	2.408	2.531	2.655	2.778	2.905	3.038	3.177	3.323
B	1.905	2.087	2.249	2.385	2.513	2.647	2.776	2.911	3.053	3.201	3.357
D	.006	.014	.024	.023	.018	.009	.001	−.007	−.015	−.024	−.035
Percent	.30	.66	1.08	.98	.70	.33	.04	−.22	−.49	−.76	−1.03
Consumer Price Index (all items):											
A	1.627	1.760	1.883	1.988	2.092	2.198	2.310	2.429	2.555	2.688	2.829
B	1.619	1.742	1.854	1.962	2.072	2.186	2.303	2.426	2.555	2.692	2.837
D	.008	.018	.029	.026	.020	.012	.007	.004	0	−.003	−.008
Percent	.51	1.01	1.57	1.30	.95	.55	.31	.15	−.01	−.13	−.27
Corporate capital consumption allowances:											
A	82.8	89.5	99.3	111.3	123.8	136.0	149.7	164.2	179.8	196.6	214.2
B	82.8	89.5	99.4	111.4	123.8	136.0	149.5	164.0	179.6	196.4	214.1
D	0	0	−.1	−.1	0	.1	.2	.2	.2	.1	.1
Percent	−.01	−.04	−.07	−.08	−.02	.06	.11	.13	.11	.06	.03
Corporate profits before tax excluding IVA:											
A	182.7	204.6	247.3	280.1	316.9	351.7	389.1	432.9	479.7	536.7	602.6
B	180.9	201.8	242.5	277.9	312.4	346.3	380.6	424.3	471.4	532.2	598.7
D	1.8	2.8	4.8	2.2	4.5	5.4	8.5	8.7	8.3	4.5	3.9
Percent	.99	1.38	1.99	.78	1.42	1.57	2.24	2.04	1.76	.85	.65

These actions will affect the aggregate price level and the rate of inflation for the U.S. economy in three ways: First, they will have direct effects on energy prices; second, some of these programs will have direct effects on nonenergy prices by independently shifting the demand for and/or supply of nonenergy goods and services; third, the direct effects on both energy and nonenergy prices will lead to indirect effects on prices as the direct effects ripple through the economy.

Table 2 reports the Consumer Price Index (CPI) and Wholesale Price Index (WPI) inflation effects that would result from the enactment of the actions. It represents the translation of energy price changes into rates of wholesale and consumer price inflation. The inflation effects shown in table 2 reflect both the direct effects on energy prices and many of the indirect effects on prices associated with these direct effects. They fail to capture all linkages from energy prices to nonenergy prices and abstract from all direct effects on nonenergy prices, however, and thus to some extent understate the indirect and total effects on prices.

TABLE 2.—ADDITIONAL PRICE CHANGES ATTRIBUTED TO THE ENERGY ACTION OVER AND ABOVE THAT FOR BUSINESS AS USUAL SCENARIO

	CPI	WPI
1975	0.4	0.7
1976	.5	.8
1977	.5	.9
1978	−.5	−1.1
1979	−.3	−.6
1980	−.4	−.7

Note: Numbers reported in percentage points. Numbers calculated by subtracting 4th-quarter to 4th-quarter annual rates of inflation for business as usual scenario from those for this statement. These inflation rates assume that the world price for crude does not fall. A postive number implies that the collective impact of the enactment of all actions considered would be an increase in the rate of inflation.

Tables 3 and 4 report the fourth quarter to fourth quarter annual rates of change in the CPI and WPI.

TABLE 3.—INFLATION RATES FORECAST FOR BUSINESS AS USUAL SCENARIO

	74:4 to 75:4	75:4 to 76:4	76:4 to 77:4	77:4 to 78:4	78:4 to 79:4
RETAIL					
All items	9.1	6.3	5.0	4.8	4.9
Food	10.1	6.2	5.1	4.0	4.0
Food at home	10.3	6.3	5.1	3.6	3.6
Food away from home	9.6	5.8	5.1	5.6	5.8
Durables	9.3	8.0	6.4	4.6	5.0
Nondurables less food and fuel	10.0	5.8	4.3	4.7	4.7
Services	8.7	6.2	4.6	5.5	5.6
Fuel	3.2	4.1	5.2	4.7	4.9

TABLE 3.—INFLATION RATES FORECAST FOR BUSINESS AS USUAL SCENARIO—Continued

	74:4 to 75:4	75:4 to 76:4	76:4 to 77:4	77:4 to 78:4	78:4 to 79:4
WHOLESALE					
Total goods	11.6	8.0	6.9	3.9	4.2
Finished goods	9.1	6.6	5.8	4.4	4.6
Processed food	8.3	4.5	4.3	3.4	3.4
Consumer crude food	6.1	5.4	3.5	1.0	1.0
Consumer durables	10.1	8.4	6.6	4.7	5.0
Producers durables	10.6	8.6	7.3	7.0	6.8
Nondurables less food and fuel	9.3	5.5	4.5	4.2	4.2
Fuel	7.5	8.0	8.5	3.5	4.9
Intermediate goods	12.5	9.1	7.5	4.2	4.4
Food materials	7.3	5.2	4.1	1.2	1.2
Durable components	9.1	8.2	7.1	6.4	6.3
Durable materials	15.0	13.1	11.3	7.3	7.7
Nondurables less food and fuel	14.1	7.5	6.1	3.8	3.9
Fuel	10.2	10.5	10.9	5.4	6.9
Construction materials	17.5	10.6	7.4	2.3	2.3
Containers	20.2	10.5	7.3	2.1	2.1
Supplies	5.2	5.2	3.7	1.5	1.5
Crude materials	16.5	8.2	8.3	1.3	2.6
Foodstuffs and feed stuffs	9.0	3.5	3.0	.8	.8
Nonfood, nonfeed for manufacturing	31.9	12.8	13.0	3.0	4.6
Fuel	25.4	25.5	25.5	−1.7	5.1
Construction	5.7	5.7	4.1	2.9	3.0

TABLE 4.—INFLATION RATES FORECAST FOR PROPOSED ACTIONS

	74:4 to 75:4	75:4 to 76:4	76:4 to 77:4	77:4 to 78:4	78:4 to 79:4
RETAIL					
All items	9.5	6.8	5.5	4.3	4.6
Food	10.2	6.3	5.2	4.1	4.0
Food at home	10.3	6.4	5.2	3.6	3.6
Food away from home	9.7	5.9	5.3	5.7	5.7
Durables	9.4	8.2	6.6	4.7	5.0
Nondurables less food and fuel	10.2	6.0	4.6	4.7	4.5
Services	8.7	6.3	4.7	5.5	5.6
Fuel	9.1	10.0	10.9	−4.0	−.1
WHOLESALE					
Total goods	12.3	8.8	7.8	2.8	3.6
Finished goods	9.8	7.5	6.7	3.2	3.9
Processed food	8.3	4.5	4.3	3.4	3.4
Consumer crude food	6.1	5.4	3.5	1.0	1.0
Consumer durables	10.1	8.6	6.9	4.8	4.9
Producers durables	10.8	8.9	7.6	6.9	6.6
Nondurables less food and fuel	9.5	5.8	4.8	3.9	4.0
Fuel	13.4	13.9	14.3	−5.1	−.1
Intermediate goods	13.0	9.8	8.2	3.4	3.9
Food materials	7.3	5.2	4.2	1.2	1.2
Durable components	9.3	8.5	7.5	6.3	6.1
Durable materials	15.5	13.6	11.9	7.0	7.4
Nondurables less food and fuel	14.7	8.1	6.8	3.2	3.3
Fuel	14.6	15.0	15.5	−2.0	2.6
Construction materials	17.6	10.7	7.5	2.2	2.2
Containers	20.2	10.5	7.3	2.1	2.1
Supplies	5.2	5.2	3.7	1.5	1.5
Crude materials	17.4	9.2	9.6	.1	2.0
Foodstuffs and feedstuffs	9.0	3.5	3.0	.8	.8
Nonfood, nonfeed for manufacture	34.0	14.6	14.8	.5	3.2
Fuel	29.7	30.9	30.4	−5.0	3.6
Construction	5.7	5.7	4.1	2.9	3.0

SPECIFIC TAX PROPOSAL

The effects of a program of tax and subsidy incentives for homeowners for installation of energy-saving devices in the existing housing stock are discussed below. This program includes proposals for tax incentives to encourage installation of energy-saving devices by homeowners and a special subsidy program for poor homeowners modeled after Project Fuel. The incentive programs are focused on homeowners, particularly owners of single-family dwellings.

Initially it is necessary to distinguish the potential informational effects of incentives on energy-savings investment decisions by homeowners from effects on the costs and thus net returns of the potential investments. If the existence and publicity of the incentive brings an advantageous investment opportunity to the attention of homeowners and the investment would have been advantageous in the absence of incentives, then the consequent energy-savings installations are attributable to the information but not the tax or subsidy incentive. Such energy savings cannot be treated as effects of the incentives, unless they would not have occurred in the absence of the incentives.

The operational factor for energy-saving tax or subsidy incentives is that they reduce the net cost of installing energy-saving devices. If the prices of those devices and their installation increase by the amount of the incentive either because of the incentive or because of other more general economic pressures, then the incentive no longer can be said to effect energy savings.

Both the informational effect and induced or subsequent price increases must be considered in evaluating tax- or subsidy-incentive programs. Because of the information and price issues the effects of the proposed incentive programs will be small and short lived. It is estimated that investments in installation of energy-saving devices have a 15 percent or more rate of return to homeowners and that 25 percent of the installations of energy-saving devices, expected after introduction of a tax incentive program, would take place anyway. Inflation rates projected for the next decade will overtake the proposed fixed-rate incentive program within 3–5 years. In addition, much of the tax or subsidy incentive would be quickly absorbed by increases in installation and material costs induced by the existence of the incentive program. The energy savings from an incentives program are likely to appear only in the first several years of the program. The effect of general inflation might be overcome by including cost-of-living increases in the incentive program. Such increases would be largely absorbed by incentive-induced increases in installation and material costs, however.

Nevertheless, the proposed tax or subsidy programs will have some effects. In the remainder of this section, data describing housing characteristics among income groups and climatic regions are examined and then the distributional effects of the tax incentive and subsidy programs are discussed.

A. Housing Characteristics by Income Groups and Regions

Differences among regions in types of homes and the use of insulation and storm windows and insulating glass are shown in table 1.

Three regions are defined by climate in terms of the number of heating degree days. Roughly the same number of households are located in each region. Seventy-five percent of households lived in single-family homes in 1973, 4 percent in mobile homes, and the remaining 20 percent in apartments. The percentage of households living in apartments increases in colder climates, while the proportion in single-family homes declines. The percentage for mobile homes varies little among regions. The percentage of households in mobile homes and multiple-family dwellings is expected to increase in the next 10 years, while the percentage for single-family homes declines.

TABLE 5.—HOUSING CHARACTERISTICS BY LOCATIONS WITH VARYING CLIMATES, 1973

Characteristics	All households	Locations by climate defined by number of heating degree days[1]		
		Less than 3,500	3,500 to 5,499	5,550 plus
Number of all households (millions)	68.6	21.7	24.5	22.3
Percent distribution:				
All households	100	100	100	100
All single family homes	79	85	77	74
Mobile homes	4	3	4	4
Other single-family homes	75	82	73	70
All apartments	20	14	21	26
Unknown	1	1	2	
Presence of insulation:				
All homes:				
With insulation	62	57	61	68
Without insulation	22	25	25	15
Don't know	16	18	14	17
Single-family and mobile homes:				
With insulation	72	62	72	81
Without insulation	19	26	21	10
Don't know	9	12	6	9
Presence of storm windows and insulation glass:				
On all windows	34	8	40	52
On some	16	4	21	23
On none	50	88	10	24

[1] Locations with more heating degree days have colder winters.

Source: Washington Center for Metropolitan Studies, Life Styles, and Energy Surveys.

TABLE 6.—SELECTED CLIMATE AND HOUSING CHARACTERISTICS BY INCOME CLASS, 1973

[In percent]

Characteristics	Poor	Lower middle	Upper middle	Well-off
All households	100	100	100	100
Locations with climate under 3,500 heating degree days	41	33	29	25
Apartments	32	26	13	8
Some storm windows	31	49	54	63
Insulation in single-family homes	41	78	86	94

Source: Washington Center for Metropolitan Studies, Lifestyles, and Energy Surveys.

TABLE 7.—INDEX OF AMOUNT OF NATURAL GAS USED PER HOUSEHOLD, BY SELECTED CLIMATIC AND HOUSING CHARACTERISTIC AND BY INCOME CLASS, 1972–73

[Poor Households=100]

Characteristics	Poor	Lower middle	Upper middle	Well-off
All households	100	109	120	147
Locations with 3,500 to 5,499 heating degree days	100	108	119	147
Single family homes	100	116	123	146
Some storm windows	100	94	100	118
No storm windows	100	119	132	174
No insulation	100	109	143	NA

Source: Washington Center for Metropolitan Studies, Lifestyles, and Energy Surveys.

A large proportion of homes are already insulated; the proportion varies from two-thirds to three-fourths in the three regions. A larger percentage is insulated in colder regions. Similarly, a larger percentage of homes have storm windows in colder climates. One-half of all homes do not have storm windows; most are in warmer climates.

Selected measures of housing and climate characteristics are shown in table 2 for four income groups. The poor tend to be located in warmer climates; the opposite tends to apply for the rich. The poor are more likely to live in apartments than the rich. The rich are more likely to have insulation and storm windows than the poor. An index for differences in natural gas consumption among income groups is shown in table 3. Energy-saving devices have a decided effect on the natural gas used by all income groups. The rich use more natural gas than the poor in every case.

B. Tax-Incentive Program

The tax-incentive program is intended to encourage owners of single- and multiple-family dwellings to invest in the installation of energy-savings devices. Owners need not live in homes to qualify. The program is likely to have very little effect on mobile homeowners. Tax incentives favor landlords and single-family homeowners over renters. The program favors the rich over the poor. This means that tax advantages go to groups who already have shown the greatest use of energy-savings devices which somewhat reduces the potential of the program. If the tax incentives are applied in regions irrespective of climate, they may act as a subsidy for the installation of air conditioners. This might have the unexpected result of causing net increases in energy use for some installations of energy-saving devices.

The poor are less likely than the rich to make investment decisions about the installation of energy-saving devices because they tend to live in apartments or mobile homes and to rent rather than own single-family dwellings. Incentive-induced investments by homeowners may, in some cases, be passed on to renters as rent increases to reflect increased property values. The lower income groups would not be affected greatly by a tax-incentive program operating through the income tax. If incentives lead to an increase in installation and materials costs for energy-savings devices, lower-income homeowners who do not have effective access to the tax-incentive program are placed at a disadvantage relative to those who do.

C. Subsidy-Incentive Program for Poor Homeowners

A subsidy-incentive program modeled after Project Fuel will reach only a segment of the poor; that is, poor homeowners. Poor families who rent and live in apartments, single-family homes, and mobile homes probably would not benefit from the program.

The institutional problem of delivery of program subsidies is a serious one. Project Fuel probably cannot be replicated in most other areas. No set of institutions, whether IRS- or OEO-related organizations, exist for adequately delivering such a program. The program would require development of a new countrywide institutional delivery system, a difficult and expensive task. If the program is set up on a matching-fund basis with States, it probably will not be adopted in most areas. Past experience with voluntary State participation in financing programs for the poor suggests that complete Federal financing would be necessary for an effective program.

[The appendix to Mr. Sawhill's statement follows:]

Appendix

Specific Energy Actions

One Million Barrels Per Day Import Reduction in 1975

As part of a long-term plan to reduce U.S. dependence on relatively expensive and vulnerable foreign petroleum supplies, the President has established the goal of reducing imports by one million barrels per day by the end of 1975. This goal is to be attained by a set of principally voluntary measures which will reduce energy consumption and increase domestic production without substantially affecting national productivity.

The FEA plan consists of measures to promote energy conservation in buildings, in the transportation and industrial sectors, and where feasible to substitute coal for oil and natural gas in electric power generation and industry. Specific actions are detailed in the appendices. The energy savings for major programs are summarized below:

	Petroleum Savings Rate 4th Quarter 1975 (Barrels per day)
Demand Reduction Measures	
Industry conservation	175,000
Decrease in automobile gasoline consumption	290,000
Conservation in buildings	285,000
Consumer consciousness related to conservation in buildings	60,000
Fuel Substitution Measures	
Coal conversion in electric power plants	115,000
Coal conversion in industry	75,000
Total Savings	1,000,000

It is estimated that the proposed voluntary conservation program will reach a savings rate of 810,000 barrels per day by the end of 1975. Coal conversion in electricity generation and industry will need to account for 190,000 barrels per day. The economic impact of this program on import reduction can be significant, since 1,000,000 barrels per day represents almost 25% of all imported crude oil and about 6.2% of total refined products consumed annually in the United States. FEA estimates that savings of 2 billion dollars in

transfer payments to foreign petroleum producers will result in 1975. The voluntary conservation actions call for investments which may be recovered within three years through dollar savings in reduced energy consumption.

Some definite price effects associated with a decrease in energy consumption can be expected. The slackening in demand would result in a downward pressured on price, with most of the impact concentrated on relatively expensive foreign petroleum and products.

No windfall profits would result but there would be a slight decline in corporate income from domestic production, distribution, and marketing of petroleum products. Minor upward pressures on the cost of materials and equipment required for buildings and industry could be expected.

Socially, a voluntary conservation program calls on every American to develop an energy conservation ethic. This may require a somewhat more frugal lifestyle in the long run.

Environmentally, the demand reduction actions would tend to reduce pollution through lowering energy consumption. However, the coal conversion program could be adverse to the environment because of difficulties in cleaning emissions from high-sulfur coal combustion. Demand for coal will necessitate an acceleration in surface mining which will tax regional measures for environmental protection.

If successfully implemented, the proposed program could reduce imports of foreign crude oil and refined products by one million barrels a day by the end of 1975.

Reducing crude oil imports by one million barrels per day will have a definite affect on the net exports of goods and services. Because of U.S. dependence on foreign oil sources and its assumed continuance, the U.S. will continue to have deficits in its net exports of good and services. These deficits are shown in Table V-6. Oil imports are the primary reason for these deficits.

It is assumed that the reduction in oil imports is achieved gradually over 1975: .17 million barrels per day in the 1st quarter, .41 million barrels per day in the 2nd quarter, .65 million barrels per day in the

3rd quarter and a total of one million barrels per day in the 4th quarter. It is further assumed that through 1979 oil imports would be one million barrels per day less than they would have been. Oil prices are assumed to rise by 10.5 percent in 1975 and continue to rise by 5 percent per year for the rest of the decade. By 1983 the price of crude would be $18.86 per barrel in current dollars. Current dollar value reduction in oil imports would be 2.4 billion dollars in 1975. Subsequent current dollar value reduction in oil imports are given in Table V-6. The net result on the balance of trade deficit is to eliminate the trade deficit two years earlier than otherwise would be the case.

The program to reduce imports will have affects on sectors of the economy other than the foreign trade sector as well. In general, the reduction of imports by one million barrels per day through conservation measures will tend to decrease the price of petroleum intensive goods. The implementation of the conservation measures will cause the substitution of other forms of energy, capital and labor in the production of the goods and services tending to have a insignificant effect on unemployment.

TABLE V-6

	1975	1976	1977	1978	1979
Price of Oil Imports Current Dollars	12.2	12.8	13.4	14.1	15.5
Net Exports, before Savings	-5.3	-7.5	-4.1	-0.2	+5.1
Net Exports after Savings	-2.9	-2.8	+0.8	+5.3	+11.4

The greatest savings will occur in the transportation sector and this will have some impact on gasoline prices. It is estimated that downward pressure on gasoline prices could be as much as 2% by 1977, 3% in 1980 and 9% by 1985. While these may not appear to be significant savings, it should be noted that these projections are based on strictly voluntary measures and therefore should be interpreted as a minimum impact.

As an outgrowth of the conservation measures in the transportation sector impacts should most likely be felt in the auto and related industries where buyer demand will continue to be slack as higher prices, cutbacks in auto travel and consumer demands for improved auto efficiency hamper sales. This pattern is particularly evident in the full-sized auto market where inventories are high and production cutbacks are being initiated.

In addition, as a consequence of reducing the amount of long distance automobile travel there could result a shift among the various modes of passenger transportation. Similarly, increased time and dollar costs of intercity trucking might shift some freight to trains, airlines, or both. Impacts in the other sectors of the economy would be appreciably smaller, and would probably not manifest themselves in price or employment effects. In these cases the savings would primarily be the result of improved energy efficiencies.

COAL CONVERSION PROGRAM

The objective of this program is to eliminate oil and natural gas fired electrical generation plants from the baseload capacity of the U.S. mainland by conversion to coal when feasible.

The Energy Supply and Environmental Coordination Act of 1974 (ESECA) mandates issuance of orders prohibiting the use of petroleum products or natural gas as the primary energy source for power plants, and permits issuance of such orders to other major fuel burning installations. FEA must make specific findings on practicability, coal availability, reliability of service and capability of the utility to burn coal with equipment in place as of June 22, 1974 prior to the issuance of orders. EPA must certify the date by which a utility can burn coal and meet the applicable environmental regulations. The FEA strategy to implement ESECA involves three phases:

Phase 1 (September - December, 1974)

- Analyze a pilot group of 10 power plants for economic and environmental feasibility of conversion;
- Survey power plants in the design phase;
- Inventory coal burning potential for non-utilities;
- Study coal availability (includes transportation); and
- Publish proposed regulations for power plants.

Phase II (January - February, 1975)

- Publish a programmatic Environmental Impact Statement;
- Publish the final Power Plant selection criteria regulations; and
- Prepare a report on cost/benefits of achieving increased coal consumption.

Phase III (March - June, 1975)

- Publish final major non-utility fuel burning installation, design phase, and allocation regulations; and
- Issue orders.

In the President's October 8, 1974 economic message to the Congress, the Administration's commitment to coal conversion in the utility sector was highlighted. To follow through on the President's initiative, FEA began a 90-day study to establish an implementation schedule for phasing out oil-fired plants. The milestones for this study are:

December 4	Public meeting
December 5	Identify key policy issues to be developed.
December 15	Develop and refine key policy issues.
December 23	Completion of President's report in draft, distribute for interagency review.
December 30	Completion of interagency review.
January 8	Distribute final report.

There is no clear indication of the existence of windfall gains.

Implementation of this program would inhibit further concentration of the world's wealth. This program could also help to reduce the accelerated inflation due to the use of higher priced imported oil.

To meet the national ambient air quality standards, between $1 and $1.8 billion in capital expenditures will be required. In addition, annual operating expenses of $112 - $200 million will occur. There may also be disruptions of land, vegetative and wildlife ecosystems due to the effects of the increased mining and transportation requirements. The use of coal instead of oil reduces the potential for oil spills and the pollution associated with petroleum refining, but increases pollution due to coal burning.

It is expected that the conversion of 149 boiler units in 73 plants would result in a reduction of residual fuel oil consumption of 512,000 barrels per day by 1980. If the decreased oil consumption lowered imports by the same amount, a significant decrease in foreign transfer payments would result.

The cost to the utility industry of coal conversion would total about $2.4 billion, including the cost of meeting air quality standards. However, it is estimated that the economic benefits would exceed the costs, perhaps by as much as $1.48 million per day. In addition, there would be significant but non-quantifiable benefits in the independence of the majority of our baseload electrical capaicity from potentially disruptible oil supplies.

In the near-term, the cost of energy would increase due to the necessary capital investments. The price of energy in the long-term, however, would decrease due to the increased supply of electricity generated by relatively low-cost coal.

The proposal to convert all base-loaded electric utilities which burn oil and natural gas to coal assumes that the output of electricity will not change. The policy would not result in large price changes over the long run for the fuels in question, i.e., residual oil, natural gas, and coal, because the supply curves for these fuels are quite elastic in the current range.

This program will have two main impacts on the economy. It would increase the demand for coal which would tend to have a slight impact on employment in coal mining. In the short run unless great care is taken to ensure that the increased demand does not outstrip the extractive and transport capacity of the industry, shortage induced price rises could also occur. The second major impact is that the program would require increased investment both for the conversion itself and for the new environmental control equipment, in an industry which is currently having financial problems.

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55 mph Speed Limit

The maximum national fifty-five mile per hour speed limit for cars and trucks, temporarily set by Congress in January 1974, has saved petroleum. However, maximum savings have not been realized due to a noncompliance with the speed limit by drivers. Strict enforcement of speed limits by state and local law enforcement agencies will further reduce consumption.

Legislation for permanently establishing a maximum national speed limit of 55 mph is anticipated to be passed during the winter of 1974-75. The existing temporary speed limit expires on June 30, 1975. The recommended action is to enforce the law more strictly in order to achieve the projected energy savings.

Lowering highway speeds to the local and national speed limits will reduce the productivity of the trucking, bus travel, and tourist industries to varying degrees. This is partly offset by a direct reduction in fuel consumption and dollar savings. Other economic benefits include a reduction in highway accidents, maintenance costs, tire wear, and noise.

With reduced gasoline demand, a downward pressure on energy prices would be anticipated. However, freight costs will rise to compensate for the additional trucking time and other highway transportation costs. Less oil consumption will not result in windfall profits and the extent of the action is unlikely to produce losses.

Socially, lower speeds reduce highway accidents and deaths. Environmentally, lower speeds may represent less road wear, less sound, and less vehicle maintenance. Indirectly, a lower demand for oil leads to a lessening of environmental degradation in places where it is refined and distributed.

Imports of oil would be reduced by any savings in gasoline consumption. This is consistent with the President's goal of reducing oil imports by a million barrels a day by the end of 1975.

The main economic effects in this program result from a reduction in the operating costs of a vehicle per mile driven and an increase in the time cost of driving long distances. This would presumably reduce the number of miles covered in the average driving day during vacations and therefore, with total time allocated to travel relatively fixed, would tend to reduce the total miles traveled for non-essential driving. This would benefit vacation areas near large population centers and cause some loss in economic activity in more remote vacation areas usually reached by car.

Traffic Control Measures to Conserve Energy

Smoother vehicle flows avoid energy losses inherent in idling, acceleration, deceleration, engine overheating, and the use of lower gears. Traffic control measures such as free right turns on red lights, wider intersections to accommodate turning or stopping vehicles, improved signal systems, and "yield" rather than "stop" signs would all contribute to decreasing fuel consumption and vehicle operating costs.

Since 1968 the Traffic Operations Program of the Department of Transportation (DOT) has been demonstrating means for increasing traffic capacity and safety through control improvements. A two year study undertaken by the Federal Highway Administration to evaluate the feasibility of a national right turn on red (RTOR) program is scheduled for completion in January 1976. California has had this arrangement for a number of years. The President in October 1974 directed DOT to examine additional traffic control measures to save energy. The Secretary of DOT is developing recommendations for state and local officials on appropriate traffic control measures and management plans.

Savings in 1977 may occur at a rate of 0.2 quad/yr or 100,000 bbl/day. Some improved traffic control measures will involve considerable capital investment in systems and intersection redesign, particularly in urban centers. Considerable cost savings will be achieved through less traffic congestion, fewer accidents, shorter travel times, and reduced fuel consumption. Improved vehicle flows will reduce vehicle wear.

The institution of improved traffic control measures is not likely to produce windfall gains or losses.

Social benefits will be reflected in reduced driver frustration from traffic delays, fewer accidents, reduced congestion and possibly an increase in urban mobility. By encouraging free traffic flow, this action would supplement moves to reduce the traffic density through busing.

Environmentally, improved traffic control should decrease carbon monoxide, hydrocarbon and particulate but increase the nitrogen oxide air pollutants, reduce the sound from intersections, and reduce urban congestion.

Reductions in gasoline consumption will reduce the need for imported oil.

The main effect of the envisioned traffic control measures would be to increase vehicular flow and reduce travel times. The reduction in travel times would unfortunately produce an undesirable side effect. It is well substantiated in the transportation economics literature that travel time is a major determinant of the choice of mode of travel in the journey to work. To the extent that traffic control programs reduce auto travel time relative to mass transit travel time, some commuters will be induced to switch away from mass transit to travel by private automobile. Thus traffic control measures which affect both buses and automobiles are more likely to achieve the objectives than those which simply reduce the travel times of automobiles.

The second major economic effect of the traffic control program will be that it will require a major investment of approximately $11 billion dollars through 1990 and will actually increase travel times during the construction period. The socioeconomic impacts of this program will depend on how it is funded.

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Auto Labeling Program

The principle of an auto and truck labeling program is to provide the public with fuel economy data in order to have a basis for comparison at the time of purchase and to encourage the manufacture of smaller, more energy-efficient cars. Measurement of fuel economy is based on miles per gallon (mpg) for running under specified conditions. The value on the label is a comparative guide to vehicle performance under test conditions. The actual driving economy depends on driving habits, road conditions, climate and vehicle maintenance. Thus, attainment of the fuel economy on the label cannot be guaranteed.

In the fall of 1973, the Environmental Protection Agency (EPA) instituted a voluntary labeling program for 1974 model year cars. This voluntary program has been continued under joint FEA and EPA sponsorship and labels appeared in the fall of 1974 on the new 1975 model year cars. It is anticipated that during the winter of 1974-75, legislation will grant authority to establish a mandatory auto labeling program. It is proposed that all domestic and foreign car manufacturers be required to label each new car and truck with fuel economy information.

Savings in 1977 for a mandatory labeling program amount to a rate of 0.2 quadrillion Btu per year or 100,000 bbl/day of oil. This assumes that 10% of the fuel economy improvement program is attributable to labeling.

Cost to industry and government is nominal for labeling and should not effect new car prices.

Labels are intended to inform consumers of fuel economy for cars and trucks. This may improve competition and encourage manufacturers to produce smaller cars.

More miles per gallon of fuel will generate less fuel consumption and tend to lower oil import requirements.

No significant economic impacts are anticipated.

Auto Fuel Economy Program

The fuel economy of automobiles driven in this country can be improved significantly. The goals of the program are to improve the auto fuel economy assessed in miles per gallon (mpg) in the 1980 model year cars by 40% as compared with the 1974 model years values. This may be achieved through more efficient systems and or a change to smaller lighter cars. The distribution of the 40% goal needs to be resolved either as a single sales-weighted average or as four separate standards according to vehicle weight class.

In conjunction with the Auto Labeling Program the first fuel economy labels voluntarily appeared on new cars in the fall of 1973. Legislation requiring labeling of fuel savings on new automobiles has been considered under the Energy Supply and Environmental Coordination Act of 1974.

Discussions between auto manufacturers and the Department of Transportation (DOT) were begun in the summer of 1974 in cooperation with FEA and EPA. Major automobile manufacturers have been requested to submit a five year schedule for their plans to produce more fuel-economical and less environmentally polluting automobiles. Commitment for a fuel economy improvement of 40% by the 1980 model year cars is expected in the winter of 1974-75.

Energy savings by this action are likely to be at a rate of 58,000 bbl/day by the end of 1975.

Investment costs through the development years are uncertain but are estimated to amount to over $200 million per year. This will result in less than a $400 increase in the initial cost per car but a market shift to smaller cars could reduce the overall initial cost.

As a result of rising costs of fuel and other products there is an economic pressure towards smaller cars. The action will foster employment in the long term but spot unemployment or labor shortages may occur in the short term because of an anticipated shift to smaller cars. With more miles per gallon the action should mitigate some of the

adverse impacts on auto travel and tourism resulting from the high energy prices. A smaller car could ease urban parking problems and would require a smaller garage.

Improved fuel economy and emission systems may benefit the environment by reducing the amount of carbon monoxide, hydrocarbon and particulate pollutants per mile. The interactions between increased vehicle miles traveled fostered by this action, and the enforcement of local speed limits may counteract these savings. The generation of nitrogen oxides may increase depending on the engine systems and operating conditions.

The mileage improvements are expected to result both from reducing the weight of all new cars in a given class and by a redistribution of sales toward smaller cars. The former reductions will affect the sales of industries such as steel which supply materials for the heavier cars. This should not result in any unemployment in the steel industry because this reduction in demand will be offset by increases in the demand for steel by other energy actions. The aluminum, plastics and electronics industries should increase their sales to the automobile industry as a result of this policy.

The effect on automobile sales is unclear. This policy will result in a higher purchase price but operating costs will be lower. The current situation in which new cars are characterized by better gas mileage and higher sticker prices is a period of depressed sales. It may well be that the buying public is less sensitive to the costs over the entire life of the car than it is to the sticker price when people decide whether or not to buy a new car. If this is the case this policy may retard rather than enhance new car sales for a number of years.

The required investment by the automobile industry of about $200 million a year should prove particularly difficult for the industry provided the delay in the achievement of the NOx standard, which is one of the programs in this report, is accepted. However, if this delay is not accepted the industry will be faced with the necessity of accomplishing two large investment programs simultaneously which would necessitate quite large increases in new car prices.

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Industry Conservation Plans and Energy Audits

Industry has been expanding at a rapid rate to the extent that it now consumes 11,600,000 barrels of oil equivalent per day. With rapidly rising energy prices, it has been demonstrated that individual firms can cut energy usage dramatically through actions such as re-scheduling activities, equipment modifications to recover waste heat, insulation, control and maintenance to improve combustion efficiency, recycling waste, and changing the processing methods.

Since the winter of 1973-74 the Federal Energy Administration (FEA) and the Department of Commerce (DOC) have been promoting public information and educational programs to urge conservation in industry. Discussions with the large industrial energy users began in July 1974 and in November 1974 an energy monitoring program was instituted. Here the energy goals and usage by industry are to be communicated and monitored through the industrial trade associations to the Department of Commerce. An energy conservation program guide for industry and commerce (EPIC) has been published under the sponsorship of FEA and the National Bureau of Standards. The potential for energy conservation in nine selected industries has been reported in an FEA publication.

Energy savings by the end of 1975 may be about 175,000 bbl/day, which includes electrical usage.

The cost of conducting the energy audits and preparing energy conservation plans is small compared with the possible energy savings. Investments will be needed for plant and equipment which in some cases can be offset by a savings in energy consumption.

Industrial conservation should offer a stabilizing trend to consumer and energy prices. Because of the necessary investments windfall gains or losses are not anticipated.

Social impacts should result in employment opportunities for certain industrial skills, and professional services. Sales in energy-related equipment will be boosted. With more concern for manufacturing design products might improve in quality.

Environmental degradation should be reduced with a lowering of industrial energy consumption and more concern for monitoring and controls.

Oil imports will be reduced by this action. Consideration might be given to importing high energy content materials, such as aluminum and copper, to conserve our natural resources.

The key elements of this program are:

(1) Preparation and submission of energy conservation plans by the largest firms within the six major energy consuming industries (i.e., chemicals; primary metals; petroleum refining; paper; stone; clay and glass; and food processing).

(2) Establishment of energy conservation objectives for each firm.

(3) Development and implementation of a monitoring system including reporting, analysis and control mechanisms.

(4) Information and technology transfer of energy conservation material generated by both the public and private sectors, using the press, workshops, seminars, training programs, and the publications of technical notes and journal articles as appropriate.

(5) The encouragement of the private sector to accelerate the development of technology and methods which are more energy efficient, perhaps assisted by government R&D efforts.

This policy will have a small economic impact but large energy impact on the industrial sector. There may need to be incentives through subsidies to encourage greater energy conservation.

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Federal Energy Management Program

Energy consumed by the Federal government in 1973 amounted to about 1,030,000 barrels per day (bbl/day) in buildings, services, transportation, and some manufacturing. Government activities are controlled through the General Services Administration (GSA) and implemented through Federal Management Circulars (FMC) for program policy and accompanying Federal Property Management Regulations (FPMR). The latter FPMR interpret policy for building engineers, maintenance persons, procurement officers, military base commanders and engineering officers, motor pool managers, and agency energy conservation coordinators. This means that actions can be effectively mandated through GSA directors and represent a good place to demonstrate conservation measures to the nation.

The Federal Energy Management Program (FEMP) was established in June 1973 by the President as a permanent program of cost-effective investments in plant and equipment, materials, retrofitting, new construction and life cycle costing in procurement. The Office of Energy Conservation in the Department of the Interior was directed to develop a reporting system among major energy consuming departments and agencies, and to establish policy, coordinate and report quarterly to the President. Although the initial goal was a 7 percent reduction in projected energy needs in FY 74, Federal energy conservation instead realized a 24 percent savings in FY 74, an equivalent of 90 million barrels of oil that year or 246,000 bbl/day and a cost avoidance of $725 million. The Office of Energy Conservation became the Office of Energy Conservation and Environment of the new Federal Energy Administration in June 1974. In October President Ford established the FY 75 goal at 15 percent energy reduction under the FY 73 baseline consumption. A multi-year energy efficiency study of all Federal operations and recommendations are to be presented to the newly formed Energy Resources Council in April 1975. Accelerated actions are anticipated from July 1975.

By 1977 the FEMP anticipates an energy conservation rate of 0.28 quad/yr or 140,000 bbl/day of oil.

Since the program is based on a "cost effective" premise all energy savings result in some dollar savings. Those dollar savings would be offset by investments in conservation measures involving plant and equipment during the early years of the program.

Reduced demand might exert a downward pressure on energy prices. Gains and losses would be absorbed within the Federal system (including additional energy efficiency investments).

The social benefits are significant because government demonstration can be disseminated among the public sectors of the economy. Employment opportunities would be probable for conservation services, as well as building and maintenance skills.

With the reduced energy consumption and with the resources of the Federal government environmental impacts would be favorable. Federal leadership would encourage conservation actions in other sectors.

Import reductions would accrue from the lowering of the demand for oil.

This policy action proposes that each significant energy intensive operation be studied from the standpoint of decreasing and moderating the investment in that operation. Particular emphasis will be placed on identifying the impact of alternative actions and in identifying where energy efficiency improvements can best be made in a phased program. Thus, in effect, the study report will provide a profile of energy use and energy savings potential.

The individual economic impact from particular conservation measures such as the FEMP program will be relatively insignificant. Some of the impacts that will manifest themselves as a result of the drive for increased energy efficiency include a further softening in the large automobile market as well as placing greater demands on skilled and semi-skilled labor for retrofiting buildings. The most significant impact will result from the "demonstration effect" that this action will have on the private sectors of the economy. While not quantifiable, positive Federal action towards energy conservation will greatly enhance the cooperation of business as well as homeowner in conserving energy.

Minimum Standards for Federally Insured Housing

Nearly 20% of the Nation's energy is used in residential buildings. Of this energy, two-thirds is used for heating and cooling. This is equivalent to 4.7 million barrels of oil used per day. Much of the Nation's housing stock was built in a time of low energy costs and is therefore usually not as energy efficient as current price levels would justify.

By thermally insulating homes with six inches of attic insulation, or providing storm windows and doors, an energy savings of about 17% might be expected over the typical current construction. Heat transmission can further be reduced by using insulating glass in windows and caulking or weather stripping the windows and doors. More efficient heating and cooling equipment can be incorporated in order to conserve energy.

Federally insured housing must meet the minimum property standards (MPS) established by the funding government agency. The Federal Housing Administration (FHA) established insulation standards for new home construction in 1963 and later the Farmers Home Administration (FmHA) and Veterans Administration (VA) adopted similar standards. FHA minimum property standards for new construction were revised in 1971 to upgrade the thermal insulation requirements. The MPS are now being revised again to include both new and existing federally insured homes.

In order to develop and evaluate appropriate minimum property standards, the National Bureau of Standards (NBS) and the Federal Energy Administration (FEA) are continuing to fund and conduct research into building design, construction and operation. The objective of such research programs is to further our understanding of energy use in residential buildings and to identify the specific measures that can be implemented to reduce consumption in new as well as existing homes.

By establishing more stringent thermal insulation standards for federally insured home mortgages it may be possible to conserve approximately 17% of the annual fuel consumption by dwellings covered by such mortgages.

The main impacts of this program would be an increase in the purchase price of the house. The size of the increase would depend on the location of the house, its size and other factors, but would generally be around $300 dollars. This would represent such a small percentage increase in the purchase price of a new home and it would result in reduced operating costs so the impact on housing sales would be negligible.

The program would lead to increased sales in insulation manufacturing industries which could have some positive employment effects. It will reduce sales of home heating oil.

Since the poor and the elderly on average live in older housing, the part of the program which envisions retrofitting older homes would have some impact on them. A large number of people in these socio-economic categories rent their homes, but pay the utility bills themselves. These people would benefit from lower utility costs, but whether they ultimately would bear the increased cost of insulating the home would depend on the landlords ability to increase the rent. In rent control areas one possible unfortunate outcome would be an increase in the rate of abandonment of older housing leaving the occupants without housing.

Appliance Labeling Program

Appliances consume about 6 quadrillion btu/yr of energy and 70% of this is in the form of electricity. Consequently, conservation measures that apply to appliances will help to relieve pressure on the electrical utilities for facilities expansion and also to avoid the 67% losses in waste heat from the power plant conversion. A mandatory appliance labeling program will inform consumers of the energy efficiencies of appliances which will foster energy wise purchases and encourage the manufacture of energy efficient products.

Federal efforts to draw peoples' attention to the energy efficiency of appliances began in the winter of 1973-74 and a voluntary labeling program was initiated. In the spring of 1974 FEA sponsored legislation that would establish a mandatory labeling program. The summer of 1974 heralded the first energy efficiency labels on new room air conditioners and labels on new refrigerators are due to appear in the winter of 1974-75. Mandatory appliance labeling is anticipated to be passed by Congress in the winter of 1974-75.

Savings from a mandatory program will not be significant until the 1980's because of the lead times for legislative enactment, product design, and old appliance replacement.

Increased efficiency of appliances will probably increase the initial costs of new products but this should be more than offset by the dollar savings of decreased energy consumption. The action will delay to a limited extent a rapid increase in utility expansion investment. Windfall gains and losses are not anticipated because of the conservation investment to achieve an improved appliance efficiency.

Lower energy consumption will reduce environmental degradation by air and thermal pollution, particularly about the power stations. If lower powered devices are used there can also be a reduction in the sound pressure levels.

Oil imports will not be affected by the action because of the coal conversion programs in power plants. Manufacturers of foreign appliances will adjust their labeling and sales promotions to the domestic market.

No significant economic impacts are anticipated from this program.

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Outer Continental Shelf Leasing Program

Prospects for large, new discoveries of onshore oil and gas deposits in the lower 48 states are small. For this reason, it is proposed that leasing of the Federal OCS be accelerated, to include frontier areas of Alaska, the Atlantic and Pacific coasts, and the Gulf of Mexico. Accelerated development of the OCS could produce a reduction in oil imports of up to 2.5 million barrels per day by 1985.

In addition to increasing domestic production of petroleum, the accelerated leasing program could reduce the nation's energy bill. Extraction costs per barrel for OCS oil range from an estimated $1.50 for the Atlantic to $3.50 for the Gulf of Alaska. These cost estimates compare favorably with the current world oil price of about $11 per barrel.

There are environmental risks and costs associated with OCS development. The greatest danger is the risk of a major oil spill, but this risk has a low probability of occurrence. There are problems associated with management of the coastal zone to ensure proper siting of onshore facilities and linking these to offshore installations in an environmentally protective manner; avoiding the social strains of too rapid development would be a challenge.

Accelerated leasing of OCS lands is expected to produce higher regional employment levels and population in the discovery area. In addition, personal and corporate incomes and the tax base for state and local governments would also increase. The social effects of population increases would be reflected in increased demands for public services, and attempts to preserve traditional lifestyles.

Internationally, the reduction in oil imports would aid the balance of payments and reduce the pressures upon the international financial system. In addition, there would be strategic foreign policy and national security advantages in having energy sources which are not susceptible to interruption by a foreign power.

The OCS Leasing Program does not affect crude oil and natural gas production until after 1977. The program is expected to increase domestic crude production by 5% in 1980 and 13% in 1985. The domestic price of crude is strongly determined by the $11 world crude price. The program will have a negligible effect on the domestic crude price in 1980 and is expected to cause a 5% decrease in the price in 1985 when production increases enough to reduce crude imports to zero. Domestic and imported crude are substitutes, at close to the $11 world crude price, in the domestic production of gasoline, distillate and residual petroleum products in the period 1977-1985. As a result the OCS Leasing Program will have negligible effects on the prices of gasoline, distillate and residual petroleum.

The program will increase domestic natural gas production by 2.5% in 1980 and 1985. The price of natural gas is less affected by the world price than is crude. The OCS program is expected to result in a 6.9% decrease in the price of natural gas in 1980 and a 6.3% decrease in 1985.

The OCS Leasing Program will be located in offshore areas near Alaska and Southern California in the Pacific, in the Gulf of Mexico, and in the Atlantic. Economic effects of the program will be concentrated in coastal areas near the offshore gas and crude production areas and will result largely from the development of natural gas and crude related power, refinery, and transportation industries. Marked increases in employment and population will occur and will be spatially concentrated in relatively few coastal areas. The changes will have substantial impacts on the economic, institutional, and social structure of the areas affected by the program. While urban areas are best suited to adjusting to such changes, most of the likely impact areas are sparsely populated.

Regional and local employment will expand in construction, natural gas and crude-related industry, and services. Construction employment will peak and then decline, creating instability in the overall labor markets of impact areas through most of the 1977-1985 period. Most newly created jobs will be filled by new migrants to the impact areas and by people commuting to the coastal impact areas from surrounding areas. Unemployment rates will increase in many impact areas because of employment fluctuations and the immigration of job seekers. Wage rates and incomes in the coastal impact areas will increase.

Rapid increases in the population of impact areas could cause shortages of housing, educational and health facilities, and municipal services. Pressure will be particularly severe in housing. A considerable expansion in mobile homes and housing construction is expected.

Coal Leasing Program

Present world oil prices have forced the nation to look to alternative supplies of energy. The nation's most plentiful resource is coal, with public lands containing 200 billion tons of the 1.5 trillion tons of reserves. To provide for the orderly and timely development of coal resources to meet our energy needs, the President has directed the Department of Interior to establish a coal leasing program in 1975 which will encourage the development of our coal resources while assuring maximum environmental protection.

As of 1970, approximately 41% of the coal leases issued between 1920 and 1930 were in production, as compared with only 2.4% of leases issued between 1960 and 1970. In response to this, the Department of Interior, through the authority conveyed to it pursuant to the 1920 Mineral Leasing Act and the 1947 Acquired Lands Minerals Leasing Act, suspended the issuance of leases in 1973, except to maintain existing mine operations and short-term reserves. Now, as a result of the high cost of oil imported and our dependence on foreign energy sources, coal leasing will resume in 1975 to meet the need for the increased production of domestic energy.

The consequences of the coal leasing program cannot be fully assessed until the details of the program are announced. However, a preliminary evaluation of the possible benefits of an expanded leasing program is summarized below Highlights of the effects of the proposed program follow:

No direct import reduction is expected from the program, although coal substitution could reduce the amount of oil and natural gas imported.

Revenues from leases would accrue to Treasury.

Leasing and other energy policies could encourage coal production and consumption. Coal use as a substitute fuel for oil and natural gas could reduce imports of these fuels, thereby reducing our balance of payments problem and stabilizing our monetary markets.

New coal mining operations begun on Federal leases would bring increased employment opportunities and higher incomes when coal production began at a cost of social and economic impacts of varying magnitudes.

Land, water, and air degradation could result when coal production begins on a lease. However, present environmental legislation and lease stipulations will make it possible to use coal resources under appropriate environmental safeguards.

A Federal coal leasing program would generally have little effect on coal prices over the immediate term due to the vast amount of Federal and private coal currently available and the long lead time required to develop new coal-producing areas.

The Coal Leasing Program is expected to have negligible effects on the price of coal in the period 1977-1985. Coal prices in general, will change little with changes in the quantities of coal supplied in the long run. The amount of coal produced will depend on coal demand. The program's principal economic effects will stem from a resulting expansion of coal production on Federal land in the Southwest and West particularly in the Northern Great Plains region. The coal production and related power and coal-gasification acitivities will be spatially concentrated in a few areas. Substantial expansion in employment and population will occur with impacts on the economic, institutional, and social structure of these areas.

Many of the effects of this program are similar to those for the OCS leasing program. Regional and local employment will expand in construction, coal-related production, and services. Construction employment will peak and then decline, creating instability in the overall local labor market through most of 1977-1985 period. Most jobs are likely to be filled by new migrants to the coal areas and by people commuting from outside the areas. Past experience suggests that unemployment rates may increase in the coal production areas because of employment fluctuations and immigration. Wage rates and incomes will increase in the coal production areas.

Rapid increases in the population of coal production areas will cause shortages of housing, educational and health facilities, and municipal services. Expansion in mobile homes and housing construction are expected.

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Oil Shale Leasing Program

Early this year, four oil shale tracts were leased in Colorado and Utah. Two other tracts, suitable only for in situ processing, were also offered but were not bid upon. Because of the "no bid" experience, the Department of the Interior has been forced to rework its plans for leasing land suitable for in situ shale oil processing. It cannot yet be stated when in situ leasing will be resumed. Developmental work, underway in those tracts already leased, will determine the economic and environmental desirability of surface retorting for the extraction of shale oil.

A re-evaluation of the in situ phase of the government's oil shale program has been initiated with a view toward encouraging more rapid development of this vast resource--estimated at being more than 1,800 billion barrels of oil--as a means of reducing our dependence on foreign sources of energy.

At present, this resource is expected to produce up to nine times the energy required to extract and process the shale oil. The Accelerated Development plan indicates that an industry of approximately 1,000,000 barrels per day will exist by 1985. The business as usual plan indicates that, by 1985, the oil shale industry will be producing 250,000 barrels of oil per day. Total import reductions by 1985 will be in the range of 250,000-1,000,000 barrels per day.

Development of oil shale lands will result in higher regional employment and an increased tax load for the state and local governments. Development will also provide state and local governments with an increased tax base. Bonus payments, rentals and royalty fees will be paid to the Federal government. By statute these revenues are shared with the states in which the leases are issued: a state government's share is 37.5 percent of all revenues.

It is expected that, by reducing the lead time for shale oil production, price increases for oil will be dampened.

Development of this resource will result in large population increases in Colorado, Wyoming and Utah. Demands for services from state and local governments can be expected to increase concomitantly with the tax base these governments can draw upon.

Potential environmental effects as a result of strip mining are varied: land may be damaged; the water table may be disrupted; erosion may increase as the contours of the land are changed and the salinity of the water may increase. In addition, there will be air pollution due to the industrial activity taking place. However, it should be noted that strip mining for oil shale is to be limited to a few designated sites.

Internationally, development of shale oil will reduce our payments to oil-producing countries as it reduces our oil imports. In addition, there will be improvement in our foreign policy and national security position as our dependence on imported oil decreases.

The current oil shale leasing program would lead to limited oil shale development on public lands and provide only a few hundred thousand barrels per day. The Administration intends to re-evaluate the government's oil shale and geothermal leasing programs with the objective of encouraging more rapid development of these resources. The assumption is that positive Government action and a stable world oil price at $11 would create the economic and institutional climate necessary to induce higher levels of shale oil production, possibly 1 million barrels per day by 1985 and 1.6 million barrels per day by 1990. Geothermal methods of producing energy may not be significant until 1985 and beyond. The accelerated supply strategy proposed under Project Independence assumes that by 1980 shale oil can be produced at a price lower than $11, the assumed price of imported oil. If this assumption holds true, oil shale production could both lower overall energy prices and contribute to positive balance of payments effects.

Oil shale development would occur almost exclusively in three states: Colorado, Utah, and Wyoming. Wyoming is already experiencing the problems caused by rapid urbanization due to development in trona mining, power plant construction, coal mining, annd oil and gas. There is concern that oil shale development could bring urbanization to sparsely developed areas in Colorado and Utah similar to that now being experienced in Wyoming and that state and local governments are not able to manage such growth. It is doubtful that mechanisms for managing rapidly accelerating growth currently exist in these three areas.

Geothermal resources are concentrated in the western states, with the Geysers field in California being the only geothermal resource currently used to produce power. Electricity produced from geothermal energy costs less than that produced with fossil or nuclear fuels, but there are many questions concerning supplies, legal, institutions, environmental, and technical problems that must be answered before there is any appreciable growth in this industry. The objective of this program therefore is to provide the knowledge and technology required to answer these questions and accelerate production. It is estimated that commercial exploitation of geothermal resources could provide enough electric power by 1985 to save the equivalent of one million barrels of oil per day.

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Geothermal Leasing Program

This year, the government leased 33 tracts in known geothermal areas. Twelve of these tracts, located in the Geysers Field of Northern California, can supplement efforts on private lands that have already proven to be of commercial value. The remaining tracts offer a testing opportunity---tapping hot, mineralized water for commercial use as an energy source.

The business as usual Scenario projects the development of some 4,000 megawatts [electrical] from geothermal energy sources by 1985. The accelerated development projection indicates that, by 1985, geothermal energy might provide between 20-30,000 megawatts [electrical].

The significance of developing this energy source is that it could, by 1985, reduce our dependence on oil imports by as much as 1 million B/D, the amount of oil required to generate 30,000 megawatts [electrical], and possibly more if concomitant use of the thermal waters can be realized for heating applications. If appropriate developments are started now, geothermal power could become a significant source of energy the year 2000.

Higher levels of employment can be expected in those areas where economically viable geothermal energy sources are discovered. State and local governments are expected to benefit from the increased tax base in the areas. In addition, the Federal government will receive bonus payments and royalty fees.

Those areas which are discovered to have economically exploitable geothermal resources will undergo an increase in population, an increased demand for services and thus increased costs, and an enlarged tax base represented by the new geothermal industries; some local communities may consider these changes to be of little, or even negative, benefit.

Environmental effects resulting from the development of the resource are air pollution resulting from escaping wet steam and gases, damage due to the construction of the plant itself, possible contamination of ground water, and a possible increase in the salinity of local surface waters. A major thrust of government-sponsored geothermal research in the environmental area is to develop solutions to these potential problems.

Naval Petroleum Reserve Development.

The Naval petroleum reserves are oil fields (at various stages of exploration and development) which are maintained for national defense purposes. The two most important are NPR-1 in California and NPR-4 in Alaska. If these fields were fully explored and developed they might produce oil in excess of anticipated defense needs; the excess production could be used to help stabilize the market and to provide reserves for in situ storage development.

In 1974 the Navy initiated exploration and development of the Naval Petroleum Reserves in accordance with the provisions of existing law, which precludes production for other than national defense purposes. The President has asked the Secretaries of Defense, Interior and the Navy to develop a plan for responsible utilization of the Naval Petroleum Reserves. Action in compliance with the President's directive is nearing completion. Following review and the President's decision on the course of action to be followed, it is anticipated that proposals for future utilization of the Naval Petroleum Reserves will be included in the energy program to be submitted to Congress.

If the development and production are accelerated, the primary impact would be in the 1980-85 time period; this, however, does not change the fact of long development leadtimes so that immediate action is needed to insure results.

The N.P.R. oil would have its primary impact on import reduction and a concomitant reduction in foreign transfer payments. If the increased production displaces an equivalent amount of $11 foreign oil, by 1980 transfers could be reduced by over $2 million per day. No energy savings are envisioned.

Total capital costs for field development and pipeline construction could exceed $10 billion by 1980. It is estimated that oil sales would offset this cost if crude prices remain at current high levels.

The primary price effect would be a slight downward pressure on prices due to increased domestic production. No windfall gains are envisioned. Social costs and benefits will be felt primarily in the regions in which fields are developed. The same conclusion also holds for environmental effects, which will be felt primarily in Alaska.

The international implications may be significant, through the reduction of imports and transfer payments, and through a reduction in supply vulnerability. This latter benefit would be enhanced by the in situ storage potential.

The development of NPR #1 in California and NPR #4 in Alaska would provide supplies of crude from NPR #1 by 1980, and from NPR #4 by 1985. The NPR program will provide a small enough proportion of total domestic production at close to the world price of $11 that the effects on the domestic crude price are expected to be negligible in the period 1977-1985.

The economic effects of the program will also be neglibible. They would be related primarily to transient construction activities, particularly in Alaska. Crude production from NPR #1 in California would probably utilize existing pipeline and refinery facilities. NPR #4 production would necessitate new pipeline construction and depending on the transport route, additional ocean tanker capacity. Refinery operations would probably be conducted in the lower 48.

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Incentives to Secondary and Tertiary Recovery of Crude Oil

Approximately 70-75% of crude oil remains in the ground after primary production. Current estimates indicate that only 123 of the 438 billion barrels of oil in place in the United States will be recovered through primary production methods. Secondary recovery methods now in use may extract 22 billion more barrels. An additional 59 billion barrels of oil may be recoverable from more widespread and intensive application of enhanced recovery methods. However, existing price controls serve as a disincentive to the full scale testing of sophisticated enhanced oil recovery methods. It is within this context that the Administration is recommending the adjustment of controls to eliminate the disincentive.

The current disincentive to production is inherent in the price control regulations for stripper wells. In essence, old wells producing 10 barrels per day or less may sell their product at the market price, while old wells producing more than 10 barrels per day may sell only at the controlled price of $5.25 per bbl. FEA recommends that wells currently in the stripper class be allowed to increase production through the use of any enhanced recovery techniques without losing their stripper well status.

Secondly, FEA recommends that production from approved enhanced recovery projects be released from price controls, even if the wells affected were not previously classed as strippers.

No energy savings will result from this proposal. Since the near term production increases would probably be small, only a slight impact on imports would be possible. Greater supplies of oil would be called forth, in the longer-term, since current disincentives to projects with delayed effects would be removed.

The price effects in the near term are estimated to be less than 1/2¢ per gallon for oil products, with a negligible windfall gain for producers. No significant social, environmental or international effects are foreseen.

The estimates of the additional oil production resulting from the incentives to secondary/tertiary recovery of crude oil are based on the assumption that price controls will continue for an indefinite period of time. The accelerated supply case of the Project Independence Report includes increased quantities of crude oil using enhanced recovery techniques, reflecting greater government sponsorship of R&D for developing tertiary recovery. The report estimates that the accelerated development case will bring forth an additional 840,000 barrels/day (at $11 price) above the estimated 2,650,000 barrels/day from tertiary production under the "business as usual: case (at $11 price); that is, the accelerated development case, assuming no limitation on materials, increases the tertiary recovery factor by 33 percent over the BAU assumptions.

The recommended incentives result in effective deregulation of less than half of the current old oil. Thus a reasonable approximation of the maximum impact on prices would be less than half the impact of total deregulation policy. This would mean a maximum 1-1 1/2¢ increase per gallon in the price of gasoline, which translates into an increase in the CPI of about .1 percent in the short run (1977). In the longer run (after 1980) approximately 1-1 1/2 million barrels/day can be produced. The main effect would be to reduce imports by this amount (since the $10.50 per barrel price needed to use tertiary methods is "close" to the foreign crude price).

The economic impacts from this form of production increase would most likely be much less detrimental than the economic impacts associated with bringing new reserves into production. The land use patterns and local employment situation will have already adjusted to the production of oil in these areas. Much of the necessary investment (e.g., for transportation of the oil) will have already been made in the past.

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Surface Mining Legislation

Coal is the nation's most abundant fossil fuel. However, surface mining of coal, if uncontrolled, could lead to widespread devastation of land areas and to widespread contamination of water resources. Some environmental organizations have recommended prohibition of surface mining as a means of preventing abuses. In contrast, FEA believes that surface mining should be permitted under proper regulations and controls that assure protection of our people and environment while guaranteeing adequate production of coal at a reasonable cost.

Bills to regulate surface mining have been passed by both the House and Senate, and at the time of this report were pending before a Conference Committee. The committee has resolved the differences in the two bills and action by the Congress is expected soon. Passage of appropriate surface mining legislation will go a long way toward providing a stable framework within which development of the nation's coal resources may proceed.

No direct savings of energy attributable to regulated surface mining are expected. However, orderly development of the nation's vast coal resources will reduce dependence on high-cost foreign sources and lower the real cost of energy to the American consumer.

When coupled with the Coal Conversion Program to permit wider utilization of coal, increased coal production following passage of balanced surface mining legislation could lead to a reduction of 512,000 barrels of oil per day from foreign sources.

Regulation of surface mining and reclamation of mined lands are estimated to produce an increase of 2% - 5% in the price of coal.

Increased cost of electricity stemming from a higher price of coal would tend to impact hardest on the poor, since a larger proportion of their income goes toward energy-related services.

Coal-related economic development, principally in agricultural areas of the Northern Great Plains and the Southwest, could help to reverse the past trend of out-migration and its accompanying economic decline. However, the existing agricultural economy may encounter problems in adjusting to the new setting.

No major windfall gains or losses from this legislation are expected. Provisions in the pending legislation to protect the rights of surface owners are intended to keep such gains and losses small. Certain provisions could lead to possible windfall gains for some surface owners, and losses for some present lease holders, however.

Changes in the supply and consumption of coal due to price changes attributable to Federal surface mining regulation are expected to be minimal.

Price increases resulting from surface mining control and reclamation could tend to make coal and some manufactured products less competitive on the world market, thus reducing total U. S. exports. On the other hand, imports of expensive foreign oil, and consequently dependence on such oil, would also tend to be reduced.

The enactment of surface mining legislation as currently written would increase the cost of coal production and decrease the quantity of coal demanded and hence produced, the latter effect resulting in large part from the apparent sensitivity of coal consumers to changes in coal prices. Higher costs would result from reclamation of mined land, mining in higher cost areas, contributions to an Abandoned Mine Reclamation Fund, and payments to surface landholders.

In economic terms, energy produced by coal is considerably less expensive than that produced by oil. Further, domestic coal serves as a substitute for imported oil; thus, its expanded use would tend to reduce the cost of energy nationwide and would reduce the flow of dollars abroad. Decreased usage would have the reverse effect. Increased costs passed on to buyers of coal, mainly public utilities, would undoubtedly be passed on to the final consumer. Higher energy prices would impact hardest on the poor, since a larger proportion of their income goes to purchase energy-related services.

Areas in which new or expanded surface mining would occur, primarily areas in the Northern Great Plains and the Southwest, could have a considerable stake in the extent to which production does indeed take place, particularly when coal related industrial developments such as power generating facilities and fuel conversion plants accompany mining activities. Many potential mining sites, for example, are located in areas whose current economic base is agriculture, primarily livestock

ranching and dryland crop production. Coal-related development in these areas could reverse past trends of out-migration and the accompanying economic decline.

Alternatively, coal development would have an adverse impact on agriculture, on industry in general through pollution of water supplies, and on recreation and tourism through aesthetic and visual degradation of the landscape. Further, the coal and agricultural industries would compete for land, water, and labor. Mined land can be reclaimed for agriculture, but the time required to return land to productive use is considerable, particularly in semi-arid climates. The amount of land being considered for surface mining in the Great Plains region is a relatively small portion of total land available for agricultural uses. Both agriculture and mining activities will require large allocations of water in the future; the competition for available water will be particularly keen in the semi-arid areas where irrigation practices are expected to increase.

There is little doubt that extensive coal development could have a sudden and substantial impact on employment, population, and income in the affected areas, although the coal mining process alone would have relatively minor impacts.

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Deep Water Port Facilities Legislation

Legislation presently pending in Congress would authorize the Federal Government to grant permits for the construction and operation of off-shore oil terminal facilities. Such facilities would allow crude oil to be transported more safely and economically by very large carriers, thus reducing tanker traffic in the nation's already overcrowded harbors; encourage construction of domestic refineries, thus reducing U.S. dependence on foreign refineries; and reduce oil spillage in the nation's harbors and coastal regions.

The Conference Committee to resolve differences between the Senate and House versions of the pending legislation is expected to meet late this year. It seems probable that legislation will be passed in the present session of Congress.

Impacts expected from enactment of the legislation are summarized in Table III-I, and include the following:

Except for energy required for the possible dredging of ports, construction of port facilities, and construction of supertankers, no direct effects are anticipated upon energy consumption in the U.S.

Reduced transportation costs for imported oil could tend to stimulate consumption if not offset by other factors.

The amount of oil imported into the U.S. is not likely to change as a result of the introduction of deep water ports. The cost of such imports might, however, tend to decrease as a consequence of decreased transportation costs.

Oil shipments via a 1.5 million barrel per day port using supertankers can save $597 million per year over the cost of direct oil shipments using conventional tankers and ports; and $76 million per year over the cost of shipment by supertankers off-loaded to conventional tankers at intermediate facilities. The price of uncontrolled domestic oil may also be reduced if there is a reduction in the cost of imports.

Construction of on-shore colocated refinery complexes would create jobs. Local and regional fuel distribution costs could be reduced, as could transport costs. If passed on to consumers as lower fuel prices this would tend to benefit especially those with low and fixed incomes.

Price Effects

Transportation costs could be reduced by $1.09/bbl for direct shipment of mid-East oil; by $0.41/bbl for mid-East oil with off-loading at Caribbean terminals.

By reducing the cost of oil relative to other fuels, consumption of oil could tend to increase.

Environmental Costs/Benefits

With transshipment by pipeline, deep water ports and supertankers would reduce the amount of oil expected to be spilled, although damage from a single oil spill could increase.

The construction and expansion of refineries, petrochemical plants and storage facilities could have a detrimental effect on air, water and land.

Marine life could be adversely affected by dredging operations and small routine spills that result from transfer operations.

International Implications

Deep water ports and supertankers could provide the U.S. with access to 60 percent of world tanker capacity.

The ports could encourage the construction and expansion of domestic refineries which could permit the U.S. to become less dependent upon foreign refineries.

One deepwater port in each of the Nation's three coastal areas (Atlantic, Pacific, and Gulf) would be sufficient to meet U.S. oil-import requirements. Such oil ports could not only impact on the overall national economy through reduced oil prices but would also have profound impacts on the economies of adjacent states. The impact would result from construction and operation of facilities as well as from "throughput" activities. Much of the oil moving through the offshore port would either go to local refineries or would be moved to more distant refineries through the local area by existing transportation systems. The economic benefit of an offshore facility could more than offset an otherwise declining refining industry in the Gulf Coast region, for example, and could provide an appreciated shot in the arm for the economies of New England and the Middle Atlantic states. But a facility would also be more likely to alter land-use patterns in the latter two regions.

Both the direct and throughput activities associated with deepwater ports would provide new jobs, income, and capital for the adjacent area; and these additions would in turn attract new businesses and new workers. Manufacturing activity of all types could be attracted to the area, particularly refining and petrochemical manufacturing. These workers and their families would then provide expanded markets for the trade and service industries. On the other hand, employment changes could be highly unstable, particularly during the construction phase; and local workers, particularly the unskilled could be overlooked as development occurs.

The costs related to offshore ports would consist of the large capital expenditures required for construction of facilities and related pipelines, presumedly to be borne by the private sector; operating costs; and the increased public expenditures by state and local governments for added services and infrastructure required by increased employment and added population -- such public goods and services as streets, schools, public utilities, administration, and police and fire protection. Independent studies comparing the economic costs and benefits of a deepwater facility to the adjacent state estimate benefit-cost ratios of as high as five to one. State and local governments could receive more in tax revenues than they would spend providing additional public services.

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Arctic Gas Pipeline Study

Natural gas, because of its flexibility, efficiency, and environmental acceptability has become one of the most essential components of the American economy. In the past six years, however, the American consumer has used twice as much natural gas as has been found in the lower 48 states. Since 1967 our proven reserves, excluding Alaska, have dwindled by a fourth. If new reserves are not discovered to replace the dwindling supplies of natural gas, consumers will be forced to use alternate fuels or higher priced imported oil and gas. One of the greatest potential areas for the discovery of new reserves is the Arctic frontier of North America. Methods of transporting the gas to the lower 48 are now under study.

Two companies have filed applications with the Federal Power Commission to permit them to construct and operate systems to transport natural gas from the North Slope of Alaska to the lower 48 states. The Arctic Gas Pipeline Group, a consortium of more than 20 companies, has proposed to build a pipeline from Prudhoe Bay across northern Alaska and Canada to the MacKenzie Delta gas fields and south through Canada to connect with distribution networks in Canada and the United States. El Paso Alaska Company has proposed a pipeline from Prudhoe Bay to Point Gravina, Alaska, where a liquefaction plant would be constructed. From there 11 tankers will carry the LGN to vaporization facilities in southern California.

The Department of Interior has intitated study of the proposed alternative gas line routes and in conjunction with the Federal Power Commission is preparing environmental impact statements. The studies are expected to be completed by April 15, 1975, at which time the President will be able to determine whether and what legislation is needed to expedite access to North Slope and Prudhoe Bay natural gas.

The economics of the systems are of major importance. Judging from available data, the Trans-Canadian system will cost between $1 and $3 billion more to construct initially but will cost less to operate once completed. Over the life of the projects the economics appear to be about the same, but further analysis is needed. Supply availability and completion dates are also significant.

Either of the proposed systems would deliver about 3.5 billion cubic feet per day of Alaska gas to markets in the United States which could reduce the demand for imported oil by about 642,000 barrels per day. The total capital cost of the system to deliver Alaskan gas to the West Coast will be about $7.3 billion, while the total capital cost of the

system to deliver Alaskan gas to both the Midwest and West Coast will be $8 to $10 billion.

The major economic benefits of delivering Alaskan gas to the United States would be a favorable trend in balance of payments by reducing oil imports and an increased domestic supply of high quality energy. Since the Trans-Alaskan project would be entirely within the jurisdiction of the United States, the United States would benefit entirely from the reduction in balance of payments. The Trans-Canadian, on the other hand, would lessen the benefit of the reduction in the balance of payments of the United States because of U.S. expenditures in Canada.

The rate of inflation is projected to be slightly lower than under a business-as-usual strategy. The effect of gas pipeline development on the Alaska economy would be substantial. Real earnings could grow at an annual rate of 5 percent over the next decade, well above the national average of 3.5 percent.

To the extent that gas will replace coal and oil, there will be a positive environmental impact from reduced use of these fuels. In addition, there will be lowered air pollution in the regions which use gas instead of oil or coal as a fossil fuel. The principal negative impact is the permanent disruption of the delicate ecosystems in Alaska, mainly due to the building of the pipelines which will leave permanent impacts on the land. After the completion of either line, the transmission of the gas should have no additional impact since the gas will be cooled to below freezing to prevent melting of the permafrost.

Before going ahead with the Trans-Canada pipeline it will be necessary to negotiate a treaty with Canada. No such treaty is necessary for the Trans-Alaska pipeline.

The arctic gas pipeline would increase low cost gas supplies to the lower 48 states. The primary industrial beneficiaries of this would include industrial chemicals (15 percent of gas BTU's consumed by industries in 1973); steel and primary metals (10 percent); stone, clay and glass products; food; and paper. Gas is also crucial in the production of fertilizer for agricultural use.

There are of course construction impacts and environmental impacts which would be concentrated in Alaska and Canada.

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Natural Gas Deregulation

Natural gas, a source of environmentally clean energy, accounts for about one-third of the total U.S. energy consumption. For the last fifteen years the Federal Power Commission has effectively kept wellhead prices below market levels, thus reducing producer incentives to continue the exploration for and development of new domestic reserves and simultaneously encouraging increased use of natural gas. This regulatory policy has resulted over time in substantial reductions in new supplies, in a misallocation of natural gas to the intrastate market, and in widespread shortages of natural gas in the interstate market. Efforts to combat these shortages have resulted in importing liquified natural gas in some areas at approximately three times the controlled domestic price. It is imperative, therefore, that we increase our secure domestic supplies through the deregulation of wellhead prices.

The Administration recommends lifting price controls on new gas and supports Senator Buckley's amendment to a trade bill already passed by the House. Senator Buckley's amendment (no. 1937) would deregulate new gas upon enactment.

Deregulation of natural gas will contribute to an increase in supplies and will result in consumers paying less for energy than if they were forced to use alternative fuels such as oil, coal, liquified natural gas, or synthetic natural gas. Estimates of the economic gains to be made from new gas deregulation average $2.7 billion annually by 1980. Estimates of the reduced dollar outflow resulting from new gas deregulation average $3.5 billion annually by 1980. These gains are made possible by the substantial reduction in shortages (estimates indicate a shortage of from 1.5 tcf to 2.6 tcf less under deregulation in 1976 and from 2.0 tcf to 13.2 tcf less under deregulation by 1980) which will occur under deregulation and which will make unnecessary the use of expensive substitutes. Imports of LNG, for example, could amount tc as much as 2 tcf annually by 1980, and imports of oil to substitute for natural gas could amount to as much as 217 million barrels per year.

The deregulation of new gas is expected to increase residential user charges from $156 annually in 1972 to $186 annually in 1980, an increase of 19%. Increases in the price of natural gas accompanying deregulation will have about the same impact on all income groups in the sense that it will increase the percentage of after-tax income going to gas heating by about the same proportion for all income classes.

New gas deregulation is not expected to generate substantial windfall gains to producers since old, flowing gas will continue to be regulated under the proposed action until existing contracts expire. No specific milestones, other than legislative action, are noteworthy.

The policy leads to higher gas prices, which will induce substitution away from "inferior" uses of gas. For example, petroleum refiners (who presently consume 20 percent of the industrial gas in BTU's) will look for less expensive fuels, as will utilities who use the fuel simply to heat boilers. At the same time, other primary users of gas will be increasing their use, because gas either cannot be easily replaced by other fuels or would still be the least expensive fuel. Such industries would include industrial chemicals (15 percent of gas BTU's consumed by industries in 1973); steel and primary metals (10 percent); stone, clay, and glass products; food; and paper. Gas is also crucial in the production of fertilizer for agricultural use.

However, even though gas prices are higher, total energy costs will be reduced over time as gas curtailments are eliminated and the demand for alternative higher priced fuels is reduced.

Regionally, natural gas deregulation would be expected to move gas from the Southwest to other regions of the country. Several factors underlie this shift. First, in addition to the heavy concentration of petroleum refining in the Southwest, electric utilities in the area are heavy users of natural gas, which would decline because of high interfuel substitution in power generation, particularly in replacing gas. And second, deregulation makes interstate contracts more attractive and can be expected to shift gas from intrastate use to other regions.

Defense Production Act Amendments

In his Energy Message to Congress of October 8, 1974 the President stated:

> "I will use the existing Defense Production Act to allocate scarce materials for energy development and I will ask (the Congress) for whatever amendments prove necessary."

The Administration is currently examining the extent to which the Defense Production Act of 1950 ("DPA") can be used to assure that needed materials are supplied to contractors engaged in important energy products. Critical energy products for which a priority system would prove useful are being carefully examined and their relationship to our overall defense posture assessed. The Administration is also carefully considering the potential impact of priority system for energy projects might have on other sectors of the economy. Should the Administration determine that the DPA does not provide sufficient latitude to permit the inclusion of important energy projects within the existing material priority system, it will consider proposing appropriate amendments to the Congress so that our energy goals can be supported.

The Defense Prpduction Act (DPA) Amendments would give FEA the authority to allocate materials and equipment needed for vital energy projects. FEA energy programs and projects for possible DPA authority include oil and gas exploration and production (onshore, offshore, and coal gasification), nuclear and coal fired power stations, coal production (strip and underground), and transportation of energy. Many materials for these projects are expected to be in short supply up to 1985, under both the BAU and accelerated supply cases. The principal constraint will be steel, and items in short supply include linepipe, oil country tubular goods, power shovels, and plate for coal cars and mining machinery. Even in 1985, possible shortages of drilling rigs may occur.

The passage of the DPA Amendments will have no direct inflationary impacts. To the extent that FEA actually allocates materials to certain energy projects, and production of these materials does not increase at a proportionate rate, the demand for non-allocated materials could cause a rise in the price of steel products. If the Amendments are not passed, and energy projects cannot be completed as scheduled, energy fuels will be in shorter supply than anticipated and energy prices may increase to higher levels than anticipated. A quantitative analysis of this policy action is not possible at the present time. Specific energy projects material constraints are being determined by the Energy Resource Development Office at FEA, and figures will not be available until January 1975.

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Nuclear Plant Licensing Legislation

Many of the nuclear power plants now nearing completion will have required as long as 10 years from the industry decision to proceed until the plant begins commercial operation. The intent of Nuclear Plant Licensing Legislation is to reduce the time required to bring new nuclear power plants and associated nuclear fuel cycle facilities into being without detracting from the necessary safety reviews needed to protect the public health and the environment. Early public participation in decisions is also encouraged.

Recognizing that a significant portion of the considerable time lag in completing nuclear plants is due to the time required for approval of proposed plants and sites, the Atomic Energy Commission (now the Nuclear Regulatory Commission) set out on two main efforts: First, to take all actions possible within existing law to remove time constraints, and second, to propose additional legislation which would allow further streamlining of the design, regulatory, and construction processes, and eliminate much of the site selection and Government regulation from the "critical path" in bringing nuclear power plants on-line. Industry and labor would then do their part to reduce construction delays.

The current legislation has the support of the Administration and includes the following features:

(1) It codifies the NRC practice of authorizing commencement of site preparation and early construction activities prior to issuance of a construction permit, provided environmental and site suitability issues have been reviewed.

(2) It permits NRC to approve a site for construction of one or more types of nuclear plants prior to submission of a construction permit application, and it eliminates the need to conduct a construction permit hearing, unless such a hearing is requested by the public.

(3) It provides that if a proposed facility is to be built on such a pre-approved site and employs an approved standardized design, NRC is authorized to issue a construction permit without further hearings.

(4) It permits simultaneous granting of construction permits and operating licenses for new plants where sufficient final design data is provided.

(5) It permits and encourages the combining of State regulatory hearings with NRC regulatory hearings in matters of concurrent jurisdiction.

(6) In some cases it permits NRC to issue an interim operating license or an interim amendment to an operating license or a construction permit in advance of any requested public hearing.

(7) It vests NRC with specific authority to establish time limits on the completion of various phases of licensing proceedings, to limit discovery (in the legal sense) to reasonably specific issues, to confine hearings to substantial, genuine, and material issues of fact, and to be the lead Federal agency in nuclear-related matters in the National Environmental Policy Act.

It is estimated that without enactment and industry actions to resolve financial problems and to accelerate construction of nuclear plants, only about 70,000 to 80,000 MW(e) of nuclear generated electric capacity will be available by late 1980. With enactment and concurrent action by industry, 15,000 MW(e) additional capacity or more could be available by late 1980. (An additional capacity of 30,000 MW(e) is roughly equivalent to a savings of one million barrels of oil per day if it replaces oil generating plants.)

The potential impact of the legislation on new plants scheduled for operation after 1980 is far greater. Enactment will permit those plants already planned by utilities for the period 1980-1985 to achieve or improve their projected schedules and can result in 270,000 MW(e) or more available by 1985, with corresponding savings in imported oil.

Electric power generated by present nuclear power plants is reported to be about 25% cheaper than power generated in base loaded fossil-fuel plants. This cost advantage is expected to become even greater as the cost of fossil fuels continues to rise.

The proposed legislation does not change the basic safeguards of public health and safety and of the environment built into existing laws such as the National Environmental Policy Act. Hence, enactment will not affect environmental safeguards nor have any significant social impact. No windfall profits should obtain. International implications are restricted to impacts on imported oil and balance of payments.

The policy quickens the pace of nuclear power production without increasing the risks of environmental hazard or sabotage with nuclear weapons (according to the proponents). Although this policy should affect all regions equally in terms of percent increases in nuclear production, the Southeast Region will be considerably more dependent on this energy source by 1985. This suggests that faster nuclear development will have a greater impact in that Region.

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Modification of Utility Rate Schedules

The utility industry, under both state and Federal regulations, has in many cases developed rate structures that encourage excessive energy consumption and inefficient load patterns. Regulatory authorities should seek to design rate structures that encourage maximum energy conservation, balance loads between peak and off-peak periods, and charge individual categories of users the cost of the power they require and consume.

The annual growth rate in the 10 years ending in 1972 was in excess of 7%, which is almost twice the growth rate of other energy usage; during this period the electric utility industry operated with a declining load factor (the relationship between average and peak loads); in 1973 the load factor was 62%.

Over the near to intermediate term it is FEA's goal through redesign of rate structure and related regulatory procedures to reduce the annual growth in electricity usage to 5 1/2% maximum, and to improve load factor to at least 68%.

The following impacts may be expected over the near to intermediate term:

- o Annual energy savings of 2.1 quadrillion Btus by 1980.
- o Import reduction of 165,000 barrels of crude equivalent per day by 1980.
- o Reduction in electricity usage and increases in efficiency should effect savings of approximately 1.2 billions 1974 dollars annually by 1980 assuming $11 oil; and $1.4 billions assuming $7 oil. The requirement for annual private sector investment will be approximately $200 million.
- o Concurrently with a decrease in the amount of electricity used, its price will rise moderately - probably less than 10%. The increase will be concentrated among large and peak load time users.
- o No windfall gains, or losses, are contemplated.
- o There will be modest increases in employment in certain electric utility support industries, offset by a decline in electric utility construction employment.
- o The reduction in required generating capacity will reduce thermal and air pollution. This positive effect will more than offset any possible negative effects due to coal substitution of oil or nuclear fuel for power generation.

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This proposal envisions the institution of a system of peak hour pricing. This would have several favorable economic impacts. It would shift some of the electric demand from peak to nonpeak periods. It would also reduce total demand by flattening out the rate schedule and removing the incentives for increasing consumption of electricity. At the same time revenue would rise. Thus this program simultaneously reduces the pressure for expansion and provides more funds for it.

The rise in electricity prices is expected to be borne by large users of electricity and by those who consume large proportion of their electricity during peak periods.

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International Energy Program

The International Energy Program (IEP) provides for a comprehensive international effort to limit individual and collective vulnerability to future oil supply interruptions through an integrated plan to deal with emergencies, to reduce dependence on imported oil, to increase the information available to governments on the activities of the international oil industry, and to improve the dialogue between the producing and consuming countries. Under the emergency arrangements participating countries are required to maintain an agreed upon level of emergency self-sufficiency, develop demand restraint programs which will enable participating countries to cut oil consumption without delay by a common rate should there be an interruption of supply, and allocate available oil to spread any shortfalls equitably among the members.

The program is designed to operate in either a general supply emergency or in response to a selective embargo aimed at one or a group of countries. The basic principle of the allocation mechanism is that when the oil supply shortfall reaches an agreed upon threshold all countries will restrain demand by a common rate, draw down emergency supplies, and share available oil. The Administration considers that the IEP will accomplish several objectives, including deterrence of a selective embargo, an ability to manage crises, and an increase in international cooperation.

The direct cost associated with the IEP program would arise from obtaining and maintaining emergency supplies. A contingent second cost may arise from the emergency preparedness associated with demand reduction measures. A contingent third cost may arise related to import disruption. These costs are not yet quantified.

The social costs and benefits are indirect and quite difficult to quantify. Probably the most important is related to the deterrent effects of maintaining emergency supplies and the ability to respond rapidly and cooperatively to a selective embargo should deterrence fail. There could be some negative effects on GNP, employment, and lifestyles as a result of obtaining and storing oil which would otherwise go on the market, but these are expected to be slight.

A conservation strategy in the long term could lead to less pressure on the domestic environment and could reduce the rate of depletion of domestic resources. In the shorter term, if decisions are made to develop strategic petroleum reserves, either in salt domes or in steel tank farms, there might be some environmental costs.

The program would be an important step in promoting economic stability in the participating countries and in deterring or countering an embargo, either general or selective.

The International Energy Program's economic impact relates to three factors. The first is that the agreeing countries in the event of an oil import disruption will restrain demand from 7 to 10% or more depending on the size and extent of the disruption. The economic impact of the demand restraint provision is similar to other conservation measures reported elsewhere in this report and need not be repeated here.

The second is that the countries will maintain a 90 day supply of oil in storage at their current import levels. The storage program has two different impacts. To build the facilities and place the oil in storage will require investment expenditures during the years the program on the type of storage facilities--salt domes, steel tanks, etc--, the price of oil and the total amount of oil to be stored. Such expenditures will affect the level of GNP and possibly prices. The possible investment expenditures per barrel of storing oil in salt domes can be estimated as follows. If we assume that 1974 price of oil is $11.00 and the cost of developing the facilities for salt dome storage is $1.00 per barrel, then if we start to develop the facilities in 1975 and start storing oil in 1976, then a pattern of investment expenditures is shown in Table V-7.

TABLE V-7

Investment Cost Per Barrel: $11.00 Oil
(Current Dollars)

	1975	1976	1977	1978	1979
Storage Facilities	1.10	1.20	1.31	1.43	1.58
Oil Investment	___	12.71	13.34	14.02	14.71
Total	1.10	13.91	14.65	15.45	16.29

Depending on what the level of imports would be in 1980, the level of investment spending to develop the salt domes and place oil in storage would be less than one percent of the forecasted nonresidential investment expenditures. Hence, the effects of this program on GNP would be minimal. There may be a small price effect because of the incremental demand for oil to put in storage, but this is difficult to assess because it would depend on many other factors in the world oil market.

The final factor is that if a disruption does occur this program would reduce the costs of that disruption considerably.

The CHAIRMAN. At this point we will print all additional statements and communications received from interested persons and also those who were unable to attend the hearing.

AMERICAN PETROLEUM INSTITUTE,
Washington, D.C., December 19, 1974.

Hon. EDMUND S. MUSKIE,
Chairman, Senate Budget Committee,
Washington, D.C.

DEAR MR. CHAIRMAN: According to reports in the media, Dr. Paul Davidson Associate Director of the Rutgers University Bureau of Economic Research, in testimony before the Budget Committee on December 18, 1974, asserted that oil companies are withholding oil and gas from the market in the expectation that prices will soon reach "exorbitant" levels. Dr. Davidson cited "an unusually large number of producible shut-in zones on offshore lands" as evidence of withholding.

In regard to his statement, we call your attention to the U.S. Geological Surveys December 12, 1974 statement (attached) which explains that the apparent increase in non-producing well completions on the Gulf of Mexico Outer Continental Shelf did not reflect an actual increase in the number of shut-in wells but rather a change in the method of reporting statistics on oil and gas wells by the Geological Survey, including a change in the definition of a shut-in well. The USGS statement refutes the claim by Dr. Davidson and others that oil companies are withholding oil and gas in shut-in wells in the Gulf of Mexico, waiting for higher prices.

The API release refuting this charge is also attached. We would appreciate your including this material in the hearing record.

Sincerely,

FRANK N. IKARD,
President.

Enclosures.

[For release December 12, 1974]

DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY

OFFSHORE SHUT-IN OIL AND GAS WELLS EXPLAINED

Recent reports suggesting a dramatic increase in 1972 of shut-in oil and gas wells in the Outer Continental Shelf area of the Gulf of Mexico were termed "misleading" and "unfortunate" by Dr. V. E. McKelvey, Director of the U.S. Geological Survey, Department of the Interior.

"The apparent increase of non-producing oil well completions in the Gulf of Mexico OCS, from 942 in 1971, to 2,978 in 1972; and from 602 to 872 for gas well completions, did not reflect an actual increase in these shut-in wells; rather a change in the method of reporting statistics on oil and gas wells by the USGS including a change in the definition of a shut-in well," McKelvey said.

"Looking at these statistics alone," McKelvey said, "without an explanation of a change in definition and terminology related to shut-in wells, it is understandable but unfortunate that false implications could be drawn."

McKelvey explained that each year the USGS compiles a publication entitled "Outer Continental Shelf Statistics," which sumarizes a variety of data related to oil and gas operations on the Outer Continental Shelf. "As the agency with responsibilities in supervising such operations," McKelvey said, "it is in the public interest to report annually on the number of leases in operation, the nature of production, the royalties collected and similar data."

"Until 1972," McKelvey explained, "the statistics on shut-in well completions did not include those that are left standing to drilling on platforms, planning for secondary or other injection projects, delays in facilities, well-plugging by sand, or other mechanical problems, pressure depletion, or having an excessive gas-oil ratio. These well completions were considered 'active' because they were neither literally plugged with cement and finally abandoned, nor were they under current application for approval of workover or repair projects."

"Starting in 1972, the Survey's Conservation Division, which supervises and reports on operations on Federal offshore areas, made the decision to expand the definition of a shut-in well to include a large number of wells that were not permanently plugged with cement and abandoned," McKelvey said, "thus, statis-

tically, the number of shut-in wells jumped sharply in 1972. In fact, however, the number would not have been nearly so high if the older definition of a shut-in well was being used. We are currently modifying the tabulation of well status by expanding the categories that a shut-in well may be under. The result of this will permit identification of the number of wells that have future utility."

McKelvey said that wells were shut in for three major reasons: reservoir problems, mechanical problems and waiting on facilities.

"Reservoir problems," McKelvey explained, "involve reservoirs that are depleted through pressure losses when totally enclosed or trapped. Without sufficient pressure, the oil cannot flow. They also involve reservoirs that 'water out'—a condition whereby removal of oil causes the underlying salt water in the reservoir to rise to the level of completion. Also, under certain conditions, some oil reservoirs produce excessive gas, which may result in waste either in the reservoir or as flare gas."

"Mechanical problems—the biggest single reason for shut-in wells—often involve wells that are choked by flowing sand," McKelvey said. "Also, in this category, wells have to be shut-in because of the need for repair. For example, many wells are obstructed by tools lost through wireline and small-tubing operations."

"A third problem category—although responsible for only a small percentage of shut-in's," McKelvey said, "is because of a wait for new facilities. For example, new wells being drilled and completed from a platform cannot be produced until the rig is removed. Another reason in this category is that obtaining and installing platform production equipment takes considerable time, as does pipeline installation."

McKelvey said that a study of the January 1974 shut-ins showed that reservoir problems accounted for about 55 percent of all oil and gas shut-ins; mechanical problems about 41 percent; and the balance because of the wait for facilities.

AMERICAN PETROLEUM INSTITUTE

DEBUNKING OF "MISSING OFFSHORE WELLS" CHARGE UNDERSCORES IMPORTANCE OF FACT-CHECKING, API SAYS

Washington, Dec. 13—The so-called "mystery of the shut-in offshore oil wells" has vanished into thin air, according to Frank N. Ikard, president of the American Petroleum Institute.

He noted that the U.S. Geological Survey has published a statement which completely debunks the charge that oil companies are concealing enormous amounts of oil in shut-in wells in the Gulf of Mexico, waiting for higher prices.

"Like so many other rumors circulated about the energy situation during the past year," Ikard said, "this one resulted from a misunderstanding of government statistics. Once published, it grew and was repeated by nationwide news media as fact. A number of political leaders found this completely untrue charge a convenient vehicle to attack the petroleum industry, and reaped generous headlines in the process."

The API president said a similar charge about shut-in offshore gas wells was thoroughly investigated several months ago and was found to be without foundation.

"In the case of the offshore oil wells," Ikard said, "the federal government in 1972 changed the definition of a shut-in well in such a way that it resulted in a large increase in the number of 'shut-in zones' as reported by the U.S. Geological Survey. This was purely a statistical matter and did not mean that oil companies were holding back oil production."

"As a matter of fact," Ikard continued, "Dr. Russell G. Wayland, chief of the U.S.G.S. Conservation Division, has stated that since 1972 there has been 'no restriction of production' from wells that were in the categories considered capable of producing."

Ikard said the "hidden well" story got started in September at an economics seminar sponsored by the Brookings Institution. Three Rutgers University economists—Paul Davidson, Laurence H. Falk and Hoesung Lee—presented a paper on oil in which they interpreted U.S.G.S. statistics as providing "strong evidence of speculative withholding of oil production."

At the same seminar, Ikard noted, Dr. Charles Schultze, president of the Brookings Institution, disagreed with the Rutgers professors' conclusion. He

pointed out that in December 1970, offshore producers went from state regulation in allowable production to federal regulation, which permitted more production per well.

Said Dr. Schultze:

"Between 1970 and 1973, the number of wells decreased by 30 per cent, but production rose by 7 per cent. Production per well went up by almost 40 per cent."

In a statement released yesterday, U.S.G.S. Director Vincent McKelvey called the erroneous reports about shut-in wells "misleading" and "unfortunate." He said a 1972 change in definitions used by the U.S.G.S. in compiling data resulted in listing as "shut-in producible" a large number of wells previously classified as "active."

Dr. McKelvey said the major reasons for wells being shut in are reservoir problems, mechanical problems, or waiting for facilities—such as pipelines to take oil to shore. Many wells with problems of those kinds were listed as "active" in 1971 but were transferred to the "shut-in" column in 1972 as a result of the change in the reporting system.

"Reservoir problems," Dr. McKelvey explained "involve reservoirs that are depleted through pressure losses when totally enclosed or trapped." Without sufficient pressure, the oil cannot flow. They also involve reservoirs that 'water out'—a condition whereby removal of oil causes the underlying salt water in the reservoir to rise to the level of completion. Also, under certain conditions, some oil reservoirs produce excessive gas, which may result in waste either in the reservoir or as flare gas.

"Mechanical problems—the biggest single reason for shut-in wells—often involve wells that are choked by flowing sand," Dr. McKelvey said. "Also, in this category, wells have to be shut in because of the need for repair. For example, many wells are obstructed by tools lost through wireline and small-tubing operations.

"A third problem category—although responsible for only a small percentage of shut-ins," Dr. McKelvey said, "is because of a wait for new facilities. For example, new wells being drilled and completed from a platform cannot be produced until the rig is removed. Another reason in this category is that obtaining and installing platform production equipment takes considerable time, as does pipeline installation."

API President Ikard said incidents like this underscore the importance of checking carefully into the facts before forming hasty conclusions and making unsupported charges. "At best," he concluded, "it will be difficult for the petroleum industry to meet the challenges facing it. If public confidence is undermined by such rumors as this, the task will be even more difficult."

The CHAIRMAN. Thank you very much, gentlemen.

[Whereupon, at 12:35 p.m., the committee adjourned.]

THE ECONOMY AND FISCAL POLICY, 1974

THURSDAY, DECEMBER 19, 1974

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 1114, Dirksen Senate Office Building, Senator Edmund S. Muskie (chairman) presiding.

Present: Senators Muskie (presiding), Moss, Cranston and Javits.

Also present: Douglas J. Bennet, Jr., staff director; John T. McEvoy, chief counsel; Marc Lackritz, deputy chief counsel; Arnold Packer, chief economist; Maria P. Durelli, chief clerk; James Wood, professional staff member to Senator Moss; Harold Gross, task force investigator for Senator Cranston; Colin Bradford, professsional staff member to Senator Chiles; Alan Chvotkin, task force investigator for Senator Abourezk; Frank Ballance, task force investigator for Senator Javits; George Pritts, professional staff member to Senator Fannin; and Joan Leach, clerical assistant.

The CHAIRMAN. The committee will be in order.

We will start right in. We have a lot of ground to cover this morning.

This morning the committee will receive testimony from Mr. Charles Schultze, the distinguished former Director of the Bureau of the Budget, and now senior fellow at the Brookings Institution. Mr. Schultze is well known to this committee as an economist who has had distinguished service as the Government's chief budget officer and for his continuing contribution to the solution of fiscal problems. We are indebted to him for his great help in advising upon development of the Budget Act itself which created this committee, and the process in which we are now engaged. So we look forward to his testimony and his suggestion for appropriate fiscal policy to meet the current economic crisis.

Mr. Schultze.

STATEMENT OF CHARLES L. SCHULTZE,[1] FORMER DIRECTOR OF THE BUREAU OF THE BUDGET AND SENIOR FELLOW AT THE BROOKINGS INSTITUTION, WASHINGTON, D.C.

Mr. SCHULTZE. Thank you, Mr. Chairman. I have what I think at least is a relatively brief statement, and with your permission I will read it. I think I can do that fairly quickly.

[1] The views presented in this statement are those of the author and not necessarily those of the officers, trustees, or other staff members of the Brookings Institution.

Your committee has already heard from a distinguished panel of economists about the economic outlook and the kinds of corrective fiscal policy measures which that outlook calls for. In the absence of strong policy measures they foresee a continued decline in economic activity at least for the next 6 months, an unemployment rate reaching and perhaps exceeding 8 percent by midsummer 1975, and a real danger of even further deterioration. That picture is widely shared among independent economic forecasters and presents, I believe, a sober and realistic view of the near term economic future. Rather than simply add another voice to this consensus I would like to take that outlook as given and proceed to examine briefly its implications in three areas of interest to the committee:

First, what are the very special features of this recession which must be taken into account in designing fiscal policies to turn it around?

Second, what do current economic problems suggest about how your committee addresses its first full year of work?

Third, how does the energy problem relate to our economic difficulties, and how should energy policy be tied in with overall budgetary measures?

Let me start with the special features of this recession, and their meaning for budgetary policy. The current recession is not a typical economic cycle, in which business spending on plant and equipment and inventories or consumer purchases of durable goods temporarily overreach themselves, fall off, and with the aid of easy money and stimulative fiscal measures, snap back to more normal levels. There are several much more pervasive influences at work that tend to make this recession deeper and more stubborn than has been typical of other postwar downturns.

The first of these features has to do with oil. My colleague at Brookings, George Perry, has compared the sudden increase in the price of crude oil that occurred this year to a giant excise tax levied on the American consumer, siphoning off purchasing power and leading to a drop in real incomes. The additional money directly and indirectly paid by consumers for petroleum products goes principally to the OPEC countries and into the profits of domestic oil companies.

Ultimately, I stress ultimately, a large part of this diverted flow of funds will be respent—on American exports to the producing countries and on increased investment in domestic energy sources. But in 1974 and 1975 most of the oil excise tax will not be respent—it is being drawn off from the income stream and effectively sterilized. Exports to OPEC from the United States are rising, but by a far smaller amount than their increased revenues. Oil and gas industry investments have expanded, but have been offset by a drop in electric utility investment. On balance, only a small part of the oil excise tax has been respent on buying goods and services.

Starting with Perry's estimates for the size of the drain, I have conservatively calculated that in 1975 it should amount to a $25 to $30 billion reduction in consumer purchasing power. One does not need to invoke complex and fancy psychological theories of consumer confidence to explain why markets are weak and sales are falling—about $25 to $30 billion is being removed from the spending stream and not

replaced. And it is not strange that consumers are not buying so much. They do not have the money.

The behavior of the Federal budget has been exacerbating the problem. In the third quarter of 1974 total output in the American economy was 3 percent below late 1973 and still falling, while unemployment was racing past the 6 percent level. Despite the recession, however, the Federal budget, on a national income accounts basis, was virtually in balance during the third quarter. While output was below a year ago, Federal revenues, pushed upward by inflation, were 16 percent higher. In practice, even if not through intent, we are reverting to the outdated practice of trying to balance the budget in the face of a rapidly falling economy.

What has brought us to this fix? Partly the problem stems from the fact that in our progressive tax system rapid inflation acts just like an increase in tax rates. Even though for most people money incomes in the past year have not kept pace with inflation, they have increased. People have been pushed into higher tax brackets, despite the fact that their real incomes are down. Effective rates of taxation have risen.

The consequence of having both rapid inflation and recession at the same time is that the Federal budget automatically behaves perversely—it gives us tax rate increases at precisely the time we should be having tax cuts to fight the recession. At the same time the real purchasing power of those parts of the Federal budget which are determined by fixed dollar appropriations is being reduced, also producing a depressing effect on economic activity.

How large are these budgetary effects depressing the economy? We cannot measure them by looking at the actual budget balance—the rapid decline in output and unemployment is acting to reduce revenues while inflation is acting to increase them. One imperfect but serviceable way to look at the problem is to ask the following question: Suppose this recession had not happened; suppose the rate of unemployment and the level of capacity utilization were the same now as they were in early 1973. What would the Federal budget look like? Under those conditions, given the rate of inflation we have experienced, the overall Federal budget would have shifted from a $7 billion deficit in the second quarter of 1973 to a $27 billion surplus last quarter—a swing of $34 billion in less than a year and a half.

Let me add that I made another calculation yesterday on what has been the impact of inflation just on individual income tax. It turns out that the effective inflation in raising the effective tax rate by pushing people into the higher income bracket has siphoned off an additional $13 to $15 billion from the consumer purchasing power. To say it another way, it is as if the Congress in the past year had enacted a $13 billion tax increase. This has been the impact of inflation.

In normal circumstances, when you are dealing only with inflation, when there is too much spending in the economy, this automatic tendency of a progressive tax system to raise effective tax rates, I guess it holds down inflation, but when you have inflation together with recession, it is perverse, it automatically gives you tax rate increases, when at the same time the economy is going downhill.

In addition to the more usual cyclical influences, therefore, the demand for goods and services has been sharply depressed over the past year by the combination of the oil excise tax and the perverse behavior

of the Federal budget during a period which combines rapid inflation with recession.

We cannot leave the matter here, however. While the oil price increases are now siphoning off and "sterilizing" a large slice of consumer purchasing power, these funds will gradually reenter the income stream in later years, in the form of demands for American exports and increased investment in domestic energy industries. The demand depressing effects of the oil excise tax, in other words, have a time profile—large at first, and then diminishing. Similarly the effect of inflation on the Federal budget acts initially to depress demand as revenues react more quickly than expenditures, but this effect is likely to be moderated after a time, although not eliminated, as appropriations for various programs are eventually raised simply to take account of the higher prices.

Given the economic outlook presented to you by earlier panelists, and the analysis outlined above, what are the implications for the design of fiscal and budgetary policy in 1975?

First, the economy needs a large dose of fiscal stimulation. By the third quarter of this year, GNP in real terms was already 4½ percent or 70 million below the level which would provide employment for 95 percent of the work force. By the middle of 1975 GNP is likely to be 140 billion below the level consistent with a conservative 5-percent unemployment target, and even further below the traditional 4-percent unemployment target. As I have indicated the current market depressing forces of the oil excise tax and the Federal budget are huge—approaching $30 billion each. The economy has already slipped so far that even with vigorous action it will be a long time before recovery can produce reasonable prosperity.

For example, even if a combination of fiscal measures, monetary policy, and good luck turned the economy around by midyear 1975 and produced a steady growth of 7 percent a year in real output, it would not be until the fourth quarter of 1978—4 years from now—that the unemployment rate would fall to 5 percent.

In the face of these facts small measures just will not do. We have an economy of $1.4 trillion, beset by very large depressing forces. Applying miniscule fiscal policy measures, which add to $5 or $10 billion, cannot provide the leverage needed to achieve a reasonable recovery path.

How large should the stimulus be? Professor Eckstein suggested a $25 billion fiscal package to the committee. In 1964, with an unemployment rate of only 5.2 percent, compared to the current 6½ to 7 percent, an $11 billion tax cut was enacted to promote economic recovery, and was remarkably successful at doing so. In terms of today's much larger GNP a fiscal stimulus of the same relative size would amount to $26 billion. I think much more work needs to be done to estimate the magnitude of the appropriate fiscal action, but it is already clear that it will have to be a large one.

The second implication for fiscal policy, arising from an analysis of the current situation, is that some part, though not all, of the depressing forces now acting on the economy will gradually taper off over the next several years. As I pointed out, a sizable portion of the income drain from higher oil prices will eventually filter back into

the spending stream. And the general inflation, which quickly and more than proportionately increased Federal revenues, will ultimately be reflected in higher Federal outlays. When the depressing effects of these events are at their peak, as they are now, the countervailing fiscal stimulus ought to be large. But the need for fiscal stimulus will diminish over the next 3 or 4 years, as the offsetting factors begin to operate. This suggests that some part of the sizable fiscal stimulus, urgently needed now, be of a temporary nature, and decline in succeeding years. Otherwise we may commit ourselves to a pattern of revenues and expenditures which, however appropriate now, may not fit the needs of 1977 and 1978.

In short, the specific budgetary actions called for by the urgent needs of the present must be designed and evaluated in terms not just of today but of tomorrow as well. And this brings me to my second major topic dealing with fiscal measures and perhaps it is a bit presumptuously suggesting the role of this Committee on the Budget in light of those fiscal measures.

Given the way economic events are unfolding, next year will, I am convinced, see the enactment of large scale budgetary measures aimed at stemming the recession and promoting recovery. There are a number of major choices to be made:

How large should the budgetary stimulus be?

How much of the stimulus should be in the form of expenditure increases and how much in the form of tax cuts?

What kinds of expenditure programs should be increased, judged both by criteria of speed and effectiveness in putting people back to work and by criteria of social need?

What kinds of tax cuts should be enacted; what part should be temporary and what part permanent?

What will be the effect of various actions next year on the budget and the economy in 1976, 1977, and 1978, and how should these projections influence the choices to be made in 1975?

Unless the budget is viewed as a whole, and in the context not only of 1975 but of later years, Congress literally will never have a chance to make these choices explicitly. Rather a piecemeal series of actions will be taken, on expenditures and taxes, adding up willy-nilly at the end of the session to an overall picture that probably no one had in mind when voting for or against each particular action. Reasonable people can and should differ over what is the appropriate combination of fiscal measures. But they cannot even carry on an intelligent debate until they have a set of options presented to them.

The situation is, indeed, made to order for this committee. You can undertake to design several alternative sets of possibilities, that differ from each other in terms of magnitude, expenditure increase versus tax cuts, and temporary versus permanent effects. You can, at least roughly, trace the consequences of each set on the economy and on the budget. You can outline how choices will affect subsequent years.

In doing so you need not come crosswise with other committees by getting deeply into the detailed design of particular tax or expenditure measures. But by laying out several alternative budget policies in a comprehensive way, and discussing the major strengths and drawbacks of each, in a framework not just of 1975 but of later years, you can, I

think, perform an immensely valuable and urgently needed service to the Congress and the country.

For what it is worth, my own choice among the various possible options, at least in very general terms, would run along the following lines:

There are areas in which Federal expenditure programs can be used speedily and effectively to spur recovery; but these are limited in number and magnitude, given the size of the needed fiscal stimulus;

A large part of the necessary stimulus must come from a tax cut;

Part of that tax cut should be temporary in nature; or as an alternative, the continuation of part of the tax cut beyond a certain date should be made statutorily contingent on the subsequent enactment of an equivalent amount in revenue-raising reforms;

The benefits of the tax cut should be concentrated principally among the poor and the average worker, as a means of offsetting some of the recent loss in real wages, and restoring purchasing power; to the extent possible the tax cut should be used as an inducement to secure wage restraint during the present period of inflation cum recession; devoting part of the fiscal stimulus to a reduction in payroll taxes would be a highly desirable way of achieving some of these objectives.

But as far as the work of this committee is concerned, picking out one particular set of choices may not be the most immediate task. Rather it lies in beginning to develop, and to analyze, a number of comprehensive fiscal alternatives.

Let me turn briefly and far from comprehensively to several observations about energy policy.

It is very important, I think, to be quite clear on just how energy policy relates to overall economic and budgetary policy. Although one major reason for our current economic difficulties is the reduced purchasing power occasioned by the rise in oil prices, economic recovery cannot—I repeat not—be brought about by changes in energy policy.

To offset the loss of purchasing power and real consumer spending resulting from higher oil prices we must act through such standard fiscal measures as reductions in taxes or increases in Federal expenditures. No matter what we do by way of oil conservation, prices will not return to 1973 levels, nor are they likely to drop very far in the immediate future. There is a rationale for undertaking rigorous conservation measures—but economic recovery does not hinge upon such actions, nor conversely would such actions themselves promote recovery.

In the long run we would like to see lower oil prices. Ultimately we must pay for high-price imports through a transfer of real goods and services to the oil exporters. Insofar as we develop high-price domestic fuels we divert scarce resources from other uses. As a consequence, even with full employment and economic prosperity restored, higher oil prices imply some reduction in our living standards below what they otherwise would have been.

If world oil prices remain at present levels, domestic prices will eventually match them. The effect will be to lower living standards by perhaps 2 percent below trend. This reduction equals about 1 year's normal growth in real per capita income. Insofar as the United States is concerned, therefore, we can say two things about oil prices:

1. The immediate siphoning of funds from the spending stream by

higher oil prices depresses demand throughout the economy; this can and should be offset by fiscal measures which increase market demand.

2. Even with demand and employment ultimately restored to prosperity levels, the higher price of energy leads to a reduction in living standards; but this is a moderate, and certainly not a catastrophic drop.

No one knows whether and how world oil prices can be brought down. But we do know that the greater the reduction in the size of the world oil market, the more difficult it will be for the OPEC countries to keep prices at today's levels. A shrinking market means that prices can be maintained only by reductions in output among OPEC countries. And we do know that those OPEC countries with large populations and ambitious development programs are most reluctant to cut back output. Hence, output reduction may have to fall disproportionately on some members of the cartel, thereby threatening its cohesion and effectiveness. Reducing the size of the world oil market, therefore, will not guarantee a price reduction but it will substantially increase the chances of it happening.

Over the next few years the possibility of reducing U.S. imports through the expansion of domestic energy sources is quite limited. Major cutbacks in imports will have to come from reduced consumption. Effective conservation measures by the major consuming countries afford the only realistic means of reducing the size of the oil market in the years immediately ahead.

This then, is the role of oil conservation policy—to increase the long run chances of a reduction in world oil prices, not as a device to restore employment and spending, but as a means of reducing the impact of higher oil prices in a fully employed economy. It is an important objective. But it ought not to be confused with the measures needed immediately to cope with the recession.

One final observation about the relationship of oil conservation to budgetary policy. A large increase in the gasoline tax is a prominent candidate among the measures available to reduce oil consumption, although the President has done his best to knock it in the head every time it emerges. Without going into the merits of taxes versus rationing, I would like to stress two points.

First, if a gasoline tax is enacted, it is vital, critical, urgent, that it be fully refunded through an income tax rebate or other measures. A 20-cent gasoline tax would raise almost $20 billion. The last thing this economy needs is a further $20 billion drain in purchasing power. Full rebate of any gasoline tax is critical.

Second, a gasoline tax rebate would not provide any net economic stimulus; it would merely offset the restrictive effect of the gasoline tax itself. Hence, the total size of the required tax cut, taking into account both the gasoline tax rebate and the additional fiscal stimulus, would have to be very large indeed. If, after further careful examination, the net budgetary stimulus that is needed should indeed turn out to be in the neighborhood of $20 to $25 billion; if most of that stimulus comes in the form of a tax reduction; and if a 20-cent gasoline tax is fully rebated; then the total size of the necessary tax cut would range between $35 and $40 billion.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Shultze, for an extremely lucid statement which has been of great help to this series of hearings.

I would like to ask a couple of questions. First with respect to the tax rebate, what function would a 20 cents gasoline tax serve if it is fully rebated?

Mr. SCHULTZE. Yes, sir. If you rebate it you would not rebate it in accordance with the amount of driving that each person or family did. Rather you would rebate it by some fixed standard so that the rebate would be the same to any given family regardless of the amount of driving it did. For example, just only as an example, you might calculate the amount of rebate in terms of the amount of driving that the average family might do with one car, and let us just assume that that is $200, the impact of the tax. You would give every family $200, regardless of how much it actually drove. As a consequence, on the one hand, the family would have $200 more in its pocket, and on the other hand, for every additional gallon of gasoline it purchased, it would pay an additional 20 cents. So the money would go back to restore purchasing power, but individuals would still have the incentive because of the higher price to reduce their driving.

The CHAIRMAN. Now, one problem I have with that is this, that the rebate presumably would come at a time when the income tax returns were filed, would it not?

Mr. SCHULTZE. Not necessarily, Sir. What could be done, and it is done all of the time when we change tax rates, is to calculate the effectiveness of the rebate in terms of various income levels and build it into withholding rates, as consequence of which most people would have the rebate reflected immediately in their paycheck. At the end of the year there would be, indeed, pluses and minuses because you cannot do it perfectly. You would also have to make provision for families that had no income tax liability to be able to collect a cash refund. Now, this does pose some administrative problems, but with good will, really it is not insuperable. Since you know what the amount is going to be, you could make the cash refund every month. It could be done in a way which pumped the money back into the economy virtually immediately as you went on through the year.

The CHAIRMAN. Let me ask a second question which is going to come before us in the Senate today. You recall that in 1967 the Congress approved an across-the-board expenditure cut tailored in accordance with a formula which I understand you had some part in shaping. I understand that based on that precedent, a similar across-the-board cut will be offered for Senate consideration this afternoon. And I wondered if you would give us your evaluation of that, both as a mechanism, and second in terms of its economic impact.

Mr. SCHULTZE. Let me start with the second first if I might, the economic impact. I think it would be perverse, undesirable, unneeded, bad. Of course, even in periods of recession, I do not think that the Congress ought to close its eyes and pass any expenditure program and stop examining the budget for waste and ineffectiveness. It should continue to do that. There is no reason to stop that during recession.

At the same time, however, cutting expenditures for economic purposes in a period where the problem is precisely the opposite—where the problem is that the economy is racing downhill because of too little market demand and too little spending—to pull Federal spending out of the economy, not because you have decided that a par-

ticular program is wasteful, but for economic reasons, literally it is just not a good thing to do. It is a bad thing to do and will contribute further to the recession.

Now, the only thing that is likely to save the situation is that I am morally certain that between now and next June the administration is going to turn on a dime and is going to be putting some of that money back in, so it may turn out if you voted the cuts they will ultimately, you and they will be forced to put something else back in. But quite frankly, Senator, I see no reason for such cuts now.

Second, the problem with an across-the-board expenditure cut is that even after—I'm sorry to say that I am not familiar with this particular one—even after applying a good bit of sophisticated thinking to how one might do it with the least arbitrary impact, and even after one gets rid of some of the gross inefficiencies that go with simple minded across-the-board cuts, any kind of an across-the-board cut still presents you with all sorts of anomalies. You know, the Federal Government is running a $305 billion enterprise, and that is a large enterprise with a lot of facets, and a lot of peculiarities, not all of which are just because of stupidity. A lot of it is because it simply fits the facts, and it is very hard to tailor an across-the-board cut to that kind of a complex enterprise, and you inevitably end up with problems.

Now, in a period in which it is clear that the economic problem is too much spending, driving the economy to a drum-tight situation, then across-the-board cuts may be the lesser of many evils, and it might be nevertheless necessary to do. So I do not want to say at no time is this a good idea. But at the present time, as far as I am concerned, it makes absolutely no sense.

The CHAIRMAN. Do you have any recollection of the impact of that cut in 1967, and how it worked?

Mr. SCHULTZE. If I am right, this was the so-called 2 percent and 10 percent, dealing with obligations and cutting payroll obligations by 2 percent and other obligations by 10 percent?

The CHAIRMAN. Something of that nature.

Mr. SCHULTZE. If that is roughly what it is, of all of the forms of doing an across-the-board cut that probably is better than most because you are hitting the budget where you can affect it; namely, when the Government makes an obligation or contract. You are not putting your hand over the spigot; you are saying, I am going to turn the spigot down, I am going to turn the handle down a little. So that part of it makes sense.

My recollection of this, and it is fairly fuzzy by now, it is very hard, as a matter of fact, with the information the Congress has, to know whether the cuts were actually made or not. It is a 10-percent cut in obligations. From what? First, you have to find out from what it otherwise would have been, and that is very hard to figure. It probably worked. At that time it was I think needed because we were in a Vietnam war, and the economy was booming too rapidly. In general, it was carried out. It did not cause any major traumas. But, you know, in program after program there were a number of adjustments that had to be made that did not make any sense from a program standpoint. Some agencies that really should not have been cut back were cut back, and some agencies that really could bear it were not cut back

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equally. I guess my general evaluation is it did go. It is hard to measure how much was actually cut because you don't know quite what it was cut from.

And from a program standpoint, it would not ruin the Federal Government; no. But right now, from an economic standpoint, it just makes no sense.

The CHAIRMAN. I think I will yield at this point to Senator Moss. My first 10 minutes is almost over in any case, and he might like to get into these questions as well as others.

Senator Moss. Well, thank you, Mr. Chairman. And I too think this is a very lucid and stimulating presentation that you have made. And I am interested in this matter of the across-the-board cut that we are probably going to be faced with. Can you estimate what impact that might have on our employment rate, which is, as you say, 6½ percent now.

Mr. SCHULTZE. Well, all I can do is think out loud about it, Senator, because I am sorry to say I am not familiar enough with the specifics to know what it adds up to in terms of total dollars. Since I don't know that, I can only think out loud about what it might do.

If the amount is cut from the budget equal to what the President has suggested in the way of his budget cuts, and if this is about the same magnitude, let me talk about that.

Senator Moss. It is predicted to be about $3.2 billion.

Mr. SCHULTZE. That is slightly less than what the President said. I think it was four point something that the President asked for, so it is in the same ball park.

The Department of Commerce points out that if that happens, if the expenditures are held to that level, that from now during the next three quarters, in current dollar amounts, Federal expenditures will increase very slightly, and that, therefore, with inflation going on, the real purchasing power of Federal expenditures, the real amount will go down. Over the next three quarters these Federal expenditures will join automobiles, housing, inventories, nondurable goods in going down. And it will lead to an increase, a further increase in unemployment than would otherwise have happened.

Now, by how much I really cannot say. It would be that $3 billion in a $1.4 trillion economy. That obviously is not going to be massive. But it would increase the rate of unemployment from what it otherwise would have been, and it is going to rise anyway by some noticeable amount.

Senator Moss. Well, at the same time that we will be faced with this problem, we are being asked to authorize an appropriation for public service employment and an extension of the unemployment compensation eligibility to care for those who are out of employment. So, the two are really diametrically opposed, are they not?

Mr. SCHULTZE. That is right. In fact, what you do is you kick people out of work with your left hand, and then give them not as good a job with your right hand. Kick with your left hand is a very poor metaphor, but that is all right. You understand my point.

Senator Moss. Yes I do. Plus the fact that this employment of people oftentimes is a rather inefficient use of their abilities and talents, is that not so?

Mr. SCHULTZE. I fully agree. If in the first place you have a reduction in Federal expenditures at this juncture, that just does not reduce the employment of people who are working on Federal programs, because it has a secondary impact; as they lose their jobs, they buy less, and other people lose their jobs.

Now, to take a man who is a machinist, who is a carpenter, who is an accountant, who is working on an assembly line doing a useful, productive job for society, and then to replace that by a job that may be—it may be useful, I am not saying it would not be—but clearly it is temporary, and it has some chance of being made to work. It is not using his full talents and his experience, and even from a narrow, conservative standpoint you are not just providing jobs, but wasting productivity, and it is inefficient and economic waste, and we talk about excessive government spending, and here is a real waste of human talent, and you end up producing less, which turns out less goods and services, and it is just wasteful.

Senator MOSS. Secretary Simon was here to testify before us, and it seemed to me that he was saying that the inflation was still the major problem and the recession, while serious was probably secondary to that. Now, do you reverse that and say it is the recession and unemployment that is the serious problem right now, and inflation is a lesser problem?

Mr. SCHULTZE. Let me start, I will start by flatly saying yes, and then explain it. I do think right now a recession is by far the more serious problem, without thinking inflation is not a problem also.

If I may, I will take a couple of minutes and I would like to trace what has happened, because I think that is useful. In the first place, starting about 18 months ago this economy got kicked off from a 4 percent inflation, which we did not like and which was bad, to a 12 percent inflation by a concatenation of events, most of which were unavoidable. A few of the events may have been helped by bad policy, but they were fundamentally unavoidable. The Arabs jacked up oil prices; bad weather, food shortages, short crops and an increase in other imported raw material prices occurred, that kicked the rate of inflation up to 12 percent. Most of it was unavoidable in a sense that you could not have controlled it by monetary and fiscal policy. It happened.

That went through about April or May of this year. Since then oil prices have risen very little more. Food prices have not risen so much since then. They may in the future, but they have not risen much since then, and raw material prices are coming down.

The problem now is that the initial 12 percent inflationary kick, instead of being a one-shot affair is being built into other prices and wages and the economy generally. How do you prevent that from happening? That is really what is the problem. It is not Government spending and deficits which led to this acceleration of inflation.

Well, there are several ways to try to deal with it. One way is to sit on the economy. If you let unemployment get high enough, long enough, it is probably true that wage increases are going to be lower, and so in the long run there will be less inflation. It is probably true that businessmen, reluctant as they are, will squeeze their profit margins. But if you do this long enough, then you run a terrible risk, not

just of a recession, but of dipping well below anything we have experienced in the post-war period, and you create a tremendous amount of human suffering. That is one way to do it, and you can fight inflation by doing that, and it will cause a tremendous loss.

Second, you can restimulate the economy along the lines I have suggested. During the next year to year and a half that will not make much difference in the rate of inflation. It will make some. But no matter what you do, the rate of unemployment is going to be high in the next year. No matter what you do to markets, while they will be recovering, are still going to be weak. They are not going to be booming like they were. So during the next year to year and a half even with recovery you will not rekindle or stimulate inflation much. There will be a little probably.

When you go further out, then you begin to get into more trouble. When you go out further, then I think you have to begin thinking about wage and price controls and other forms of restraints. What I am saying, therefore, is that trying to kill inflation by putting the economy through a wringer is dangerous and terribly costly. And as a matter of fact, what you are going to do if you do that is end up 3 or 4 years from now with too small a structure of plant and equipment in this country. Businessmen will not have expanded their plant and equipment very much. You may have brought inflation under control, but then when you try to restimulate the economy, lo and behold you don't have the plant and equipment to hire the workers, and you run into new inflationary bottlenecks. So the administration approach of sitting on the economy might, at a tremendous danger and a tremendous cost bring the inflation down by 1976 or 1977 to a much lower level. But then when you try to restimulate the economy, everybody will start wringing their hands and saying we can't do it, we have bottlenecks, and we don't have the plant capacity. Well, why don't you have it? It is because you had the economy in a recession for 3 or 4 years, and nobody built plant and equipment.

I exaggerate that a little, there will be some plant expansion, but not enough. You ought to restimulate now. It would not affect inflation very much in the next year and a half; however, it will mean that the chances of bringing inflation way down are less than they would have been and, therefore, I think you have to think about other measures.

Senator Moss. Well, you pointed out that the series of events such as the Arab oil embargo and bad weather and other factors were the real stimulant that kicked off the inflation, and this big shot of inflation, and the recession coming on, is that due to the administration policy of trying to deal with the inflation by putting us through the wringer, as you say?

Mr. SCHULTZE. Yes and no. A good economist answer. Yes and no.

Senator Moss. Was it Fritz Hollings who said he wanted to find a one-armed economist?

Mr. SCHULTZE. That's right. No, my only point is that a large part of what has happened has not been so much positive action on the part of the administration, but inaction. That is, in not recognizing the impact of the oil price increase on consumer demand, not recognizing the impact of inflation on the budget, and letting it go so far without suggesting remedies—errors of omission.

Now, second there have also been some errors of commission. I think most of it is omission, but some commission. It's tight money. Now, we say that that is not the fault of the administration because it is the independent Federal Reserve, but I have not seen the administration bemoaning that fact. They have been cheering them on. And secondly, I personally believe the President's basic economic program announced in October went in the wrong direction. It would have added marginally to economic restraint, if it were enacted, by raising taxes, by the surcharge, by cutting expenditures, and it would add further to this downward pressure. So I would say yet, it is administration policy, but more omission than commission.

Senator Moss. Secretary Simon did not abandon the surcharge idea as far as his testimony here was concerned. He still thought that they ought to utilize that. Do you think that that is a mistake?

Mr. SCHULTZE. Yes. I trust that that is simply the bureaucratic lag not having gotten the signal that it is publicly abandoned. At least I hope that is the reason.

Senator Moss. Well, thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Moss.

Pursuing a point that Senator Moss raised a few moments ago, the new jobs bill, the public service jobs bill creates, as I understand it, 350,000 jobs. Might a $3.2 billion budget cut eliminate almost that many jobs?

Mr. SCHULTZE. It would eliminate a significant number.

The CHAIRMAN. 350,000 jobs at $7,000 a year, that is $2.5 billion.

Mr. SCHULTZE. It would eliminate a significant part of that number of jobs. Whether it would completely wipe it out or not I don't know. I kind of doubt it, but it would significantly offset it, and I just cannot make that kind of a calculation in my head. It depends on where they cut.

The CHAIRMAN. I should warn you though what we are trying to do is make a record that we might find useful to us on the Senate floor.

Mr. SCHULTZE. Somehow I sensed that. Somehow I got sense of that. It clearly would offset a significant part of it.

The CHAIRMAN. I am going to try to use the next few minutes to raise some of the points that have been made in the course of the testimony up to this point, and I may repeat some of the points that Senator Moss has covered, but I wanted to zero in on this one. On Tuesday, Secretary Simon said that a stimulated package on the order of $25 billion would be irresponsible, that such action would lose the war on inflation, and lead only to higher unemployment later on. Now, you have given us I think a very lucid answer to Senator Moss' question along the same line, but I wonder if you would like to respond to that specific one?

Mr. SCHULTZE. Yes, sir, without at the moment feeling very confident of what the precise size of the stimulation ought to be, without suggesting that $25 billion is the right number, it seems to me not to have a large economic stimulus would be irresponsible. It would fail to recognize the more than normal cyclical factors that are now operating. Failure to have a large stimulus would run a large risk. Counting on a normal cyclical upturn as housing turned up, as it probably will, and money will get easier, and as inventories turn around, count-

ing on that to restore prosperity, as if this were the normal cyclical situation, that would be irresponsible I believe, not just because I happen to think that unemployment is a terrible social problem, not just because of that, but also because of the terrible risks of further worldwide downturns.

Suppose for the moment—just suppose for the moment that one made the decision that yes, inflation is a bad thing, a terrible danger, and that is what we have got to concentrate on, and we want to run an 8 percent unemployment level, or 7 to 8 percent unemployment level for several years to squeeze it out. The problem is. I am not sure you could do that. I am not sure that you can manage an economy which drops to an 8 percent unemployment level and then hold it there.

Let me give you two reasons. There are two major things in this economy that have not turned around and that have not kept us from going down further. One is the fact that business investment in plant and equipment, while it is no longer rising, and it may even be coming off a little bit, has held up very well. Query: How long are businessmen going to keep on putting in plants and equipment when their markets are very weak? They are going to look over their shoulder and find their customers are not following them, and I do not know what they are going to do. And I cannot predict that this will happen, but it is a large enough danger that, by God, I sure would not want to run that risk because if investment falls off, then you are in real trouble.

Second is exports. Forget for the moment farm exports. The United States exports of manufactured products, adjusting for inflation, are well above a year ago. There is another strong sector of the economy that has moderated our decline. But everybody I have talked to who has come back from around the world reports that countries all over the world who a year ago were needling us about our inflation are now scared to death about the impact on their economy of an American recession reducing substantially their exports to us, and their economies. If that happens, what that does to our own export position is it ruins the last remaining prop.

So even if, even if one wanted to pay a large social price to wring inflation out so that one would not have to go to some kind of wage and price controls, even if you made that choice, and even if you wanted to do that, then I would say the risks you are running are so great that you could tip the recession over into something much worse, that you should not run it. Now, this is the way we play our, you know, our strategic weaponry game. We always prepare against the worst case; we probably overdo it there. For some reason or other in domestic policy we take an economic forecast with an upturn and are quite willing to act as if the forecast is the right one. Unless you analyze what happens if the forecast is wrong, and what happens if it is wrong in this case, is so bad that it is a terrible risk to ask the people to run.

The CHAIRMAN. Let me put another question that I think might clarify the difference between your position and that of Secretary Simon further. Are you saying the same thing in the sense that you have made the point that the stimulative programs that are essential in the next year, or two or three should be phased out at some point,

lest it then overstimulate the economy? Secretary Simon's opinion may be the clinical one, that there is no way of phasing out these stimuli once you initiate them and that therefore, the long-term effect is to feed inflation and so on.

Mr. SCHULTZE. No; I think that is——

The CHAIRMAN. Is that the difference?

Mr. SCHULTZE. I think that may be part of the difference. And you know, it seems to me this is a copout. It says that relatively blind political forces are such that it's hopeless to try to do anything with a little bit of delicacy and, therefore, let's go through this terrible trauma because we can't design anything with a little sophistication. I think that is a copout. I think that the Congress, with leadership both from within the Congress and with leadership from the White House is capable and willing to recognize a fairly sophisticated problem and to design something along those lines.

Now, it is not going to be perfect, but it is quite possible. You know, we did it with the surcharge the other way. We had a temporary surcharge and put it on and took it off. There are ways of designing programs, both on the expenditure side, but more particularly on the tax side which will do that. It is not easy. It runs some risk, but it seems to me that it is a copout to say that we are not going to try.

The CHAIRMAN. Now Secretary Simon projected an improvement in the economy the latter part of next year, and his argument was that as automobile inventories are worked off, as monetary policy eases off, and interest rates drop that we will begin to see the beginnings of a recovery in the automobile and housing industries that will then turn the economy around. Now, that is the conventional response that one would expect. What is your reaction to that under the present circumstances?

Mr. SCHULTZE. As far as it goes, there is merit to that. As far as it goes. I would add two other things.

You have to remember that the oil excise tax and the inflationary impact of the budget in raising effective tax rates is still going to be there, and that even if, even if the economy does turn around, it is going to be too weak and too small a recovery, so it does not go far enough in that regard.

The second thing it does not go far enough in is realizing, and again I go back to what I said earlier, the risk. It is going to be kind of a race. It is going to be a race between whether or not plant and equipment spending and exports can hold up until these other things turn around and join, or whether, before the other things turn around, plant and equipment spending and exports fall off. And I do not know how that race will turn out, but even if the best happens, it is not going to be anywhere near enough. Therefore, you should stimulate anyway. And the possibility of the worst happening is large enough that you ought to stimulate.

While Secretary Simon might be partly right, it just misses the major point.

The CHAIRMAN. You note in your testimony that the economy will be $140 billion below the level consistent with even 5 percent unemployment by next summer. How fast should we try to replace that shortfall, how much can realistically be accomplished by fiscal policy and by

monetary policy? And incidentally, in your testimony you did not mention monetary policy.

Mr. SCHULTZE. I understand that. I was concentrating on the fiscal policy part.

First I have to start off by saying I do not know, in the sense that a lot more work needs to be done to get at those questions. It is not—I want to be helpful and I will say something, but it seems to me one of the points is that this is precisely one of the things that the committee is going to have to look at, and I frankly am not prepared at this stage to say, well, here are the precise numbers.

I can say a few things, however. First, under normal conditions on a year-to-year basis with neither boom nor bust, the economic potential of the economy grows at about 4 percent a year. So if by midyear 1975, the economy turns around and in real terms grows at 4 percent a year, you would simply hold unemployment constant at whatever level it had reached. That is, if you got to an 8 percent unemployment level, and then the economy turned around and grew at 4 percent a year, you would simply keep things from getting worse, and you would have a steady 8 percent unemployment. I am not sure that is feasible, but that is what would happen.

Therefore, in order to reduce unemployment, you have to have the real economy growing by more than 4 percent a year. So, you know, that much.

The second thing, even though there is a lot of excess capacity and unemployed people in the economy which will tend to hold down the inflationary consequences of restimulating, you do not want the economy to go back too fast, even though you are still a long way from prosperity. You have to be careful how fast you go. So this limits how much above 4 percent you can go.

Now, I do not know what the right number is. I would say that clearly growing at 6 or 7 percent for a significant period of time would not be too fast, and you would find it would only very gradually erode the unemployment. However, jumping to a 10 percent growth rate would, I think, be too fast. Now, it is somewhere in that range. You know, there is not any precise answer to this. There are so many other things in this economy, but I do suggest that it has to be significantly above a 4 percent rate, but you have to watch that you do not overdo it for all sorts of reasons, including the objective that you do not want to rekindle inflation by overdoing the speed of advance.

Now, that is still fuzzy, but it gives you a general ball park.

The CHAIRMAN. Getting on to monetary policy again, the OPEC countries are accumulating a lot of dollars, billions. I really have not heard anybody discuss what impact those holdings might have, whether deliberately or inadvertently used for this purpose, on the operation of monetary policy in this country. Do you have some thoughts on that that you can give to this committee?

Mr. SCHULTZE. Oh, I think if I put the things that you ought to know to answer that question onto a scale of 100, I could say a few things that might fill in 5 or 10 of the 100. I mean, it is a very complicated business, and I am not sure that I am competent to answer part of that question. But there are some parts of it that may help that I am prepared to say something on.

Start with third grade arithmetic. The OPEC countries are going to take in an additional $60 billion that they are not going to use to buy goods and services with. They are going to have a surplus in the balance of payments of $60 billion. By that third grade arithmetic, the rest of the world is therefore going to have a deficit of $60 billion. There is no way around it.

Second, that $60 billion surplus the OPEC countries get, they obviously do not go in and pick up $10 bills at the bank and stuff it in mattresses. It is automatically reinvested somewhere. Now, it may be long-term investment, it may be in banks, it may be in Euro dollar deposits and so on, but that money literally automatically comes back to the Western World, in some form or the other.

Next, a lot of it has been coming back through the private banking system; that is, the OPEC countries deposit in Chase Manhattan, in the German banks, in the British banks and so on, they are putting the money back.

Next, the Western countries of the world have a deficit to finance, an oil deficit to finance. Since the Arabs are charging a higher price for oil, they have to pay it, and the Arabs put the money back into the banking system, and the banking system in turn lends the money back to those who need it to pay the Arabs, and there goes the circle. The problem with that is that the Arabs do not necessarily put their money back in precisely the right proportions to the countries who have the oil deficits; therefore, large money market banks, particularly in the United States and Germany, who are getting more money back in effect than they are paying out, have to make the appropriate loans to the Italies and the Denmarks.

Next, imagine you are sitting in a private bank. The Arabs put in short-term money, and you have to decide whether you should make a $70 million loan to Denmark. Well, a $70 million loan may be a 1-year, 2-year, or 3-year loan, but the Arabs have the money at call, and you get more and more reluctant to make those loans. So even though in the aggregate there is no technical problem in completing that circle and financing everything, it can get bollixed up because the funds running through the private banking system, and the bankers have to worry about their liquidity.

Solving this is technically feasible, and I would say it is almost easy for the central banks of the world and the finance ministers of the world, whether the OPEC countries participate or not, to handle this. There are various means, but at the moment, it is clearly feasible, it is clearly feasible simply to insure that that money goes back out. While it is technically feasible, that does not mean that we are going to be smart enough to do it, and if we do not we will get rocks and boulders, and obstacles in the way of this smooth functioning. Therefore, what you may get is countries with large oil deficits finding it very difficult to get the financing to handle it, and so cutting back their own economies to slow things down, and feeding back on the world by way of accelerating recession.

My first point, therefore, is that it is technically feasible to smooth this out. It is not a massive, difficult political operation in my view. It needs to be done, can be done, and if the world gets into trouble because we do not do that, well, by God, we deserve it almost because that is the one thing we can handle.

We may not be able to find oil offshore, or lord knows what it is going to cost to get shale. But, in the sophisticated money markets of the world, and given the case with which instruments can be devised to move funds around, that we can do. I think that is one of the major messages, that we ought to do it, and that progress can be made. But if this goes sour, the fault, dear Brutus, is in ourselves, and not in our stars.

The impact on the U.S. money market itself is very complicated, but I see no inherent reason why our monetary system cannot handle it, and why it need interfere with whatever monetary policy we deem appropriate. It can be handled, with some problems, but it can be handled. Whatever the problems of the oil and OPEC countries are, the monetary part need not be a major one if we simply use the financial ingenuity which we have to direct this flow back to the right places.

The CHAIRMAN. Now, yesterday we heard testimony from Professor Davidson and Erickson on energy policy. They disagreed about the possibility of energy self-sufficiency. Erickson suggested that we would still be importing 6 million barrels a day in 1985 and paying $12 a barrel for it. Davidson suggested we could be self-sufficient by 1980 at $5 to $7 a barrel. Now, I think you are familiar with the work of each of them. What is your view, and what budgetary implications do these alternative conclusions have?

Mr. SCHULTZE. First thing, Senator, this is going to sound a little harsh, but anybody, any economist or noneconomist who comes in and tells you that he knows with any degree of certainty how much domestic oil will be forthcoming at any given price in 1980, don't believe him. Most of these estimates are made by econometric models. In effect what they do, in effect what they do is look at past history with respect to drilling, reserves and other variables, relate those to what has happened to the price of oil, make that relationship then apply to a $11 price or $8 price and say that this is what is going to happen on the basis of the relationship in the past. That is almost useless in this case.

In the first place, in the postwar period the price of oil did not fluctuate very much, and whatever was going on when prices were fluctuating between $2.50 and $3.50 is absolutely no guide to what is going to happen when prices jump to $10 or $7—no guide at all.

Second, there have been a whole batch of very, not peculiar, but special things happening to oil production in this country in the last 10 years, and a lot of offsetting trends and tendencies, all of which are quite complicated and quite technical and cannot be captured in these simple relationships between what has happened in the past to the price of oil and the production of oil, how they relate to each other. My first point, therefore, is policy cannot and should not be made on anybody's word or studies as to what is likely to happen to the production of oil.

If we do have large increases in the production of oil, a good chunk of that has got to come from the Atlantic and Pacific Outer Continental Shelf and the Gulf of Mexico Outer Continental Shelf, and again, nobody really knows what's there. It may be very large and very cheap. But it may turn out to have all kinds of difficulties with it. The experience in the lower 48 States onshore is not going to give

us much guide as to how much is out there, or how much it is going to cost to get it. You make policy on the more or less conservative assumptions, and you just do not take these estimates for much.

The CHAIRMAN. I yield to Senator Moss. We are loosely enforcing a 10-minute rule, and I guess I have gotten as loose as you can get with it.

Mr. SCHULTZE. I have not helped with the length of my answers.

Senator Moss. To carry this on just a little from what Senator Muskie was saying, these two economists disagreed on the virtues of decontrolling natural gas and old oil prices, and the need for emergency storage of oil, and the virtues of changing the current procedures for leasing offshore oil lands. What are your views in those areas?

Mr. SCHULTZE. I am not sure I have fixed views, but first, with respect to decontrolling old oil, while I would significantly change the current regulations, which I think do encourage speculative holding of oil, while I would change the regulation I would not decontrol old oil. But I emphasize I would change the regulations. There are some technical changes needed because I think the way it is now done is not very good.

The reason for decontrolling old oil would really be twofold. One, because it is messy to run a two-price system, and that is true. You get some inequities, and it is messy to try to run a system where the same commodity sells for two different prices. But lack of messiness may not be the only objective we should have.

The second reason to decontrol old oil is that the average price of oil in the United States would go up a lot, and this will induce conservation. Well, it seems to me there is a good reason if you want to get conservation not to do it that way. First, there are really three ways you can get conservation. You can get conservation through lower gasoline usage, you can get conservation through a substitution of other fuels for oil in producing electricity, and you can get conservation by substituting electricity for oil in heating. Where people are using oil directly, you substitute electricity.

You can get at the gasoline directly, which is the biggest part, either by a rebated excise tax on gasoline or by rationing. At the moment let us not choose between them. You can get at the public utilities, and their choice of oil or coal by direct mandatory regulations. A higher price of oil in the next 3 or 4 years is not going to do much to switch people from using oil to electricity in heating. So what you end up with by decontrolling old oil prices is to give an inflationary boost to the economy to do the same thing you could do more efficiently by concentrating on gasoline and mandatory regulations on public utilities. So I would not decontrol all oil prices.

Conversely, however, although I do not pretend to be an expert, I would either decontrol or substantially allow for substantial increases in the price of new natural gas. That will raise prices, but natural gas is priced so far below its equivalent content in oil, that even if the price of gas goes up a lot, it still is for the economy a lot cheaper fuel than oil, even if there is almost a doubling of prices. So we are in the anomalous situation of trying to hold down gas prices, not getting production, and using an alternative fuel which is much, much more expensive.

For example, at $11 oil, the equivalent Btu content in natural gas would mean that a price of approximately $2 for natural gas would be equivalent to $11 oil. Well, the price of natural gas, on new contracts is in the 45- to 50-cent range, and it is silly to say that if we decontrol that, it might go to $1, and it is true that it would possibly, but $1 natural gas is still a lot cheaper fuel to use than $11 oil. So I would say paradoxically, do not decontrol old oil, but have a much looser system, and a much more generous system of raising prices on new gas contracts.

Senator Moss. Now, a large number of people have their houses geared to a gas furnace, and if the price of natural gas was decontrolled, what is that homeowner going to do at that point?

Mr. SCHULTZE. Well, several things, Senator. One, and again now I am getting to the limits of my knowledge of the specifics of natural gas, but first, mind you, you would decontrol new gas, so you could roll in the higher prices of new gas and average them out with the lower prices of existing contracts. So the rise in the cost to the homeowner would not be as much as the rise in the price of just new gas.

Second, I do not believe it would double or triple, even if you decontrol, and I am not sure you have to decontrol. You would just have to let the price go up some more, and even if controlled you let it go up more.

Third, it is true that when you finally get through all of this, people, depending on where they live, and how much old gas and how much new gas, would face an increase in the price of gas. My own view is that that would be moderate, not huge, when you rolled it in with the old price, and second, it's a lot better to have higher priced gas than no gas at all. And we are very likely to be in a position, very likely, not certain, of significant cutbacks where people literally cannot get natural gas at any price. So while I do not want to push too far and say I know how much it would be, and I do not want to quite say you ought to deregulate, I do think you have to get the price of new gas up higher, up higher to get more gas produced, because I think in the case of gas there is more around. Even when it is higher priced it is still so much cheaper than oil.

Admittedly it will have bad effects, but I think the good effects will outweigh the bad.

Senator Moss. There are very significant number of shut-in wells that will produce and that are just not being produced for whatever reason, but one reason being I think to wait for the increase in price.

Mr. SCHULTZE. That's right.

Senator Moss. Now, is there any other way that you would recommend that the Government proceed to get that gas produced, other than letting the price go up high enough to suit the well owner?

Mr. SCHULTZE. Well, first if there is, I don't know what that is. Second, I think that what is most important is to get a price of new natural gas significantly higher than the present. But then, really lock the door so nobody then waits for even higher prices. The price of new gas has already gone up, but it is so far below competitive fuels that owners of the wells, and there are shut-in wells, figure that even though it has gone up, look at the price of oil, look at the price of coal and it is bound to go up further. So I would say that there is a problem. I do not see how you get around that except with higher prices

for new gas. But I guess I don't want to suggest that I know enough about it to say that I cannot think of any conceivable means. At the moment I don't know of any.

Senator Moss. There has been the discussion, of course, of wage, and price and profit controls. Would you recommend controls at this time?

Mr. SCHULTZE. Subject to one qualification, yes.

First, and it is not so much a qualification as an observation, given the past history of controls, off again, on again, phase I, II, III, IV, et cetera, and given the attitude especially of labor to controls, I personally think it is vital that in working out any new control scheme that it not be worked out by the President and/or the Congress and then sprung unilaterally. I think prominent labor and business executives have to be included in quiet, informal discussions and negotiations on how you work it out. I just do not think you can impose it unilaterally, despite the terrible conditions in the country and say there it is.

Subject to that qualification and, if the White House does not want to do this, I do not know how you get it done, but nevertheless, subject to that qualification, yes, I do think we need it.

If you look at the kind of wage and price statistics and data, given where the economy stands, it is my view that the wage and price controls woud be actually a lot easier than most people think. There are several reasons. I have just looked at some data on the relationship of prices to costs, appropriately defined costs, and it turns out that in the last 6 months or 9 months, on the average business firms have more or less restored their pricing margins on standard costs to where they were before they were squeezed by controls. So, it is not as if you are going into control period with business margins really squeezed tight, and a lot of danger of hurting the economy by imposing wage and price controls. I think we now have some flexibility and room where you could impose reasonable, and not rigid, but reasonable, wage and price controls, and not do much damage for the next year or so. Now, after that I do not know.

Senator Moss. Would you include profit controls in the controls?

Mr. SCHULTZE. No; I do not think so, subject to one qualification. I think if you control wages, and you control prices effectively that will give you profit control of the kind you want. You do not want to control the profits which arise from higher volume. You do want to control the profits which arise from monopolistic, inflationary price increases. So if you have a reasonable wage and price control you do not need the control on profits.

Next, it is dangerous to control profits. Usually it is done through an excess profits type tax, which is an invitation to add to costs and prices. Why not add to the costs if the Government is going to pay for it.

My one qualification is that if you have a choice between wage and price controls with profit controls or you have nothing, if I had to choose between those two evils, then maybe I would say okay, profit controls, but only because it turned out to be the only politically feasible way of having wage and price controls. In general, if you do a good job on prices and wages you do not need the profit controls.

Senator Moss. Just one quick last question. My time has expired. Could you have effective price and wage controls in just selected indus-

tries or part of the economy, or does it have to go entirely across-the-board to be equitable and effective?

Mr. SCHULTZE. I think that as a matter of fact you do not need it on the entire economy. You do not want to put it on the entire economy. You do want to be selective, and you do want to be flexible. Now, by flexible I mean that in administering wage and price controls you want enough flexibility so that you do not have to worry about the nitpicks, that what you are really able to do is go after the important cases, the important price increases, the important wage increases. And if you have enough flexibility you are not tied down to a very huge batch of rules and regulations which forces you to try to police everything. It cannot be done that way, so I would say basically selective. It is difficult to design and conceive such a system, and you cannot do it overnight, but basically controls should be selective.

Senator MOSS. Thank you very much. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Cranston.

Senator CRANSTON. Would you feel it appropriate to adopt wage and price controls limited to major, dominant sectors of the economy where administered price increases occur, and where there is very little competition, as Senator Proxmire has suggested?

Mr. SCHULTZE. The only reason I am hesitating is I am tempted to say yes just flatly. For example, if you define very diverse, fragmented, scattered industries like the health care industry, if you put that in the group of industries like that, then I would agree with you. I am not sure how I would define it, and I am not sure I would want it written in the statute so tight that I could not make some exceptions. But basically, I think yes.

Now, let me go back and make this point, that in the next year, 1975, 1975 is a year in which there are no major, if I remember correctly, union contracts coming up, and what happens to wages in 1975 is going to depend heavily on nonunion wages. On the other hand, in 1976 you start the big round of union contracts. If you could go into 1976 with a reasonable history of wages behind you, with prices, the rate of inflation having been brought down some, then you have got a pretty good chance of coming through the next 2 or 3 years with reasonable rates of price and wage increases. Hence, it may be important, to have a general wage guide next year.

Senator CRANSTON. You have concerns about wage and price controls because we have to battle not only inflation, where controls might be very appropriate, but recession where they might handicap our efforts?

Mr. SCHULTZE. Yes, sir. I am worried about it, but not very much.

Senator CRANSTON. Why not?

Mr. SCHULTZE. That is, I do not think under the present circumstances that we are going to be facing in the next year to year and a half that the impact of wage and price controls on businessmen's decisions about investment and the like would be significant enough if accompanied by a strong economic stimulative policy to really do much damage, although I cannot say it would not do some. I simply think it is a relatively low order of worry, given the existing economic situation we are now in, given the relationship between prices and wages we now have. I would worry about it, but I would not put it very high on my list of worries.

Senator CRANSTON. The administration's November estimates for the 1974–75 budget anticipated a deficit of a little bit over $9 billion, and that included projected revenues from a surtax to hold it down. The surtax is obviously not very likely to be adopted. Current estimates indicate a deficit of at least $15 billion, maybe considerably higher than that. You advocate a stimulus of $25 to $30 billion in spending. Does that mean that you anticipate and accept a deficit that would be around $45 billion, or perhaps more?

Mr. SCHULTZE. I will start by saying flatly, yes. I will modify that by saying as you turn the economy around, part of that deficit will erode so you will not end up with quite that much deficit because of the feedback effects of a better economy and revenues and all of that. Nevertheless, quite clearly even if you do nothing you are going to have a significant deficit, and if you stimulate the economy you are going to have to add very substantially to it. We ought to. It is a good thing. It ought to be done, but it will mean a large deficit.

Senator CRANSTON. Going back to controls for one last question: How do you avoid the holding back of goods by those who anticipate lifting of the controls?

Mr. SCHULTZE. This particular problem was raised during the prior period of controls. John Dunlop and his group looked into a whole series of alleged incidents in which that happened. As they combed through the list, at least in their analysis, it turns out that there were one or two cases where it did happen, but generally it did not happen. Whatever the problems with controls were, there were these small number of cases, but at least during that period of time it did not happen. Not only that, during a period in which the economy is weak, in which manufacturers have a lot of excess capacity, the last thing it seems to me they are going to want to do is for any significant period of time to sacrifice output for this purpose. They are just in a different situation than they were 2 or 3 years ago.

Senator CRANSTON. Thank you very much.

The CHAIRMAN. Thank you very much, Mr. Schultze, for your excellent testimony. You have helped, I think, to give us a perspective on a number of important issues, and we appreciate your helping us out.

Our next witness this morning will be Comptroller General of the United States, Mr. Elmer Staats. And we are pleased to welcome him and his assistants this morning.

In order to set his testimony in context, I have another brief statement to read.

Mr. Staats will be testifying regarding the $25.1 billion in impoundments which President Ford has sent Congress under title X of the Budget Act.

Title X of the Budget Act was enacted to regulate and control Presidential impoundments. The proper interpretation of title X and compliance with it are critical to the success of the entire budget reform process.

Impoundment control has been a consuming interest of mine since the practice of Executive refusal to spend congressionally enacted appropriations and budget authority became widespread a few years ago. I collaborated extensively with Senator Ervin in drafting the

Senate version of title X of the Impoundment Control Act, and was a conferee and the Senate Floor Manager of the Budget Act in which that impoundment control title became law.

It is my belief, as well as that of Senator McClellan, chairman of the Senate Appropriations Committee, that the Office of Management and Budget has gravely misinterpreted the Budget Act, vastly exceeded any authority granted the President thereunder, and has used the act to sanction impoundment practices the act was intended to forever ban.

In writing the Budget Act, Congress made it perfectly clear that, where the President disagrees with the purposes for which a program was enacted or believes funds made available for its implementation should not be spent for fiscal policy reasons or where he wishes to kill a program by withholding funds for a full year, he must ask both Houses of Congress to change the law. He cannot do it unilaterally, or subject to review by only one House of the legislature.

In addition, we left no doubt that every impoundment by the President, even where expressly authorized by law, must be reported to Congress for its consideration.

We provided that, even where a particular law authorizes the President to withhold some budget authority, he must report that impoundment to the Congress, and that either House of the Congress can overturn that impoundment by a simple resolution.

Our purpose in enacting these title X impoundment controls was simple and direct.

Article I, section 1, of our Constitution provides that "All legislative powers herein granted shall be vested within a Congress of the United States."

The President has no lawmaking power under the Constitution. He is expressly required by article II of the Constitution to faithfully execute the laws enacted by Congress.

The practice of unilateral Presidential refusal to spend money for programs enacted by Congress undercuts the constitutional powers of the Congress. This practice by the executive branch has been called impoundment.

It was the overriding purpose of the Congressional Budget and Impoundment Control Act to force the President to come to Congress to ask for a change in law when he wishes to withhold funds, unless a law expressly authorized him to do so without seeking such legislation.

To help enforce this new set of procedures, we entrusted to the Comptroller General of the United States, an agent of the Congress, the responsibility, first to discover and report impoundments which the Executive did not report; second, to review and comment on the impoundment reports the President does submit; third, to advise on the legality of those impoundments; and, fourth, to reclassify the Presidential impoundment messages which are improperly submitted.

Regrettably, the Office of Management and Budget, for its own convenience, did not choose to comply with the requirements of title X, and we had to call on the Comptroller General at the outset of the title X proceedings to uphold the position we had established in the Impoundment Control Act.

To our disappointment, the Comptroller General has not only refused to uphold that position, but has rendered an opinion which I flatly reject.

The Comptroller General devised a theory as to the meaning of the statute which concedes an authority that the President claims under the act, subverts what Congress intended, and conveniently ignores whatever legal arguments were to the contrary in reaching his conclusion.

We have asked the Comptroller General here this morning to discuss that opinion and its basis.

STATEMENT OF ELMER B. STAATS, COMPTROLLER GENERAL OF THE UNITED STATES; ACCOMPANIED BY ROBERT F. KELLER, DEPUTY COMPTROLLER GENERAL; PHILLIP S. HUGHES, ASSISTANT COMPTROLLER GENERAL; MILTON J. SOCOLAR, DEPUTY GENERAL COUNSEL; AND RICHARD R. PIERSON, ASSISTANT GENERAL COUNSEL

Mr. STAATS. Thank you, Mr. Chairman. As you know, we are concerned with three titles of the Congressional Budget Control Impoundment Act: Title VII, dealing with the subject of evaluation of Government programs, title VIII, dealing with improving the flow of budget information, and title X, which deals with the subject of impoundment. We are here today in response to your request to address ourselves to the impoundment title.

We thank you for having invited us to discuss our letter of December 4, which you referred to in your opening remarks, and which was addressed to the Speaker of the House and the President of the Senate. We have attached a copy of that statement to my brief statement here today.

This letter addressed the question whether, under the Impoundment Control Act of 1974, withholdings by the President of budget authority for temporary periods for "fiscal policy" reasons are properly treated as deferrals rather than rescissions. We concluded that such withholdings are properly reported as deferrals, so long as their duration is proposed to be less than the current fiscal year and would not have the effect of rescissions. We came to this conclusion after detailed consideration of the law and its legislative history and, I might add, after hearing advocates for both sides of the question.

At the outset we would point out that in our opinion the act strengthens congressional control over impoundments in that it establishes orderly procedures by which Congress may consider and act on the merits of any impoundment the President may propose. This has not been done in the past.

The act divides impoundments into two categories. The first, described as rescissions, is dealt with under section 1012.

The term—usually meaning to revoke, repeal or cancel—suggests that these impoundments would result in a permanent excision of budget authority, not a mere delay in its exercise. The act is quite clear on what procedures apply where the President proposes a permanent withholding of budget authority. Congress' decision on the

merits of the proposed impoundment is made by enacting, or failing to enact, a rescission bill. If the Congress fails to act within 45 days, the President must release the funds.

The second category, covered by section 1013, is characterized as "deferrals."

Again the term itself seems to suggest its plain meaning—the withdrawal of budget authority that would amount to a temporary suspension, not a permanent removal.

The term is defined in sections 1011 and 1013 of the act as a withholding or delaying of budget authority that does not extend beyond the fiscal year in which it is proposed. And again, the act clearly establishes the procedure by which Congress decides upon the merits of a proposed deferral. If either House passes a simple resolution disapproving a proposed deferral, then the President must release the authority.

As stated earlier, the legal controversy revolves around whether the act contemplates application of the rescission procedures or the deferral procedures when the President, for fiscal policy reasons, proposes a temporary suspension of budget authority. Simply put, our view is that the answer depends on the proposed duration of the withholding. If the duration of the impoundment does not extend beyond the end of the fiscal year in which it is proposed, and if the proposed temporary suspension does not have the effect of permanently rescinding budget authority, the deferral procedures apply.

The other interpretation is that the rescission procedures apply, regardless of the duration of the proposed withholding of budget authority, if the withholding is not supported by legal authority provided by the Antideficiency Act, as amended by section 1002 of the *Impoundment Control Act.*

The act itself is difficult to interpret and the legislative history of bills, merged in conference, is largely ambiguous. However, the Anti-Control Act, spells out conditions under which reserves may be established and says that there is no other authority except as specifically provided by particular appropriation acts or other laws.

We have concluded that the procedures for handling withholdings of budget authority set out in other sections of the act are "other laws" and therefore withholdings for temporary periods for fiscal policy reasons can be considered as proposed deferrals rather than rescissions if such withholdings are for limited periods.

To otherwise construe the language of section 1002 would create an inconsistency with the clear import of section 1013, which provides for deferrals for less than a current fiscal year of any budget authority.

The rationale for our conclusions is summarized on page 13 of our letter of December 4, 1974.[1] In that letter we pointed out that the matter at issue is a close question involving difficult issues of interpretation of statutory language and legislative history.

Mr. Chairman, in your most recent letter that I received this Monday and answered yesterday, you raised a number of specific questions about our position on this matter.

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[1] See p. 379.

My response,[1] which I have attached to this testimony, sets forth each question and provides an answer immediately following the specific question.

You may want to address yourself to that or I will be happy to read it as a part of my statement, whichever is most convenient for you.

I would simply like to add to my statement, Mr. Chairman, we are not in a very enviable position in a situation like this where the House and the Senate disagree on the interpretation of a statute, and where we have been called upon, and in fact, under the law we are required to make an interpretation. We are particularly in a difficult position here because the legislative history is so ambiguous and in large part nonexistent. We have to proceed from a basis of the best statutory construction we can make.

But I want to assure you and members of the committee that we tried to approach this in a completely objective, openminded manner.

We received all the positions that were available from both the House and the Senate. The only overall conclusion we can come to is that the House and Senate did not have a meeting of the minds with respect to the intent of title X and we have expressed the hope in our opinion that the Congress itself might clarify its intent with respect to this title.

The CHAIRMAN. I am not sure that we are going to say much that is new to each other on this subject here this morning. I think that it is important this morning to get the difference on the record.

And I will begin by making the point that the basic purpose of the Budget Reform and Impoundment Control Act was to put a stop to Executive impoundments which had the effect of undercutting the congressional power of the purse and undercutting Congress' legislative power.

The effect of your interpretation which coincides with that of the Office of Management and Budget and a fact which Mr. Ash noted with relish the other day, is to give the President more authority or at least to legitimize the authority which he asserted against the opposition of the Congress before the legislation was enacted. I just find it incredible that anyone understanding the basic congressional thrust against Presidential impoundments could interpret the legislation enacted to implement the congressional position as confirming the President's assertion of authority.

I simply find that incredible.

Without belaboring that point, you say that the legislative history is ambiguous. Well, it is not on that point.

Now, in your opinion on page 18, in reviewing the legislative history on the Senate side, you have traced the Senate version of title X to S. 373 which was introduced on January 16, 1973, by Senator Ervin and others.

S. 373 had nothing whatsoever to do with the Senate version of title X.

On the contrary, it derives from S. 3034, to which your opinion makes no reference, the Ervin-Muskie bill which was introduced a year later than S. 373, which became title X on the Senate side, and which Senator Ervin, in introducing that bill, identified as "representing a significant departure from S. 373."

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[1] See p. 376.

He said, referring to the original House and Senate impoundment bills, this, and I quote, "whereas those bills undertook to grant the President a limited power to impound funds," referring to S. 373, "with an opportunity for Congress to either approve or disapprove each action, the Impoundment Prohibition Act of 1974"—in other words, S. 3034—"would prohibit the practice altogether, except for the very narrow managerial purposes permitted in the Anti-Deficiency Act."

Now, all significant elements of S. 3034 were incorporated in the conference version of title X. All significant elements.

Now, in my letter to you of October 16 I had this to say:

> The Senate by its amendments to the Anti-Deficiency Act intended to reduce substantially the basis for Presidential impoundments. All features of the Senate bill necessary to that purpose were incorporated in the conference report.
>
> On the other hand, the House version of Title X contemplated no reduction in Presidential power and certainly provided a reporting and veto mechanism in case impoundments occurred.
>
> Since the Senate bill would have reduced the President's power to impound, and the House bill would not have enlarged it, any assertion that the conference report conferred new power in the President to impound would mean that the sum of the legislative process in this case is greater than its parts.
>
> The sum indeed was never contemplated in either the House or the Senate bills.

So your opinion relies on the wrong bill to interpret Senate legislative history on title X. You note that S. 373 would have conceded the possibility of Presidential impoundments, which it would have done, but provided a congressional means to deal with such impoundments.

In fact, the actual derivation of the Senate version of title X not only was intended not to concede any power to the President but to reduce whatever power he had.

It contained no provision for congressional review of impoundments since no significant impoundments were intended to be permitted.

By the interpretation which you give to title X, you totally ignore this legislative history on the Senate side and give full credence to the debate on the House version which took place before the conference report was agreed to.

So, let me get to some specific questions. I think it is important to lay this information down because that is critical to our difference of opinion over this. And you relied so heavily on S. 373 which had nothing to do with the Senate version of title X that it seemed to me that this explanation had to be made.

Now, if I may get to some questions. Some of these questions are based upon my letter to you of the other day and presumably have been covered by this response which I have not seen but which the staff may have. So if it does, just give us the answer in your letter.

In our letters to you of December 13, we asked whether other drafts of legal opinions had been prepared within the GAO on this question. We were frankly concerned that the deficiencies in the opinion you sent were so great they suggested that substantial editing had taken place in the draft which may very well have reached another conclusion.

So I would ask this morning, and you may have the answer here, whether such other drafts exist and if so, the conclusions which they contain.

Mr. STAATS. I would be very happy to answer that question, Mr. Chairman. Any document that goes out of our office of such consequence as this one obviously goes through numbers of drafts but there are no drafts which come to a different conclusion than this one. But lots of editorial changes take place, reviews take place, and obviously discussions take place.

I want to assure you that there is no difference of opinion within our staff. We sought everything we could find from the Senate side, everything we could find from the House side. As you know, we met with you several times. We also met at the request of the chairman of the House Appropriations Committee, with him and his staff, to get their viewpoints.

As you well know, the House of Representatives, the people who were involved in this legislation, hold a different view than you do with respect to what the intent was in the conference.

The CHAIRMAN. Well, I have heard the view of only one Member of the House. Does that view represent a consensus of the House?

Mr. STAATS. I think this represents the views of the House conferees, Mr. Chairman, but I don't really wish to debate that.

As far as we are concerned, we have had no pressures from anybody to reach a conclusion one way or the other. Even if we had, we would not have come to a different conclusion than the one we have come to. We tried to weigh this statute as objectively as we possibly could and think we had full advantage of all of the staff assistance that we could from both the House and the Senate.

The CHAIRMAN. Well, you say that you researched all the legislative history you could find. You obviously did not find S. 3034 which was the direct result of the Senate version of the bill and apparently you did not find this opinion of Congressman Bolling who was chairman of the House conferees and floor manager of the conference report in the House who said: "The bill addresses the various types of impoundments and provides appropriate procedures for each but if the President wishes to withhold funds for policy purposes, he must propose a rescission rather than use the authority under the Anti-Deficiency Act to establish budgetary reserves."

Now, there is a very significant voice on the House side disagreeing with your view. Were you aware of that opinion? Did you find that opinion?

Mr. SOCOLAR. Might I say, Senator, that as far as our opinion is concerned, there was never any doubt in our minds as to what the intention was with respect to the Senate bill that had been considered.

The CHAIRMAN. Why did you make no reference to S. 3034? Did you find it? Did you study its legislative history?

Mr. SOCOLAR. My answer to that would be that it is my understanding that what went to conference was S. 1541 and I do not have a ready answer at this time with respect to the bill you mentioned.

The CHAIRMAN. You find all these ambiguities about intent. Weren't you interested in knowing what S. 1541 sprang from?

Mr. SOCOLAR. Our problem as we saw it was in interpreting the intent that came out of the conference in title X as it was enacted. We never had any doubt in our minds as to what the intention of the Senate going in was.

The CHAIRMAN. Well, why does so much of your discussion of legislative history, then, draw upon debate in the House that took place before the conference?

Mr. SOCOLAR. Because it was the House provisions that were added to what the Senate went into conference with that became——

The CHAIRMAN. Why were you not interested in the origins of the Senate provisions? You drew extensively on the legislative history of the House provisions but this key history defining the Senate provision you completely overlooked. Apparently it came to you as a surprise this morning.

Mr. SOCOLAR. As I said before, we never had any doubt as to what the Senate position was, as far as concerns the considerations in the Senate of these impoundment measures.

The problem in making the interpretation of the act dealt with what was the intent of the entire title X that came out of conference, knowing full well what the Senate intended going in.

The CHAIRMAN. But the result of your interpretation is to completely ignore the Senate intent. The Senate language was incorporated completely in the conference report. It is the House version that was modified. Did it not occur to you that the House version was modified in order to accommodate the Senate version? Or did you consider the Senate version in the conference report a nullity, a bone tossed to the Senate?

Mr. SOCOLAR. In the final analysis, what we did was to take title X as it was enacted, recognizing what the positions were going into conference, reviewing that language together with the legislative history, and concluding that the interpretation that we have come up with is the interpretaion that springs from the language of the act as it was enacted.

The CHAIRMAN. Well, you look at some of the trees but not all of them.

Mr. SOCOLAR. Well, the main——

The CHAIRMAN. You come out with a result that made the Senate version a nullity and which gave the President authority which the Congress never previously approved. And that does not enter into your interpretation of the legislation.

Mr. SOCOLAR. Well, I think that another point could be made here and that is with respect to the—some of the underlying bases for the interpretation. Title X is in essence an impoundment control act. It provides procedural steps to be taken with respect to impoundments that are going to be proposed by the President.

Basically what the act does is provide a mechanism, as I see it, for the Congress to impose its will with respect to actions that the President proposes to take and within those mechanisms provides a means means for the Congress to assert itself in the event that it disagrees with any particular impoundment. That is something new that the act does provide.

Prior to this act, any time the President impounded, the Congress had to rely on litigation, brought by outside parties, and this act clearly provides a means for the Comptroller General——

The CHAIRMAN. I understand that, but the interpretation of those mechanisms is critical to the effectiveness of the act. What you have

done is interpreted those mechanisms in such a way as to unleash the flood gates. We have had $25 billion worth of rescissions and impoundments since this act was enacted and an insignificant proportion of them went the rescission route because that is the most difficult route to travel.

The President has simply seized upon that as a way to reinstate the authority which President Nixon asserted before.

I suggest that you look at the testimony the other day of Mr. Ash. I asked him whether or not, in the case of these deferrals, he believed the President had the authority the day following the change in the fiscal year to reimpose the same deferrals.

His testimony was clearly yes.

Now, that possibility of using deferrals to kill programs was precisely one of the reasons we undertook to make a distinction between rescissions and deferrals. You have given him, if your opinion were to prevail, an instrument for killing programs without going through the kind of congressional review and process that is required by the rescissions authority.

Mr. STAATS. If I may speak to that, Mr. Chairman?

The CHAIRMAN. Yes.

Mr. STAATS. I think you are reaching a conclusion with respect to what our action might be with respect to a repetition of a deferral action which would not be warranted. Every case has to be looked at as a separate case, to be sure. But we would not agree with Mr. Ash that you can repeat deferrals to the point where it would seriously impair or cancel a program. The law is very clear that if we find such a case, then we submit a rescission message and that rescission message takes precedence over the message submitted to Congress by the President.

The CHAIRMAN. All right. Let me give you such a case.

Mr. STAATS. Now, I would not agree with Mr. Ash if he is saying that you can do with a deferral what the law intends that he do with a rescission.

I would not agree with him.

The CHAIRMAN. But he has done that.

Mr. STAATS. I don't believe——

The CHAIRMAN. President Nixon did that. President Nixon and President Ford have both done precisely the same thing with respect to $9 billion of water pollution funds, precisely the same thing. The Congress authorized a 3-year program at $18 billion. The President vetoed that bill because he said it was pushing the money too fast at the problem, that it should come back. His veto was overriden, overwhelmingly. He got 35 votes in the two houses.

The President then promptly within 30 days impounded half of the funds that were to be allocated that year and the next year followed that through with another impoundment, with the result——

Mr. STAATS. But the law says——

The CHAIRMAN [continuing]. If I may continue, with the result that the 3 years are almost up and the $9 billion which was to have been spent over this 3-year period and which would have had—if it had been spent, would have had an immense impact on the water pollution problems of this country, has not been spent.

The will of the Congress has been defied. This President has used title X to do the same thing with respect to the same money. It is not programed anymore. You do not know how long it is going to be held. That $9 billion has been held for 3 years. There is nothing in the impoundment message to tell us what plans there are for expending it. It has just been impounded and locked in until either the courts can release it or the Congress can release it by further legislative action.

Now, that, may I say, is an improper use of the deferral authority and you approved it.

Mr. STAATS. I do not think it can take place now.

The CHAIRMAN. Well, it has taken place.

Mr. STAATS. I beg your pardon. This law took effect only on July 12 of this year.

The CHAIRMAN. And it is your opinion that those prior impoundments come out of title X as you see it.

Mr. STAATS. They have to be resubmitted.

The CHAIRMAN. They have to be resubmitted.

Mr. STAATS. Right.

The CHAIRMAN. And the messages to which your opinion is addressed——

Mr. STAATS. But the law provides they cannot be deferred beyond the fiscal year.

The CHAIRMAN. But my point is that since the law has not programed it beyond the authorization period and the authorization period is about to go behind us, I mean, there is no way of imposing a mandate upon the President that is related to any legislative decision because that time is behind us. The successive deferrals have had this effect.

Mr. KELLER. Mr. Chairman, in our comments on the deferral of water pollution funds, which we included in a report to the Congress, we pointed out to the Congress and to your committee that these were being classified, we thought, properly as deferrals, but the committee might want to look at them carefully to see if it was having a cumulative effect of frustrating the whole program.

We came to the conclusion that there was still time to put the program into effect before it finally winds up.

The CHAIRMAN. How are you going to put that 3-year program into effect now?

Mr. KELLER. Well, it is a matter of subjective judgment.

The CHAIRMAN. Are you saying that the law now applies to the next 3 years without further action by the Congress? What are you saying?

Mr. KELLER. Until whatever the time limit is on the particular program.

The CHAIRMAN. There is no time left in that program.

Mr. KELLER. Well——

The CHAIRMAN. The impoundments have succeeded in eating it up.

Mr. KELLER. We came to the conclusion that there is time for the program to go forward and therefore we could not say it was in effect a rescission.

The CHAIRMAN. You mean there is time between now and next July 1 to implement a 3-year program for expending $9 billion? What kind of a judgment is that?

Mr. KELLER. Mr. Hughes, do you wish to comment on this point?

Mr. HUGHES. It seemed to us, Senator, that the issue was the question of judgment as to whether there was an opportunity responsibly to obligate the funds. We examined that question as closely as we could and concluded that there would be an opportunity to obligate the funds within the time left.

The CHAIRMAN. Within the next 6 months?

Mr. HUGHES. Yes, sir. That is correct.[1]

The CHAIRMAN. $9 billion.

Mr. HUGHES. Yes, sir, that is correct.

The CHAIRMAN. We can't in my State.

Mr. HUGHES. We did, as Mr. Keller suggested, flag the item for the consideration of the Congress and pointed out that it was a question of judgment and that at whatever point the delaying action which in our interpretation is a deferral became defacto a program frustration, a termination action in effect, that that deferral did become a rescission and at such point it would have to go through the rescission procedures.[1]

The CHAIRMAN. How in heaven's name are you going to treat an animal that changes its stripes like that? When do the 45 days start running for congressional action to deal with it as a rescission? How do you enforce that kind of a judgment upon the President who has failed to recognize it with respect to the 235 and 236 housing programs? It wasn't our intention to create any such slippery animal as that, Mr. Hughes. We undertook to eliminate such ambiguities, so that when the President wants to make a program decision different from that of the Congress he comes to us directly and asks us to deal with it in a process approximating a legislative one. I do not see how you deal with that kind of change of stripes.

Who makes the decision as to when it has been converted from a deferral to a rescission—you?

You haven't got the troops. The President has said you haven't got the troops. When does the time start running? The act is silent on it.

Mr. SOCOLAR. But the fact is, Mr. Chairman, that under the act, when these delaying tactics are engaged in, it is only one house of the Congress that need act to turn it aside.

The CHAIRMAN. We created a bicameral legislature to write the laws in 1778, not a unicameral one.

We don't use that kind of device to enact legislation. We use it to express our disapproval of an action that the President has taken under specific congressional law but we do not write new law by the deferral process. That is the point.

Mr. STAATS. That is precisely, though, what is involved here. A President proposes to defer any program. The Congress can by simple majority vote in either House disapprove of that action.

The CHAIRMAN. If we do it on this basis, Mr. Staats, if we do it because we say he has misused the authority, then by using the remedy we concede his use of the authority. How do we—if we disagree with you, if we disagree with OMB, on the use of a deferral in

[1] For further information see letter on p. 376.

a particular program, how do we deal with it without conceding the authority?

Mr. STAATS. On a deferral, all you have to do is to have either House by simple majority disapprove.

The CHAIRMAN. But I challenge its use as a deferral. What I am saying to you is that if I am right, and I have got a lot of people who agree with me that this is not a deferral, it is a rescission, notwithstanding the opinion of GAO, I am without remedy, or the Congress is, to enforce that point because the law gives only you the power to go to court when the President refuses to honor the action of Congress on rescission, only you. When you concur with the President's use of deferral authority as a policymaking mechanism, you deprive us of a remedy when we disagree with you.

Mr. SOCOLAR. Mr. Chairman, the act itself provides in reporting deferrals that the legal authority for the deferral be spelled out and asks the Comptroller General also to comment on the authority under which the deferral is taking place.

The CHAIRMAN. That is how we got this opinion.

Mr. SOCOLAR. Now, it seems to me that if deferrals are going to be commented upon with respect to their basic underlying authority, the act must be construed as contemplating that some deferrals will come through for which there is no authority and which——

The CHAIRMAN. Right.

Mr. SOCOLAR [continuing]. And which will be pointed out to the Congress.

The CHAIRMAN. That is right, but when you say to us that you have the authority to decide that a policymaking program is a deferral and is a proper use of authority, that can change stripes somewhere down the road and become a rescission, that you are the ones to decide that, too; I mean, where is our control over the whole matter?

Mr. SOCOLAR. Well, it seems to me——

The CHAIRMAN. The whole business would be very clear cut if you do what the act tells you to do, to treat as rescissions those matters that seek to change policy or seek to change programs for fiscal policy reasons and to treat as deferrals those things that are covered by the Anti-Deficiency Act as amended by the Senate. That is a clear-cut distinction. There is no ambiguity there either in implementation or interpretation.

You have taken a Rube Goldberg interpretation of this act that makes it almost impossible for the Congress to control. OMB and GAO will control it from now on.

Mr. STAATS. Well, I do not believe that is going to be the case, Mr. Chairman. You are quite correct in saying that the question of whether a deferral reaches a point where it can have such a severe impact on a program as to cause it to be, in effect a rescission is a matter of judgment. I will grant you that. But it is a judgment that we will try to make to the best of our ability.

The CHAIRMAN. And it is a judgment which is out of the hands of Congress.

Mr. STAATS. There is certainly an opportunity, though, for Congress to let us know at any point in time when it feels that the deferral is of that nature, and I would hope that the Congress would let us know so we could take that into account.

We received a letter only this last week from a committee in the House in which they are questioning whether a deferral is not, in effect, a rescission. We will go into that case, two cases in fact, and we respect that kind of judgment. We hope we can work with the Congress as we reach those judgments.

The CHAIRMAN. Well, with all respect to GAO, Mr. Staats, the position of Congress in such matters ought not to be that ambiguous. This law was written to avoid that kind of ambiguity.

Let me ask you some specific questions about your opinion. The basic premise of your opinion is that Congress intended to require a rescission only where the President intends a permanent withdrawal of budget authority, but your opinion contains no citation to the act or its legislative history to support that interpretation.

Where did you get that theory? Where are the words "temporary withdrawal" or "permanent withdrawal" at any point in the legislative history?

Mr. KELLER. I believe, Mr. Chairman, that question is replied to in our response to your letter of December 13 as follows:

"Our basis for these conclusions is the language of Sections 1002 and 1012–1013 of the act itself. The Conference Report and the floor debates following the Conference throw little light on this problem.

"In Sections 1002 and 1012 a 'rescission' is to be recommended when funds are not required to carry out the objectives and scope of the appropriation. As used in these sections, a 'rescission' appears to mean that budget authority is to be permanently revoked. This meaning is consistent with that ordinarily accorded the term 'rescission.'

"The term deferral is explained by Sections 1011 and 1013 as any withholding or delaying of budget authority that does not extend beyond the fiscal year in which it is proposed. Moreover, Section 1013, by its own provisions, deals with impoundments *not* covered by Section 1012. * * *

"Reading the two sections together the conclusion seems inescapable that a 'deferral' is what we characterize as a 'temporary' withdrawal of authority, and a rescission is a 'permanent' withdrawal."

I agree with you the terms are not used anywhere in the statute but that is the conclusion we reached from reading these sections and reading the act as a whole.

The CHAIRMAN. Section 1012(a) of the act says:

Whenever the President determines that all or part of any budget authority would not be required to carry out the full objectives or scope of programs for which it is provided or that such budget authority should be rescinded for fiscal policy or other reasons, or whenever all or part of budget authority provided for only one fiscal year is to be reserved for obligation for such fiscal year, the President shall transmit to both houses of Congress his special message.

Now, there are three modifiers there. Budget authority for one fiscal year is one of them. The other two are not related to any timeframe in the definition.

You refer to the word "rescission" as customarily defined. We defined it here.

Why do you have to go outside the four corners of the legislation to find a definition when there is a definition there?

The words "permanent" and "temporary" are not used.

Mr. KELLER. I agree that words "permanent" and "temporary" are not used in this section but we came to the conclusion that when you are talking about rescission of budget authority you are talking about permanently doing away with that budget authority. And therefore,

we reached our conclusion that you have to come down between temporary withholdings and permanent withholdings in dealing with that subject.

The CHAIRMAN. Let me ask you this: Why can't you come down to a choice between the managerial functions that Senator Ervin so explicitly identified as underlying the Senate position and the policy of the program policies? Why do you have to strain for a new separation between the two, permanent and temporary?

Those are very simple words. It would have been very easy for us to have used them in the conference report or in the legislative history subsequently. We did not.

Mr. KELLER. Mr. Chairman, without using those words we would have to come to the same conclusion. What all of us involved with this matter here, have seen is that throughout the legislative history you can find arguments for both sides. So——

The CHAIRMAN. Not on the Senate side.

Mr. KELLER. I know, but you can on the House side.

The CHAIRMAN. You have made a nullity out of the Senate's position. That is what your entire presentation does.

Mr. KELLER. I'm sorry, I did not hear you.

The CHAIRMAN. I say, you have made a nullity out of the Senate position.

Mr. KELLER. I think we recognize——

The CHAIRMAN. You can find nothing in the Senate legislative history.

Mr. KELLER. I think we recognize the Senate position, but there were also other positions in the House. This led us to conclude that we had to look primarily at the words of the statute itself, and we reached our conclusions in that way.

The CHAIRMAN. Why didn't you look at Mr. Bolling's words?

Mr. KELLER. We did look at Mr. Bolling's words.

The CHAIRMAN. How do you reconcile your decision with what he had to say? I quoted him this morning.

Mr. KELLER. I recognize what he said. I think if you can reach different interpretations on his statement depending on which side you might be on. There were statements made on the Senate floor when the conference report was adopted in which someone argued in support of the House view.

In our opinion we said that we understand that some who participated in the debate adhere to an interpretation opposite to that to which one would conclude from reading the record.

The CHAIRMAN. Why didn't you find S. 3034? Why didn't you find that legislation? Or were you only looking for those things which would support your opinion?

Mr. KELLER. I think Mr. Socolar answered your question earlier. We did recognize that the Senate language was added in the Rules Committee action. I think this language was derived in part from the earlier Senate bill. As I recall the legislative history of this, the impoundment control section was written in at the Rules Committee consideration of the budget reform bill and it came in at that point. We will submit for the record a written response to your question.

[The information referred to, and subsequently supplied, follows:]

DECEMBER 20, 1974.

B–115398.

Hon. EDMUND S. MUSKIE,
Chairman, Committee on the Budget, U.S. Senate.

DEAR SENATOR MUSKIE: During the hearings this morning on our interpretation of the Impoundment Control Act of 1974, as expressed in our letter of December 4, 1974 to the Speaker of the House and the President protempore of the Senate, you inquired whether our consideration of the Act's legislative history included S. 3034. "The Impoundment Prohibition Act of 1974." You described this bill as one of critical importance to an understanding and proper interpretation of the Act.

After the hearings, we reviewed the legislative files we had considered in reaching the conclusions set forth in the December 4 letter. Those files reveal that S. 3034 was never reported out of the committee to which it was referred, and in any event is virtually identical, word by word, to title X of S. 1541. This was the bill that passed the Senate, and went to Conference in the form of a Senate substitute for H.R. 7130. The discussion in our December 4 opinion therefore centered on S. 1541, which we considered as representing in full the Senate view going into conference.

We recognized that both S. 3034 and S. 1541 denied any authority for the President to impound in the absence of existing statutory authority. What Senator Ervin said of S. 3034, when he introduced the bill on February 21, 1974, applies equally to title X of S. 1541. Both bills are distinguishable from earlier impoundment bills, like S. 373, which "grant[ed] the President a limited power to impound funds, with an opportunity for Congress to either approve or disapprove each action * * *." Cong. Rec., S. 1955, February 21, 1974.

I appreciate the fervor with which you have conveyed to me your support for the concept expressed in S. 3034 and S. 1541. The point I tried to explain today is that my opinion of December 4 is based on what came out of the Conference, which, in my view, was a significant departure from the impoundment provisions of S. 1541.

Sincerely,

ELMER B. STAATS,
Comptroller General of the United States.

The CHAIRMAN. Let me give you another question.

Mr. KELLER. Yes, sir.

The CHAIRMAN. Your opinion conveniently ignores the fact that in every deferral message the President submits, he is required by sections 1013, 1014, and 1016 of the act to identify his legal authority for that deferral. You also ignore your own responsibility under section 1014(a) to comment on whether he has any statutory authority for each impoundment he makes.

If your opinion is accurate that that section 1013 contains all the authority he ever needs to impound, why did we put a provision in section 1013 requiring him to tell us what his authority is?

Were we wasting our time?

What is the meaning of these requirements now, if you are the President, to identify the legal authorities for every use of section 1013 if section 1013 is that legal authority?

Mr. SOCOLAR. I think a response to that would be that the very purpose for spelling out that no authority exists outside of title X is to call to the Congress' attention those impoundments which the President is engaging in for which no authority does exist except that which might be provided through the congressional inaction with respect to its consideration of the impoundment resolution.

The CHAIRMAN. I am afraid I do not understand what you said.

Mr. SOCOLAR. What I am saying is that we do point out in commenting on the President's messages where no specific statutory authority exists outside of title X for the impoundment that he is engaging in. If he is engaging in an impoundment under the Anti-Deficiency Act we would point that out and make that clear to the Congress.

The CHAIRMAN. What difference does it make?

Mr. SOCOLAR. Well, I think that one difference——

The CHAIRMAN. You said that he has authority.

Mr. SOCOLAR. I think one difference it would make would be that with respect to an impoundment that the President is engaging in under the Anti-Deficiency Act that the Congress normally, I would suspect, would not be so concerned with that particular impoundment, but where he is engaging in a deferral for which there is no other authority, I would think that the Congress might want to take a close look at that one to decide whether in either House is desired to shut that deferral off through the medium of an impoundment resolution.

The CHAIRMAN. No, but the authority you say is section 1013.

Mr. SOCOLAR. To the extent that the Congress——

The CHAIRMAN. To what extent?

Mr. SOCOLAR [continuing]. That the Congress does not act.

The CHAIRMAN. What do you mean, to the extent that Congress does not act?

Mr. SOCOLAR. That so long as an impoundment resolution is not passed, that deferral may continue.

The CHAIRMAN. Well, what I am directing your attention to is that impoundment. I mean, section 1013 and section 1014 require a statement of the legal authority for that impoundment.

Now, if no authority other than section 1013 is needed, where should we put that requirement into the law?

Mr. SOCOLAR. Well, may I ask this question?

If it is construed that way, doesn't that leave you in the situation of only those deferrals for which the President does have authority may be reported under 1013 and if all he can report under 1013 is what he has preexisting authority to do anyway, what is the real purpose of section 1013?

The CHAIRMAN. Well, he exceeds it.

Mr. SOCOLAR. Well——

The CHAIRMAN. That is the whole purpose.

Mr. SOCOLAR. Well, what else would the purpose be for asking what his legal authority is?

The CHAIRMAN. Because we want to give him a chance to make his case if he thinks he has one.

President Nixon has been asserting authority to impound. President Ford has been asserting authority to impound. We want to put them on the record. We are not extending an invitation to them to impound outside their authority. We want them to make their case.

Then we will decide whether or not that case is sufficient. But to say that section 1013 is that authority makes the whole exercise rather ridiculous.

When I think of the year and a half we spent on framing that language, I wonder why we bothered.

Mr. STAATS. I do not think there is any argument that the President should be required to specify what legal authority he is operating on, whether it is the Anti-Deficiency Act or in the basic statute itself.

The CHAIRMAN. What you are saying is that section 1013 is all the authority he needs.

Mr. STAATS. It may be in 1013 but we want him to say so we can make a judgment on it.

The CHAIRMAN. But you have already said for it and as I said, Mr. Ash quoted your opinion with relish the other day.

Mr. STAATS. He can defer. We are arguing he has authority under this law to make deferrals.

The CHAIRMAN. So by the act of making a deferral——

Mr. STAATS. Under certain limits.

The CHAIRMAN [continuing]. According to your interpretation he has done a legal thing.

Mr. SOCOLAR. You mentioned before, Senator, that we have a bicameral legislature and if in fact he had the authority to defer, how would one House passing an impoundment resolution to cut that deferral off be consistent with the idea of a bicameral legislature to change the law?

The CHAIRMAN. Because the Congress would have initially given explicit authority as under the Anti-Deficiency Act to defer. He exercises that authority. Under that act he is supposed to report it and the Congress can disapprove. That is the purpose.

Mr. SOCOLAR. One House then will be disapproving both Houses.

Senator MUSKIE. That is right, but the Congress will initially have enacted by the regular legislative process the policy under which the deferral action is taken. What you are asserting is something far different than that. You are asserting that outside the Anti-Deficiency Act, outside that whole broad policy area that covers all the activities of the Government, section 1013 gives the President the right to defer.

Mr. SOCOLAR. I think we are asserting the other side of the coin with respect to one House acting based on the language of section 1013. In fact, section 1013 is extremely broad and by its own express terms takes out of the broad definition of impoundments under 1013 what must be reported under 1012. By its terms 1013 is broad enough to actually cover the 1012 type impoundment but specifically by its terms makes that a separate category of case.

Mr. STAATS. Mr. Chairman——

The CHAIRMAN. That is a vote and we are going to have to leave. I may submit some other questions in writing, if we don't get another opportunity to go into them in this fashion. I must say I still find it incredible that the efforts of the Congress to take away power is construed as conferring power. But I made the point before and there is no point in belaboring it.

Mr. STAATS. Mr. Chairman, I would like to say something for the record before you leave. I may have misinterpreted what you said here earlier that we were influenced in any way in our position by the executive branch. We have not been. We have not even been in communication.

The CHAIRMAN. I have not said that.

Mr. STAATS. There is no legal opinion out of the Justice Department. I just want to be sure there is no misunderstanding on that point.

The CHAIRMAN. I don't believe you were influenced by the executive branch. I am disappointed that you reached the same conclusion as the executive branch. I think you are both utterly wrong. You reached those conclusions separately. That is your prerogative.

Mr. STAATS. What I think is involved here, frankly, is that the House and Senate conferees did not have a meeting of the minds. We have language in the statute which does not really make any sense from the point of view of a lot of the prior history, but it is nevertheless language which we feel from a statutory construction standpoint is clear.

The CHAIRMAN. Mr. Staats——

Mr. STAATS. What the Congress was intending to do was to make illegal a practice which has been in existence for years which is you don't spend the money and you don't tell Congress anything about it.

Now, this law for the first time will make it an obligation on the President to tell Congress for any reason why he is not spending money which has been appropriated, and to state the legal basis for that. But this says that he can defer temporarily for a short period of time up to the point where it will interfere with the carrying out of the program.

Now, that is in 1013. So that Congress does have an opportunity by action of either House to disapprove something the President has been doing previously without knowledge of Congress in many cases in the past.

The CHAIRMAN. But, Mr. Staats, let me say something to you now that I have said to you in private. Congress intended with this act to do two things: One, to cut back the use of this power by creating a budget process that would minimize the possibilities that the President would use this power in his disagreements with the Congress, and second, to provide a mechanism for handling those abuses when they occur.

Your interpretation provides us only with the latter. It does not implement the other purpose of the Congress which was to reduce the use, the practice of impoundments for policy purposes. Anybody reading the newspapers over a year and a half could not avoid the conclusion that that is what the Congress was all about.

Now, with respect to the conference report, you have been around for a long time, and I have, and you cannot spell out in a conference report with the clarity and precision that you can in a committee the legislative purpose. You often have to use language that is interpreted by conferees in different ways to justify their retreat from the original position of their House.

But to give consideration to this overall congressional intent which I think is clear not only in the legislative history but in the public domain and your resolution of whatever ambiguities you find I think would enable you reasonably to support the basic congressional purpose.

Now, I have said that before to you and I am not saying anything new. But maybe it needs to be said again on the record.

Mr. STAATS. I would just like to add one more point very briefly.

With respect to when a deferral has the impact on a program which

would cause it properly to be a rescission, we intend to take a very strict construction on that and we hope we will hear from you or any other member of Congress on any program where you feel the deferral has that effect. We have already submitted one message as you know where we submitted it as a rescission message rather than as a deferral as submitted by the President and we——

The CHAIRMAN. As I said, you haven't got the troops to enforce it, so when the deferral——

Mr. STAATS. I haven't said that. I don't know who said that. I have only heard you say that.

The CHAIRMAN. Well, that is the rule.

You have converted this from deferral to rescission. The administration has not seen fit to recognize that conversion and thus you are without remedy and we are without remedy.

Mr. STAATS. I think we have got the troops to do it.

The CHAIRMAN. What is your remedy?

Mr. SOCOLAR. Court action.

Mr. STAATS. Go into court.

Mr. SOCOLAR. If the Congress does not pass a rescission bill within 45 days.

The CHAIRMAN. That is a very feeble remedy, we have created a much more vigorous remedy to deal with it. All right, Mr. Staats. Thank you. I've got to run.

Mr. STAATS. Thank you very much.

Senator CRANSTON. May I ask one question? If the President submits what he calls a deferral for 1 fiscal year, and then immediately introduces the same "deferral" again as the new fiscal year begins, shouldn't that be treated as a rescission?

Mr. STAATS. We would have to, as I say, examine every case on a case-by-case basis.

I don't know——

Senator CRANSTON. Well, just doing that one thing, just using impoundment power in the same manner, same funds, same program, same agency; deferral now, and then deferral in the next fiscal year, and deferral in the fiscal year after that, that would be a rescission in effect, would it not? Isn't that what the "Anti-Impoundment Act" was passed to avoid?

Mr. STAATS. I would think we would want to require a lot of justification to classify as a deferral any resubmission as a deferral beyond 1 fiscal year. I would not want to say we would never do it because, you know, if you have got a 10-year program and you defer it for 18 months, then that may not so severely impact on that program as to cause it to be a rescission, but if you have a 2-year or a 3-year program, a resubmission would be hard to justify.

Senator CRANSTON. Thank you very much. I've got to rush.

I've got another question. I gather all of you worked on this opinion. Did any of you come up with any significant evidence that hasn't been touched on today that would have led you to an opposite conclusion?

Mr. HUGHES. I am not a lawyer, Senator, although some of my colleagues say I practice without a license sometimes. I think one needs to look at the alternative interpretation rather carefully to contemplate, for example, the consequences if the Congress were confronted with

the present volume of impoundments, and the effect of the interpretation was to require the Executive to spend the money unless there were a law passed.

I think that it is a practical consideration, not necessarily a legal one, which is of considerable consequence and I doubt if that was the Congress' intent.

Senator CRANSTON. Thank you very much. I'm sorry I have to rush to the rollcall.

[Additional information referred to, and subsequently supplied by Mr. Staats follows:]

ASSISTANT COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., December 20, 1974.

Hon. EDMUND S. MUSKIE,
Chairman, Committee on the Budget,
U.S. Senate.

DEAR MR. CHAIRMAN: During the course of our testimony this morning on Title X of Public Law 93-344, The Impoundment Control Act of 1974, you questioned me regarding the impoundment identified as D75-9, Water Pollution Control Construction Grants and made some comments regarding its effect on the program.

We discussed whether the effect of the proposed impoundment of $9 billion would be to prevent the use of the funds altogether. Our judgment, reflected in the Comptroller General's letter of October 15 to the President pro tempore of the Senate, was that there would be opportunity to productively expend the funds. An important part of our reasoning is our conclusion that the contract authority involved does not lapse on June 30, 1975, but remains available for obligation. We flagged the matter for the Congress' attention.

Subsequent to our letter, and as you probably know, the Subcommittee on Agriculture, Environmental and Consumer Protection of the House Committee on Appropriations received testimony from the Administrator of the Environmental Protection Agency on this appropriation. The Administrator gave assurances that the full $18 billion authorized by the legislation would eventually be spent, including the $9 billion impoundment. Our understanding is that he convinced the Committee both that the funds could be spent and that it was his intention to do so. If this does not prove to be the case, and if we find that some of the funds will lapse, we believe it to be our responsibility under Title X to notify the Congress of our finding and to take appropriate legal action, if necessary.

I hope the foregoing comments help to clarify the matter.

Sincerely,

PHILLIP S. HUGHES,
Assistant Comptroller General.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., December 18, 1974.

Hon. EDMUND S. MUSKIE,
Chairman, Committee on the Budget,
U.S. Senate.

DEAR SENATOR MUSKIE: We have received your letter of December 13, 1974, raising certain questions concerning our interpretation of the Impoundment Control Act of 1974, as expressed in our opinion dated December 4, 1974. Set forth below are your questions and our answers to them.

Question. "First, what principles of statutory interpretation were used in reaching the conclusions contained in the December 4 opinion?"

No single canon of interpretation can purport to give a certain and unerring answer to the question of legislative intent or the meaning of a statute. Before the true meaning of a statute can be determined where there is genuine uncertainty as to how it should apply, consideration must be given to the problem in society to which the legislature address itself, prior legislative consideration of the problem, and the legislative history of the statute in question. See Sutherland, Statutory Construction, 4th Ed., §§ 45.05 and 45.02.

In this case, the problem addressed by the Congress, and even more the legislative reponse it fashioned, are the very matters in contention. Review of prior legislative considerations, and of the legislative history of the bill that

emerged from Conference, was not particularly helpful. At the end, we relied upon the traditional principle that Congressional intent must be ascertained essentially from the language of the statute itself.

Question. "*Second, your opinion contained a number of assertions and conclusions for which no authority was cited.* Please indicate all authorities upon which you relied for the following statements:

"A. On page two, you described the 'basic scheme' of the Act as follows:

"2. Budget authority intended for *permanent* withdrawal must be released for obligation and expenditure if the Congress fails within 45 days to pass legislation authorizing the withdrawal.

"3. Budget authority intended for *temporary* withdrawal within a fiscal year may be withheld as proposed if the Congress fails to act; either House may require release of such deferred budget authority by passing a simple resolution to that effect. (Emphasis added)

"What is the authority for such conclusions? Where in the legislative history of Public Law 93–344 are the words 'permanent' or 'temporary' used to describe recissions and deferrals respectively?

"F. On page thirteen, you state, 'The language of section 1012 and 1013 conveys a clear impression that the use of the two sections depends not on the purpose or legal authority of a proposed withholding action, but upon its duration.'

"What is the authority for that assertion? Where in the conference report or in the floor debates in either House is there support for that assertion?"

Our basis for these conclusions is the language of §§ 1002 and 1012–1013 of the act itself. The Conference Report and the floor debates following the Conference throw little light on this problem.

In §§ 1002 and 1012 a "rescission" is to be recommended when funds are not required to carry out the objectives and scope of the appropriation. As used in these sections, a "rescission" appears to mean that budget authority is to be permanently revoked. This meaning is consistent with that ordinarily accorded the term "rescission."

The term deferral is explained by §§ 1011 and 1013 as any withholding or delaying of budget authority that does not extend beyond the fiscal year in which it is proposed. Moreover, Section 1013, by its own provisions, deals with impoundments *not* covered by § 1012 (see § 1013(c)).

Reading the two sections together, the conclusion seems inescapable that a "deferral" is what we characterize as a "temporary" withdrawal of authority, and a rescission is a "permanent" withdrawal.

"B. On page two, you state, 'The Impoundment Control Act of 1974 and its legislative history are considerably *less than clear* concerning the Act's intended design.' What is the basis for that conclusion?"

Primarily it is the legislative history of the act that is unclear in large part. See pages 18–19 of our December 4, 1974, opinion concerning the ambiguity of the legislative history following the House-Senate Conference. Had the Act itself been as clear as all would desire it would not have been subject to two reasonable but mutually excusive interpretations.

"C. On page nine, you state, 'We concude that budget authority may not be withheld except to provide for contingencies or to effect savings, or as specifically provided for in appropriations acts or other laws.' How is that conclusion consistent with your later conclusion that the President may use the deferral procedure for fiscal policy purposes?"

"D. On page thirteen, you state, 'Second, we conclude further that the Impoundment Control Act of 1974, apart from 1002, is 'other law' within the meaning of section 1002. This is the necessary conclusion to be drawn from the fact that section 1002 is in fact an amendment to a statute (the Anti-Deficiency Act) separate and apart from the remainder of the sections making up the Budget Impoundment and Control Act of 1974.' What is the authority for this assertion and conclusion?"

Section 1002 states explicitly that it is an amendment to the Antideficiency Act, 31 U.S.C. 665. The remainder of the act is not an amendment to 31 U.S.C. 665, and constitutes a structurally separate statute. Therefore, it appears the amendment to the Antideficiency Act was designed to eliminate *that* statute as the claimed basis for so-called policy impoundments. See pages 6–10 of our December 4, 1974 opinion. This in no way would affect the possibility that *other* statutes could serve as a basis for policy impoundments. Section 1002 appears to recognize this:

"Except as specifically provided by particular appropriations Acts or *other laws*, no reserves shall be established other than as authorized by this subsection." (Emphasis supplied.)

Also, it must be emphasized that a policy impoundment will prevail only in those circumstances where the President proposes a deferral and neither of the Houses of Congress passes an impoundment resolution. Under these circumstances, § 1013 of the act provides "other law" for withholding of budget authority.

Finally, if one construes the language of § 1002 to mean that fiscal policy reserves cannot be established under any other law, then the creation of such reserves, it has been argued, would have to be proposed as "rescissions". Such a construction would be inconsistent with the clear import of § 1013, which provides for the President proposing to *defer* for less than the fiscal year *any* budget authority.

"D. On page thirteen, you state, 'First, the clear language of section 1013 does not limit the authority for the proposed deferrals.' How do you reconcile that assertion with the 'clear language' of section 1012 which provides that the President is to seek rescission when he determines 'that all or part of any budget authority will not be required to carry out the full objectives or scope of programs for which it is provided or that such budget authority should be rescinded for fiscal policy or other reasons (including the termination of authorized projects or activities for which budget authority has been provided), or whenever all or part of budget authority provided for only one fiscal year is to be reserved for obligation for such fiscal year?

"How do you reconcile your interpretation of Section 1013 with the 'clear language' of Section 1013(c) which states, 'The provisions of this section do not apply to any budget authority proposed to be rescinded or that is to be reserved as set forth in a special message required to be transmitted under section 1012'?"

The language of § 1013 provides that an impoundment message should be sent pursuant to the section *whenever* it is proposed that budget authority be deferred. The language is so broad, in fact, that it would include rescissions except that subsection 1013(c) specifically excludes "budget authority proposed * * * in a special message required to be transmitted under § 1012."

The fact that § 1012 specifically lists "fiscal policy" *rescissions* as reportable under that section, and § 1013 does not refer to "fiscal policy" *deferrals*, cannot be construed as meaning that *all* fiscal policy withholdings of whatever duration must be reported under § 1012. The list of several purposes for impoundments under § 1012, including for the purpose of "fiscal policy," virtually exhausts all reasonable possibilities of the purposes for which the President may propose to revoke obligational authority. Section 1013 lists no purposes whatever for which the President may propose to delay obligational authority. If § 1012 were construed to embrace exclusively all withholdings undertaken pursuant to the purposes listed therein (including "fiscal policy"), then fiscal policy deferrals could not be proposed under § 1013. But the language of §§ 1012 and 1013 simply does not support this result. The more reasonable interpretation, viewing the act as a whole, is that § 1012 encompasses only these impoundments for fiscal policy or other reasons, the durations of which extend beyond the fiscal year in which they are proposed, i.e., "permanent."

"G. On page fourteen, you state, 'Deferral actions cannot delay program funds for longer than one year.' Yesterday in testimony before the Senate Budget Committee, Director Ash of OMB testified that the President could defer program funds for as many years as he wanted, so long as the authorization for such budget authority did not expire. Is Director Ash's interpretation of the law correct? If the Director's interpretation is not correct, will the Comptroller General reclassify such deferrals as rescissions and then sue to release the money if the Executive does not spend it?"

We agree with Director Ash's interpretation so long as the deferral is resubmitted each fiscal year, and only so long as there does not arise a *de facto* rescission due to the lack of sufficient remaining time to prudently obligate the funds involved. See page 12 of our December 4, 1974 opinion. The GAO under its responsibilities would, of course, question repeated deferrals to see if they should be submitted as rescissions.

"H. On page eighteen, you describe the legislative history of the Impoundment Control Act in the Senate. You state that the Senate Rules Committee reported S. 1541 in 'a form which did incorporate an impoundment control title.' What is the legislative history in the Senate of Title X of S. 1541?"

As discussed at page 18 of our December 4, 1974, opinion, S. 1541 was introduced on April 11, 1973, by Senator Ervin and five others. It was referred to the Committee on Government Operations and subsequently reported out on November 28, 1973, without an impoundment control title. See S. Rep. No. 93–579.

The bill was later referred to the Committee on Rules and Administration on November 30, 1973. This Committee did report out the bill with impoundment control provisions. See S. Rep. No. 93–688.

The Senate passed S. 1541 on March 22, 1974, but then substituted its agreed upon text for H. 7130 on March 22, 1974. This bill was modified in conference.

"I. On page one, you state, 'The act fundamentally calls for the Executive Branch to report and explain to the Congress all proposed impoundments with ultimate authority to effectuate such proposals dependent upon congressional action.' When the President proposes a rescission, may the funds be withheld during the 45-day period pending Congressional action?"

Yes. We think the act provides that funds may be withheld during the pendency of a rescission request. Section 1012 states that, if after 45 days, a rescission bill has not been passed, the budget authority must be made available for obligation. To us, this implies that *during* the 45 days the money need not be made available for obligation.

Question. "Third, does section 1013 provide any legal authority or statutory authority for an impoundment of budget authority? Did H.R. 7130 as passed by the House purport to provide any such legal or statutory authority to the President to defer budget authority temporarily from obligation?"

Yes, provided it is sustained by Congressional concurrence. Further, the legislative history of H.R. 7130 in the House makes it clear that the House recognized that H.R. 8480, the predecessor to H.R. 7130, did provide additional authority to the President, subject to Congressional concurrence. See pages 14–19 of our December 4, 1974, opinion.

Sincerely,

ELMER B. STAATS,
Comptroller General of the United States.

B–115398.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., December 4, 1974.

SPEAKER OF THE HOUSE,
President pro tempore of the Senate.

The purpose of this letter is to provide you with our views concerning the interpretation and application of the Impoundment Control Act of 1974, Title X of Public Law 93–344, 88 Stat. 297, 332 (July 12, 1974).

Recent years have witnessed disagreement between the Executive Branch and the Legislative Branch over which has ultimate control over Government program and fiscal spending policy. The Executive Branch, largely on grounds of fiscal responsibility, has sought to curtail or eliminate numerous programs funded by the Congress. The courts have held, for the most part, that such Executive attempts to avoid implementation of Government programs through the withholding of budget authority constituted illegal impoundments. Nevertheless, and despite a reasonably clear understanding of the limits of Executive authority, the power to impound budget authority was easy to exercise and challenges to that power difficult and time consuming to resolve.

The Impoundment Control Act of 1974 was designed to tighten congressional control over impoundments and establish a detailed procedure under which the Legislative Branch could consider the merits of impoundments proposed by the Executive Branch. The act fundamentally calls for the Executive Branch to report and explain to the Congress all proposed impoundments with ultimate authority to effectuate such proposals dependent upon congressional action. The basic scheme of the act's operative provisions is contained in four key elements:

1. All budget authority to be withheld by the Executive Branch from obligation or expenditure—either permanently or temporarily—must be reported to the Congress.

2. Budget authority intended for permanent withdrawal must be released for obligation and expenditure if the Congress fails within 45 days to pass legislation authorizing the withdrawal.

3. Budget authority intended for temporary withdrawal within a fiscal year may be withheld as proposed if the Congress fails to act; either House may require release of such deferred budget authority by passing a simple resolution to that effect.

4. The Comptroller General of the United States is empowered to seek court enforcement of any required release of budget authority.

The net result of the procedure established is that the propriety of any proposed impoundment will depend upon action (or inaction) by the Congress in connection with a contemporaneous consideration of such proposal. Earlier actions by the Congress either authorizing or denying authority for particular impoundments are of no ultimate consequence except as they might affect the outcome of considerations under the act of 1974.

A controversy has developed over whether application of the act as outlined above serves to strengthen or weaken congressional control over impoundments. With respect to permanent withdrawals of budget authority, it is clear that the intent is to require an act of Congress to clothe the Executive Branch with requisite authority. If the Congress fails to act, the President may not impound.

As to temporary withdrawals, however, it is contended that the President by virtue of congressional inaction acquires authority to defer where otherwise none exists—that the President, by proposing a deferral of budget authority, becomes vested through congressional inaction with authority which the Congress otherwise may have previously denied him. Under this interpretation, the act, in legitimizing otherwise impermissible deferrals of budget authority, might be regarded as weakening rather than strengthening congressional control over impoundments, albeit either House has it within its power to deny deferral authority through passage of a simple resolution.

The Impoundment Control Act of 1974 and its legislative history are considerably less than clear concerning the act's intended design. The act cannot be analyzed without producing a series of anomalous results which its history fails to explain away. Nevertheless there is an unmistakable philosophy underlying the act that does provide a rational and realistic basis for viewing the act as a means by which the Congress strengthened its control over Executive impoundments.

The fact is that prior to enactment of the Impoundment Control Act, the Executive Branch engaged in numerous impoundments, whether authorized or not, often without the Congress having a clear picture of precisely what was involved. Under the act, however, each withdrawal of budget authority becomes highly visible, allowing the Congress to consider its merit as of the time it is proposed. Rescissions or permanent withdrawals of budget authority are made difficult for the Executive Branch in that both Houses of Congress must support them through positive action to establish the requisite authority. Deferrals or temporary withdrawals are made easier in that inaction by the Congress establishes the requisite authority. However, to counterbalance this ease, the act allows either House on its own to void such proposed action. There is no question but that a rescission is the more significant type of impoundment over which congressional control is unmistakably absolute. The essential difference is that simple inaction on a rescission proposal automatically results in release of the budget authority after 45 days. Congressional control over the less significant deferral is no less absolute, though affirmative action is required in the exercise of that control.

To point up the full ramifications of the provisions of the act, and their operative effect, there follows a detailed analysis of the issues involved.

The Basic Provisions

The Impoundment Control Act of 1974 was the result of a conference that combined features of two differing approaches to impoundment control. As the Conference Report, H.R. Rep. No. 93–1101, 93d Cong., 2d Sess. 76–77 (1974), states, the House bill that went to conference provided for a procedure that would require impoundment actions to be reported to the Congress by the President within ten days after they were taken. In the event that either House passed a resolution of disapproval within sixty calendar days of continuous session after the date on which the Presidential message was received by Congress, the impoundment would have to cease. The Senate bill considered by the conferees circumscribed the authority in the Antideficiency Act, 31 U.S.C. § 665, to place funds in reserve, and prohibited the use of budgetary reserves (except as

provided specifically in appropriation acts or other laws) for fiscal policy purposes, or to achieve less than the full objectives and scope of programs enacted and funded by the Congress. The Senate bill authorized the Comptroller General to bring a civil action in the U.S. District Court for the District of Columbia to enforce those provisions.

Section 1001 of the act is a disclaimer section, stating, among other things, that nothing in the title shall be construed as asserting or conceding the constitutional powers or limitations of either the Congress or the President.

Section 1002 amends the Antideficiency Act to authorize reserves solely (except as provided specifically in appropriation acts or other laws) to provide for contingencies, or to effect savings whenever savings are made possible by or through changes in requirements or greater efficiency of operations. The section continues the requirement that whenever an officer responsible for making apportionments and reapportionments determines that any amount so reserved will not be required to carry out the full objectives and scope of the appropriation concerned, he shall recommend the rescission of that amount.

Section 1011 is a definition section.

Section 1012 provides that if the President determines that all or part of any budget authority will not be required to carry out the full objectives or scope of the programs, or that such budget authority should be rescinded for fiscal policy or other reasons, including the termination of authorized projects or whenever all or part of budget authority provided for only one fiscal year (one-year money) is to be reserved from obligation for such fiscal year, he shall transmit a special message to Congress requesting a *rescission* of the budget authority. The message is to include the amount of budget authority involved; the appropriation account or agency affected; the reasons for the requested rescission or placing the budget authority in reserve; the fiscal, economic, and budgetary effect; and all facts, circumstances, considerations, and effects of the proposed rescission or reservation. Unless both Houses of Congress complete action on a rescission bill within 45 days (of continuous session) of receipt of the message, the budget authority for which rescission was requested must be made available for obligation.

Section 1013 provides for a second type of special message concerning proposed *deferrals*. This category includes any withholding or delaying of the availability for obligation of budget authority within the current fiscal year (whether by establishing reserves or otherwise), or any other type of Executive action or inaction that effectively precludes the obligation or expenditure of budget authority, including authority to obligate by contract in advance of appropriations as specifically authorized by law. Such action or inaction may occur at the level of the Office of Management and Budget, as through the apportionment process, or at the departmental and agency level. The deferral special message from the President shall contain basically the same types of information included in a rescission special message. However, the procedure for congressional action is different in that the President will be required to make the budget authority available for obligation only if either House of Congress passes an "impoundment resolution" disapproving such proposed deferral at any time after receipt of the special message. The authority to propose deferrals is limited to the fiscal year in which the special message making the proposal is submitted to the House and Senate.

Section 1014 provides that each Presidential special message—whether for rescission or for deferral—shall be referred to the appropriate committee of the House of Representatives and the Senate and printed as a document of each house and in the Federal Register. It further provides that a copy of each special message shall also be transmitted to the Comptroller General, who shall review each message and inform both houses of the facts surrounding the proposed action and its probable effects. In the case of deferrals, the Comptroller General must state whether or not (or to what extent) he determines the proposed deferral to be in accordance with existing statutory authority. Any revisions of proposed rescission or deferrals must be transmitted by the President in a supplementary message.

Section 1015 provides that if the Comptroller General finds that an action or inaction that constitutes a reserve or deferral has not been reported to Congress in a special message as required, he shall report to Congress on such reserve or deferral. His report will have the same effect as if it had been transmitted by the President in a special message. Moreover, if the Comptroller General believes that the President has classified an action incorrectly, by covering it in a deferral

special message when in fact a rescission is involved, or vice versa, he shall report to both houses setting forth his reasons.

Section 1016 provides that if budget authority is not made available for obligation as required by the act, the Comptroller General is empowered, through attorneys of his own choosing, to bring a civil action in the United States District Court for the District of Columbia in order to obtain any decree, judgment, or order that may be necessary or appropriate to make such budget authority available for obligation. However, no such action may be brought until the expiration of 25 calendar days of continuous session after the Comptroller General files with the Speaker of the House of Representatives and the President of the Senate an explanatory statement setting forth the circumstances giving rise to the action contemplated. The section provides that the courts must give precedence to this type of civil action.

Finally, section 1017 provides that congressional action with respect to a proposed rescission or deferral shall take the form of a "rescission bill" or an "impoundment resolution." Any rescission bill or impoundment resolution shall be referred to the appropriate committee of the House of Representatives or the Senate. If the committee fails to report a rescission bill or impoundment resolution at the end of 25 calendar days of continuous session after its introduction, it is in order to move to discharge the committee from further consideration. A motion to discharge may be made only by an individual favoring the bill or resolution; may be made only if supported by one-fifth of the Members of the House involved (a quorum being present); and is highly privileged in the House and privileged in the Senate.

BACKGROUND

In the past the Executive Branch generally has asserted three bases for its authority to impound funds: (1) the statutory provisions of a particular program; (2) statutory limitations upon overall budget outlays; and (3) the Antideficiency Act, 31 U.S.C. §665. In an opinion to the Chairman, Subcommittee on Separation of Powers, Committee on the Judiciary, U.S. Senate, B–135564, July 26, 1973, Committee Print 183, 93d Cong., 2d Sess., (1974), (hereafter "Committee Print"), we offered a detailed review of these assertions. Committee Print, pages 14–23.

The Antideficiency Act as general authority for the impoundment of funds probably has been the most contested of the bases claimed, with the President claiming broad impoundment powers thereunder. Our analysis of this statute concluded that the Antideficiency Act could not be viewed as authorizing the President to withhold funds for general economic, fiscal, or policy reasons. Committee Print, pages 17–20.

The Impoundment Control Act of 1974 is, in part, the Congressional response to claims by the Executive Branch that the Antideficiency Act granted general authority to impound funds. The act accomplishes two objectives: first, it amends the Antideficiency Act to clarify and limit its terms and, second, it establishes a procedure that provides a means for the Congress to pass upon Executive Branch desires to impound budget authority.

Prior to passage of the Impoundment Control Act, the relevant provisions of the Antideficiency Act, 31 U.S.C. § 665(c)(2), stated:

"In apportioning any appropriation, reserves may be established to provide for contingencies, or to effect savings whenever savings are made possible by or through changes in requirements, greater efficiency of operations, *or other developments subsequent to the date on which such appropriation was made available.* Whenever it is determined by an officer designated in subsection (d) of this section to make apportionments and reapportionments that any amount so reserved will not be required to carry out the purposes of the appropriation concerned, he shall recommend the rescission of such amount in the manner provided in the Budget and Accounting Act, 1921, for estimates of appropriations." (Emphasis added.)

This subsection was amended by § 1002 of the act to read as follows:

"In apportioning any appropriation, reserves may be established solely to provide for contingencies, or to effect savings whenever savings are made possible by or through changes in requirements or greater efficiency of operations. Whenever it is determined by an officer designated in subsection (d) of this section to make apportionments and reapportionments that any amount so reserved will not be required to carry out the full objectives and scope of the appropriation

concerned, he shall recommend the rescission of such amount in the manner provided in the Budget and Accounting Act, 1921, for estimates of appropriations. *Except as specifically provided by particular appropriations Acts or other laws, no reserves shall be established other than as authorized by this subsection. Reserves established pursuant to this subsection shall be reported to the Congress in accordance with the Impoundment Control Act of 1974.*" (Emphasis added.)

The reason for this amendment was that the "other developments" language in 31 U.S.C. § 665(c)(2) was being construed as encompassing—

"* * * any circumstances which arise after an appropriation becomes available for use, which would reasonably justify establishment of a reserve." Committee Print, p. 19.

In this light, impoundments motivated by fiscal policy considerations were being justified on the basis that they were within the "other developments" language of the Antideficiency Act.

The legislative history of the amendment to 31 U.S.C. § 665 underlines Congress' clear intent that the Antideficiency Act not be used as authority to withhold funds for fiscal policy reasons. Rather, it was to be used only to establish reserves to provide for contingencies or to effect savings. For example, a statement by Representative Matsunaga, during the House debate on the Conference Report on H.R. 7130, the bill that became, in part, the Impoundment Control Act of 1974:

"One of the most important features of the bill, Mr. Speaker, is the impoundment title, which tightens the language of the Anti-Deficiency Act, thereby *prohibiting 'reserves' for fiscal purposes.* This provision is key to maintaining the balance of power among the three branches of Government." 120 Cong. Rec. H5205 (daily ed. June 18, 1974). (Emphasis added.)

Senator Muskie, during debate of S. 1541, the bill that was the Senate-approved version of H.R. 7130, stated:

"The purpose of title X [the impoundment control provisions of the Senate bill] is to define and clarify the authority of the President and other officers and employees of the executive branch to place appropriated funds in reserve. * * * the 'other developments' clause would be deleted by this bill because it has been treated by some officials of the executive branch as a justification for establishing reserves because of economic or other developments. Clearly that use was never intended by the Congress. It is that use which has provoked this controversy over impoundments.

Section 1001 further defines the boundaries of the Antideficiency Act for fiscal policy purposes or to achieve less than the full objectives and scope of programs enacted and funded by Congress. The apportionment process is to be used only for routine administrative purposes such as to avoid deficiencies in executive branch accounts, not for the making of policy or the setting of priorities. * * * Moreover, nothing in the language or legislative history of the Antideficiency Act suggests in any way the Congress intended the executive branch to place funds in reserve as part of economic policy." 120 Cong. Rec. S4091 (daily ed. March 21, 1974).

See also Senator Muskie's comments at 120 Cong. Rec. S3997 (daily ed. March 20, 1974); Senator Irvin's summary of the Antideficiency Act amendments at 120 Cong. Rec. S3835 (daily ed. March 19, 1974); Senator Metcalf's statement at 120 Cong. Rec. S3846 (daily ed. March 19, 1974); the report of the Committee on Rules and Administration on S. 1541, S. Rep. No. 93–688, 93d Cong., 2d Sess., 30, 72–75 (1974); and the Conference Report on H.R. 7130, H.R. Rep. No. 93–1101, 93d Cong., 2d Sess., 76 (1974).

Thus, in light of the section 1002 amendment to the Antideficiency Act and the clear and extensive legislative history of this provision, we conclude that budget authority may not be withheld except to provide for contingencies or to effect savings, or as specifically provided for in appropriations acts or other laws.

However, apart from this, there currently exists disagreement as to whether the act did or did not have the effect, in some circumstances, of providing authority, at the initiative of the President and with Congressional concurrence, to defer budget authority temporarily from obligation. Generally speaking, one interpretation is that the act provides no such authority while the other interpretation is that it does. These contrasting views are discussed below.

The Two Interpretations

THE FIRST INTERPRETATION

Section 1002 requires the Executive Branch to report the establishment of all reserves to the Congress, and permits creation of reserves *solely* to provide for "contingencies" or to effect "savings" or as may otherwise be authorized by other laws. Remaining portions of the Impoundment Control Act of 1974 are not viewed as "other law."

It is further contended that section 1012, relating to "rescissions", prescribes the sole procedure available to the President when he wishes to avoid expenditure of all or part of budget authority (1), which he does not believe will be required to carry out the full objectives or scope of programs for which it is provided, (2), the expenditure of which should be avoided for fiscal policy or other reasons, or (3), in the case of one-year funds, which he wishes to reserve from obligations for the entire year. Both Houses of Congress must pass a rescission bill within 45 days in response to his proposed rescission or the budget authority must be made available for obligation.

Section 1013 relating to deferrals is viewed as merely providing a mechanism for reports required by section 1002. Congress may, by resolution of either House, direct the obligation of reserves established pursuant to the Antideficiency Act or any other specific statutory authority, and reported under section 1013. Otherwise, the budget authority may be deferred as proposed under previously existing authority.

Therefore, under the first interpretation, whenever the President proposes to withhold budget authority for a purpose not authorized by the Antideficiency Act or other specific law, he must propose a rescission under section 1012. This conclusion is deemed supported by section 1013(c), which specifies that section 1012 is the exclusive recourse for the President whenever any of the three types of impoundments specified in section 1012 are involved.

Finally, when the President, either by act or omission, fails to submit a required message or, if he submits a message under section 1013 which should have been sent under section 1012, or vice versa, the Comptroller General, through his report pursuant to § 1015(b), effectively rectifies the incorrectly classified message and converts it to the proper category.

In summary, this view of the act, stated simply, is that deferrals of budget authority may be proposed under section 1013 only if they are authorized by the Antideficiency Act, as amended by section 1002, or by appropriation acts or other laws; no deferral may be proposed under section 1013 on other grounds. It is urged, therefore, that if grounds other than those already authorized are the motivation for a proposed withholding of budget authority, the President must seek a rescission of the budget authority and transmit a special message under section 1012. Put another way, any budget withholding action for which the President lacks statutory authority to undertake must be proposed under section 1012.

THE SECOND INTERPRETATION

Section 1002, which amends the Antideficiency Act, requires the Executive Branch to report the establishment of all reserves to the Congress. It authorizes the establishment of reserves pursuant to the Antideficiency Act itself, as amended, or as specifically provided in particular appropriations acts or other laws. Under this interpretation, the term "other laws" includes the remainder of the Impoundment Control Act of 1974.

Section 1012 provides the procedure when the President wishes permanently to withhold the obligation of all or part of budget authority. Both Houses of Congress must pass a rescission bill within 45 days or the budget authority must be made available for obligation.

Section 1013 applies when the President wishes to delay, for any period up to the end of the fiscal year in which the delay is proposed, the obligation of budget authority. Unless either House passes a resolution disapproving the proposed delay, the delay may continue for the period proposed.

Thus, under the second interpretation, the difference between sections 1012 and 1013 is not based on the existence or lack of prior legal authority supporting the proposed withholding of budget authority, but rather on the proposed duration of the withholding—permanent under section 1012, temporary under section 1013.

An important aspect of the control provided by the act under the second interpretation lies in the provisions for full disclosure to the Congress of Executive Branch plans with an opportunity for Congressional oversight and the exercise of a veto power. Finally, subsection 1015(a) requires the Comptroller General to monitor the budgetary actions of the executive branch. When the Comptroller finds that an action tantamount to deferral or rescission of budget authority has taken or will take place and that a required Presidential special message has not been sent, he is to report this to Congress, together with essentially the same facts required for the Presidential special message that should have been sent. Such a Comptroller General's report triggers the procedures under sections 1012 and 1013 in the same manner as if a Presidential special message had been sent.

Subsection 1015(b) requires the Comptroller General to report when, in his view, a Presidential special message has been "mislabeled," i.e., sent in accordance with the wrong section. Generally, this report is informational. However, if the Comptroller General finds, in the case of a proposed deferral, that funds could be expected with reasonable certainty to lapse before they could be obligated, or would have to be obligated imprudently to avoid that consequence, the action by the President is to be construed as a *de facto* rescission. The Comptroller General would then, in addition to the subsection 1015(b) message, send a section 1012 message, which section 1012 message would become the Congressional action document. The President's deferral message would become a nullity by virtue of the fact that subsection 1013(c) provides that section 1013 will not apply to actions required to be sent under section 1012.

Discussion of the Interpretations

Both interpretations outlined above have considerable merit. The act contains complex and difficult provisions, on whose interpretation reasonable men may differ. The legislative history, while helpful in some areas, is in large part ambiguous. However, on balance, we must conclude that the second interpretation is the correct one, based primarily on the plain reading of the title.

First, the clear language of section 1013 does not limit the authority for proposed deferrals. The language of the section is very broad, providing that a message should be sent pursuant to the section *whenever* it is proposed that budget authority be deferred. The language is so broad, in fact, that it would include rescissions except that subsection 1013(c) specifically excludes "budget authority proposed to be rescinded or that is to be reserved as set forth in a special message required to be transmitted under section 1012." Clearly, the plain language permits the proposal of deferrals for any reason. It has been suggested that since section 1012 specifically lists "fiscal policy" withholdings as being reportable under that section, and section 1013 does not, all fiscal policy withholdings must be reported under section 1012. However, in that event, no deferrals could be proposed under section 1013, since the list of purposes under section 1012 is comprehensive, and section 1013 lists no purposes whatever.

Second, we conclude further that the Impoundment Control Act of 1974, apart from section 1002, is "other law" within the meaning of section 1002. This is the necessary conclusion to be drawn from the fact that section 1002 is in fact an amendment to a statute (the Antideficiency Act) separate and apart from the remainder of the sections making up the Impoundment Control Act of 1974.

Third, the language of sections 1012 and 1013 conveys a clear impression that the use of the two sections depends not on the purpose or legal authority of a proposed withholding action, but upon its duration. If it is to be a permanent withholding of funds; i.e., the funds will never be spent, section 1012 is to be used. If the withholding action is to be only temporary, section 1013 is to be used.

Our interpretation of the provisions of the Act may lead, at first glance, to some apparently anomalous results. In particular, it means that an action by the President that is authorized by statute (e.g., a deferral clearly authorized by the Antideficiency Act) may be made unauthorized and terminated by a simple resolution by only one House. Similarly, a rescission that is authorized by a particular statute may, when submitted under section 1012, be rendered unauthorized and illegal if the Congress fails to pass a rescission bill within 45 days. We believe these results are understandable and reasonable in the context of the Act as a design to give the President the opportunity to initiate reconsideration of, and Congress the opportunity to reconsider, the expenditure

of program funds under circumstances that may be different from those in existence when the original program was enacted. In addition, it should be noted that no program may be terminated without action by both Houses, and deferral actions cannot delay program funds for longer than one year.

A central premise of the argument against the second interpretation appears to be that the act cannot be interpreted so as to provide new authority for impoundments because, it is argued, the legislative history shows that the Senate, by its amendments to the Antideficiency Act, intended to reduce substantially the basis for Presidential impoundment, and all features of the Senate bill necessary to that purpose were incorporated in the Conference Report. In addition, it is said that the House version of the act merely provided a reporting and veto mechanism in the event unauthorized impoundments occurred. Therefore, it is argued, since the Senate bill would have reduced the President's power to impound and since the House bill would not have enlarged it, any argument that the act confers new power to the President to impound would mean that the sum of the legislative process in this case is greater than its parts. Finally, it is argued that the act cannot be interpreted to delegate new power of deferral by inadvertence or implication.

We cannot agree with this view of the act. As shown above, the plain language of the act supports the second interpretation. The legislative history of the act, particularly in the latter stages of floor debate after the House-Senate conference. is ambiguous, in part. However, some important light is shed by that history. The key point is the history of section 1013, which is virtually identical to the language of earlier bills developed in the House.

On March 6, 1973, Rep. Mahon introduced H.R. 5193. This bill is the basis for much of the act and clearly was the blueprint for section 1013. The bill was reviewed and revised by the House Committee on Rules. Rather than report out the bill with amendments, a new bill, H.R. 8480, was introduced. The substituted bill, however, retained the basic philosophy underlying H.R. 5193; i.e., the establishment of an impoundment control procedure through which Congress would review all impoundments and disapprove them through affirmative action. In the absence of affirmative action, the impoundment involved would stand. H.R. 8480 was, in turn, referred to the House Committee on Rules. Simultaneously, the House was studying another measure—H.R. 7130—which, in part, was also designed to deal with Executive Branch impoundment of funds. H.R. 7130, which was introduced on April 18, 1973, contained two titles. Title II, an impoundment control section, was adopted from H.R. 8480. See H.R. Rep. No. 93–658, 93d Cong., 1st Sess. 16 (1973). H.R. 7130 passed the House on December 5, 1973, and subsequently was the House bill that went to conference and led to the enactment of section 1013.

During the debate on H.R. 8480, it became clear that the Members of the House did consider that the bill would, to the extent that it allowed an impoundment to continue unless Congress acted affirmatively to stop the impoundment, grant the President an additional means to impound budget authority. See, generally, 120 Cong. Rec. H6597–6630 (daily ed. July 25, 1973). For example, Rep. Harrington said:

"That measure [H.R. 8480] tinkers with the rules of the appropriations process, to make an Executive impoundment more accountable to the Congress. But it fails to address the underlying affront of impoundment to congressionally established priorities. *In short, the bill makes a clear case for the legality of such actions by the Executive.*

Some have tried to argue that procedural legislation like H.R. 8480 does not legitimize the impoundment practice. But the facts show the opposite: if Congress does not act on the impoundment, it is legal—by necessary implication. If I were a judge, I could reach no other conclusion. It will not do to act on the supposition that congressional action implies no judgment on the impoundment of funds from substantive programs." 120 Cong. Rec. E5121 (daily ed. July 26, 1973). (Emphasis added.)

Similarly, Rep. Leggett, while supporting H.R. 8480, expressed these reservations during the debate (comparing the House and Senate bills):

"While H.R. 8480 attempts to limit the President's ability to impound, *both measures extend to the President de facto authority to impound for at least 60 days. The Madden [H.R. 8480] bill allows the President to impound pending congressional disapproval,* while the Ervin bill would have impoundments lapse after 60 days if not aproved by Congress. A dangerous precedent is set in both instances." 120 Cong. Rec. H6619 (daily ed. July 25, 1973). (Emphasis added.)

And Rep. Danielson, speaking for an amendment to H.R. 8480, said:

"The last point I wish to make is simply this: We must always be cautious in this Congress to cease delegating our powers to the Executive, be he Republican or Democrat. His party makes no difference. We must rid ourselves of this tendency to delegate.

Witness what can happen. *In this instance, by a simple majority vote, 50 percent plus 1, we could delegate to the President the power to impound subject only to Congressional veto.*

Suppose we want to get this power back in the future? A President, Republican or Democrat might enjoy having this power of impoundment. So if we try to take back this power, what do we have to do?

We have to pass another law repealing this law, and the President can very well veto it, whether he be Republican or Democrat." 120 Cong. Rec. H6600 (daily ed. July 25, 1973). (Emphasis added.)

In fact, this concern over the granting of "*de facto* authority" by H.R. 8480 was so great that several amendments were introduced that would have changed H.R. 8480 to the Senate approach of requiring the impoundment action to cease in the absence of positive congressional action within a certain period of time. The most important of these was an amendment by Rep. Pickle, which was defeated 318–96. 120 Cong. Rec. H6603 (daily ed. July 25, 1974).

While recognizing that the provisions of H.R. 8480 would indeed give the President said "*de facto* authority," the apparent philosophy behind the House bill was expressed by one of the floor leaders of the bill, Rep. Bolling:

"Mr. Chairman, I do not really know how to go about opposing this [Pickle] amendment. I know it is well-intended.

No. 1. It imputes to the bill before us the ratifying of the President's power to impound. It does no such thing.

The bill before us, H.R. 8480, is completely neutral. It deals with a fact, not a theory.

There are impoundments. There are not hundreds of impoundments but there are thousands of impoundments. Some are the kinds of impoundments apparently some of my friends feel are the only impoundments; but there are a great many impoundments.

"What H.R. 8480 seeks to do is to provide for a regular procedure for dealing with the exceptional case when the Congress decides that a President has changed the policy—by impoundment unilaterally—that the Congress has already made, and the Congress does not approve the change.

It is a very limited, very self-disciplined, very carefully contrived process.

The committee very carefully considered the alternatives, because, after all, the other body has passed the other version a number of times, and we heard from the Senator from North Carolina; he was a witness before the committee. This was a matter which was very carefully considered." 120 Cong. Rec. H6602 (daily ed. July 25, 1973).

In other words, while the House bill was not considered a ratification of any impoundment power, it was a recognition that impoundment was taking place; that some impoundments, perhaps, should take place; and that Congress ought to have a means for control over impoundments and disapproving those it considered unwise or unjustified.

In summary, the House, while not ratifying or approving any particular impoundments, clearly did provide that, if the Congress did not disapprove a proposed impoundment, the impoundment would stand. In this sense, the House bill expanded Executive authority to impound.

The purpose of the Senate bill that went to conference clearly was different. S. 373, introduced on January 16, 1973, by Senator Ervin and others, set forth a procedure to deal with impoundment of funds. Significantly, and unlike H.R. 8480, this bill required affirmative congressional action within a certain period of time to authorize impoundments. The Senate passed S. 373 on May 10, 1973. The House amended the Senate-passed version of the bill and both chambers appointed conferees. That bill died in conference. S. 1541 was introduced on April 11, 1973, by Senator Ervin and five other members of the Senate. The original version of this bill as well as that version of S. 1541 that was reported out of the Senate Committee on Government Operations on November 28, 1973, did not contain any impoundment control provisions. However, the bill was then referred to the Committee on Rules and Administration on November 30, 1973. The latter Committee reported S. 1541 (S. Rep. No. 93–688, 93d Cong., 2d Sess.) in a modified form—a form which did incorporate an impoundment control title.

As was the case in the House of Representatives, the Senate was concerned that there be made available to the Congress a means through which impoundments could be scrutinized. The Senate bill that went to conference tightened the authority in the Antideficiency Act to place funds in reserve by deleting the "other developments" clause. It also prohibited, except where provided for by appropriations act or other laws, the use of budgetary reserves for fiscal policy purposes or to achieve less than the full objectives and scope of programs enacted and funded by the Congress, and authorized the Comptroller General to bring a civil suit action in the U.S. District Court for the District of Columbia to enforce those provisions.

The Senate, on March 22, 1974, substituted the agreed upon text of S. 1541 for the language of H.R. 7130. It was in this light that the two chambers went to conference.

The legislative history following the conference deliberations is ambiguous in that support can be found for either interpretation. See generally 120 Cong. Rec. H5177–5202 (daily ed. June 18, 1974); and 120 Cong. Rec. S11221–11257 (daily ed. June 21, 1974). In addition, we understand that some who participated in the debate adhere to an interpretation opposite to that which one would conclude from a reading of the record. Under the circumstances, this portion of the history is not helpful as an aid to interpretation of the language of the act.

Finally, other arguments that have been raised against the second interpretation include the arguments (1), that the disclaimer section (section 1001) and the Antideficiency Act amendment (section 1002) preclude any assertion or concession of Presidential power to impound, except pursuant to explicit statutory authorization, and (2), that nowhere else in the act is there found such an assertion or concession.

These arguments ignore the fact, however, that the history of section 1013 in the House clearly shows that that provision was intended as a mechanism whereby impoundments could be reviewed and approved or disapproved by Congress, regardless of the presence or lack of independent statutory authorization. Thus, the disclaimer disclaims any assertion or concession of Presidential constitutional power, or approval of any impoundment except pursuant to statutory authorization. Section 1013 in a sense does provide such authorization, provided the Congress does not disapprove a proposed deferral. Similarly, the section 1002 amendment to the Antideficiency Act provides that no reserves shall be established other than as authorized by the Antideficiency Act, or "except as specifically provided by particular appropriation acts *or other laws.*" Section 1013, we believe, as discussed above, must be included in the category "other laws."

CONCLUSION

We view the Impoundment Control Act of 1974 as providing a means for Congress to review Executive Branch actions or inactions amounting to withholding budget authority from obligation; a mechanism for Congress to affirm or disapprove withholdings that are based on statutory authority outside of the act and to reconsider (contemporaneous with the circumstances at the time proposed) and approve or disapprove withholdings that are submitted under the section 1013 procedure, but which otherwise have no statutory authority. As such, it does not, as section 1001 makes clear, assert or concede the constitutional powers or limitations of either Congress or the President.

As we have stated, the act contains complicated provisions, the legislative history of which are, in large part, far from clear. Because of this, the title has presented difficult problems of interpretation. In addition, because of the act's importance, its interpretation and implementation have been the subject of keen interest by members of Congress and others. Consequently, because it is a close question involving difficult issues of interpretation of statutory language and legislative history, we suggest that Congress may want to re-examine the act and clarify its intent through further legislative action.

Sincerely yours,

ELMER B. STAATS,
Comptroller General of the United States.

Senator CRANSTON. At this point we will print all additional statements and communications received from interested persons and also those who were unable to attend the hearing.

[The information follows:]

PREPARED STATEMENT OF FRANK RODIO, JR., PLANNING AIDE, CAMDEN COUNTY PLANNING DEPARTMENT, CAMDEN COUNTY, N.J.

Mr. Chairman and distinguished members of the United States Senate Committee on the Budget, President Gerald Ford has finally admitted what a few months ago was to him unthinkable. The United States is in the midst of a severe and unusual economic dislocation—inflation mixed with recession and high unemployment. This unusual economic dislocation—termed "stagflation" is not native to the United States as we shall later see.

When Gerald Ford was inaugurated 38th President of the United States on August 9, 1974 he had 895 days left of Richard Nixon's second 1973–1977 presidential term. President Ford immediately and wisely proclaimed inflation "Public Enemy Number One." He launched a series of nationwide economic summits leading up to his October 8, 1974 WIN (Whip Inflation Now) address to Congress.

His actions, unfortunately, proved too little and too late. Dull and sober statistics proved the point. The United States cannot afford to play the "numbers game" with its economic security no matter what "stagflation's" causes are. "Stagflation" causes can be laid to USA's governmental inaction, "agribusiness,"— the decline of the "family farm" on the domestic area, the rise of the USA multinational corporation, the contrived erstwhile "great energy crisis" and the accompanying "petrodollar" influence upon the USA and Western economics.

United States agriculture is no longer run by the small, compact "family farm" but by an institution known as "agribusiness" which is kept alive by huge farm subsidies and a "laissez-faire" governmental policy of noninterference. The wholesale price index rose 1.2% during November, 1974. Sugar rose some 33% which plunged the inflation rate to some 14½% a year.

At the long hot summer Philadelphia Federal Convention of 1787 which drafted the constitution the Founding Fathers did not foresee the advent of a unique American economic entity known as the multinational corporation. The multinational corporation conducts United States foreign policy in violation of the Constitution's provisions which delegate the conduct of United States foreign policy in the hands of the President of the United States with Congress' cooperation.

Multinational corporations contribute not only to "stagflation" but also to high unemployment. The contrived erstwhile "great energy crisis" with the albatross of another Arab Oil embargo hanging over us also contributes to "stagflation," "Petrodollars" and foreign investments also contribute to "stagflation."

Foreign investments in the USA during 1973 amounted to $17.7 billion, an increase of some $3.5 billion. The November, 1974 unemployment rate as a result of all these economic dislocations known as "stagflation" was 6.5%—University of Pennsylvania economists have provided us with the following economic projections.

Inflation will remain about above 10% until summer, 1975 and drop to about 6% in 1976. The GNP will end its decline early next year but will not reach a healthy growth rate of 5% until the end of 1975. Unemployment is projected at 7% early next year and remain at that level through 1976.

What about "stagflation?" First, the White House should drop its "WIN" strategy and concentrate on fighting recession first and then inflation. Secondly, unemployment should be tackled via public service employment programs. Thirdly, I agree with Vermont's retiring dean of the United States Senate George Aiken that the Congress, Supreme Court, President, Vice President and Cabinet cut their salaries by 5%. Fourthly, place foreign and domestic multinational corporations under provisions of the antitrust statutes. Americans deserve economic security. The United States cannot afford to go the route of the pre-Hitlerite political entity known as the German Weimar Republic. Remember those who do not remember history are condemned to relive it!

Senator CRANSTON. On behalf of the Chairman we stand in recess. Thank you.

[Whereupon, at 12:45 p.m., the committee was recessed subject to the call of the Chair.]

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