CRUDE OIL TAX

HEARINGS

BEFORE THE

COMMITTEE ON FINANCE

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

FIRST SESSION

ON

H.R. 3919

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CRUDE OIL TAX

THURSDAY, JULY 12, 1979

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, D.C.

The committee met at 10:37 a.m., pursuant to notice, in room 2221, Dirksen Senate Office Building, Hon. Russell B. Long (chairman of the committee) presiding.

The CHAIRMAN. This morning we are resuming the hearings on the Crude Oil Windfall Profit Tax Act of 1979, proposed changes in the foreign tax credit and proposed uses of windfall profit tax revenues.

We will first call on Mr. Jack M. Allen, president of the Independent Petroleum Association of America.

Mr. Allen, we are very pleased to have you before the committee today to present the views of the independent producers of America.

STATEMENT OF JACK M. ALLEN, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

Mr. ALLEN. Thank you very much, Mr. Chairman.

My name is Jack M. Allen. I am from Perryton, Tex. I am president of Alpar Resources which is an independent oil and gas producing company. I appear here today in my capacity as president of the Independent Petroleum Association of America which is a trade association representing some 5,100 independent producers from all producing areas of our Nation.

We are also appearing today for some 27 unaffiliated State and regional oil- and gas-producing associations which join us in this presentation.

We appreciate the opportunity to appear and express our views on H.R. 3919 which is the tax on domestic crude oil. In the interest of time we will paraphrase rather than read from our written submitted testimony.

We think H.R. 3919 concerns itself with taxing production but it should concern itself with increasing domestic energy supplies. It rolls back prices at a time when we have unprecedented demands for new development capital for domestic oil and gas exploration in this country.

It is contrary to the national interest of increasing domestic production.

We need $400 billion in the 1980's for development of conventional energy. I am talking about oil and gas in this country and not the other forms of energy we need to bring on. We generate this

capital from wellhead sales of oil and gas, from borrowing on production, and from outside investment.

The tax scheme proposed by H.R. 3919 severely limits the internally generated funds available to the industry. It is going to severely limit the venture capital available to us and the funds we are able to borrow.

This legislation is extremely complex. It applies to domestic production only. It is totally unrelated to profits. It is an excise tax. A producer could be in bankruptcy and if he were still producing he would have to pay the tax.

The legislation applies to variable quantities of oil and to a multiplicity of categories. It imposes severe recordkeeping requirements. It is going to make producers who file reports subject to constant errors and severe penalties. It will invite abuse from the unscrupulous and it will penalize the conscientious.

This bill represents broken faith with the industry as far as we are concerned. In 1975 when Congress passed EPCA we were promised decontrol within 40 months. Now we are promised they will continue indefinitely if this legislation is passed. Much investment was made after EPCA was passed based on the fact that controls would expire in 40 months. Now we are substituting control by taxation rather than control with price ceilings.

The result will be that producers and consumers of domestic oil will be denied the funds with which to replace our depleting domestic supplies.

This bill is even more difficult to understand when it is applied to specific categories of production. I am referring to stripper, deep marginal, new oil, and to enhanced recovery processes. All of this oil is either very expensive to find or very expensive to produce.

On three occasions the Congress has voted to exempt stripper oil from controls. The latest by the Senate was in 1976 when you voted 67 to 29 to exempt stripper oil. The stripper exemption has resulted in a dramatic reduction in premature abandonments of stripper wells. Stripper wells compose almost three-fourths of the domestic wells in this country, some 370,000 stripper wells. I do not mean production. I mean the number of wells when I say three-fourths.

Now we are proposing to tax stripper oil which is a step backward, a step in the wrong direction, after having recognized the importance of continuing production and stopping premature abandonment. We are going to roll back the price of stripper oil under this legislation. Any way you take it, gentlemen, this is unjustified. It is absolutely essential that we produce all the stripper oil that we can.

This bill will penalize deep marginal production. That is oil that produces in excess of 10 barrels per day but does not qualify for the decontrol stripper price. A lot of this oil costs far more than the selling price just to pump and produce, to dispose of the salt water. We have had much premature abandonment, far too much, of deep stripper production.

We have been promised by the Department of Energy on many occasions that it would be decontrolled but it has not been. This tax would impact heavily on deep marginal and certainly a very strong case can be made for exempting deep marginal production.

Probably the most important category this bill impacts upon is new oil. The cheap oil, the obvious oil, the easy and the shallow oil has been found. We are now looking for new deep, expensive to find oil and gas in this country. Anything that penalizes the exploration for new supplies of oil when we were relying so heavily on imported oil has got to be a step in the wrong direction and whatever you do you must exempt new oil from the burdens of any tax you choose to place on production of domestic oil.

Finally, much oil remains to be recovered in this country by enhanced recovery methods. It is behind the pipes waiting to be produced. It is going to be expensive. It cannot be produced presently at the economic limits available to producers.

This is going to be high-cost-production oil but it is oil that should be produced before we spend the same amount of money to import oil. We are going to have to drill a lot of injection wells, place expensive recovery processes, CO_2 and others. Not much of this oil will be produced if we impose the tax on this classification of oil. There is a tremendous front-end expense to these projects and a long delay in receiving money. We absolutely must exempt this type of oil from the burdens of any tax that we impose on new domestic oil.

Market pricing has been widely recognized as essential for each of these four categories we have just discussed and they should be without doubt excluded from any tax proposal coming forth from this committee.

This tax is particularly burdensome on the independent producers. Independents drill most of the new wildcat wells and find some 75 percent of the new wildcat fields in this country. Independents have one profit center and that is the wellhead revenues from oil and gas production. This tax would impact on that one profit center on domestic production only.

The independents are by far the most vulnerable to a domestic tax, any tax that changes our economics.

During the past 5 years independent producers have plowed back in excess of 105 percent of their gross wellhead revenues in exploration for new oil and gas. We have spent $34.9 billion during the time that our income has been $33.3 billion. We are financially leveraged to the very maximum. You can check with bankers. You do not need to rely on our word on that.

The only way we can expand domestic exploration is with expanded domestic revenues. The percent we reinvest is going to be determined by Congress and not by us.

Let's take the example of the decontrol and producer A who will receive $100,000 in additional income as a result of decontrol. He will put that $100,000 plus some more with venture capital into the search for new supplies of domestic oil and gas. If you tax it he will have only about $15,000 to $20,000 that will go back into the ground looking for new supplies.

That is why I say, and I think fairly, that the amount we reinvest in the coming years is going to be determined largely by you. We are going to spend 100 percent and more as we have historically done of our wellhead revenues in the search for new oil and gas. If you tax it we will be spending less.

Some people say a tax is absolutely necessary and we are going to have it. They cite a variety of reasons. One of the reasons cited is some of the major companies have made purchases of other businesses and other industries.

Gentlemen, if you put this tax on domestic oil you are not going to change that. They are making those investments from their worldwide operations. They are not making it from their domestic operations and there is no point in penalizing domestic producers simply because some of the companies have made other acquisitions. It just flat does not make any sense at all.

Some say we must have a tax because the profits are high. Some say they are inordinate. They talk about the first quarter taxes this year in the oil industry. If we are going to base taxes on the first quarter profits of any industry there are several industries that would rank well above the oil industry as a candidate for a tax on excess profits.

In 1978 according to Fortune magazine the return on investment for oil companies was 1.67 percent. The broadcasting and television industry's return was 33.34 percent. Are we going to put a windfall or excess profit tax on other industries?

I have never heard anyone talking about Boeing's profits being obscene and I think maybe you should compare their profits to most any oil company in the past few years if you are going to base taxes on excess profits.

Some say we need this tax because OPEC sets the price. As long as our demand exceeds the supply, the demand is going to set the price. The way we can change this is to increase our domestic supply. When we had an excess supply only a few short months ago, the price bid for oil went down not up.

The IPAA analysis shows that decontrol with no tax will create a supply response of at least 2 million barrels a day by 1985. This tax will do away with a substantial portion of that increased supply.

The President recently went to Japan at the economic summit there. He committed this country to limit the imports of oil to 8.5 million barrels a day. He did this at a time when our domestic supplies were still declining. The only way we are going to make up this difference that we need is to increase the domestic supply or we are going to default on that commitment, one of the two.

This tax will not be the encouragement needed to increase domestic supply.

The CHAIRMAN. I am going to have to stop you, Mr. Allen, at this time because your time has expired. I would like to ask every member to read Mr. Allen's full statement and to study the charts presented with the statement. They will have a chance to do that during the interrogation if they have not done it already.

First let me call on Senator Dole under our early bird rule. He was the first on the scene.

Senator DOLE. We have had some discussion yesterday with Secretary Schlesinger and before that was Secretary Blumenthal on whether or not the price of crude oil has kept up with the increased costs of exploration development and production of oil.

Does IPAA have any information on how fast your costs are escalating as compared to increases in OPEC mandated crude oil prices?

Mr. ALLEN. Our costs of finding oil have gone up and it depends on what period of time you use but it costs about four times as much to drill a well to 10,000 to 12,000 feet and drill it complete as it did back in the early 1970's.

Senator DOLE. If you have any information on that which you could furnish the record, it would be appreciated. I do not expect you to have it all.

Mr. ALLEN. We would be glad to submit more detailed information than I can recall off the top of my head. We would be more than happy to do so, Senator.[1]

Senator DOLE. I hope there will be a different approach on the Senate side to so-called windfall profit tax. There is no doubt in my mind that there will be some kind of windfall profit tax. The real issue is how we design the tax. As I understand taxes, the tax passed by the House and the tax proposed by the administration is not a profits tax. It is an excise or severance tax. The House tax is not based on profits.

It is my hope that we might modify the provision extensively on the Senate side. It has been suggested that perhaps we provide a small producers' exemption of 1,000 barrels a day. Have you considered that proposal? Would such an exemption have any beneficial impact?

Mr. ALLEN. Senator, we think if the Senate does get into passing a tax on domestic oil, it is absolutely essential that we do exempt the smaller producers from it. I have had my accountant read this thing three times. I have read studies from large national accounting firms that have studied this. I have talked to producers. I have talked to lawyers and accountants. I can assure you nobody understands it right now and knows what we are going to do.

I do not know how the big companies are going to comply with it but I know that the small independents cannot possibly comply with it. I think if you get into making a tax, you have to exempt the largest number of producers possible and I would encourage you to consider exempting everyone, for instance, that has more domestic oil than foreign oil if you are going to get into the exemption.

Senator DOLE. As I understand it, the tax is only applied to domestically produced crude. It would not apply to oil produced overseas. The house-passed excise tax would seem to discourage domestic development and encourage exploration and development and drilling outside the country. This result would not be good news for independents who drill about 90 percent of the wells because they may find it difficult to compete with foreign countries.

Do you do any foreign drilling?

Mr. ALLEN. No, sir. We have the wrong target with this bill.

Senator DOLE. As Senator Bentsen will probably point out if we are going to have any tax on crude oil, we should perhaps have a tax on synthetic fuel or any other form of energy. Do I understand from your statement that you would be willing to accept either a tax credit or a plowback provision under which you could reinvest profits into more energy production?

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[1] See part 3 of the hearings.

Mr. ALLEN. We have very serious reservations about a plowback, not that it would not work if properly structured but we have not seen one properly constructed. We do not know how we could meet the threshold expenditures if we first have to pay the tax and then apply for a refund to get it back. We have never seen it written in any form that will work.

For that reason we are not advocating a plowback as the last resort. We would like very much for you to consider an acceptable 100 percent plowback if you are going to enact a tax on domestic oil.

Senator DOLE. Do you have a specific proposal provision that you have been looking at or drafting that would overcome the problems you mentioned with reference to a plowback?

Mr. ALLEN. We have not seen anyone's plowback proposals that we think are workable. We think it is far better to exempt categories of oil such as I discussed, new, stripper, deep marginal, and enhanced, than to pass a tax on all oil and then provide for a plowback.

We will plow the money back as we have historically done. That is not the problem. The problem is we are going to get into the mechanics of a plowback which are going to be complicated and simply unworkable.

The CHAIRMAN. Senator Bentsen?

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

Mr. Chairman, Mr. Allen is a very distinguished citizen in my State and a personal friend of mine and a man who has had vast experience in this and we are fortunate I think to have him testifying. I welcome him here.

Mr. ALLEN. Thank you.

Senator BENTSEN. Let me say that I agree on the question of a plowback. There should be problems of regulation and redtape both from the Department of Energy and from the IRS. They would be fighting over respective turfs and you would have conflicting kinds of judgments and directions.

I frankly favor an exemption for the independent. The independents are drilling 90 percent of the exploratory wells in this country and finding approximately 75 percent of the new reserves.

Secretary Schlesinger testified before us yesterday. I asked him what happens to the independent with the windfall profit tax and what margin is actually left for him considering the risk that he takes. He said that an individual in the 70-percent tax bracket only get some 7 or 8 percent after taxes.

You cite a figure that the number of independent producers declined from 20,000 in the mid-1950's to approximately 10,000 today. That means, does it not, Mr. Allen, that more of the production has gone to the major companies and away from the independents?

Do you think that a windfall profits tax is going to increase that trend?

Mr. ALLEN. I do not think there is any doubt, Senator, that the tax if enacted is going to cause a severe further depletion in the ranks of independents and instead of having 10,000 we are liable to have 1,000 in a few years.

Senator BENTSEN. You are not going to have the young people coming into that business.

Mr. ALLEN. There is no way a young man could get in and do any good with the situation today at the cost of finding oil if you imposed this tax.

Senator BENTSEN. My friend Senator Dole said I would probably comment on the difference between synthetics and oil in this tax approach and I will. I do not understand the equity in it. I support the building of synthetic fuel plants. I want to see us go in all the directions we can to solve the energy problems of this country. When they say that if the price of a synthetic barrel of oil is $20, they are not talking about an additional 50-percent tax between $16 and $20, if it is from synthetic. If it is from bad oil, that bad image they have about it, if it is from oil in this country, then they are going to put the tax on it.

Can you see the equity in that? What we are trying to do is solve the energy problems of this country, whether it comes from real oil or synthetic oil, real gas or synthetic gas, why tax the one and not the other? The risk is in both.

Mr. ALLEN. The logic of placing a tax on domestic producers only which has its impact on domestic producers only has escaped the independent producers for quite some time, Senator.

Senator BENTSEN. Mr. Allen, I went up to the summit Monday. The thing I was trying to emphasize to the President was that the problems this country will have for the next decade are going to be on the supply side of the economy. Oil is the prime example. We have to attack the supply side. I believe the independent exemption will help.

Talk about stripper wells. These are going to be closed down unless there is sufficient economic reward to keep them in operation.

I think that a barrel of stripper oil is certainly more valuable to us than a barrel from the Middle East. I think part of this problem we are having today and inflation is a result of the upping of the price from the Middle East and having to take more of their oil.

What the Middle East countries have done to us will give us another million unemployed in 1980, will increase inflation by almost 2 percent, and will further give us a deficit in the balance of trade. It is absolutely critical to this country that we encourage exploration here.

I will have a stripper well amendment along with one for the independents which I hope that your association will support and members of this committee will support.

Mr. ALLEN. We certainly will.

Senator BENTSEN. Thank you very much.

The CHAIRMAN. Senator Baucus.

Senator BAUCUS. Thank you, Mr. Chairman.

I am happy to hear Senator Bentsen draw out the difference between independents and other oil producers. I would like to work with him on that kind of an amendment.

I want to ask a few questions on that subject. When I have talked to other people in the oil industry and asked whether there is a different effect from the windfall profit tax upon independents and the majors, some of the independents want to avoid that

question. I sense a consolidation within the oil industry generally, and attempts not to divide in any way.

From the previous discussion today, it seems like there is a significant difference between the independents and the majors as to the effect of this tax. My analysis is the same.

I wonder if you can candidly tell me the degree to which the tax will fall disproportionately upon independents compared with the majors who have overseas operations and marketing and distribution operations?

Mr. ALLEN. It does not affect overseas oil or imported oil. Second, the independents are drilling most of the new wells in this country, still about 85 percent of all wells and about 90 percent of the new wildcats. It is fundamental logic that we are the ones who are going to be affected most severely.

Senator BAUCUS. How would you fashion an independent exemption or different treatment for independents? You said you would look at the domestic side as opposed to the foreign production side of income. Could you give me a little more precise guidance?

Mr. ALLEN. I am sorry. I missed the first part of your question.

Senator BAUCUS. How would you fashion or how would you draft or what would the guidelines be, of an independent exemption or different treatment for independents?

Mr. ALLEN. From our standpoint if you are going to get involved in it and if you pass this legislation, we would encourage it, it should be as broad as possible. That is why I said you should exempt anyone who has more domestic production than foreign production. I think if you are going to get involved in it you should start it at least with 3,000 barrels per day. That will cover most of the producers and yet it will not affect the tax on the bulk of the oil.

Senator BENTSEN. Let me say on that, Senator, I have the 3,000-barrel proposal which will exempt as I understand it about 98 percent of the producers. It leaves the large companies.

Senator BAUCUS. How do the independents generally finance their operation?

Mr. ALLEN. From internal funds generated from our ongoing oil and gas production, what we do not spend for overhead, taxes, and bank note interest payments, we put back into the ground. That does not get us to 105 percent of our well head revenues obviously so we borrow on our existing production reserves. We cannot go borrow to drill a wildcat well but if we have production and the bank sees we are coming back and servicing the loan and interest with the cushion over a period of time, we can borrow on that. We go out and obtain venture capital from outside investors who have high risk money they are willing to spend in this high risk business. Those are the three sources.

Senator BAUCUS. Do independents generally sell their reserves? Once you get a well, a producing well, do independents generally keep that well or do they sell it?

Mr. ALLEN. A lot of them will find the field and develop it and then sell it and go look for another field. A lot of them keep it. It varies from company to company and individual to individual.

We do not own the percentage of oil that we find. We end up selling more of it than we keep.

Senator BAUCUS. I hear that the majors own 83 percent of the production.

Mr. ALLEN. They own a very substantial portion of the oil reserves in this country.

Senator BAUCUS. What is your reaction to some kind of Government agency to receive bids from OPEC?

Mr. ALLEN. We do not have much expertise on that. Logic tells me that is a very poor approach.

Senator BAUCUS. How else do we wean ourselves from OPEC? I agree we should stimulate more domestic production.

Mr. ALLEN. By making a crash program for alternate forms of energy and by encouraging domestic production to the maximum extent possible.

Senator BAUCUS. Do you have any specific ideas?

Mr. ALLEN. Yes. Get rid of this tax. Get rid of controls. Get the market price and that will do more than anything. We are not going to solve this overnight. We can let them know we are going to solve it and that will have more of a cushioning effect on prices than anything we can do. Go to market pricing in this country.

Senator BAUCUS. Thank you, Mr. Chairman. I have no more questions.

The CHAIRMAN. Senator Packwood.

Senator PACKWOOD. Mr. Allen, on page 7 of your testimony you refer to the fact that one of the most promising sources of domestic oil would be through enhanced recovery of existing resources from old reserves. Do I understand that to mean existing crude petroleum reserves that have not yet been taken out?

Mr. ALLEN. It is existing reserves that cannot be produced at today's economics or that cannot be recovered. What we are saying is not that the entire amount can be recovered but a substantial portion of the reserves we do not now recover with primary conventional methods can be recovered with enhanced recovery methods but it is going to be more costly and placing a tax on that is going to discourage rather than encourage it.

Senator PACKWOOD. These are already presently discovered crude reserves?

Mr. ALLEN. We are not producing them at the present time. We cannot recover the maximum amount possible with normal pumping methods, they need what is called enhanced recovery.

Senator PACKWOOD. Just listen to my question and answer my question. These are presently discovered reserves?

Mr. ALLEN. Yes, sir.

Senator PACKWOOD. You estimate 400 billion barrels of these presently discovered reserves. How much of that is recoverable under enhanced recovery techniques?

Mr. ALLEN. We do not know until we try. At least 25 percent or more should be.

Senator PACKWOOD. The other 75 percent at any cost is not recoverable?

Mr. ALLEN. Probably not.

Senator PACKWOOD. Why?

Mr. ALLEN. You just are not going to get all the oil out of the ground. No one has ever found a way to do it yet.

Senator PACKWOOD. It is physically unrecoverable.

Mr. ALLEN. Based on present methods. I am not an expert on that. We would have to get an engineer that knows more about it. Based on present methods, we do not know how to get the last drop of oil under the ground to the surface.

Senator PACKWOOD. Of the 400 billion barrels, your estimate is approximately 100 billion are recoverable under presently known techniques if the price is adequate to justify the use of those techniques?

Mr. ALLEN. Yes and I would like to emphasize that figure may be disagreed with by some of the experts. I am not an expert in that manner.

Senator PACKWOOD. No other questions, Mr. Chairman.

The CHAIRMAN. Senator Gravel.

Senator GRAVEL. Thank you. Mr. Allen, it is a pleasure seeing you here.

I have approached the problem from a different point of view and that is when the President uses the word "windfall" or when we all use the word "windfall" it means there is a windfall, there is a lot of money people are making. My perception of what is before us is an excise tax.

As you see the proposal, could there be companies that will be paying this tax, "windfall profit tax" that will not be making any profits, that could actually lose money at the end of the year and could still wind up paying a tax?

Mr. ALLEN. As I understand the proposal, you could be in bankruptcy and still owe the tax. It is entirely unrelated to profits. It is a tax on each barrel produced.

Senator GRAVEL. We have established it is not related to profits, it is just related to price. In the profits of the independents, how would you say they fare in the range of American industry? Let's say American industry by and large, average manufacturing hovers between 13 to 14 percent return on equity. It is a little lower for return on total capital. The high earners like Lockheed this last year had 25 percent return for 12 months' activity on their equity.

How would you rate the independents as an average for all the independents? Where do you think they would be in the American industry?

Mr. ALLEN. I would rate them with the entire industry in that their return is slightly less than all manufacturing in general historically and over a period of years.

Senator GRAVEL. I have seen the figures myself on that with respect to the majors. Those by and large are the people who are in my State. I would like to have you repeat it for the record that the independents in Senator Bentsen's State and the independents in Montana and the independents in Louisiana or Kansas or other States, what are you saying, they do not do as well as average manufacturing, people who make mobile homes in Indiana?

Mr. ALLEN. I am talking about the entire industry. I actually do not have a figure for independents as compared to the entire industry. It may be available and if it is we will get it and supply it for the record.[1]

[1] See part 3 of the hearings.

The only information I have seen in that regard is for the entire industry. My experience has been that independents are about the same as the majors as far as the return.

Senator GRAVEL. The statement you made earlier that they are just at or just a hair below average manufacturing is correct because that is where the majors are.

Mr. ALLEN. To the best of my knowledge. If it is different, I will try and make it available to you.

Senator GRAVEL. Very good. I think that would be most appreciated. I think that would be vital information to have, to know that there are no excess profits.

As an oil man, you must have reflected upon the national aberration that has beset this country against your industry. Why is it all of a sudden that you are being singled out for a tax of a nonexistent profit. Why do you think that has happened?

Mr. ALLEN. I think it is the same explanation perhaps as why was the oil industry singled out for cutback in depletion when we have 100 industries and 100 different commodities that are entitled to depletion and only the oil and gas suffered there. It is just oil is a convenient visible industry for such actions.

Senator GRAVEL. It has to be more fundamental than that in the American character, to take a major sector of its corporate enterprise, of its free enterprise system, and the sector which provides energy and then discriminate, demean it, ridicule it and when you have in your hands the very survival of our economy. Why are we doing this to you as a Nation?

Mr. ALLEN. I really cannot explain why. It is happening. We do our best to get out and visit with the public and explain the economics of oil and gas production. There is some indication the public is beginning to understand the problems of the companies and the public is becoming far more interested in supply than it is taxes. I think we are making progress.

We have admittedly a very long way to go in this industry and we independents have speakers bureau members out visiting all over the country. We do our best to educate Members of Congress and their staffs. We admittedly do an inadequate job and we are trying to do better.

Senator GRAVEL. Thank you. The Pitts Energy Co. publishes a map where the data comes from geologists. On that map the statement is made that 98 percent of the—you have it right there. I wonder if you could read that line about 98 percent? I think that is the most revealing statement I have ever heard in my knowledge on energy.

Mr. ALLEN. I think you are referring to the part which says:

> Most of America's oil and gas may still be untapped. Vast supplies of oil and gas remain to be produced because over 20 years of politically motivated low prices have left 98 percent of the prospective sediments untouched by drilling.

They are talking about areas where we have deep basins that have not been drilled yet. There are many areas in this country remaining to be drilled which are deeper and which are in frontier areas.

There are many areas where we have entire townships in some of our Western States which have been untouched by the drill. These are very promising areas. That gets into another subject of

withdrawal of Federal lands for exploration which is not the subject of this hearing but which is very vital to this country. We have to encourage domestic production and exploration on Federal lands to turn this thing around.

Senator GRAVEL. Would the chairman entertain placing that map in the record at this time? I think it is vital to his testimony.

The CHAIRMAN. I would be glad to do so. That is a color map, and I do not know whether we can produce it in color. I will ask that it be made a part of the record.

[The map referred to follows:]

Senator BAUCUS. Excuse me. Mr. Allen, does that include oil shale and other forms of oil?

Mr. ALLEN. That is conventional oil and gas only.

Senator GRAVEL. Just oil and gas, there is more there than we can grace over and all we have to do is get out of the way and let these people go do it.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Boren.

Senator BOREN. Thank you, Mr. Chairman.

Mr. Allen, I first want to commend you for the good sense that is reflected in your statement. I would like to go back to the stripper production issue. Yesterday Secretary Schlesinger in his testimony talked about the importance of prolonging the production from the old fields, a fact that has been recognized by Congress again and again by giving stripper oil special treatment, special incentive treatment in the past and allowing it to be decontrolled to the world price.

The Secretary did admit this bill resulted in a rollback of the price for stripper oil. Would you describe how this rollback occurs? How much of a rollback are we talking about on stripper oil and what kind of an impact in discouraging its production do you think it will have?

Mr. ALLEN. As I recall, the rollback would be to $16 and the present bids on stripper range from $18 to $21. Whatever the bid is at the time this bill is passed, if it is passed, if you leave $16 in there, that means the rollback in the price to $16 and you will be taxed at whatever percent of stripper you are going to tax over and above $16. That will mean many of the wells will be abandoned quicker than they otherwise would.

Any time you put a tax on stripper oil, you are shortening the life of it and it does not make sense to shorten the life of it when you are bidding it in at the same price you are paying for foreign oil. We should produce every barrel of it. It certainly should not be subject to a tax.

Senator BOREN. If we took the current price of stripper oil, stipper oil is going to end up worse off and have a rollback of $3 or $4 a barrel compared to the status quo.

Mr. ALLEN. Yes and that impact would be very heavy on the independents for stripper production.

Senator BOREN. You talked about the total amount of production that will be reduced with the windfall profit tax, the excise tax, as opposed to not having a tax. How much production say over the next 5 years will we lose in barrels if we apply this tax that would otherwise be produced?

Mr. ALLEN. Probably by the end of 1985, somewhere around 1 million a day. If the increased response is 2 million a day by 1985, we will be losing in excess of 1 million barrels a day by 1985 with the tax.

Senator BOREN. I think that figure has some significance, a loss of 1 million barrels a day when you think about the fact that the American people through the thermostat adjustment and the impact it is going to have on retail sales, the economy, in order to achieve a savings of perhaps 200,000 to 300,000 barrels a day and yet we are turning around advocating the imposition of a tax that

may well cost us in the neighborhood of 1 million barrels a day. It does make you wonder what is going on.

Mr. ALLEN. This domestic production that we lose will be made up from importing if we can in fact import it and if the 8½ million lid does not come into play. If that comes into play we are just going to lose it period.

Senator BOREN. Let's go back to this estimated 400 billion barrels of oil that is still in the ground and we know where it is and we simply cannot produce it under the current economics because we cannot afford the enhanced recovery techniques.

I think that compares with something like an estimated 100 to 200 billion barrels reserve in Mexico which has received widespread publicity. We have in our own country somewhere between two and four times as much oil still in the ground that could be recovered through enhanced recovery as we are talking about in terms of the very dramatic statements about Mexican reserves and reserves of Saudi Arabia and so on.

As I understand it, while the reserves through enhanced recovery are so promising a source for us, perhaps even still cheaper than some of the synthetic fuels when you get up into the $25 to $30 a barrel range, you might well be talking about recovery at $20 a barrel with an untaxed enhanced recovery yet this bill applies taxes against production recovered through enhanced recovery?

Mr. ALLEN. Yes, sir. I am informed that many of the experts think we can recover half rather than the 25 percent figure I gave earlier. I am not real well informed on those percentages because I personally am not involved in those kind of projects. If we could recover 200 billion more barrels by enhanced recovery——

Senator BOREN. At $20 or $25 a barrel?

Mr. ALLEN. Anything we do to discourage that production is counterproductive and very unwise to national policy.

Senator BOREN. I will quit with this statement. It goes back to what Senator Bentsen said earlier.

We are talking about maximizing the production of energy. We are talking about putting the largest tax increase in the history of the United States in one fellswoop on the American people and they are going to pay it because they are paying the prices and 60 or 70 percent of what they are paying has been taken into the Government coffers and then we are talking about creating a huge bureaucracy to divy out this largest tax increase in the history of the United States and we all know the 30 or 40 percent overhead that is going to take or maybe 90 percent if we go back to the story the little girl who wrote the letter to Santa Claus when she asked for $1 and got a dime, she wrote back and said please do not send it through Washington next time.

When we think about all of that and we think about producing synthetic fuels and setting up this bureaucracy and this huge tax in order to get more synthetic fuels produced at maybe $25 a barrel, how in the world when we have potentially 200 billion barrels of oil that could be recovered through enhanced recovery, how in the world does it make any sense to levy huge taxes on that, discourage that production so we can take that same money and bring it up here and produce it at higher costs and at much higher cost to the taxpayers of the United States?

Mr. ALLEN. Senator, if you will permit me to say so, I think it amounts to economic illiteracy.

Senator BOREN. I certainly can say amen to that.

Thank you, Mr. Chairman.

The CHAIRMAN. I held myself back to last and I will be sort of the clean-up hitter on this situation.

I notice on page two of your statement you say that over a 17-year period the number of people in your business, the independent producers of oil and gas, was reduced from 20,000 down to around 10,000. That happened because of cheap foreign oil being brought in here and just slaughtering your members, was it not?

Mr. ALLEN. Yes, sir. We were not able to compete.

The CHAIRMAN. You could not compete with that cheap foreign oil being produced at that time. Some of the majors made a lot of money out of that but, as far as your people are concerned, they just had the privilege of going broke.

Mr. ALLEN. We did lose about half of our producers during that period of time.

The CHAIRMAN. Those who managed to survive were not doing very well, were they?

Mr. ALLEN. Most of them were just hanging on until 1972.

The CHAIRMAN. It was the cheap foreign oil that kept the price so low that 50 percent of your people were put out of business, right?

Mr. ALLEN. Coupled with the natural gas problems during that period of time in which the price of natural gas was controlled at 17 cents or less. There was no economics in natural gas at that time.

The CHAIRMAN. When the price of oil and the price of gas were held so low by trade and regulatory policies, at least half of your people could not survive and at least half of them could not survive and the others did well to hang in there at all. Then when the price goes up because the foreigners have raised their price, you are then told that is a windfall profit. That is sort of hard to take, is it not?

Mr. ALLEN. We do not consider it a windfall profit when you return to market pricing. We think it is really just that, returning to market pricing. Until we have the market production in this country we are not going to set the prices.

The CHAIRMAN. It was deliberate decisions made in Government mostly by the executive branch that made this Nation energy dependent on foreign producers. Is that correct?

Mr. ALLEN. Yes, sir.

The CHAIRMAN. When they talk about the world price being the OPEC price, the reason it gets that way is because decisions made in Washington so nearly destroyed the domestic industry that there is no hope of a domestic industry at this point providing the American people with their requirements of energy. Is that right? No immediate hope.

Mr. ALLEN. No, no immediate hope. We are not going to turn this thing around overnight.

The CHAIRMAN. It takes time. Seven or ten years at best.

Mr. ALLEN. It is going to take quite a period of time and during that period of time we are going to be very dependent on domestic

supplies. We should not discourage domestic production during the next decade with any kind of a tax.

The CHAIRMAN. The reason the Nation is so vulnerable to a high price of energy is because the Government made decisions which meant that this Nation cannot provide anything close to its need of energy and it has to rely upon OPEC for supplemental energy.

Mr. ALLEN. That is the marginal source and therefore we are dependent upon them.

The CHAIRMAN. In some respects, if you did not have Federal price controls, the OPEC price would still be holding down the domestic price because the industry can no longer provide the need.

Mr. ALLEN. I think given the proper incentive this industry could increase the domestic oil production like it increased the domestic natural gas production very materially. I do not agree with those who say we can never make significant discoveries of new oil in this country, it is not to be found. I have seen too much technology that is available to the industry and will come with increased prices.

I feel very strongly that if the Government would give us the market pricing, we will materially increase domestic supplies of crude in this country quicker than anyone with conventional wisdom says we possibly can and to a greater degree than they say we can.

The CHAIRMAN. I would like you to elaborate a little further on this chart which shows that in 1973 through 1977 the independent producers had revenue of $33.3 billion and expenditures of $34.9 billion. I would like you to indicate what these areas of other finding and development costs and production costs are.

Does that include the taxes you paid or the interest on the money?

Mr. ALLEN. This is information compiled by the Census Bureau. It is not IPAA supplied data.

We are talking about the costs including production costs, pumping costs, the actual costs of producing the oil once it is found. We are talking about prior to the time it is found. We are talking about drilling costs. Prior to the drilling we are talking about land acquisition, geological, overhead, the expense you incur with your employees that help make the search. We are talking about the total expenditures independent oil and gas producers incur including interest on the money and everything else, the cost of doing business.

The revenues are the wellhead revenues we receive from the sale of oil and gas. The reason we have spent more than we have taken in is because we have borrowed on existing production and we have taken in income from outside investors, venture capital in our search for new oil and we will continue to operate in the same manner in the future.

The CHAIRMAN. Based on that chart, do you think you could confidently predict if your group were permitted to make the higher price that would otherwise be indicated for their oil, that they will put that money back into the ground and get more production?

Mr. ALLEN. There is no doubt in my mind they will do it. They always have. That is their very nature. They are always looking for

more production. That is the business they love. They are going to take whatever funds are available to them and put it in the ground looking for new sources of oil and gas, to the extent we tax it away from them, it is going to the Treasury. Do we want it to go to the Treasury or do we want it to go look for new exploration? That is the question you gentlemen have to decide.

The CHAIRMAN. I can recall those days when the small producers used to "poorboy" a well in. They would go out and get a lease, find somebody to put a little money into it and drill down a little ways. When they would run short on money they would go find somebody else, sell them an interest in the lease and dig a little deeper. If they still had not found anything they would go see if they could find somebody else to sell an interest to. They had to be careful—sometimes they might wind up selling more than 100 percent of the well before they found anything.

That was in the tradition that if you had a chance to find something and make some money, you could always talk somebody into putting some money into it. This old gent who found the east Texas field which was probably the biggest field at that time that had ever been found in the United States, was said to have picked up the money by selling a little interest to some little waitress in a cafe and everyone else he could find, to find a few bucks here and there.

Do you think if there is a prospect of making a profit here that there would be a lot of investors who would be willing to put some dough with these independents to help try to find some energy?

Mr. ALLEN. Yes, sir. The investors are looking very carefully now at what Congress does about the tax because the replacement value is about equal. It is in excess of the average price we receive. They are going to put the pencil to it. If it is more economical in their minds and if they have a chance of making some money at it, they are going to put money in it and if they are going to make more at a savings and loan, that is where it is going to go.

The CHAIRMAN. Senator Bradley?

Senator BRADLEY. No questions, Mr. Chairman.

The CHAIRMAN. Senator Matsunaga?

Senator MATSUNAGA. Thank you, Mr. Chairman.

Mr. Allen, as one member of this committee, I would like to sponsor a bill to erect a monument to the IPAA for having saved this country of ours from the energy crisis we face today. To do this I would like to know what incentives we might be able to provide your industry so that you would go ahead and produce enough oil to meet the crises.

I am wondering whether or not there are any incentives other than monetary profits which could motivate you to help our country become self sufficient in energy.

Mr. ALLEN. I think the incentive most favorable for the independent is simply resort to market pricing for all oil and forget taxing any classification of oil and go to market pricing and pay the domestic producer for any barrel of oil he has the same thing you are paying for imported oil. That would do more to bring on outside investment capital to increase our cash flow to increase the drilling rate in this country than any single thing you could do.

The drilling rig count is down. This is a national disgrace. It is down far under what it was 6 months ago. We should be running 3,000 rotary rigs now. We are running 2,066. The way to turn this thing around is simply resort to market pricing and forget about any tax on any category of oil. That is the best thing you could do.

Senator MATSUNAGA. Are you saying that the proposed windfall profit tax will not permit you to increase your drilling rate?

Mr. ALLEN. It is going to inhibit the amount of production we can do. It is going to inhibit the amount of exploration we can do. There is no question about that, Senator.

Senator MATSUNAGA. Are you saying that your profits today are insufficient to give you any incentive for further development?

Mr. ALLEN. No, sir, not to further develop. We put the money or the funds available to us in the ground today. What I am saying is the tax is going to be a negative impact in that we will have money going to the Treasury that should be going to look for new oil and gas.

Senator MATSUNAGA. The oil companies have been accused, especially since the recent gasoline shortage, of not reinvesting enough of their earnings into domestic exploration and development to produce more energy, but instead they have been investing in other unrelated types of businesses, to create new conglomerates. Is there any truth in such an accusation?

Mr. ALLEN. Not insofar as independent producers are concerned. We have been reinvesting more than 100 percent of our wellhead revenues in the search for new oil and gas.

Senator MATSUNAGA. IPAA is only in oil and energy?

Mr. ALLEN. Not IPAA. The members of IPAA are the independents whose primary business and goal in life is to find more oil and gas and that is what they spend their funds for. I am sure they are involved in other things.

Senator MATSUNAGA. What percentage of the present domestic production comes from IPAA members?

Mr. ALLEN. It would be less than 40 percent of the present domestic production that is owned by the members of IPAA.

Senator MATSUNAGA. Thank you. No further questions.

The CHAIRMAN. Senator Bradley?

Senator BRADLEY. Thank you.

I would like to ask a few questions of Mr. Allen. Could you tell me why you think domestic oil production was down in the first quarter of 1979?

Mr. ALLEN. It has been declining for several years and this is just a continuation of the decline. It always decreases a little in the winter because the physical act of getting the oil out of the ground becomes more difficult particularly in the mountains and in the West, North Dakota and places like that and even in the Southern States you have a little more difficulty in the winter. The basic reason the production is down is because it has been declining for a number of years and will continue to do so until we increase the domestic activity.

Senator BRADLEY. In response to a series of questions I posed to the Department of Energy as to why domestic production was down, their response was it was down the normal decrease due to

the difficulty of the winters. They replied it was down 215,000 barrels more than is ordinary in the winter.

Could you shed any light on that?

Mr. ALLEN. No, sir. Every producer I know is producing every barrel he can physically produce. It does not make sense to hold back and reduce your cash flow.

Senator BRADLEY. Do you think it is possible to increase domestic production demonstrably higher than it has been since 1971?

Mr. ALLEN. I think we have been looking at a period of decreased production because of unfavorable Government policy and discouragment. I think with market pricing we would see a far greater increase than the people who studied the charts of the decline which has occurred during periods of excess controls and price controls and regulations are willing to admit is possible.

They are looking at what has happened under controls and are saying we are going down and we are losing production. I think if we restored market pricing in this country, that curve would turn around and I think it would go up far greater than most of the doomsday people who look at statistics and say we have had it.

Senator BRADLEY. Have you thought what it might go to if we were in a totally decontrolled environment?

Mr. ALLEN. No. I think it would increase far more than the 2 million barrels per day by 1985 that we have projected simply if we decontrol the prices. My personal feeling is that figure our economists came up with is very conservative.

Senator BRADLEY. You say the 2 million barrel increase in domestic production by 1985 is a conservative figure?

Mr. ALLEN. That is my personal opinion.

Senator BRADLEY. Do you think there would be any more activity from some IPA members as opposed to majors?

Mr. ALLEN. I certainly do.

Senator BRADLEY. Why do you suppose that is so?

Mr. ALLEN. Because we would have a greater cash flow internally. We would have more people interested in investing with us if the profitability looked better. Due to the increased cash flow we could borrow more on our reserves. They would be worth more as security at the bank.

We would take this money from those three sources and put it back into the ground and search for new domestic supply.

Senator BRADLEY. Why would it be of any greater advantage to you than to the majors?

Mr. ALLEN. It would be a great advantage to both of us.

It would be an advantage to anybody in the business.

Senator BRADLEY. Do you approve of the Government's handling of public land oil? Do you approve of the lottery system?

Mr. ALLEN. I think the lottery system has some abuses to it. I would not want to see it abandoned altogether. I would like to see some changes in it. We have a paper on that we would glad to submit to you.[1]

Senator BRADLEY. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Dole?

Senator DOLE. I have one question. I do not know whether you have figured the revenue costs if we exempt all categories of pro-

[1] See part 3 of the hearings.

duction that you would exempt. How much will these proposed exemptions cost?

Mr. ALLEN. I think if you exempt all the categories I discussed and leave the tax on lower and upper tier, I think you are still talking about taxing 6 million barrels a day. I do not know exactly how much revenue that would bring in. I am far more concerned with increase in supply than I am with increase in the Treasury.

Senator DOLE. I agree with that. I think Senator Bentsen stated this case very well.

I am not suggesting how it might happen in the Congress, but it might be necessary and desirable to have a plowback. I understand that a plowback might be complicated. There are some people who do not want to pay any tax. That might be one reason for opposition to a plowback.

If independents put all their money back into the ground, I do not see why there is so much opposition to a plowback provision.

Independents drill 90 percent of the wells. Do any majors participate in some of that 90 percent?

Mr. ALLEN. Sometimes they have a small interest in some acreage. They have contributed and they keep their position and they pay their share of the expense of drilling and completion.

Senator DOLE. When you tell us that independents are drilling 90 percent of the wells, you are not suggesting that majors do not participate in significant number of those wells.

Mr. ALLEN. If they own acreage and want to participate, that is their privilege and sometimes they participate and sometimes they farm out to us.

Senator DOLE. Do you have any figures on the percentage of the 90 percent that the majors also participated in?

Mr. ALLEN. No. It would be primarily independents. For the most part, the wells we drill we own or other independents own the big interest in them.

Senator DOLE. In the last weeks there has been sort of an ongoing summit conference on energy and recession. I would assume that any group with the energy activity of the IPAA has probably been to Camp David to discuss the future of the energy.

Mr. ALLEN. Our telephone must not be working, Senator.

Senator DOLE. I thought maybe you could not stand the altitude.

Senator GRAVEL. You mean you were not invited to Camp David?

Mr. ALLEN. We did not receive that invitation. We find it somewhat strange that the only people who can turn this thing around, not only were not considered in this bidding but have tried and tried to talk with the administration and the President about how to solve this and we cannot get in the door over there. We do not understand that, Senator.

Senator DOLE. That is the point I want to make, not that I have ever been partisan.

Senator GRAVEL. I only broke in to help you.

Senator DOLE. I appreciate that because it is not a partisan matter. We are talking about gaslines. I guess Republicans and Democrats alike are found in gaslines and so are a lot of independents, but not independents of your type. There are more and more political independents every day because they do not think the

Republicans or Democrats have ever addressed the energy problem head on.

If we were going to solve an energy crisis, we should have a meeting with those who explore for and produce energy and maybe the religious leaders also. I do not know if you pray for energy or drill for it.

Mr. ALLEN. We do both.

Senator DOLE. Maybe you do a little of both if you have your money in there.

It does not seem consistent that everybody go to the mountain, but I guess there may have been at least one oil representative consulted. Of course, there were a lot of Government people and a lot of very outstanding members of this committee invited to the mountain, but some outstanding members were also not invited.

We must have the same phone number. That is all I can say.

The CHAIRMAN. Senator Bentsen?

Senator BENTSEN. Mr. Allen, I would like something clarified for the record if you can get us the numbers. When I was talking about an amendment that I will propose for a 3,000 barrel exemption, I said that should exclude approximately 98 percent of the producers from all the regulations and the redtape and the disincentive toward exploration.

My understanding also is that this represents some 10 percent of the production. I would like that clarified for the record.

Mr. ALLEN. I think you are correct. We do not have an exact number on that. We are working on that right now. As soon as we come up with something we consider reliable, we will furnish it to you and to the committee.[1]

It is a very difficult number to come by but we are doing our best.

Senator BENTSEN. I know how a lot of people say if they are really drilling 90 percent of the wells and they are finding 75 percent of the production, why do they only represent 10 percent of the current production. The reason obviously is that you have to pay off the bank. When you do find it you sell the production and you refinance and you start all over. That is the history.

Mr. ALLEN. That is just the nature of the independents.

Senator BENTSEN. Until he finally loses it or he gets old enough to retire.

The CHAIRMAN. I want to ask this of you to get the matter straight about the energy costs. Some people seem to think we are running out of energy and we cannot provide our energy requirements.

I have been thinking about this a little bit and I have participated in your business. I was once an independent producer. I persuaded my family we should get out of it back in the days when the 10,000 got out. We were part of the 10,000 who got out.

It is beginning to look good enough now and some are beginning to go back in. I think you will find quite a few others who will get back in if they think maybe they could make a profit.

Is it not true if you want to put enough money into it, you can be energy sufficient? It is just a question of putting enough money into it and trying to use the most reasonable technology.

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[1] See part 3 of the hearings.

For example, someone was just pointing out to me the other day that we can provide for our entire energy requirements with solar energy alone. In order to do that you are going to have to provide enough solar receptacles to cover as much area as all the highways and roads and city streets cover in the entire United States. You have to have that much solar receiving area to do it, and it would cost a huge amount of money—but it could be done with solar energy alone.

We have enough coal to last us for hundreds of years and you could do it with coal and with the energy you would make from coal.

You could probably do it with shale. You could perhaps do it with the geopressurized brine and methane that exist beneath Louisiana and Texas and in other parts of the world.

The point is it can be done in any one of several different ways. It is just a matter of cost. In any event, if you were to put enough money into it, you could be energy sufficient.

Is that right or wrong in your judgment?

Mr. ALLEN. That is absolutely right. This business is like any other. The entire energy industry is just a function of economics. If the economics are there, the energy is there.

The CHAIRMAN. We could be energy sufficient with solar energy, knowing what little we know about it now. It would just cost a great deal more to do it that way. Is that right or wrong?

Mr. ALLEN. That is right.

The CHAIRMAN. Furthermore, since the price went up, people thought they could afford to drill down deeper and they might do better if they did. Drilling those wells just in Louisiana down to that Tuscaloosa sand, they found a huge amount of gas. I am told the amount of gas they found down there and that is around 20,000 feet cost $6,000 to $8,000 a well and I am told the production is absolutely fantastic in those wells and that may provide more gas than the State of Louisiana has been able to produce in its history. Louisiana exports more gas than almost all the rest of the States put together.

Is that conceivable?

Mr. ALLEN. I think that is a very significant find. You said $6,000 to $8,000. You meant $6 to $8 million per well. I think we have a vast potential for gas at deeper depths in this country, natural gas. It is just a function of economics as we have discussed.

The CHAIRMAN. It just costs a great deal more.

Just a short time ago, let's say 8 or 10 years ago, you would have thought a deep well would be a well for about how much?

Mr. ALLEN. We could not have drilled to these depths 20 years ago. The first deeper wells cost in excess of $20 million. That is down. The technology is available. It is down to $6 million and some are 20,000 foot wells in west Texas where the pressures are not so high and it is down to $2.5 million. Any way you take it that is a lot of money.

The CHAIRMAN. Thank you. Are there any further questions, gentlemen?

Senator GRAVEL. One question on the gas to get it graphically. Seven years ago I understand there was no gas wells below 5,000 feet essentially in our country.

Mr. ALLEN. I am not sure what number of years ago but we used to not be able to drill below 3,000 feet many years ago.

Senator GRAVEL. No more than 3,000 feet was the average?

Mr. ALLEN. Yes. The technology has advanced over the years through the grades of pipe available, the drilling equipment. As the Senator pointed out, we are now drilling below 20,000 feet and we have drilled in Oklahoma a well below 30,000 feet which was a dry hole but in the future we will be looking at deeper depths as the technology becomes available.

Senator GRAVEL. The point I was driving at is with the price of gas regulated, that alone and not technology was the limitation of depth. If you were going to get so much return from the gas you found at that depth, even if you went deeper, you would not get the money to cover the cost of going deeper so you just plain did not go deeper. It was just like a Federal law saying nobody in this country can dig deeper than 5,000 feet for natural gas.

Mr. ALLEN. There was no economics at a low controlled price.

Senator GRAVEL. We cushioned the shot by the laws of economics but it was really a law that we passed.

Mr. ALLEN. That is right.

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

[The prepared statement of Mr. Allen follows:]

STATEMENT OF JACK M. ALLEN, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

My name is Jack M. Allen, I am president of Alpar Resources, an independent oil and natural gas producing company in Perryton, Texas. I appear here as president of the Independent Petroleum Association of America, a national organization of independent petroleum explorer-producers having some 5,100 members in every producing area of the nation.

We welcome and appreciate this opportunity to present our views on H.R. 3919 which would impose a punitive, massive and very complex federal wellhead tax on domestic crude oil. It is important to recognize that the House of Representatives only had a choice between this legislation which represents disastrous energy policy, and an even more onerous proposal structured by the Committee on Ways and Means, which would have been catastrophic energy policy. In choosing overwhelmingly the more moderate of the two choices, we believe a majority in the House of Representatives demonstrated a deep concern that this legislation would defeat the need to maximize domestic petroleum resource development in both the short and long term. We believe, further, that the House would have chosen to encourage rather than discourage domestic oil production—had it been given that choice.

The U.S. now clearly faces the necessity to attract unprecedented capital resources into the development of its domestic petroleum resources. H.R. 3919 would drain away critically needed revenues and frustrate expansion of domestic petroleum exploration and production. It is our purpose here to set forth some facts and considerations which demonstrate that H.R. 3919 is contrary to the national interest.

The legislation approved by the House unfortunately does not signify any new direction in Federal Government energy policy. It represents just one more in a long series of actions through which the Federal Government has pursued a course of discouraging domestic energy resource exploration and development. This deliberate Government policy has persisted for a quarter century and has been singularly effective: It has thinned the ranks of independent explorer-producers by 50 percent. It has increased concentration of ownership of resources, thus reducing competition. It has signaled to the money markets that domestic petroleum resource development is a questionable investment, at best, thus causing a massive flight of capital from petroleum exploration and development. In a 17-year period beginning in 1956, the economic climate controlled by government policy was so repressive that it led to the virtual dismantling of the domestic petroleum producing industry.

In this 17-year period, while the demand for petroleum fuels in the United States almost doubled, the private recession experienced by the domestic petroleum producing industry was reflected in the following facts:

Total well completions declined by more than 50 percent, from more than 58,000 in 1956 to less than 29,000 in 1972.

Almost 60 percent of the drilling rigs in the United States were deactivated and/or cannibalized.

Exploratory drilling decreased from 16,200 wells to only 7,500 wells, a drop of 54 percent.

About half of the independent oil and gas explorer-producers who numbered 20,000 in the mid-50's sold out, quit and are no longer contributing to the only practical solution to the Nation's energy problem, greater domestic production.

To ignore such experiences is to lose perspective of how we got where we are today, with domestic oil production in the lower 48 states in its ninth year of decline. The energy problem today and in the years ahead is no different from what it has been in years past; it can be overcome only by creating a climate for unprecedented investment to develop and produce our abundant energy resources, conventional and unconventional. This cannot be done by trading in a bankrupt system of arbitrary price controls for an ill-conceived system of punitive crude oil taxation.

It would be difficult to overstate the dimensions of the economic and technological challenges which must be met if the United States is to achieve relative energy independence. Some have spoken of the challenge in terms of crash efforts such as the Manhattan Project, or NASA's "Man on the Moon" program. However, both in time and money, these projects pale when compared with the need now confronting America to marshal its "can do" spirit and puts its innovative skills to work in meeting our future energy needs. The task will require confidence in our collective ability to do the job. It will require recognition of the fact that we will be playing the most monumental game of "catch up" ever to confront this nation, if we are to reduce an unacceptable 45 percent dependence on foreign oil to more tolerable levels.

Most important of all, it will require bipartisan political support for an economic climate that will induce the private sector initiatives, at costs dwarfing all past efforts, to move the country ahead in development of all its energy producing capabilities. It may sound good to talk about a broader Government role in energy production, but experience has demonstrated Government can, at best, effectively play only a supplementary role in research. Government's primary role must be to induce the private sector to commit the unparalleled funds now needed to secure America's energy future. To do this, Government must reverse the policies of over-regulation it has followed for 25 years. On huge capital-intensive projects, such as synthetic fuel plants, tax credits to private industry would be far more effective and efficient than direct ownership and control by the Federal Government.

In the rest of this century, we must think in terms of capital requirements of $1.5 to $2 trillion for maximization of conventional energy production and for the first generation technology for liquid fuels production from shale oil, coal and tar sands.

For most of this transitional period until entire new energy systems are in place, conventional oil and natural gas will continue to dominate the energy mix. Recognizing this, it is clear that present domestic petroleum development activity must be doubled at a cost approximating $40 billion yearly in the 1980's.

Where will such sums be found? Primarily, they will have to be generated at the wellhead from sales of crude oil and natural gas. In addition, the prospective profitability from domestic petroleum production will have to be favorable enough to justify the confidence of financial institutions which will be required to underwrite through loans a substantial portion of future petroleum exploration and development.

It is clear that the tax scheme proposed in H.R. 3919 would severely limit internally generated funds available to the industry, and seriously cloud the prospect for generating venture capital from traditional investors and lenders. The tax is so complex, applying to variable quantities of a multiplicity of categories of crude oil, that it would impose unbelievable record-keeping involving very large costs and subject to constant errors and penalties. We believe its complexity would defy error-free compliance by the conscientious, and invite abuse by those who always stand ready to exploit and manipulate such programs.

President Carter, in the recent economic summit in Japan, committed the United States to a limitation of its import dependence to 8.5 million barrels daily. Unless the present declining trend of domestic production is reversed, it is doubtful that this commitment can be fulfilled. If Congress now chooses to replace the confusion

and uncertainty that has frustrated the industry under price controls with new confusion and uncertainty under a complex system of taxation, there is little hope that domestic production can or will be increased.

The legislation now before this committee, I believe it fair to say, represents an act of broken faith with the domestic industry. In 1975, when the Energy Policy and Conservation Act (EPCA) was enacted by Congress, the industry was assured that it would be subjected to just 40 more months of controls. A great deal of the investment that has occurred has been made on the strength of that assurance. Now, in another "Catch 22" scheme, the industry is confronted with the Federal Government reneging on its assurances. Instead of controls by arbitrary price ceilings, we are to get controls by punitive taxation. The result is the same: producers and consumers of domestic oil are denied the economic wherewithal to replace the petroleum fuels currently being consumed.

This breach of faith is even more difficult to understand when applied to specific categories of production. On three occasions, the Congress has voted to exempt stripper wells—those producing not more than 10 barrels daily—from price controls. In 1976, the Senate last expressed its intent in this regard overwhelmingly, 67-29. The result has been a dramatic reduction of premature abandonment of these very marginal wells, and an unusual effort by independent producers to maintain the productivity and extend the life of these wells which number some 370,000, almost three quarters of the total wells in the United States. Now, under the House-approved bill, production from these wells will be subjected to the third tier or "OPEC" tax, permanently. This is a clear and unjustified case of signal switching on the part of our government, and is unjustified by any conceivable standard of judgment.

Likewise, a great deal of recognition has been given to the reality that many producing oil wells qualify as marginal wells based on factors other than production. Deeper wells, drilled at greater expense, and produced at far greater lifing costs, can indeed be marginal economically—and we have experienced the abandonment of many such wells because their revenue under price controls simply did not cover their cost of operation. The principle of the deep marginal wells has been accepted and well-established, and many in Congress have supported complete decontrol of such wells, recognizing that every barrel of production prematurely abandoned at controlled prices must be replaced by a barrel of imports at world prices. The Administration now has added its recognition of this economic fact, elevating wells from the low tier price to the upper tier category, and ultimately to a modified world price. These wells too should be exempted from any tax since their marginality has long been recognized and clearly established.

Finally, I know of no single principle that has had more universal recognition than the need to establish market pricing for new petroleum resources found and produced in the United States. This results from the recognition that no more low cost oil is to be had in America; all the easy and obvious structures long since have been drilled. In the past five years, the average new oil well drilled in America has produced about 35 barrels daily in its first year. At today's unprecedented drilling costs, new production in America qualifies as marginal relative to any foreign area within my knowledge—and no one I know in the industry believes domestic exploration will or can be maximized so long as the price of new oil is controlled, whether through arbitrary ceilings or punitive taxes.

It likewise has been widely recognized that one of the high-cost but promising sources of domestic oil will be through enhanced recovery of existing resources from old reservoirs. An estimated 400 billion barrels of such oil is in place. An increase of one percent in recovery could mean an addition of four billion barrels of domestic oil, with no finding costs. The most promising future enhanced recovery techniques involve very high cost tertiary processes. These systems will simply not be widely developed so long as the resulting production is subjected to price controls or prohibitive taxes. Production from such projects therefore ought to be permitted at market prices, because each barrel not produced is a barrel which must be imported on OPEC's terms.

Again, I point out that the need for market pricing of these high cost and marginal categories of production—"new" oil, stripper oil and "deep" marginal oil, and enhanced recovery—has been recognized in both the Congress and by the Administration. Much of what has occurred in the industry with respect to increased production from these categories was stimulated by this political recognition of their extreme cost an/or marginality and many signals suggesting a return to market pricing for such oil.

Producers, therefore, do not understand the blanketing in of these categories under any tax proposal, and believe this amounts to deliberate breaking of faith by

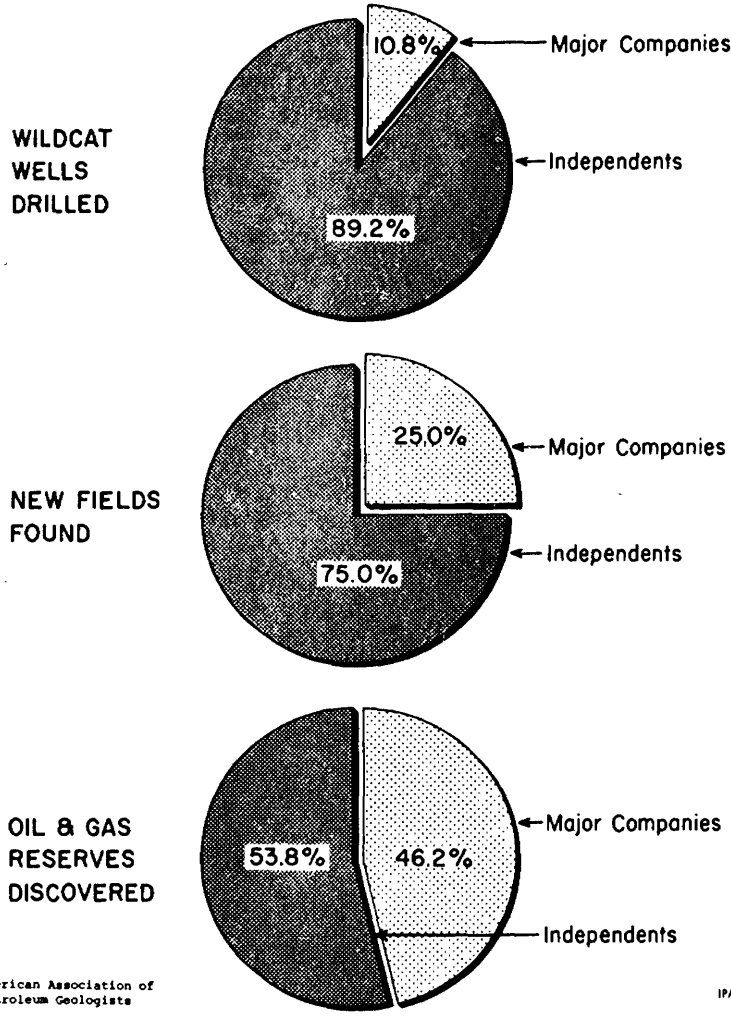
both the Administration and the Congress. This kind of equivocation can only be described as counter-productive government policy.

Now, I would like to discuss briefly the role of the nation's independent producers whose operations would be impacted most severely by H.R. 3919. The tax would be particularly onerous for independents because they have one primary profit center which is the revenue, at the wellhead, from the sale of crude oil and/or natural gas. From this profit center must come the internally generated funds for continuing exploration and production to replace the petroleum fuels currently produced and consumed.

Independent producers approximating 10,000 numerically, traditionally and currently have accounted for nine of every 10 exploratory or new field "wildcat" wells drilled to find new domestic oil and natural gas. The attached chart "Role of Independents" reflects the results of a study by the American Association of Petroleum Geologists covering the years 1969-73. In these years, independents accounted for about 90 percent of rank wildcat wells, some 75 percent of new fields found, and about 54 percent of the oil and gas reserves discovered in this period when a total of 147,000 wells were drilled.

When exploration and drilling are ill-affected, any downturn usually is primarily attributable to reduced activity by independents. For example, in the period earlier referred to when total drilling dropped more than 50 percent—all of the decline was accounted for by hard-pressed independents half of whom were forced from the industry by unhealthy economic conditions. Likewise, the domestic industry has experienced a severe drilling slump beginning in October 1978, and all of the available evidence indicates that this decline—the sharpest in 20 years—primarily reflects reduced activity by independents who are the first pinched and are most vulnerable to changing economics in petroleum exploration.

ROLE OF INDEPENDENTS



Source: American Association of Petroleum Geologists

IPAA Chart

The dominant reason that independent producers do not experience "windfall profits," and do not have to be required or forced to "plowback" or recycle their revenues becomes clearly apparent in the chart, "Independent Oil and Gas Producers, Wellhead Value of Production and Finding, Developing and Production Costs." This chart summarizes the data from the latest five years of the annual surveys of the domestic petroleum producing industry by the United States Bureau of Census. Excluding the 24 largest companies, these Census Bureau studies show that the remainder of the domestic industry—primarily the 10,000 independents—have spent on domestic petroleum exploration, developing and producing activities about 105 percent of their gross wellhead revenues from both crude oil and natural gas production.

These expenditures, totalling 34.9 billion compared with gross revenues of 33.3 billion, came from internally generated funds, venture capital from risksharing coinvestors, and from borrowed funds. Clearly, the independent sector throughout this period, has been financially leveraged to the maximum, and it is equally clear that his future contribution to domestic petroleum exploration, development and production is likely to expand only in step with an expanding revenue generating capability. To the extent such capability is limited by punitive taxes, the vital contribution to domestic petroleum supply by independents will be impaired or curtailed.

Experience has demonstrated that without a viable indeper.dent exploration-producing sector there is little hope for an expanding domestic petroleum industry. While it could be argued that Government has no obligation to keep anyone in the oil buiness, Government likewise should avoid policies which force anyone out of the oil business. If there ever was a time when the nation needed willing explorationists, it is today.

There are multiple reasons why we have experienced the sharpest drop in active rotary drilling rigs in two decades, but insofar as independents are concerned the reason can be summarized as follows: The available drilling prospects are increasingly less attractive at prevailing costs under the existing price controls and the current burdensome regulatory climate. Uncertainty about the outcome of Congress' deliberations on the pending "windfall profits" tax further exacerbates the indecisiveness now afflicting the industry.

There has been no evidence in the past experience of this industry that independent producers have ever earned a "windfall profit." By definition, there can be no such thing as a "windfall" which lasts for years on end. The long term nature and complexity of this proposed tax would be a withering influence on domestic petroleum exploration generally, and on independent producers in particular.

If this tax is enacted, it can be predicted with certainty that (a) the present inadequate level of domestic drilling will decline even further, (b) most of the decline will be attributable to indpendent producers, and (c) the domestic petroleum industry will contract even further—reducing the competition which so many in the political community hold so dear. And the consuming public will have the pleasure of paying a higher price for petroleum products without an increased supply because money diverted to the Federal Treasury finds no energy.

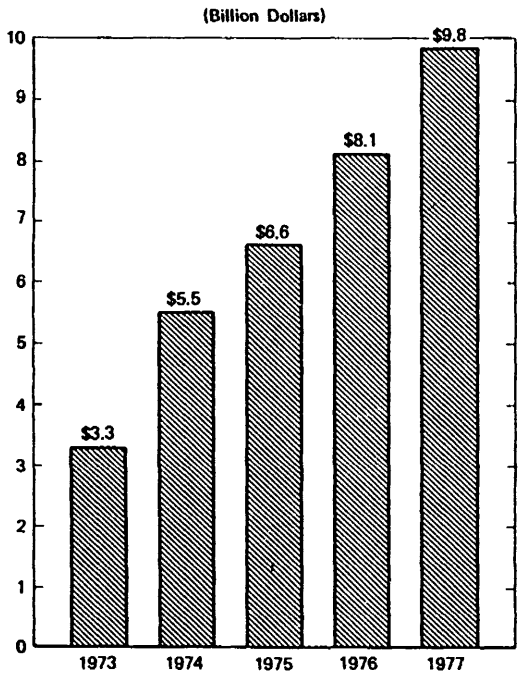
I should like to speak frankly now in expressing the dismay of the thousands of small producers I am here representing about the political rationale (or rationales) offered to substantiate a "windfall profits" tax which has no earthly relationship to profits. Some members of both parties are caught up in an inevitability syndrome concerning this unjustifiable taxing scheme; they say simply that, "There has to be a tax." To the simple question "Why?" there are no answers which make economic sense.

INDEPENDENT OIL & GAS PRODUCERS

(ALL U.S. PRODUCERS EXCEPT THE 24 LARGEST COMPANIES)

1973 – 1977

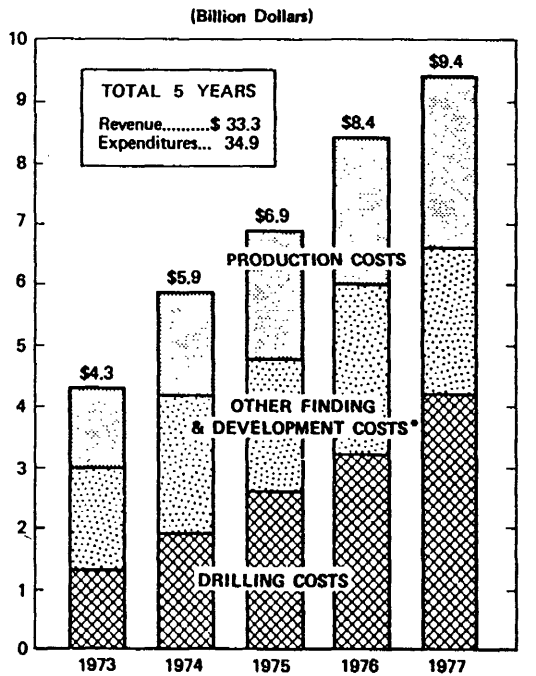
WELLHEAD VALUE OF PRODUCTION



*Includes geological and geophysical; lease and land acquisition; test hole contributions, etc.

Source: U.S. Bureau of the Census, "Annual Survey of Oil and Gas".

FINDING, DEVELOPING & PRODUCTION COSTS



IPAA CHART
May 1979

Some say there must be a tax because back in 1974, Mobil Oil bought Marcor Corporation, or because today Exxon is trying to buy Reliance Electric. But such companies could still make such purchases if all domestic crude oil was taxed at 100 percent, because their earnings are attributable primarily to their worldwide operations. It does not make sense to penalize the domestic petroleum producing industry because of public or political perceptions as to the operations, profits, prices or practices of multi-national companies.

Some have said there must be a tax because petroleum industry "profits" are inordinate, a claim that is without foundation. Much cynicism was generated by reports on petroleum profits in the first quarter of this year which increased an average of 57 percent. But average profits of paper companies rose 100 percent, railroad profits increased 190 percent, non-ferrous metals increased 350 percent, and the profits of steel companies were up 4,280 percent. If quarterly profit gain or loss statements were adequate to measure the financial condition of a company or industry, oil clearly would be far down the line as a candidate for taxes to compensate for "windfall profits."

Some say we must have a tax because decontrol of domestic oil will permit OPEC to set prices for American consumers. OPEC, however, does not set prices—demand sets prices. In the recent past, the world market has experienced petroleum shortages approximating 1.5 to 2 million barrels per day, enabling some countries to extract "bonuses" for their crude oil. But a scant eight months ago, when supply exceeded demand, some of these same countries were discounting their oil on a spot basis. In both cases, demand established the going price. The only possible way to ever overcome OPEC dominance of the market is to reestablish market disciplines for the production of both conventional and unconventional domestic energy.

I repeat, I have heard no sound arguments why "there must be a tax" which for long years would serve to inhibit domestic energy production. There are many arguments, however, that support a need to provide an economic climate to reverse the drilling slump now characterizing domestic industry operations. There are many reasons why there must be a resurgence of confidence that will result in doubling our present drilling rate. There are good reasons why the consuming public should not be required to pay for more domestic oil with no assurance of getting more.

Unless there are deliberate bipartisan political actions by this Congress, now, to reverse the policies of a quarter century and encourage a maximum effort to find and produce more domestic energy, then the great body of evidence would indicate that America will lose the ability to fulfill a leadership role in the world.

I would like to conclude by inviting the committee's consideration of the following facts.

Based on industry expenditures which have been consistent in relation to wellhead revenues, drilling success ratios and production per new oil well since 1973, our analysis shows that the phased decontrol implemented by the President—with no tax—would result in increased domestic crude oil production of a minimum of 2,000,000 barrels daily by 1985. The tax revenues which would result from HR. 3919 would reduce this production response by one-half to two-thirds.

We must spend $400 billion in constant 1979 dollars for domestic petroleum development in the 1980's if we are to halt and reverse our growing dependence on foreign oil. Enactment of this massive tax would foreclose the opportunity to provide the funds for such expansion. This committee, and the Congress as a whole, are confronted with this basic question: In view of our present energy dilemma, what is the country's greatest need; more oil or more tax dollars?

I urge this committee to give the most careful consideration to the benefits and liabilities of the tax scheme embodied in HR. 3919. I do not believe that such a tax can be justified when weighed against the pressing need to get on with the development of our energy resources, the adequate production of which will be controlling over our ability to deal with the problems of economic expansion, unemployment, inflation and the defense of our country.

The CHAIRMAN. Next we will call a panel consisting of Mr. A. W. Whitehouse, Jr., chairman of Standard Oil Co. of Ohio; Mr. William F. Kieschnick, vice chairman of Atlantic Richfield Co., and Mr. W. T. Slick, Jr., senior vice president of Exxon Co., U.S.A.

STATEMENT OF ALTON W. WHITEHOUSE, CHAIRMAN, STANDARD OIL CO. OF OHIO

Mr. WHITEHOUSE. Thank you, Mr. Chairman.

I have only one general comment to make on the windfall profit tax bill and I can make it very brief because Senator Bentsen has just made the point much more eloquently than I can.

I confess that I start with a confusion as to whether we are dealing here with an energy bill or a revenue bill. I am also confused as to where the money that would be raised will go. I simply want to make a point that in our judgment if you divert $1 from traditional exploration and production to funding a synthetic fuels program, you have made a very bad deal. If you just look at the leadtimes requires and the volumetric yield per dollar of investment, I think you will have to arrive at the conclusion that the surest investment our country can make in the short term and the short term is really our problem, that is, getting over the transition of where we are now to wherever we are going to be after the transition, is to emphasize traditional oil and gas exploration. We will get the biggest bang for our buck on that program. Sohio is not against synthetic fuels programs and when the time is right and if it is appropriate we will certainly support and participate in them. Diverting dollars from traditional use to that purpose, we really do not think makes sense.

The main thing I want to address myself to this morning is the treatment of Alaskan oil in the House bill—H.R. 3919. I want to give you a little history of Sohio's participation in the Alaskan project.

In 1969, Sohio traded away about one-half of the equity of our entire company in exchange for a 52-percent interest in the Prudhoe Bay oil field. During the years since that time we have invested over $6 billion to cover our share of the costs of developing that field, constructing the trans-Alaskan pipeline, and assembling what I am told is the largest Jones Act tanker fleet in the United States to enable us to bring that oil from Alaska to the lower 48 States.

Of the $6 billion we invested, we borrowed $5 billion from external sources. It is interesting to note that that amount is many times what the book value of our entire company was at the time we started on this project. Currently our debt constitutes 64 percent of our total capital employed. This is radically different from the 20 to 30 percent that most energy companies enjoy. In the summer of 1977, Fortune magazine wrote an article on our company entitled "Sohio Bets its Life on Alaska." The article and the title are quite accurate.

As a result of this effort on our part as well as the efforts of the other two companies represented at this table, the Prudhoe Bay field is well along in its development. This field represents 32 percent of the proven oil reserves in this country. We are currently producing just over 1.2 million barrels a day or 16 percent of the current total U.S. production. We will be able to increase this significantly by the end of the year. Considering the country's current energy problem, I think even our harshest critics would agree that the project is quite timely.

Alaskan oil is much more expensive to find and develop than oil located in the lower 48 States. Furthermore, transportation of Alaskan oil to its nearest markets costs an average of $6.50 to $8.50 more than oil produced in the lower 48. Thus, the well head net-

back in Alaska is $6.50 to $8.50 lower than is realized on an average in the lower 48 States.

Against this background, we were absolutely appalled at the House proposal to tax Alaskan oil much more severely than other new oil. Alaskan oil is classified as new oil under the existing regulations.

It is certainly true that our prior investments in Alaska are sunk and there is no way we can walk away from them even if the bill keeps its present form. If it stays in its present form there will be an impact on the rate and levels of future developmental investments and on the volume of oil ultimately recovered. I do not presently have an analysis of this impact and I cannot quantify it; however, it will be very significant and it will be very negative. I do know that if this bill stays in its present form, the principle will be clearly established that the U.S. Congress, after the risks have been taken and after the investments have been made, is quite prepared to use its taxing powers to limit the return on major energy projects to someone's perception of what is "fair." So far as I am concerned, the statutory exclusion of new discoveries in the House bill is totally meaningless. If another major field is found and if prices continue to escalate, the rationale, whatever it may be for the current proposed action will be reasserted, and as is the nature of things one Congress cannot commit or inhibit future Congresses on matters of this kind.

I believe Alaska is the greatest opportunity this country has for frontier oil. Sohio is reasonably knowledgeable about the geology of that State and given the differentials in cost and risks, we feel if anything, Alaskan oil should be entitled to a significantly greater incentive than lower 48 oil and certainly not a penalty.

We are very eager to go forward with further exploration in Alaska. We are in the process of acquiring 1½ million acres of land in the Rocky Mountain area of this country and we want to go forward with exploration and production on those properties. We are ready to expand both our reserves and our production of coal in the lower 48 in which we are active in a significant way. We are prepared to continue our 15-year participation in development of oil shale technology as well as to expand our uranium mine and mill operations.

I sincerely hope the Congress does not give us a negative signal that would force us to reexamine the direction in which we are going.

Thank you.

Senator GRAVEL. Thank you, Mr. Whitehouse. I would like to have Mr. Slick and Mr. Kieschnick give their statements and then we will proceed with questions.

STATEMENT OF W. T. SLICK, JR., SENIOR VICE PRESIDENT, EXXON CO., U.S.A.

Mr. SLICK. Thank you, Mr. Chairman.

I am W. T. Slick, Jr., senior vice president of Exxon Co., U.S.A. I appreciate this opportunity to present my company's views on H.R. 3919.

Let me just say for the record on the general question that my company obviously supports crude oil price decontrol and we are

opposed to the so-called windfall profit tax. We think it is unnecessary and counterproductive and in our judgment there is no windfall because each barrel that is produced must be replaced at a much higher cost.

The tax in no way is related to profits. It is purely and simply an excise tax on gross revenue and it is time we stop the charade of calling it a windfall profit tax.

Today I want to address the impact of the provisions in H.R. 3919 that deal with the North Slope in the Prudhoe Bay area. I want to make three points.

One, this provision of the bill will adversely affect ultimate recovery and production levels from the Prudhoe Bay field; second, it will adversely affect investment in other large expensive high-risk energy ventures throughout the United States and third that the proposal is both discriminatory and inequitable and in fact constitutes a rollback in the price of Prudhoe Bay crude.

When the tax on production of the Sadlerochit Reservoir in Prudhoe Bay was proposed during the House hearings, it was stated that all significant costs of discovery, development, and production had been incurred for that reservoir. Nothing could be further from the truth. Through the first of 1979, the operators had invested some $3.7 billion in the development of the field.

In order to sustain the current producing rate and to insure optimum recovery, the operators have yet to invest at least $12 billion additional. These future investments will fall into three broad categories; somewhat upward of $3 billion for wells and flow lines; about $6 billion for the necessary field production systems and some $3 billion for secondary recovery.

We estimate that if as was suggested in the House the Prudhoe owners did not invest any additional funds through the future life of the field that we would recover from existing wells and facilities about half of the oil that has been discovered.

I do not intend to imply that the operators are about to stop investing in that field. They are not. I cannot emphasize too strongly that these future investments will not be made simply as a matter of course. Each additional well and each additional production facility, the artificial lift systems, the secondary recovery operations will be reviewed individually.

Any tax which reduces the effective future production or the effective value of the future production will only serve to reduce the economic attractiveness of some of these investments which are still needed to maximum recovery.

I think it is important that we recognize how high the stakes really are. A reduction in ultimate recovery of one-half of 1 percent from this reservoir will reduce the Nation's supply of crude reserves by 100 million barrels.

It is difficult to quantify the precise impact of this tax on future recovery. I have cited two examples of the kinds of things about which we have to be concerned in my statement and I would be glad to comment on them later if you are interested.

Concern over the impact of tax on the North Slope, on the development of known discoveries was apparently recognized in the House. I say that because the staff memorandum to the House of July 2 and the memorandum to this committee of July 6 stated:

"Oil from other Alaskan reservoirs located north of the Arctic Circle including those already discovered but not yet developed is exempt from the windfall profit tax."

Apparently the intention was to exempt that kind of oil. One can only surmise that the House was misinformed over the status of development expenditures at Prudhoe Bay which for the record seems likely and I hope my comments have cleared up that point insofar as this committee is concerned.

My second point, the impact on other investments. I think it would be a mistake if we dwelled too long on the question of marginal economics of Prudhoe Bay because there is a more important principle at stake. Simply put it is the impact on the willingness of investors to undertake high-risk ventures in the energy field if Government policy is to selectively tax the successful ventures with new taxes after the risks have been undertaken.

Total profits from Prudhoe Bay will be large because this is a large project of unprecedented size. Before we are through, total industry investments by all participants is going to exceed $40 billion on the North Slope but the profitability of the venture is not unusually high, to the contrary.

Since this field was discovered in 1969, the operators have faced increases in State taxes, new State laws, the reduction in the depletion allowance and increase in Federal taxes. Now because in our judgment of the large size and high visibility, it is again being singled out for special taxation. This is an extremely shortsighted approach in our view. It ignores the facts that the profits from successful projects like Prudhoe Bay must carry the unsuccessful efforts that must also be undertaken throughout the country.

Consider for example some of the things industry has done in the exploration and production field in recent years. In the northeast Gulf of Mexico, $1.5 billion was spent. In the Gulf of Alaska, $700 million for exploration activity. In the Baltimore Canyon, $1.4 billion.

The first commercial discovery in any one of those areas is yet to be confirmed and yet industry has put up at risk $3.6 billion.

If the large successful projects are to be taxed down to some nominal rate of return, then where is the money to come from for the high cost, high-risk areas if we are going to get this after-the-fact change in tax laws?

Obviously there is no counterpart in the statutes of this country that guarantees the return on unsuccessful venture. I submit to you, Mr. Chairman, neither retroactive taxes on successes nor guaranteed profits on failures constitute proper public policy.

The U.S. Geological Survey has estimated that over 30 percent of the remaining potential gas and oil discoveries in the United States are located in Alaska. Most of it is above the Arctic Circle. Over the next 5 years according to schedules just released by the Department of Interior there will be seven lease sales in some of the most prospective areas of Alaska. This includes a sale later on this year in the Beaufort Sea. There are a couple of sales in the Norton Sound and in St. George basins in 1982.

Industry is already planning for those sales. Imposition of discriminatory taxes at Prudhoe Bay will undoubtedly affect the outlook of potential investors in these very important high risk areas.

The final point I want to make is the discriminatory and inequitable nature of this particular tax. As I said, it constitutes a rollback in the price of Prudhoe Bay crude. Were the Prudhoe Bay field located in the lower 48 where costs are lower than they are in Alaska, it would be classified as upper tier oil and subject to no tax at prices below $13 a barrel which is the upper tier ceiling.

The Sadlerochit oil with the proposed tax will have an effective price of about $5 a barrel less than lower 48 upper tier oil over the next several years.

As has been pointed out by others because of the high transportation costs the actual netbacks on the North Slope were about $11.50 a barrel still below the ceiling on upper tier oil thus complete decontrol would result in no immediate increase in the price of Prudhoe Bay production.

The purported purpose of H.R. 3919 is to remove part of the added benefit to producers resulting from decontrol of oil prices. The Sadlerochit tax goes far beyond that intent rolling back the price and leaving the producers in this one field worse off than if controls had merely been continued.

To summarize, Mr. Chairman, we think that application of this proposed tax to the Nation's largest oil field would be both short sighted and counterproductive to the Nation achieving its energy goals. The tax constitutes a price rollback and it will only adversely affect recover from the Sadlerochit Reservoir but it will also inhibit investors in other high-cost ventures throughout the United States.

Thank you, sir.

Senator GRAVEL. Thank you. Mr. Kieschnick?

STATEMENT OF WILLIAM F. KIESCHNICK, VICE CHAIRMAN, ATLANTIC RICHFIELD CO.

Mr. KIESCHNICK. Thank you. Members of this distinguished committee, my name is W. F. Kieschnick. I am vice chairman of Atlantic Richfield Co.

I would like to reflect back a moment on the testimony given by our friends from the IPAA. We in the majors are delighted they are a part of our total energy team in this country and I am excited and convinced of their commitment and their contributions.

I got the feeling at the end that they might not need us. I hope I can remind you the total energy team of this country are all of those who are investing and risking money.

As to our credentials, I invite you to remember we were part of the team that discovered Prudhoe Bay which is about 30 percent of this country's reserves and about 15 percent of this country's present production.

I like to think that the total energy effort consists of independents drilling in Kansas or west Texas while we are drilling in Alaska. I like to think of the total energy effort being of independents and majors drilling in west Texas and Louisiana while some of us are working on solar and coal.

I would like to point out that if an increment of increased revenue will help somebody drilling in west Texas, it will help somebody develop fields in Alaska.

My point in being here today is not to deal with problems with windfall tax as others have so eloquently dealt with but to talk about its unique impact on the North Slope. Since I have heard my associates on the panel make those points, I will confine myself to a few matters of emphasis and clarification.

I would like to lead you through the start-up of the Prudhoe Bay field to deal with some issues that have come up. The Prudhoe Bay field was brought into initial production in 1977. Under DOE regulations it was classified as upper tier crude with a price ceiling which was approximately $13 a barrel. This was a pricing category and a price ceiling similar to identical situations in the South 48.

The initial well head prices at the field were depressed well below this ceiling ranging from $5 to $7 because of the high transportation cost to the United States and market pressure from competitive crudes on the west coast.

These depressed prices at the field were initially economically tolerable because the field was in an early flush production stage of its life in which less than 30 percent of the total capital had been invested.

Further, the outlook was for rising crude oil prices and for rising well head prices because there was room for that field's price to rise to its ceiling price.

The promise of these increases gave promise for increasing cash flows to finance the approximately $15 billion that we perceive is yet to be spent to maintain the rate and produce the total recovery from that field.

About $4 billion has been invested to date to start the field into flush production and in our perception about $15 billion is required to drill additional wells to maintain production, put in the artificial lift that is so typical in the mid-life and later life of a field and to put in waterflow to recover the full production from this field.

The second point I would like to emphasize is the stakes. This field produces about 15 percent of U.S. crude production and comprises about one-third of the American crude reserves. A plus or minus 5 percent recovery in this field related to upside or downside economic or taxation scenarios represents a billion barrels of reserve.

I could easily make the same sort of illustration about plus or minus impacts on the field that represent 100,000 barrels a day more or less; 100,000 barrels a day is 10,000 stripper wells.

I think we are going into a decade in our country's energy situation in which we are not going to enjoy much benefit from the new energy initiatives that have to do with synthetics or solar and other materials. We are going to have to live with the assets we have. That means we are going to have to be more energy efficient and we are going to have to explore vigorously for oil and gas and we are going to have to squeeze more reserves and more production out of the assets we have. Sadlerochit is a big one to squeeze.

It is in this context that comes H.R. 3919 and its particular provisions for Prudhoe Bay. On the one hand they exclude from the windfall taxation all new crude oil produced north of the Arctic Circle, wisely; but surprisingly, they taxed Sadlerochit oil at a threshold price of $7.50 a barrel. This is in contrast to the same

kind of fields, same vintage, same regulations in the South 48 being taxed at a threshold of $13 a barrel.

As you have heard and as I must repeat, this type of discriminatory taxation leveled at one of our great incremental assets for the urgent 10 years ahead has two counterproductive consequences. It would put at risk the economic justification for some significant recovery and future rate projects in this field and second it would seriously inhibit frontier project risk takers by showcasing the withdrawal of upper tier treatment to one of the Nation's most recent and largest energy projects and incidently the most expensive one in history.

The bottom line that I come to is the following: The original proposal of the administration was for the Sadlerochit Reservoir to be exempted from windfall profit taxation. This is the most certain way to insure the maximum development of this major energy situation. However, alternatively at the very least, the Sadlerochit Reservoir—itself an upper tier reservoir—should receive the same tax base price as the upper tier reservoirs in the South 48.

I think the bottom line in this whole issue seems to be that the major unfinished energy situations in this country whether they be exploration plays or large fields not fully exploited, are situations that relate to the most urgent supply era of our country's energy renewal, the next 10 years. I think situations like this should be nurtured rather than abused.

Incremental production, some on the drawing boards and some potentially conceived, are even more real and promising from Sadlerochit than from fields yet to be found and discovered.

Thank you. I would be happy to answer any questions.

The CHAIRMAN. Senator Dole?

Senator DOLE. As I understand it there is a lot of participation by majors with independents in exploration and development. Is that correct? Someone suggested that maybe they did not need the majors.

Mr. KIESCHNICK. That is not only correct but we initiate a lot of plays on our own, sir.

Senator DOLE. There are a number of farm outs and production payments where there is at least cooperation between the majors and the independents.

Since the issue has been raised frequently, I might as well ask a question about Exxon's proposed purchase of the Reliance Electric Co. Is that still on course?

Mr. SLICK. It is on course. It is a long trail as you are aware, Senator. It is still an undertaking.

Senator DOLE. That is going to be about a $1 billion item?

Mr. SLICK. Yes, about $1.2 billion.

Senator DOLE. That would produce a lot of energy, I presume.

Mr. SLICK. It does have an energy component. Our estimates are if the technology that lies behind that acquisition is successful as we hope it will be, it will save this country 1 million barrels a day of energy equivalent by 1990. That is a substantial contribution to the energy problems of the country in our judgment.

Senator DOLE. Because it will probably be mentioned by others if we do not put them in the record, I note that Arco bought a British

newspaper, the Observer. I do not have the details on that. That purchase cannot produce a great deal of energy.

Mr. KIESCHNICK. Sir, we paid $2 for that. We did not divert a lot of capital to it.

Senator GRAVEL. You say you paid $2 for it?

Mr. KIESCHNICK. That purchase was for a modest amount and the idea was to give support to an institution that we did not see ourselves primarily staying with for the rest of our corporate lives.

The CHAIRMAN. I do not understand. Would you mind saying that again?

Mr. KIESCHNICK. I was suggesting that our purchase of the Observer was not a material event as far as diversion of cash.

The CHAIRMAN. You say you paid $2? Do you mean $2 a share or just $2?

Mr. KIESCHNICK. The institution was losing money and the main thing we brought was some stability and underwriting some losses in its early years.

Senator GRAVEL. You did not have to put up any money?

Mr. KIESCHNICK. A rather modest amount.

The CHAIRMAN. Was it $2?

Mr. KIESCHNICK. I am not sure of the exact amount. It was very modest, Senator.

The CHAIRMAN. Do you mean $2 a share or $2?

Mr. KIESCHNICK. I meant the total consideration was very modest.

The CHAIRMAN. I have been reading that magazine from time to time. If it is only worth $2 I think I have made a mistake.

Mr. KIESCHNICK. It was a very modest price.

The CHAIRMAN. That is a big difference between $2 and $2 a share.

Mr. KIESCHNICK. I know it was less than $1,000 for the entire transaction, Senator, and I do not know the details behind that.

Senator DOLE. I want to finish with Arco on Anaconda. You bought some interest in Anaconda.

Mr. KIESCHNICK. Yes, sir. We acquired the entire interest of Anaconda. We paid for most of it by an exchange of shares and a modest amount by cash.

Senator DOLE. How much did that total?

Mr. KIESCHNICK. The cash part was about $250 million.

Senator DOLE. What is the total value?

Mr. KIESCHNICK. I think we paid about $750 million for it.

Senator DOLE. I do not know about Sohio. I did not find Sohio on this list.

Mr. WHITEHOUSE. We have not had any money to spend on anything.

Senator DOLE. I want to ask if Sohio is going to pursue the southwest pipeline or have you given up all hope of that?

Mr. WHITEHOUSE. We have given up all hope of that.

Time ran out from an economic standpoint. We just could not fight our way through the regulatory maze.

Senator DOLE. I see references to the acquisition of Marcor and others in speeches that I read from time to time. It does make it rather difficult to explain decontrol to the American people. We keep saying that we have to have more oil production and the oil

companies go out and spend $1 billion on what might be considered to be a non-energy-related purchase. Maybe in the case of Reliance Electric, the purchase is energy related, since you indicated there is going to be a big energy savings produced. Maybe that would be true in other purchases. There is also the theory in this country that a company should be permitted to use its profits in any way it wishes.

Nevertheless, with all the focus on energy and with a certain amount of posturing going on in this country, it does not make it easier for those of us who think we ought to be able to produce more energy to explain those kind of purchases.

Mr. SLICK. Senator, I would like to offer a couple of general comments on that problem because I think it has been blown way out of proportion. It is necessary to put these things into the proper perspective, I believe.

I think that perspective includes such things as, based on the data I have seen, well over 95 percent of the investments made by the oil industry participants in this country are made in energy activities.

In the case of my own company, just as an example, last year in the United States we made in net income in the United States not quite $1.5 billion. Our reinvestment program in the United States, and it had nothing to do with Reliance, is about $2 billion. Out of that $2 billion, $1.5 billion is for exploration and production of oil and gas. Our investment in oil and gas exploration and production exceeds our total net income in the United States.

As Mr. Allen pointed out earlier, the independents are investing more than their revenue at the wellhead. If you look at the majors I think you will find right down the line reinvestment in the energy industry exceeds net income.

Senator DOLE. I understand that. I hope you understand the other side of the problem and maybe no one should comment on that. Maybe everything you say is true but I am talking about from the standpoint of trying to encourage the Congress for example to go along with a better program to insure more production. That does present an obstacle.

Mr. WHITEHOUSE. May I make a comment on that, Senator Dole? We are as pure as the driven snow. We do not have any money and we have spent five times our assets over the last 7 years. It is a real dilemma. There is a legitimate argument for the American people saying to their energy companies, if you are going to insist on more and more profits, then you ought to be putting it back into energy programs. By the same token, at some point if we are talking about finite oil and gas reserves which we think we are, at some point you are condemning a very large industry to a gradual partial or total liquidation.

Senator DOLE. I understand that.

Mr. WHITEHOUSE. It is very difficult.

Senator DOLE. It is not just Exxon. There are others who are very progressive, Gulf and Sun. It is all a matter of record.

I would like to ask one more question with respect to the so-called plowback provision. Do you see any way that a plowback can be properly drafted so it would be workable and could be administered? That would encourage profits going back into energy sources

and still would not be in conflict with what company management sees as a proper response to stockholders and others.

Mr. SLICK. As I pointed out earlier, the record is that the industry is plowing back. They are reinvesting more than they are making in the business. The track record is pretty good. I share Mr. Allen's comment. We have yet to see a provision drafted on the so-called windfall profit plowback that would not further complicate the issue rather than cure the issue. We think it is a totally unnecessary provision.

Senator DOLE. Is that shared by all three gentlemen?

Mr. WHITEHOUSE. Yes.

Senator DOLE. Any of the representatives of these companies visit Camp David during the energy crisis?

Mr. SLICK. No, sir.

Mr. KIESCHNICK. Our president was invited. He accepted the invitation of the President.

Senator DOLE. I think it is good. I am glad he did.

The CHAIRMAN. I do not want to leak what people said to the President, but after it is all over with do you think your president might be willing to advise the Nation or the industry what he advised the President?

Mr. KIESCHNICK. I can only tell you what advice he gives in his public speeches, Senator.

The CHAIRMAN. I am not talking about something that is published already. What I want to know at some point is what he told the President. I do not think it would be quite cricket for him to tell us now but maybe after it is all over with and the President announces his program he might tell us.

Mr. KIESCHNICK. I am confident he would be willing to do that.

Mr. SLICK. Senator, I think a number of us share your interest in that question.

Mr. KIESCHNICK. I think I should also be able to say he is on record as favoring decontrol. He is in favor of a lot of the values we have talked about here this morning.

The CHAIRMAN. My recollection is that some time back your president departed from the traditional view of the industry by suggesting he would be perfectly content to see the depletion allowance repealed provided they got the world market price for oil. The Congress promptly took him up on repealing the depletion allowance. They just ignored the rest of his suggestions.

People up here on Capitol Hill said anybody who had any knowledge of the way Congress worked would have assumed that is what they would do. They would take you up on the thought that repealed the depletion allowance, the part where you were willing to waive what you would get, and they would put what you were asking for along with most other things people asked for. You should have anticipated that result. You would get your depletion allowance repealed and you would not get the world price for oil.

I hope he has better luck this time if he has one of those two prong recommendations.

Senator Gravel?

Senator GRAVEL. Thank you.

Just picking up on some of the points Senator Dole made and adding to it, certainly it is a free country and the people who make

profits around this country should be able to spend them. I do not know of any other law we have on the books in this country that has a limit.

We did receive testimony in our subcommittee which indicated of all major American industries the oil industry is the least industry to go out of their own industry to make investments by a substantial sum of money and most of the investments were as indicated, they are transactions where not a great deal of cash was involved but a great deal of leverage was involved and that makes a substantial difference.

I would like to ask questions with respect to profits since this is what it is supposed to be. I will start with you, Mr. Whitehouse. Would you tell me what the profits were for your company during the development of Prudhoe Bay and now that Prudhoe Bay has worked? What kind of money are you making?

Mr. WHITEHOUSE. The profits that we made during the 5 years that we were drilling and investing in Prudhoe Bay were just marginally over a 5-percent rate of return. Last year, which was the first full year of Alaskan production, was marginally over 9 percent.

Senator GRAVEL. Marginally over 9 percent. I would just like to underscore that for my colleagues. Last year was 9 percent and during the development, 5 percent?

Mr. WHITEHOUSE. In the years 1970 through 1977 it averaged 5.4 percent.

Senator GRAVEL. Last year under full production?

Mr. WHITEHOUSE. It was 9.9 percent.

Senator GRAVEL. What I have difficulty reconciling in human understanding is the people in the Ways and Means Committee who indicated you are making money at the present lower price and considerably lower price than the oil that is sold in other parts of the United States.

Five percent. If you were not locked in you would be sued for being in that kind of a position. Any public utility, Pepco, the telephone company, anything we depend upon, the Government guarantees and they will guarantee you more than that.

Maybe the Jackson committee is right. Maybe we should nationalize you, get you more money than you are making.

Mr. WHITEHOUSE. It would be a lot more straightforward than nibblings.

Senator GRAVEL. I wonder if Exxon could tell us what kind of money you are taking out of Prudhoe?

Mr. SLICK. I cannot give you a number for Prudhoe. Our corporation in 1977 and 1978, our return on shareholders equity was 13 percent and 14 percent respectively and that compares to averages in the manufacturing industry in this country of about 15 percent.

It underscores the point that has been made many times. The oil industry is not any more profitable than the regular line of business in this country. That record for the industry tracks over the past 10 or 12 years.

Senator GRAVEL. Arco, how did you do?

Mr. KIESCHNICK. During the period of investing in the pipeline and in the field, we were making anywhere from 10 to 12 percent

return on capital employed. This past year with the pipeline on and the first production coming in, we went up to about 14 percent.

Senator GRAVEL. I would only issue a challenge to any American who thinks there is excess profits in the operation in Alaska that they take their savings and call a local brokerage house and ask them for advice as to where they should invest those savings on comparison to other investments in the United States. Let that be the guide. Do not trust Congress but take their money and go seek professional advice as to where it should be invested to get some counseling.

They obviously do not trust the Congress any more.

The CHAIRMAN. May I just make one suggestion to you three officers of major companies and hope it would spread to the industry?

The industry profits are going to be better this next quarter I understand. When you meet with your shareholders and you report the good news, it is nice to make it sound great: "Hurray, just look how well we did, our profits are up 20 percent," or something like that.

I would hope that in reporting those profits, they would keep in mind that television and the newspapers are going to pick that up. It will be used against their advantage, and a lot of it will be used out of context. For example, I had one of these syndicated writers come to me, and it is hard to defend your industry when someone says, this company made a 345 percent increase or something like that. I guess if you got all the information you would find they lost money the previous quarter, and therefore any increase at all would have been more than 100 percent.

I would hope that when your people announce those things, they would perhaps communicate with one another. Let's call it a perspective-in-reporting approach, that you would report those things in such a way that you would compare them with what people are doing in other endeavors.

You sit here like Mr. Slick, and you say our company did not make as much as the average manufacturer. I guess if I was the chairman of the board or the president of Exxon reporting to the shareholders, I would not want to say, we did better and then say we still did not do as good as the average manufacturer. If I was running for reelection at that point, it is not a good point to stress.

On the other hand I would hope that somehow in those public relations announcements, you would get this idea across or find some way to make it clear that you really do not think those profits were all that great, or that they are out of line with what people are making in other lines of endeavors.

What can you do about that?

Mr. SLICK. Senator, I wish I knew the answer. We tried this quarter to point out that in the first quarter of 1979, my company made less money in the United States than it made in the first quarter of 1978 and it made less money than it made in the fourth quarter of 1978. By either comparison our earnings in the United States were down.

It was coincidental that there was also recovery from some pretty poor economic conditions in Europe. The only thing I seem to

see in the headlines was Exxon's profits were up 39 percent. We can tell them. I am in despair of getting them to write it right.

Mr. KIESCHNICK. Senator, you have brought up a very severe problem and you are very wise in confronting us with it. This has been heavy on our minds.

I think what we finally have to get over and what we have tried is not only what our profits are but what we do with it, to get over those platforms which used to cost $2 million for shallow water now cost $100 million for deep water, to talk about wells that used to cost $100,000 in west Texas and they now cost $3 million in Alaska; talk about seismic programs that used to cost a few tens of thousands of dollars now costing millions of dollars a year.

We put out that story, not only what we get but what we do with it. So far people only listen to one half. That is our dilemma.

Senator GRAVEL. It is a little more fundamental than that, Mr. Chairman. I reflected long and hard on this. I think what you are asking these companies to do which is a very bright thing to do I might say in their best interest, I think it is impossible to do just like it is impossible to ask us who run for public office to go home and give bad news to our people whether we are running for office or not. We cannot even tell the American people the truth about this excess profits that it is not excess profits.

Let me give you the facts on why they cannot approach that. The management of these corporations bases its income on stock values. They get bonuses that are tied to stock values and if you come out of a meeting and start talking about things are not too good, that is going to be reflected very quickly in the value of the stock that you have so your personal net worth is going to go down real quick.

Second, you are going to have to go to a bank to go do some financing. How do you go into a banker and tell him you are having a bad time and you are not doing as well as everybody else and you have to borrow some money? I would never go to a banker that way.

It reflects upon me. I am not going to go to a meeting and tell people I am not doing a good job. I can have excuses. Maybe these shareholders are not interested in excuses. They just want to know what you are doing for them in terms of return.

You have these facts; stock value, financing capability. It is a reflection on management. It affects management's immediate income. We are asking them to do something that we politicians do not have a minuscule amount of guts to do and that is to go tell the American people that we have been lying to them for 10 years.

It is a great idea. I can recall when Exxon in 1974 came out with their profits and their chairman who I contacted later and said it is terrible, the top of the press release was just bragging how well they did, right in 1974, the worse time politically to do it but it dawned on me, his constituency was not my constituency and that is one of the great problems in our society, if we could identify and bring our constituencies together and Mr. Chairman with your ESOP's and I with my GSOP's are going to bring those constituencies together so the people are not walking down two streets at the same time.

The CHAIRMAN. First we will hear from Mr. Whitehouse and then we will hear from Mr. Kieschnick.

Mr. WHITEHOUSE. First of all I would say we operate with one restriction that you do not have to worry about and that is the Securities and Exchange Commission.

Senator GRAVEL. We do not go to jail.

Mr. WHITEHOUSE. I do not really think the current income reporting is influenced all that much by stock prices or lines of credit and things like that.

I can give you a very good example of an experience we had at the end of the first quarter. It was compared to a terrible first quarter the preceding year. We were the 300 percent company.

The CHAIRMAN. I would like to hear about that.

Mr. WHITEHOUSE. What we did was to bring in the local news media we are a regional marketer/refiner in Ohio, Pennsylvania, and Michigan. We can get the local electronic media in and on that occasion I think we got a New York Times stringer down from Detroit.

We gave those who attended the meeting a very full perspective on just exactly what these figures represented rather than a simplistic comparison of the first quarter of 1979 to the first quarter of 1978. Those people reported the profit picture very conscientiously and very well. We could not have asked for better treatment. The substance of the story was good. Those in other papers who picked these stories up from wire services or other papers did not feel burdened with the explanation we had provided, and we got a pretty good kick in the teeth from some of those papers.

It is really a very difficult thing.

The CHAIRMAN. There is an outstanding lady writer with a syndicated column who made reference to the fact that one company had a 340-and-some-odd percent increase. Can you put that in context? How much money did you make the previous quarter and what you did make the following quarter?

Mr. WHITEHOUSE. I do not have the figures with me.

The CHAIRMAN. Give us some idea.

Mr. WHITEHOUSE. The two big factors were in the first quarter of 1978. First, we had a coal strike. We lost a lot of money in the coal operation. Second, in the first quarter of 1978, trans-Alaskan pipeline pump station No. 8 was still not onstream so our throughput of crude oil through the trans-Alaskan pipeline was about 700,000 barrels a day as I recall the figures. This year in the first quarter we are up to 1,200,000 barrels a day. Those were by far the two big variables. The other differences are not all that significant.

Those were the big figures.

The CHAIRMAN. What did you report in the second year, was that a big profit?

Mr. WHITEHOUSE. No. That was back up to 11 percent.

The CHAIRMAN. What you are making is not as much as the average for manufacturing?

Mr. WHITEHOUSE. No; that is correct.

The CHAIRMAN. If it was a 340-plus-percent increase compared to the disastrous first quarter of the previous year—Mr. Kieschnick?

Mr. KIESCHNICK. I want to go back to Senator Gravel's remarks. He brought up an issue but it is deeper than that. This Nation is at an energy crossroads. We are energy people. We feel we are busting ourselves to deliver. It is a matter of personal pride and integri-

ty more than anything else to be accused of not delivering or not trying.

It gets a lot deeper than what your income is. It gets down to are we delivering the goods. It is important to us to deliver the goods. It is a lot more of an issue than the money.

Mr. SLICK. Senator, I would like to offer the comment that one of the problems of communicating with the American public as we see it is the background noise that we have to try to outshout, the background at which we are played. I made it a point in my comments this morning to refer to the so-called windfall profit tax and if you will read my comment that is the only time I use those words. Yet the newspapers are full of statements that eminate from both ends of the avenue in this city talking about windfall profit tax.

When it is a tax on revenue, it does not have a thing in the world to do with profits. When you are trying to overcome that level of decibels of background noise that keeps hammering away with the windfall profit tax, the American public begins to think there is a windfall profit.

Senator GRAVEL. That is exactly why the word was used, so you could confuse and lie to the American people.

Senator DOLE. I think you have a problem. The only thing I think would be worse would be to have a member of Congress get a pay raise the same day you announced your profits and then the press would focus on us. If you could get that arranged you could probably get off the hook.

You are a big easy target out there. So are we and we understand that. If the story is presented to the press so they understand, not just in a handout, but the full story, maybe in some giant press conference in Washington, there will be those who will attack it and suddenly indicate this is why we need more controls and more taxes. We have all seen what has happened with the controls and the taxes. Product has doubled and tripled in price. The whole system is about to collapse.

It is not easy and I appreciate your efforts. I think you do have a great responsibility to the American people as you have indicated.

Mr. KIESCHNICK. Senator, we understand that. We are working very aggressively with shirt sleeve sessions with the media, open door policy to the media. We will talk to anybody who will listen.

The CHAIRMAN. I had difficulty believing that there are not substantial numbers of people in the media who will try to tell a story on a balanced basis and as it really is. I live in hope that one of these days the word will get through to the public and we will better understand what the problem is.

If the people of the Nation do not understand what the problem is, we cannot very well come up with the right answer because people who run for office like to get re-elected. They like to vote in a way that would be approved by their constituents.

If the matter is perceived in an entirely erroneous light by the public, there would be a lot of votes based on that misconception.

Mr. KIESCHNICK. I would like to offer a little hope. I have observed over the past 6 years that some of the media who worked the hardest and have the most sophisticated staffs now understand the problem. I take heart in that.

The CHAIRMAN. Thank you very much, gentlemen.
[The prepared statements of the preceding panel follow:]

PREPARED STATEMENT OF ALTON W. WHITEHOUSE, CHAIRMAN OF THE BOARD, THE STANDARD OIL CO. (OHIO)

I am Alton Whitehouse, Chairman of The Standard Oil Company (Ohio), also known as "Sohio". Let me say a few words about Sohio to relate its work in energy development to H.R. 3919, the proposed windfall profits tax bill.

In 1969, we traded one-half of our company for 52 percent of the Prudhoe Bay field in Alaska. The development of that oil field is the greatest energy development project of our time, and it came on stream just when our country was in dire need of additional domestic energy production.

Our participation in the project included substantial investments in the Prudhoe Bay field, the Trans Alaskan Pipeline and charters for the largest fleet of Jones Act tankers in existence today—all of this to bring North Slope crude oil to the Lower 48 states. This oil field represented 32 percent of the U.S. proven oil reserves as of the end of 1978, and 16 percent of the total U.S. oil production for 1978.

To meet our financial obligations in this project, Sohio had to invest over $6 billion, which we obtained through borrowing about $5 billion, and using virtually all of our internal cash flow during the years 1970 to 1978. Through most of the last ten years the very existence of my company has been on the line and we are not out of the woods yet. Presently, our debt is 64 percent of our total capital employed, which is significantly higher than the normal 20-30 percent of debt carried by most energy companies.

Our efforts in new energy have not been limited to oil and gas. During the 1970's we were able to expand our Old Ben Coal operations, commence production at our L Bar Ranch uranium mine (in both cases through off balance sheet financing), continue pioneering work looking to the commercialization of shale oil technology, embark on research on high Btu gas from coal, conduct solar energy experiments involving commercial applications, and improve our midwest and eastern refineries. These refineries are presently operating at record rates, producing as much gasoline as we can for this summer and as much fuel oil as we can for next winter.

We are anxious to expand our activities in the energy area. We are currently in the process of acquiring one and one-half million acres of land in the Rocky Mountain area which we think attractive for oil and gas exploration, and we plan to actively explore them during the next couple of years. We are facing the prospect of additional billions of dollars of investment just to complete the potential production of the oil and gas at Prudhoe Bay.

While many people assume that the Prudhoe Bay field is an accomplished fact, we view it as about 30 percent complete, with a lot of work and billions of dollars of investment still ahead of us! We are also hopeful that the Beaufort Sea lease sale, as well as some other promising areas on and off-shore in Alaska will be offered in the near future. Beyond that, a sensible plan for the financing of the Alaskan gas pipeline needs to be resolved and we expect to participate in some portion of that total project. Synthetic fuels, particularly in the oil shale area, which Sohio has been active in for 15 years, may, depending on government policies and economics, attract more of our investment funds.

The direction of our commitment is clear. How much we can do here in the United States depends on the opportunities and the dollars available to us.

With respect to H.R. 3919, I would like to make two general observations and then focus on the Alaskan impact of this bill.

The first observation is that it doesn't make sense to me to tax one form of energy to subsidize synthetic energy development, when a maximum effort is needed on both fronts. It particularly doesn't make sense when the energy source to be taxed is the principal source our country must rely on during the ten to twenty years needed to bridge the gap to the synthetic forms of energy for the future. The natural decline of mature oil fields in the U.S. and throughout the world, coupled with the energy demands of our increasing world population, require that we use maximum efforts through maximum incentives to assure our country a reliable source of domestic energy supplies for its survival during this transition period.

The second general observation responds to this Committee's interest in what actual energy resources can be found and developed from dollars invested. We've done some work on this. While no one's crystal ball is totally clear on this subject, we have estimated that the amount of windfall profits tax we, Sohio alone, might have to pay over the next ten years, could decrease our contribution to domestic energy production by 100,000-200,000 barrels per day oil equivalent in the late

1980's. Said another way, this represents over one billion barrels of oil equivalents that probably would not be added to the United States proven energy reserves by Sohio. We are ready to take on the job, if we are allowed to put the money to work.

Turning to the Alaskan impact of H.R. 3919, the high risks and high costs of finding arctic oil, developing it and transporting it to the Lower 48 states, have been clear for several years. This, no doubt, prompted the Federal Government to exempt such Alaskan oil from the entitlement burden in the domestic crude oil price controls. This is completely understandable in view of its lower wellheads, even after selling the oil at prices competitive with the world market. I believe that these same reasons led the President to exempt Alaskan North Slope crude oil from the windfall profits tax as originally proposed.

H.R. 3919, however, extends the proposed windfall profits tax to Alaskan North Slope crude oil and discriminates against it relative to comparable Lower 48 oil. Similar oil produced in the Lower 48 states would be taxed on any increase in wellhead value above the $13 per barrel U.S. ceiling price, but the Alaskan oil would be taxed on any increase above an arbitrary $7.50 per barrel ceiling. A result of this surprising discrimination is that oil producers in the Lower 48 states would receive some benefit from decontrol, even with the windfall profits tax. Alaskan oil producers, on the other hand, would not receive any benefit from decontrol up to $13 per barrel, and since their wellhead values are now above the $7.50 level, imposition of the proposed tax would, in effect, force a rollback in the Alaskan wellhead values!

The unfairness of this proposed treatment of Alaskan oil producers is obvious, and flies in the face of the higher costs and risks of frontier oil development. It would also become another unfortunate example of the government's changing the rules after such risks are undertaken and major financial commitments are made.

While such changes of the rules are particularly felt by a company that has already made a major commitment, this "gotcha" approach to taxation and regulation cannot be overlooked by any company considering substantial new investments in any of our new energy frontiers.

Some may argue that the proposed tax would not be a disincentive to investment in new Alaskan oil, because newly discovered North Slope crude would be exempt from the windfall profits tax. Our response is, "Who will really believe that?" Actions still speak louder than words and the lesson to be learned is this: if you drill an expensive well on Alaska's North Slope and find nothing, no one will come around to bail you out—however, if you have a big success there and find substantial new oil reserves, you can also expect a big after-the-fact penalty.

By subjecting the Prudhoe Bay project to this windfall profits tax the Congress will have established a very important principle for all investors in high-risk, high-cost energy projects. That principle is: Congress will use its taxing powers to limit returns to investors based on its perception of what is a proper return and will apply that principle after the investment has been made. Such a principle will have a devastating impact on the search for major new domestic oil reserves which are almost certain to be in high-risk, high-cost frontier areas. The implementation of such a principle is particularly difficult to understand with respect to the Alaskan frontier when you consider that the Federal government has estimated that 30 percent of the undiscovered oil reserves in the entire United States are in Alaska.

For Sohio's part in future energy development, our record in the past ten years speaks for itself. I can assure you that we will be making every effort we can in the years ahead to develop new energy resources in both traditional and new forms, wherever opportunities exist in the United States, whenever the funds are available to us, and whenever the economics involved are commensurate with the risks to be taken.

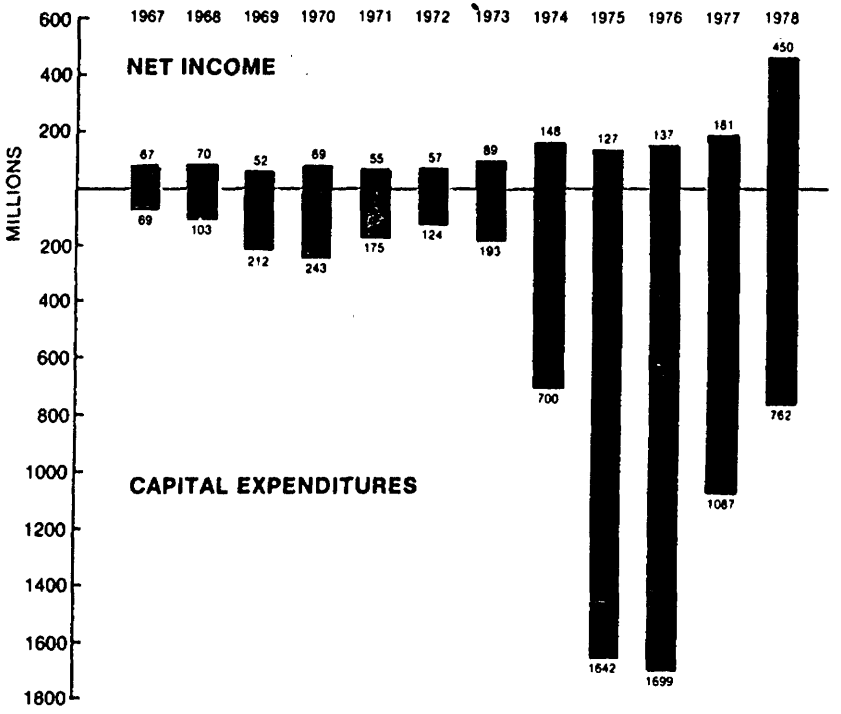
Why Alaskan North Slope (ANS) Crude Oil Should Be Exempt From All Windfall Profits Taxes

1. ANS producers will not realize any windfall from decontrol. From its inception, ANS crude has been marketed at world prices. Three reasons probably underlie this treatment. The risks associated with development and transportation of this oil are far greater than similarly classified oil in the Lower 48. Second, because of the high transportation costs to bring ANS crude to U.S. markets (from $7.00 to $9.00 per barrel versus $.50 to $.60 per barrel average for most other domestic production), the ANS producers realize a value at the wellhead far below its allowable ceiling price under present government controls. Third, the initial development of the Prudhoe Bay field was expensive, and additional investments of several billions of dollars will be required to continue to develop the field to its potential.

2. Low wellhead values as a result of high transportation costs are a factor bearing on any Arctic development and on which will probably continue. This is compounded by the fact that exploration and development of oil reserves in the Arctic are high cost activities. As such, there is a need to increase the "real" incentive, if possible, to fund undiscovered reserves in Alaska. According to USGS Bulletin No. 725, this area contains over 30 percent of the undiscovered oil reserves in the United States. A windfall profits tax would significantly diminish future incentives.

3. The return or profitability on risks taken is the key in any company's business decisions. Oil exploration is risky in general, and in the Arctic, even more so. The investment to produce and transport Prudhoe Bay oil, the largest oil field ever found in North America, was based not only on the profitability of the early years (1977 and 1978) but also on an anticipated real increase in the profitability over time as the value of oil increased in real terms. Future exploration and development in Alaska will inevitably key on the tax and regulatory treatment received by ANS crude now and in the years just ahead. Hopefully, the message will be clear that Alaskan oil development will be encouraged.

SOHIO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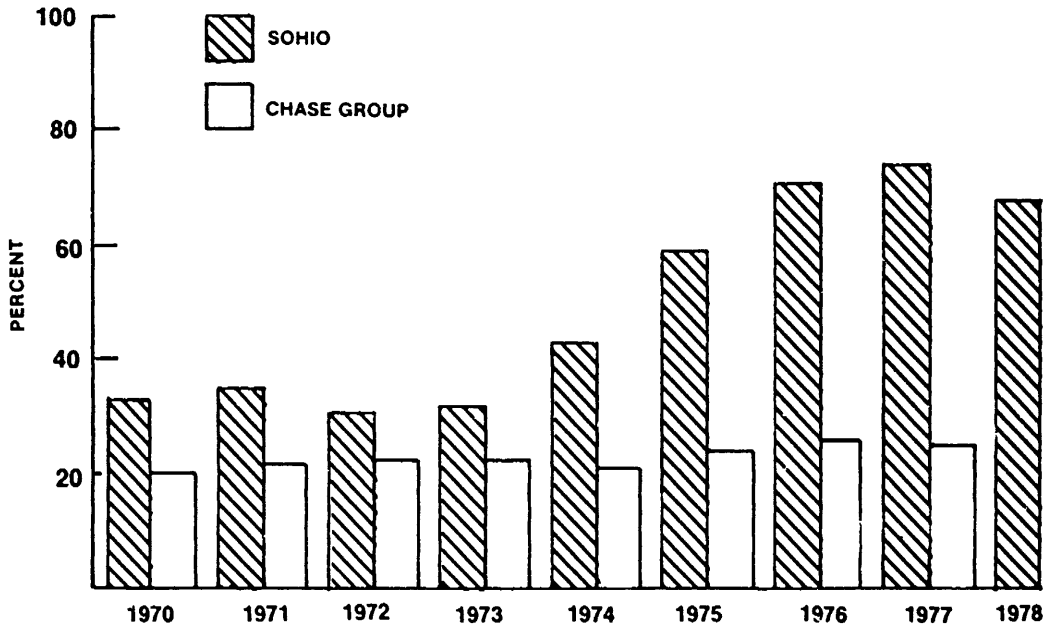
CAPITAL EXPENDITURES

DEBT AS A PERCENT OF TOTAL CAPITAL EMPLOYED



COMPARISION OF OILFIELD SITE FEATURES

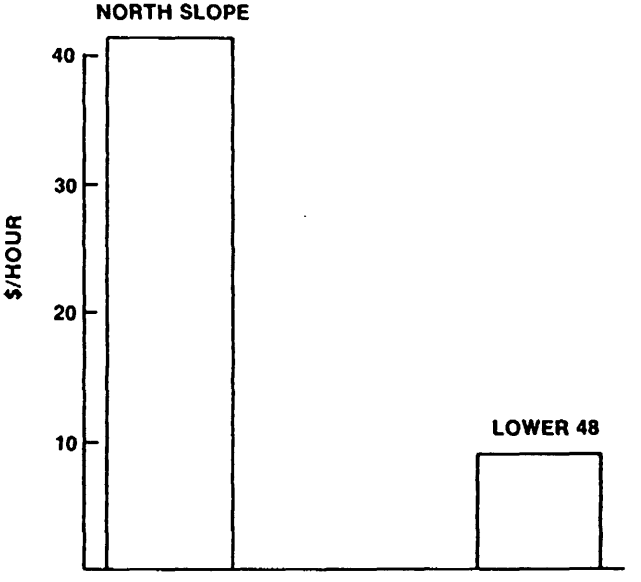
	Lower 48 Onshore	Lower 48 Offshore	Alaska North Slope	Alaska Offshore
Climate	Manageable	Equable	Severe	Severe
Surface Access	Extensive Road Work	Sea	No Roads, Access to Tundra Winter Only -- Sea Access 4-6 Weeks	Ice Roads in Winter Sea Access 4-6 Weeks
Drilling & Process Water Supply	Generally Abundant	Entire Ocean	Scarce	Available Below Ice
Potable Water Supply	Generally Abundant	Entire Ocean (Distilation Reqd.)	Scarce	Available Below Ice
Surface Geology/ Foundations	Generally Good Conventional	Generally Good Platforms Reqd.	Permafrost Concrete Piles and/or Gravel Pads Reqd.	? Artificial Island or Similar Reqd.
Operational Limitations	Usually Outdoor Year-Round	Usually Outdoor Year-Round	All Operations in Heated, Enclosed Buildings	All Operations in Heated, Enclosed Buildings
Community Infrastructure (Housing, Food, Medical, Recreation)	Available Except in Remote Areas	None	None	None
Utilities (Electricity, Sewage, Phones, Etc.)	Available Except in Remote Areas	None	None	None
Industrial Infrastructure (Workshops, Supply Storage)	Available in Established Areas	Available from Established Shore Base	None	None
Distance from Market	Close to U.S. Market	Close to U.S. Market	800 Miles by Pipeline to Valdez then Tanker to West Coast and Gulf Coast	

BEST COPY AVAILABLE

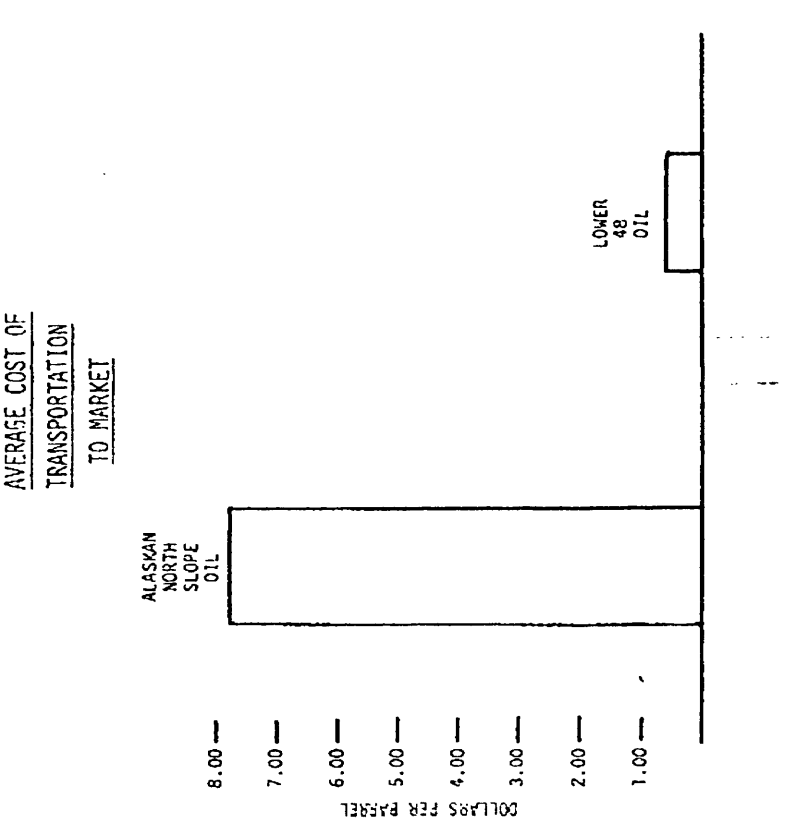
AVERAGE COST OF
A WELL DRILLED IN
1977

SOURCE: 1977 Joint Association Survey on Drilling Costs

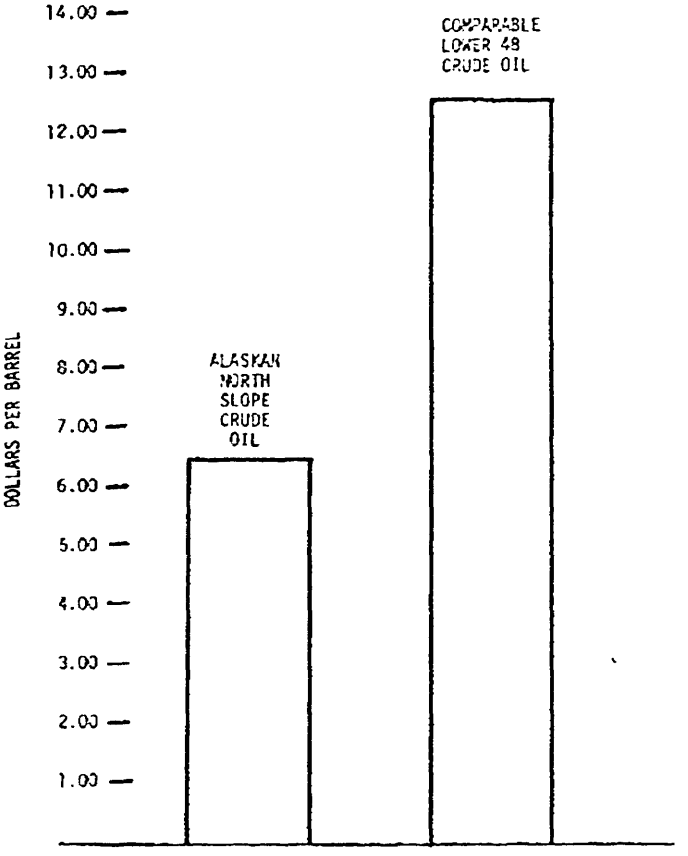
COST PER HOUR OF PRODUCTION WORKER

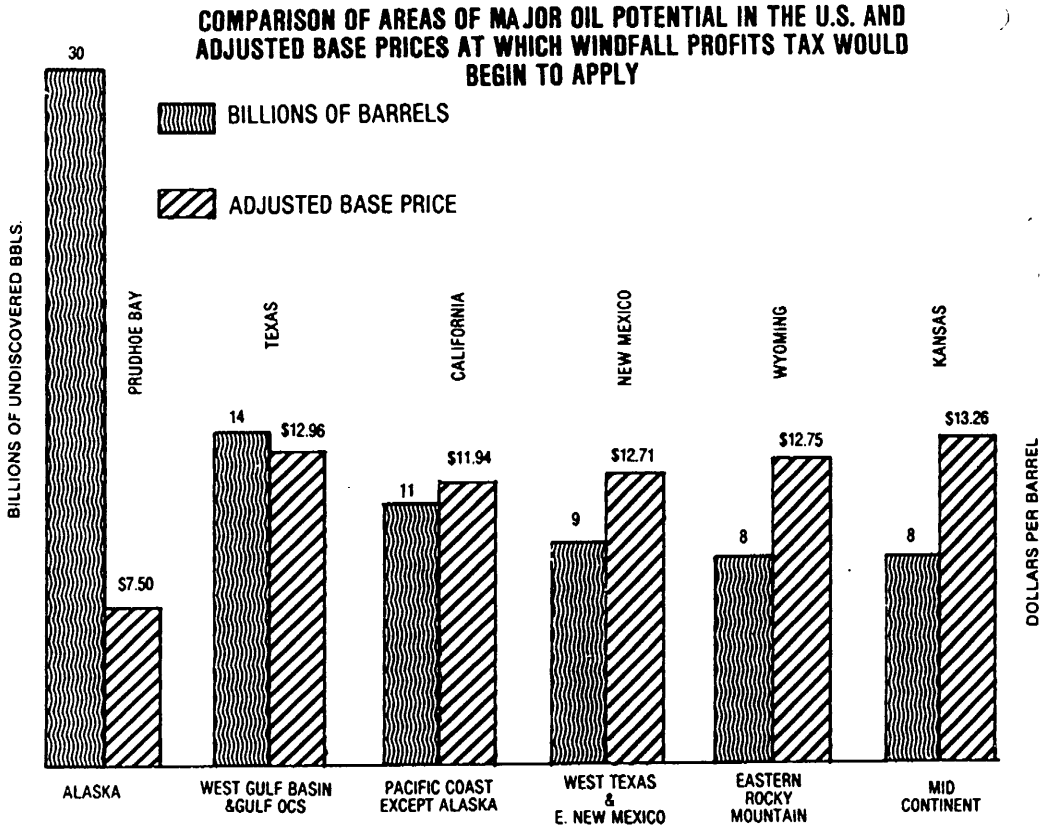


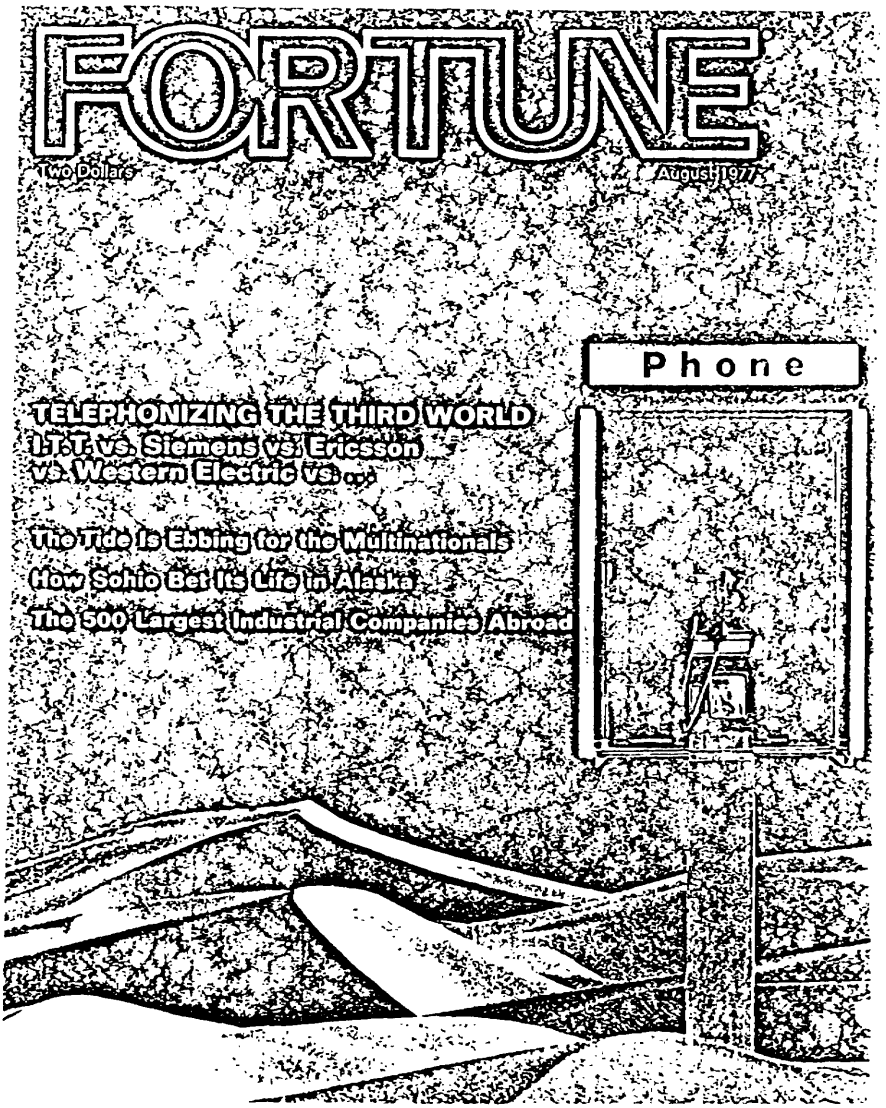
SOURCE: Sohio Labor Relations Department



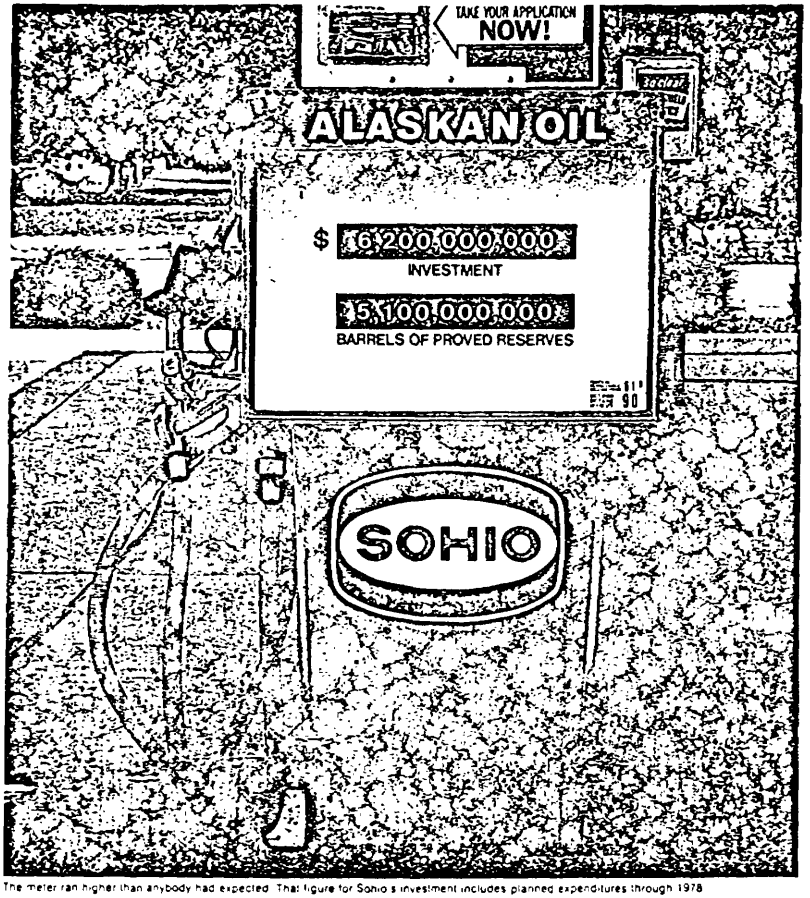
AVERAGE PRICE RECEIVED
AT THE WELLHEAD
MARCH 1979




COMPARISON OF AREAS OF MAJOR OIL POTENTIAL IN THE U.S. AND ADJUSTED BASE PRICES AT WHICH WINDFALL PROFITS TAX WOULD BEGIN TO APPLY
BILLIONS OF BARRELS
ADJUSTED BASE PRICE
BILLIONS OF UNDISCOVERED BBLS.
DOLLARS PER BARREL
30
$7.50
PRUDHOE BAY
14
$12.96
TEXAS
11
$11.94
CALIFORNIA
9
$12.71
NEW MEXICO
8
$12.75
WYOMING
8
$13.26
KANSAS
ALASKA
WEST GULF BASIN &GULF OCS
PACIFIC COAST EXCEPT ALASKA
WEST TEXAS & E. NEW MEXICO
EASTERN ROCKY MOUNTAIN
MID CONTINENT



FOR SOHIO, IT WAS



The meter ran higher than anybody had expected. That figure for Sohio's investment includes planned expenditures through 1978.

ALASKAN OIL—OR BUST

by Aimée L. Morner

Last month, as the first drops of crude oil coursed from Prudhoe Bay toward the Alaskan port of Valdez, the payoff was just beginning on a monumental corporate gamble. All but unnoticed in years of clamor and controversy over the pipeline, one relatively obscure company—Standard Oil of Ohio—had bet its very existence on an effort to get the oil out.

Sohio owns a third of the Trans Alaska Pipeline System and slightly more than half of the North Slope reserves—some 5.1 billion barrels of oil worth $69 billion at today's prices. In the end, its fantastic gamble is transforming the corporation from a relatively small, crude-short, regional refiner and marketer into a major integrated company to be reckoned with. Though it still ranks a mere nineteenth in the oil industry in terms of sales ($2.9 billion last year), Sohio is about to burst forth as the third-biggest producer in the U.S. (behind Exxon and Texaco), and it has already become the largest owner of domestic oil reserves.

The transformation has been a wrenching experience. None of the top executives anticipated at the outset the magnitude of an undertaking that was to become fraught with frenzy and drama. For one thing, they faced seemingly endless delays in the construction of the pipeline, owing to technical obstacles of unforeseen complexity, loud screams from environmentalists, and tortuous hassles with regulatory bodies. Accustomed to minding their tidy affairs in their drab headquarters in Cleveland, Sohio's management was suddenly thrust into the center of the political arena.

"We wanted to be remembered as men of courage and judgment, as risk takers on a grand scale," says Chairman Charles Spahr. Those risks brought his company closer to disaster than most people ever suspected.

The risks were enormous. At every turn, the costs shot up relentlessly; for the pipeline alone—which opened five full years behind schedule—they rose tenfold, to $9.3 billion, including capitalized interest on the owners' debt. Sohio's management continuously anted up more chips, thinking the hand good enough to justify the stakes. By the end of this year, Sohio will have borrowed some $4.6 billion—no less than *six times* its assets and nearly *fifty times* its debt in the late Sixties. Even after the bets were placed, there was no guarantee that the company would earn enough to service that tremendous debt.

Once committed to the project, there was no turning back. For one thing, the company desperately needed the oil. And the reputation of Charles Spahr, Sohio's highly imaginative, though seldom heralded, chief executive, was on the line. On a few occasions, the money nearly ran out and there was talk of selling reserves. But Spahr kept pushing ahead. As he explains: "We, and particularly I, wanted to be remembered as men of courage and judgment, as risk takers on a grand scale—not as damn fools. There could be no in-between."

That Sohio survived its trials in Alaska is all the more remarkable when one notes what was happening in the company's own backyard. Still crude short, Sohio was having to pay through the nose for foreign oil at a time when new competitors were invading its market and it couldn't pass along all of its costs. One frazzled executive recalls that the task of keeping the company afloat was a bit like living through the *Perils of Pauline*.

The man who masterminded Sohio's transformation grew up in Missouri, where his father was a stillman at a refinery, and had long harbored ambitions of being a builder. Young Charlie Spahr put himself through the University of Kansas, earning a degree in civil engineering, and went on to Harvard Business School—until his money ran out during the Depression. For a while it seemed as if his biggest job of building would be overseeing construction of a fuel pipeline in India during World War II. Soon afterward he headed back to Sohio, where he had been an engineer before the war. A prodigious worker, Spahr rose rapidly, and in 1959—when he was just forty-five—he became chief executive. It is fair to say, as one vice president does, that "for the past eighteen years, Charlie Spahr has dominated this company."

Informal but strong willed, Spahr quickly proved himself a decisive executive. For decades, Sohio had consistently made money in refining and marketing when others hadn't, mostly by concentrating its retail outlets in Ohio and supplying them through a pipeline distribution system that cut down on trucking costs. But the company's return on investment was running a slim 8.1 percent when Spahr took over; he thought that he could do better than that through diversification. Soon he ventured into plastics, acquired Old Ben Coal Co., and built chains of motor inns and restaurants. By the late Sixties, the refining and marketing operation, which still contributed some three-quarters of Sohio's revenues, had improved and the new businesses were paying off. The total return on investment climbed to a handsome 12.5 percent.

But as time went on, Spahr became increasingly worried about Sohio's supply of crude. The company purchased three-quarters of the crude it refined, and with

Research associate: Susan Schoch

overall domestic reserves showing signs of decline, he figured that less would be available on the open market. Unless Sohio could buy or find its own reserves, it might fall victim to a takeover.

Spahr was fully aware of that possibility, and determined to make the best of it. "Through diversification," he says, "we had become more attractive to someone who might want to acquire us and pay a substantial premium, which would enhance our stockholders' investment." To have a job title to give away to an acquiring company, he left the position of chairman unfilled throughout the Sixties.

Meanwhile, Spahr was looking for other ways to solve his problem. In 1966, he set out to acquire Amerada Petroleum Corp., a sensationally profitable producer with no debt and plenty of crude. But Leon Hess, the aggressive head of Hess Oil, had an eye for Amerada, too. While Spahr was wooing Amerada's management—"I made them the highest offer they had ever received," says he—Hess was slyly off in London negotiating with the British government to buy its 10 percent of Amerada, the largest block outstanding. Hess won. Recalls the soft-spoken Spahr: "I thought to myself, 'How stupid can I be?' "

As things turned out, Spahr's failure to win Amerada led to a great success. "I became even more determined to solve my problem and willing to take a bigger risk." In 1969, he entered into negotiations with British Petroleum, the sixth-biggest oil company in the world, hoping to get his hands on its U.S. properties, including the North Slope. For its part, B.P. was eager to gain a marketing outlet in the U.S.

Giving away the store

Fearful that the talks with Sohio might not go anywhere, B.P. hedged its bets. It acquired from Atlantic Richfield some 8,250 former Sinclair stations, which would wind up as part of Sohio if that deal went through. Spahr was aghast. He knew that the Sinclair network, with low-volume, inefficient stations in poor locations, had to be losing money—and indeed it was, $23 million in 1969. It would be a drag on Sohio just when the company needed to marshal all its resources for Alaska.

But Spahr was sufficiently desperate to plow ahead—and to get B.P.'s oil he had to give away more than half of his company. He agreed to finance development of the reserves and of B.P.'s share of the pipeline, while B.P., through its subsidiary, B.P. Alaska Inc., promised to contribute the technical know-how. In return for the oil properties, B.P. was to get a controlling interest in Sohio —as much as 54 percent—by January 1, 1978, at the latest. In addition, for all the crude produced above 600,000 barrels a day (net of an allowance for royalties paid to Alaska), B.P. would get royalties equal to 75 percent of the net profits. Finally, Sohio promised to pay B.P. dividends, figuring that it could afford to do so after the oil was flowing. In any case, the companies agreed upon a firm deadline for the dividends—no later than January, 1975—which seemed pretty safe at the time.

Spahr admits that in taking the gamble in Alaska he was trying for a "big resolve" for his company's problems. But the risks, he says, seemed "eminently worthwhile and containable." After all, the total cost of building the pipeline was then estimated to be a mere $900 million, making Sohio's share about $250 million. developing B.P.'s reserves would bring the total tab up to only about $570 million. Spahr thought a right-of-way permit for the pipeline would be issued in "just a matter of months." While others assumed that the oil would be flowing by the end of 1972, Spahr figured 1973—"conservatively."

A strange kind of cordiality

But it was not long before the issuance of a permit became a cause celèbre. For one thing, environmental groups, who feared that the 800-mile pipeline would damage the tundra and destroy wildlife, won a federal injunction against the project in 1970. When it became apparent that a battle might rage for some time, the informal committee that had sprung up to build the pipeline gave way to the Alyeska Pipeline Service Co., which was owned by the seven major holders of reserves. Sohio held the largest chunk of the company—27.5 percent.

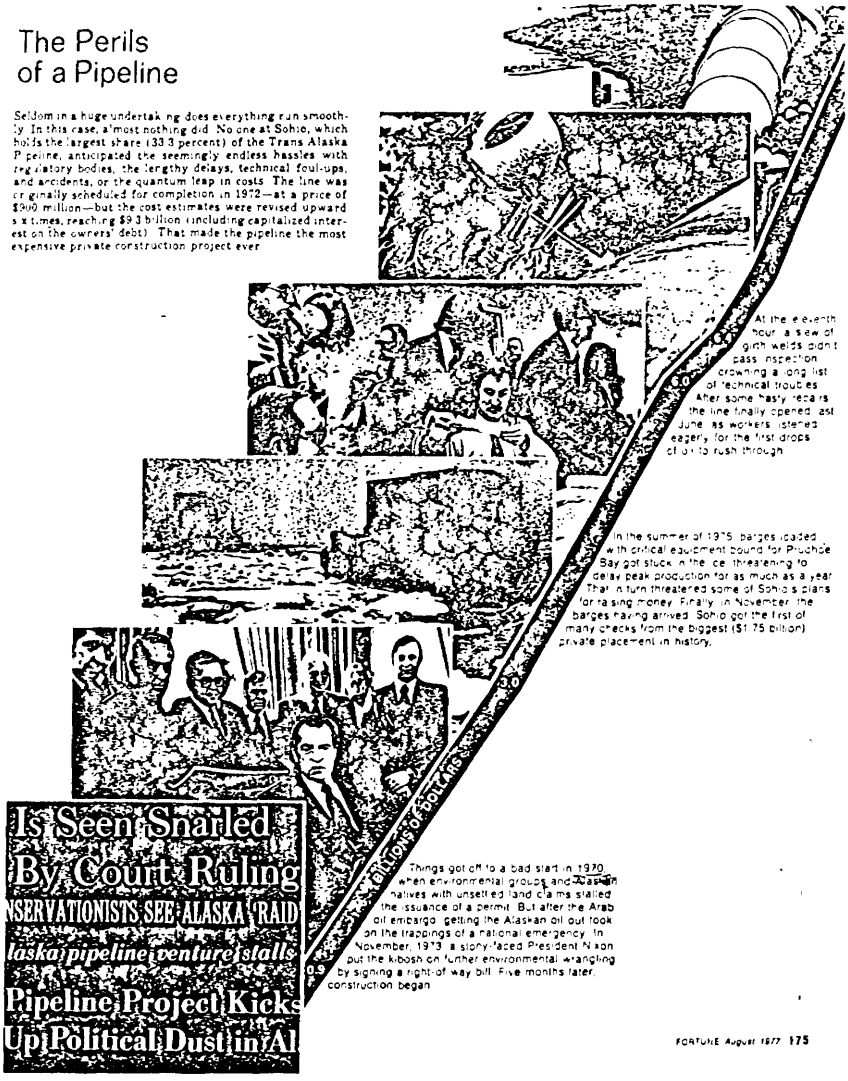
Sohio's executives soon found themselves, as one of them puts it, "up to our eyebrows" in legal hassles. As it happened, Spahr had just hired some lawyers, including Richard Donaldson, a dynamic young partner in a leading Cleveland firm. Donaldson graphically recalls Sohio's first campaign in Alaska: "We were treated with all the cordiality of hired killers." Governor William Egan was, in effect, telling the oil companies: Fine, you finance and build the pipeline, but let the State of Alaska own it, run it, and take the profits. Says Donaldson wryly, "We tried to find nice ways to say that we couldn't do that, our lenders wouldn't understand, and we wouldn't be able to get any financing. Finally, we just said no."

The legislature enacted a bill along Egan's lines anyway, and for nearly eighteen months, Sohio and its allies in Alyeska battled the lawmakers in Juneau. Finally, after intense lobbying, the legislature relented and passed revised statutes. The law levied taxes on North Slope oil that were pretty hefty, but the companies could live with them. Even while fighting that battle, though, Sohio was still pressing the state and federal governments for the necessary permits. "It was like trying to play three-dimensional Chinese checkers," says Donaldson. But no one seemed to be winning, and everyone had come to question whether the permits would, in fact, ever be forthcoming. Having spent nearly $200 million in developing reserves by the end of 1972, Sohio had a lot to lose.

At about that time, disagreements began to break out among Alyeska's three largest owners over how much they should spend on engineering studies and equipment

The Perils of a Pipeline

Seldom in a huge undertaking does everything run smoothly. In this case, almost nothing did. No one at Sohio, which holds the largest share (33.3 percent) of the Trans Alaska Pipeline, anticipated the seemingly endless hassles with regulatory bodies, the lengthy delays, technical foul-ups, and accidents, or the quantum leap in costs. The line was originally scheduled for completion in 1972—at a price of $900 million—but the cost estimates were revised upward six times, reaching $9.3 billion (including capitalized interest on the owners' debt). That made the pipeline the most expensive private construction project ever.



At the eleventh hour, a few of 61,000 welds didn't pass inspection, crowning a long list of technical troubles. After some hasty repairs, the line finally opened last June as workers listened eagerly for the first drops of oil to rush through.

In the summer of 1975, barges loaded with critical equipment bound for Prudhoe Bay got stuck in the ice, threatening to delay peak production for as much as a year. That in turn threatened some of Sohio's plans for raising money. Finally, in November, the barges having arrived, Sohio got the first of many checks from the biggest ($1.75 billion) private placement in history.

Things got off to a bad start in 1970 when environmental groups and Alaskan natives with unsettled land claims stalled the issuance of a permit. But after the Arab oil embargo, getting the Alaskan oil out took on the trappings of a national emergency. In November, 1973, a story-faced President Nixon put the kibosh on further environmental wrangling by signing a right-of-way bill. Five months later, construction began.

when they might just be throwing money down a rat hole Exxon, which has the luxury of a worldwide crude supply, could afford to sit back patiently and play tight with its purse strings. Atlantic Richfield was most eager to spend because, like Sohio, it needed the oil. Says Joseph Harnett, then executive vice president of Sohio: "Our attitude would have been the same as Arco's--except that we just weren't as well heeled."

Alyeska issued its first official cost estimate for the pipeline in 1972. Alton Whitehouse, who had become president of Sohio two years earlier when Spahr moved up to chairman, was in the London offices of B P. when he got the news. A ruddy-faced, tense man who nonetheless smiles easily, Whitehouse had left his partnership in a Cleveland law firm, joined Sohio as its first general counsel, and soon afterward drew up the agreement with B P. He recalls his reaction to the telex vividly. "I almost fainted," he says. "I walked into the office of Monty Pennell, one of B P.'s managing directors, and handed him the telex, he was absolutely stunned." The original estimate of $900 million had risen to a cool $3 billion.

By the fall of 1973, things took a slight turn for the better. Congress, jolted into action by the Arab oil embargo, passed a right-of-way bill and President Nixon signed it in November. With that permit finally in hand, Alyeska hurriedly started building. But owing to higher equipment costs, a decision to double the initial capacity to 1.2 billion barrels a day, and a steep bill for meeting stringent environmental standards, the estimated cost of completing the line had risen, as Spahr puts it, to "frightening proportions." By early 1974, it was $4 billion, and by the end of that year, a princely $5.98 billion.

Sohio soon found itself in a fix. When they doubled the capacity of the pipeline, the owners came around to the view that their rates of participation should be more in line with their shares of the North Slope reserves. That would have made Sohio the not-so-proud owner of a half interest in the expanded pipeline, with an overall need for external financing of some $3 billion—twice the company's assets outside Alaska. Stuck with more than he had bargained for, Spahr had to ask B P. to pick up one third of his obligation to Alyeska, reducing Sohio's share to 33.3 percent. B P. reluctantly agreed.

"We had to grow up," says Charles Spahr (right), sixty-three-year-old head of Sohio, explaining the phenomenal transformation of his company. When Spahr retires this year, Alton Whitehouse, fifty, will begin guiding the corporation through its next stage of development.

The elephant kept sticking out

The dizzying increases in cost forced Sohio's top executives to rethink just how they could dredge up the money. Based on the original estimates of the pipeline's cost, they had been confident that they could raise enough cash by floating a bit of debt, while relying mainly on off-balance-sheet financing in the form of throughput agreements (that is, borrowings serviced by revenues from oil put through a pipeline). This would keep the company's debt on the balance sheet down to a respectable 30 percent of total capital.

Early on, Sohio wangled a unique deal with Columbia Gas System, a major gas-distribution utility in the East. Columbia Gas agreed to fork over $175 million, to be repaid only if Sohio ultimately made money from crude production on the North Slope. In return, the utility got first claim on Sohio's natural gas in Alaska, when and if that gas was produced. (The Federal Power Commission has since squelched this type of deal because the capital was included in the utility's rate base, but the consumer was not getting any benefit.)

It soon became apparent, however, that Sohio couldn't possibly raise enough money off the balance sheet to cover its rapidly ballooning needs. "It was like trying to hide an elephant under a blanket," says John Miller, a sharp-eyed vice president of finance. Sohio's tiny finance department had to blueprint another plan.

It is probably fair to say that seldom in the business of raising money have so few, who knew so little, done so much. Only one of Sohio's four financial men had a background in finance. At the age of thirty-six, Miller had a degree in chemical engineering from the University of Cincinnati and had spent much of his career in supply and distribution. His boss, the lanky and reserved senior vice president of finance, Paul Phillips, was an accountant by

continued

training from Oklahoma. To bring themselves up to speed in finance, Miller and his colleagues—with the exception of Phillips—headed off to Morgan Stanley, Sohio's investment banker, for a crash course.

In 1974, Phillips and Miller negotiated a $600-million revolving credit agreement with a slew of banks and sold some commercial paper. Later, advised by Morgan Stanley, they realized that they could not possibly hit the public debt markets heavily enough, or frequently enough (as often as four times a year), to finance their entire needs. So they decided to raise money privately. The cornerstone of their scheme became a joint private placement with B P , through which they hoped to bring in $750 million.

The 75-25 debt-equity ratio

Selling that private placement to the nation's biggest and most sophisticated lenders took a good bit of ingenuity. For one thing, there was no way to peddle it on the strength of Sohio's balance sheet; by the time Sohio borrowed all it needed, the company's debt would have reached an almost intolerable 75 percent of total capital —the highest among all major U S. corporations. Most oil companies shoot for less than 35 percent. But the percentage of debt for Sohio was somewhat misleading because the Alaskan reserves, worth many billions, were reflected on the balance sheet as an asset of less than $400 million—what Sohio had invested in them thus far. So Morgan Stanley billed the deal as a "project" financing—one that had to fly on the financial and technical merits of the pipeline itself.

The lenders scratched their heads at the notion and not all of them bought it. In April, 1975, Metropolitan Life Insurance Co., an influential investor, turned thumbs down. The Met, it seems, stuck with its traditional approach, looked at Sohio's corporate creditworthiness, and just didn't like what it saw. Though the Met still won't talk about its lack of enthusiasm, it probably also felt jittery about forthcoming government regulations on the pricing and taxation of Alaskan oil, which could have kept Sohio from earning enough to service the debt.

That blow was a crushing one for Sohio, and even the notoriously unflappable managing directors at Morgan Stanley blinked. Says one of them, David Goodman, who oversaw Sohio's financial planning: "When we got a black eye from the Met on our first step, we decided to take another look." One much-discussed option would have been to sell some of the North Slope reserves, which would have cut Sohio's development expenditures and brought in money as well. Several potential buyers—among them Texaco, Shell, and Gulf—were waiting like wolves at the door, eager to pick up a piece of Sohio's position.

Had Spahr been desperate enough to sell reserves, he would have had his troubles doing it—they had a lot of strings attached to them. For one thing, B P had acquired the Sinclair operation from Arco on credit, pledging the reserves as collateral; so Arco had the right to veto any sale. In addition, the original agreement between Sohio and B P. made no provision for disposing of any properties. Clearly, Sohio was over a barrel. Says Spahr: "We would have had to negotiate with the British for changes under duress, and with no leverage."

Spahr thought that he could win "the battle of time," as he puts it, and as things turned out, he was right By May, a month after the Met had turned up its nose, Sohio was having more constructive conversations with the Prudential Insurance Co. Originally asked to kick in $150 million at a 10 percent interest rate, the Pru said no way; it wanted a higher rate. Morgan Stanley soon upped its offer to 10½ percent, but the Pru stood firm.

Then James Toren, a vice president at the Pru, moved things off dead center. Toren reasoned that if Sohio increased the private placement to $1.5 billion or $2 billion, thereby nailing down a bigger chunk of its needs, the larger deal would justify a higher rate, say 10⅝ percent. And the Pru would give that deal a big send-off, by lending $250 million. Swallowing hard, Sohio agreed to the terms despite the heavier financial burden.

The Pru's vote of confidence got things rolling. Because interest rates dropped during the next two months, additional lenders flocked in like lemmings (and the Pru looked very smart indeed). Some seventy-six major institutions finally committed a total of $1.75 billion, in what became the largest private placement ever.

Haunted by those dividends

But for a while it looked as if Sohio might not get the money after all. The private placement was supposed to close in July, 1975, and Sohio needed to get its hands on the cash. The only additional financing scheduled was to be an offering of two million shares of common stock in October, after the private placement was to have been locked up And Sohio was sending money out the door to Alaska at a rate of more than $4 million a day.

But once again things didn't work out as planned. Because of the Byzantine complexity of the private placement, the lawyers needed more time and so delayed the closing. Sohio was soon eating up its contingency funds, and the estimated cost of the pipeline had spurted up once again, this time by $400 million. To add to its woes, Sohio had to make good on the promise to pay dividends to B P , despite last-minute attempts by Spahr to get a moratorium. He had anticipated that the dividends would be paid out of earnings from the North Slope, but instead, those payments, $12 million a year, cut into the company's existing cash flow. "It was," says Whitehouse, "one of our misfires."

At this point, the fate of the stock offering and the private placement began to hang on the whim of the gods In the summer of 1975, forty-seven barges—each the size of a football field—rendezvoused southwest of Point Barrow, Alaska, at the edge of the Arctic ice cap. Loaded with

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nearly $500 million worth of essential equipment bound for Prudhoe Bay, some 180 miles distant, those barges were poised to make the trek just as soon as a crack in the ice appeared, which normally occurs in early August. But the weather misbehaved and the ice failed to budge. By September, Sohio's executives feared that if the barges could not make a run for it soon, they might be shut out of Prudhoe Bay for the winter.

That would have meant a year's delay in reaching peak production, a situation Sohio's executives constantly feared. To convince potential lenders that—given the worst of all possible worlds—Sohio could repay its debts, they had conjured up a "disaster scenario." In this case, a "disaster" included oil prices of $5 to $6 a barrel, and a doubling in the cost of the pipeline. (It was a bit of unconscious prophecy that Sohio's worst assumption on the cost of the pipeline—$9 billion—was just under what the price ultimately turned out to be.)

In mid-September, ten barges slipped through a slight opening in the ice pack and arrived safely in Prudhoe Bay. But twenty-two others headed back south, and the remainder, which stayed put, were soon surrounded by ice again. If the captains of those barges were anxious about the success of their mission, the men in charge of raising the money were even more so. "It was critical that the barges got through," Miller explains. "Otherwise, the buyers of the common stock, knowing we couldn't meet our schedule, would probably have said to us, 'Come back next year.' And the lenders in the private placement might have rethought things."

"We pleaded with them to wait"

By then Sohio had only enough money to last for six weeks. Each day Goodman at Morgan Stanley got a call from Sohio, which was in constant touch with the barge captains and even the weathermen in Alaska; pending goods news, he postponed the common-stock offering. Once again there was a flurry of talk about selling off reserves. To help keep his spirits up, Miller posted a crudely lettered sign on his wall that read: "Remember—there are 5.1 billion barrels of oil up there."

Smelling desperation perhaps, all sorts of characters turned up offering money—some of them con artists who turned out to have no money at all. One quite legitimate character was Henry (Duke) Johnson, an officer from the swinging Bank of Nova Scotia, which has no legal lending limit. Johnson stopped by Miller's office in September, and within a week he and Miller agreed on a $100-million revolving line of credit, which gave Sohio breathing room.

In October, while the barges remained stuck, the barge contractor and Arco became eager to abort the mission and try again the following summer. David Lybarger, Sohio's vice president of oil and gas in Alaska, says: "We pleaded with them to wait just twenty-four hours more." Miraculously, the weather turned warmer and the ice parted again, allowing the barges to make a dash for Prudhoe Bay. Assured that development of the reserves would move ahead, Morgan Stanley fired off the common-stock issue and closed the private placement—to the accompaniment of a big sigh of relief at Sohio's headquarters.

It might have seemed by then as if things could only improve. But Sohio's executives had come to believe that if anything could go wrong, it would. And it did. To get the right-of-way permit initially, Alyeska—in an unusual move—had agreed to X-ray all of the more than 100,000 girth welds to assure reliability. As anyone who has followed the news accounts knows, many of those X rays turned out to have been falsified, and some of the welds were faulty. The federal government hired Arthur Andersen & Co., the accounting firm, to "audit" the X rays and determine the need for repairs. This costly procedure, coupled with lower than expected productivity and still higher expenses for equipment, boosted the bill for the pipeline to a breathtaking $9.3 billion.

Meanwhile, back in Ohio . . .

Because Spahr was spending so furiously in Alaska, he had nothing but pin money left over to sink into Sohio's marketing operations—though these were in urgent need. In the late Sixties, the company had come under the onslaught of competition from independents, which—unlike the majors—were providing only selective services at each outlet and pumping higher volumes of gas at lower prices. So Spahr set out to refashion Sohio's marketing system into a more competitive network of specialized stations.

As things turned out, this effort soon came face to face with a host of strangling government regulations. When Spahr took over B.P.'s Sinclair properties, the Justice Department forced Sohio to divest itself of about a thousand service stations in Ohio within four years, to encourage competition. But after the embargo, the federal government instituted an allocation program for petroleum products, guaranteeing each existing station only as much product as it had been selling during a base period in 1972. Prospective buyers of the Sohio stations were interested only if they could increase volume—and in this case, they had no assurance of getting more product. Spahr practically had to give the stations away. Making matters worse, the divestiture requirement meant that Sohio would lose market share, just when Spahr was eager to beef up sales by switching to high-volume stations.

Yet another restriction, limiting the amount of higher crude-oil costs that companies could pass through, sent Sohio's profits from petroleum products into a nose dive. Though that business still contributed more than four fifths of the company's overall revenues in 1974, it produced only 18 percent of pretax profits (down from 75 percent in 1970). After taxes and interest, it was in the red.

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Sohio was kept alive during these trying times by the businesses that Spahr had diversified into. Earnings soared from coal and chemicals. Says Spahr: "If we hadn't had income from these operations, we wouldn't have been able to attract the capital in the amounts that we did, or probably at all. We might well have had to dispose of a substantial part of our reserves and skirted close to bankruptcy."

Where does all the oil go?

As the Alaskan Prudhoe Bay finally heads to market, Sohio stands on the threshold of a new era. Spahr, however, will not have a say in how things turn out. At the end of this year he will retire as chairman, chief executive and a board member, leaving Whitehouse in command. Though Spahr admits that he has been "sobered" by his company's traumas, he is saddened by stepping down. But he says quietly, "I was fortunate to see the company through the Alaska project and I leave it—as I see it—about to embark on a new and major role in the industry."

It is clear that over the next several years, Whitehouse will face some tough challenges, and his response will ultimately determine the success of the Alaskan gamble. Curiously enough, the most pressing question confronting Whitehouse is what to do with all that oil. Sohio will probably not refine any itself, because transportation costs to its three refineries in Ohio and Pennsylvania are too steep. It had originally intended to ship the oil to the West Coast for sale to other refiners. But higher oil prices, efforts at conservation, and the recession have weakened the growth in demand. Now, it seems, there will be a glut of oil on the West Coast by the end of this year.

Since 1975, Sohio has been trying to get a green light from the State of California for a pipeline to move the excess crude from Long Beach to Midland, Texas, where it could be sent into markets in the Midwest. Usable lines covering nearly 80 percent of the distance have been in place for a long time, and Sohio insists that it could build the remaining link in eighteen months if it had a permit. But, as in Alaska, environmental groups have raised a fuss, and the jury is still out.

As an alternative, Sohio will ship the surplus crude through the Panama Canal to the Gulf Coast, a costly maneuver that will cut into the company's profits. Shipping costs from the West Coast through the canal run about $1.90 a barrel, which compares with $1.30 a barrel to pump oil through a pipeline to Texas.

Of course, the excess oil can simply be left in the ground in Alaska. But that is a depressing prospect for Sohio's executives, owing to their compelling commitment to repay interest and principal on the debt, in chunks that vary from $300 million to $600 million annually, over the next five years. Sohio clearly needs all the money it can get—now. As Phillips puts it: "With our cash flow from the lower forty-eight states only $250 million a year, it makes me nervous that we can't even service our debt without the oil from Alaska." As long as the oil does flow, though, Phillips should sleep well. Estimates by FORTUNE, made with the help of William Randol, an oil analyst at F. Eberstadt & Co., suggest that even after debt repayment, Sohio should have more than $400 million to reinvest each year through 1989.

Remarkably enough, Whitehouse's top priority is to send that cash right back to Alaska, where he plans to spend at least $2.5 billion during the next decade to develop Sohio's oil and gas reserves and to expand the pipeline. He says that what "bugs" him is just the opposite of what worries Phillips—what to do with the rest of the money. Undoubtedly, he will sink a bundle of it into chemicals and coal, but neither of those businesses is trouble-free. The chemical business is highly cyclical and profit margins have been squeezed by sharply higher costs, and the coal business faces problems, among them long lead times in digging new mines and industry's reluctance to switch to coal for fuel.

The tar baby in Washington

Whitehouse says he doesn't fret much about the financial risks anymore. To be sure, he is concerned that sabotage, a natural disaster, or accidents like last month's explosion could interrupt the oil flow. But he is most worried about what is going to happen in Washington. Recently, he has been embroiled in a huge debate with the Interstate Commerce Commission over the allowable return on the pipeline. Whitehouse expects to fold B.P. Alaska Inc. into Sohio, and he would like to use B.P.'s expertise to drill a lot of exploratory wells in the U.S. But he fears that the government will not set oil prices high enough to allow an adequate return for taking that risk, and may further damp the demand for petroleum products through higher taxes. "Congress has its arms around a tar baby," says Whitehouse hotly, "and won't let go."

It is worth noting that if the price of oil had not risen so spectacularly, the Alaskan project would probably have been one of the biggest financial fizzles ever. As it happened, the higher selling price, about $13.50 a barrel, for Alaskan oil will help offset the higher capital costs. Sohio still thinks it will earn a return of about 15 percent on its investment. Says one Sohio vice president: "We were just damn lucky things turned out this way."

At Sohio's headquarters these days the top executives seem a bit weary after their seven-year war in Alaska. Almost to a man they admit that if they had known when they started what they know now, they might not have had the courage to see the project through. Soon, as their efforts bear fruit, they will have to search for more oil—despite the uncertainties in Washington—to assure that Sohio keeps its newfound status as a major factor in the industry. Though excited about that prospect, none of them cares to conjure up a script that reads anything like the melodrama of the past. END

PREPARED STATEMENT OF W F KIESCHNICK, VICE CHAIRMAN, ATLANTIC RICHFIELD CO

Mr Chairman, members of the Committee, my name is W F Kieschnick I am Vice Chairman and Executive Vice President of Atlantic Richfield Company

ATLANTIC RICHFIELD CO POSITION

The need for energy reform and new energy initiative for the U.S is now being confronted intensively in our country New energy systems such as synthetics and solar are urgent to the future but will not produce major supplies in the next decade Increased oil and gas exploration underway and anticipated from new incentives will gradually bring production results Possibly, for the next ten years and especially for the next five years, our energy fate depends upon our stewardship of the energy systems we have in place This not only means conservation or energy efficiency but it also means squeezing the most production out of existing oil, gas and coal reserves The Sadlerochit Reservoir on the North Slope is an outstanding example of an existing U S energy asset that can contribute in this fashion

In that setting, I want to concentrate my remarks on provisions of H R 3919 passed by the House of Representatives as they affect our largest domestic producing asset—the Sadlerochit Reservoir of the Prudhoe Bay Field in North Alaska—which may hold about one-third of American crude oil reserves It seems plain to me that the House "windfall profit" tax treatment of Sadlerochit oil was mistaken and that it is imperative that this Committee rectify that error

ADMINISTRATION PROPOSAL OF APRIL 5, 1979

Under the Administration's "windfall profit" tax proposal, all crude oil produced north of the Arctic Circle was exempted from the tax We think such an exemption is justified and would result in maximizing supply from this important area The proposed exemption was apparently in recognition of the high cost and high risk of oil activities in North Alaska and of the future incremental producing opportunities inherent in such a large petroleum accumulation as the Sadlerochit Reservoir. Further, the exemption had the salutary effect of providing the maximum incentive for exploration in other high cost, high risk frontier areas

HOUSE OF REPRESENTATIVES BILL

In contrast to the Administration proposal, the "windfall profit" tax treatment specified in H R. 3919 uniquely penalizes Prudhoe Bay Sadlerochit crude oil. This puts at risk significant increments of production from this as yet largely undeveloped field production which we badly need. For our part, we were shocked and dismayed at this treatment Under the provisions of H R 3919, all other domestic upper tier crudes would be taxed based upon the difference between their selling price and their May 1979 ceiling price adjusted for inflation But Prudhoe Bay Sadlerochit crude is singled out in H R 3919 for differentially severe tax treatment by defining its "windfall profit" based on an artificial wellhead price of $7.50 per barrel that is depressed nearly $5.50 per barrel below its May 1979 ceiling price. Indeed, judging by more recent bidding for state-owned royalty oil, this artificial tax base price is already obsolete

Further, the Prudhoe Bay Unit Sadlerochit crude is the only crude from the thousands of U.S. domestic oil fields which is deprived of the benefit of the severance tax adjustment in the tax calculation.[1] The fact that a 50 percent rate rather than 60 percent is specified in the computation of the "windfall profit" tax falls far short of providing even equal tax treatment for Prudhoe Bay Sadlerochit crude.

Under existing Department of Energy (DOE) price regulations, Prudhoe Bay Unit oil, like other domestic production from properties which commenced production after 1972, is permitted to be priced at the upper tier ceiling price. Where there is no upper tier production from the field at the time designated by DOE regulations for establishing the base price, the ceiling price is to be established by the price of upper tier production from another field producing a similar quality of oil. In the case of the Prudhoe Bay field, DOE regulations stipulate that the ceiling price be established by the price of upper tier oil in the base period from the Cut Bank Field in Montana. The May 1979 upper tier ceiling price for 27 degree API gravity crude oil from the Cut Bank Field was $12 91 per barrel (the current ceiling price is $13.09).

[1] Another indication that the House did not properly contemplate the treatment of Alaska oil is an apparent construction problem in regard to third tier application. This is more fully explained in an attachment

Because of market price limitations and the very high transportation cost to the marketplace, Prudhoe Bay Sadlerochit crude production has, until very recently, sold at the wellhead at a price far below the upper tier ceiling price level. However, in planning future investments in the Prudhoe Bay Field, producers have always expected that the wellhead price would rise with increases in the marketplace to at least upper tier ceiling prices.

Atlantic Richfield Company feels very strongly that the tax treatment for the Prudhoe Bay Sadlerochit crude oil proposed by the House is contrary to the vital national goal of enhancing all possibilities of incremental domestic energy supplies. For H.R. 3919 to be in the national interest, the $7.50 tax base figure would have to represent a taxing formula which would not inhibit the maximum recovery from Sadlerochit. There is no evidence that informed testimony was available for that call. Indeed, it appears that $7.50 is no more than a recent price level in the earlier flush production interval of the field's history. It is not surprising, therefore, that the $7.50 tax threshold value limits maximum possible future production from Sadlerochit.

In drafting H.R. 3919, the House of Representatives wisely recognized both the great potential for future discoveries of oil and gas supplies on the North Slope of Alaska and the extemely high cost and high risks of operating in this remote and harsh environment. As a result, they excluded all crude oil produced north of the Arctic Circle from the tax, except, surprisingly, the Sadlerochit oil.

However, the House apparently failed to recognize a number of key factors bearing on the issue of applying the unique "windfall profit" tax provisions to the Prudhoe Bay Unit Sadlerochit crude. These factors include:

the tremendous remaining investments to be made for development and production of the still largely undeveloped Prudhoe Bay Field

the adverse effect that this tax treatment will have on the *economic viability* of future Prudhoe Bay development projects

the impact that it could have on other exploration programs on the North Slope and other frontier areas both in Alaska and the south 48 states, and

the true profitability of the Prudhoe Bay Unit

EXTRAORDINARY AMOUNT OF REMAINING INVESTMENT

The House bill provides that, except for Sadlerochit production, North Slope reservoirs already discovered but "not yet developed" shall be exempted from the tax. This provision apparently reflects the widely held misconception that most development investments for the Sadlerochit Reservoir have already been made. This assumption is wide of the mark. In fact, there is an extraordinary amount of remaining investment to be made on the Prudhoe Bay Unit project. Even though about $4 billion have been invested in the Prudhoe Bay Field to date, our engineers have calculated that the remaining investments will total an additional $15 billion or over three times as much as has already been spent. With the field already producing at a rate of about 1.2 million barrels per day, it may be difficult to realize that such a large investment must still be made to sustain the rate and to recover the reserves of the reservoir.

However, as production continues, additional drilling also must continue through at least the late 1980's. Another 400 or more wells must be added to the nearly 200 wells that have been drilled thus far. These wells will require construction of related facilities, such as drill sites, flow lines, etc., over the same time period. Additional investments will also have to be made for major facilities, to handle increased water production and higher producing gas/oil ratios, to artificially lift the production, and to maintain the reservoir pressure. Without these additional investments, Prudhoe Bay Unit production would decline sooner and much less of the oil in place would be recovered. Thus, there is an extensive and high cost program still required for complete development of the Prudhoe Bay Unit which simply must be recognized in any sound thinking on this issue.

In addition to the large remaining investment necessary to complete the development of the Prudhoe Bay Field, additional capital is expected to be required for the Trans Alaska Pipeline System (TAPS). To date some $9 billion plus have been invested in this enormous project with almost another billion dollars likely to be required for additional pump stations and tankage to increase the TAPS throughput capacity to its ultimate size.

EFFECT OF TAX ON MARGINAL PROJECTS

In considering the "windfall profit" tax, the Congress should be aware that in the massive unfinished development program in the Prudhoe Bay Unit there are a

substantial number of projects, all or portions of which will have their economic viability threatened by the tax. Our engineers have estimated that there may be 700 million barrels of crude oil at risk.

It is also important to recognize that the decision-making process is pervasive throughout an organization. The tax burden not only affects the judgment of the top management of the company, but impacts the day-to-day working decisions of engineers, geologists, planners, analysts, and scores of others in the operational process. The lost opportunities to produce oil because of the cumulative effect of all these decisions is difficult to measure, but in a field the size of Prudhoe Bay will be enormous.

Major facilities must be added to sustain or increase production in the Prudhoe Bay Unit and, for economic reasons, must be constructed in very large increments. For example, the cost of a proposed source water injection to enhance the ultimate recovery from the field is about $3.5 billion. The design of this project is underway with final approval required within a year and one-half. If the tax burden economics of the projects dictate that the facilities be smaller than the optimum size, some of the oil reserves will be lost or delayed. Once the facilities are constructed, some of the loss will be irreversible, since even small additions to the installed facilities on the North Slope become unacceptably expensive. The possibility of simple and inexpensive add-ons, a procedure widely used in many oil fields in the lower 48 states, does not exist at the Prudhoe Bay Unit. This is so because of high cost, remote location, and difficulty of the climate and terrain for construction.

In addition to the facility sizing problem, some of the remaining Prudhoe Bay Unit development projects are economically marginal and would be threatened in their entirety by the unique House "windfall profit" tax treatment. For example, the West End Development Program, which alone could add several hundred million barrels, has marginal economics even without the "windfall profit" tax burden. Imposition of the tax could render the project uneconomic.

There are three primary factors which must be considered in the decisions related to future facilities. These factors are expected performance of the oil field, the projected investment and operating costs, and the anticipated revenue. The "windfall profit" tax as contained in H.R. 3919 directly impacts the expected revenue. The impact of this tax on the sizing, timing and economic viability of future facilities in the Prudhoe Bay Unit cannot help but substantially reduce the ultimate recovery of oil in the field.

NEGATIVE IMPACT ON EXPLORATION

In addition to the detrimental impact on the Purdhoe Bay unfinished development program, application of the "windfall profit" tax to the Prudhoe Bay Unit is likely to have a severe negative impact on the future level of exploration in the Arctic and in other high cost—high risk frontier areas. The entire industry will interpret imposition of the "windfall profit" tax on Prudhoe Bay as a classic example of a "now I've got you" syndrome which will burden all future exploration projects with the threat of a retroactive tax penalty on any successful project.

Previous actions by the Department of Energy, with Congressional approval, defined the Prudhoe Bay Sadlerochit crude as upper tier crude oil. Based upon an assumption that the upper tier classification was given in good faith, the operators of the Prudhoe Bay Unit undertook investment programs in anticipation that the price would ultimately rise from its depressed level to reach the upper tier ceiling price as the world price increased.

But, by taking an inappropriate "snapshot at an instant in time" the windfall profit tax would change the rules under which the industry in Alaska was operating and freeze the price permanently at a depressed level. The predictable impact of such a breach of faith by the government will be a severe dampening of the industry's enthusiasm for undertaking large investments in high risk, big stakes fields because of the prospect of punitive retroactive tax treatment which would take away much of the potential for profit from successful projects *after* the investments have been made. If the Prudhoe Bay Unit receives such treatment, one cannot help but expect that similar after-the-fact economic burdens will be imposed on future discoveries.

MISCONCEPTION OF PRUDHOE PROFITABILITY

In addition to the misunderstanding pertaining to the amount of remaining investment at Prudhoe Bay, a second widely held misconception relates to the profitability of the Prudhoe Bay Unit. Its profitability is generally overrated, probably because the producing rate is very high and the reserves are very high leading to a large profit level in absolute dollar terms. The presumption, therefore, in the

part of some, is that the Prudhoe Bay Unit is inordinately profitable. However, this is simply not true.

The absolute level of profit from the Prudhoe Bay Unit, or from any other investment project, is universally recognized as an invalid measure of the true profitability of the investment. For a profitability measurement to be valid, it must relate the profit to the capital invested. The "discounted cash flow basis" rate of return calculation which analyzes the expenditure and revenue streams from a project in their proper time relationship is generally accepted as the most superior profitability measure available. On a discounted cash flow basis, our analyses show that the expected rate of return on the total investment in the Prudhoe Bay Unit over the entire life of the project in terms of constant 1979 dollars and using the current $13.00/barrel ceiling price—even with no windfall profit tax at all—would be about 15 percent. This is clearly not an excessive rate of return, especially in a high risk oriented business. Considering that Prudhoe Bay is the largest oil field ever found in the U.S. and has substantial existing incremental potential—some portion of which will be threatened by this tax—and that many other, if not most, U.S. fields earn a far higher return, the lack of excess would seem evident.

It is extremely important that the Congress, in its deliberations on the windfall profit tax, recognize the fatal fallacy of adopting as national policy a procedure which limits the return on a successful oil producing venture to a minimum return. Such a structure would prove fatal to the nation's attempt to increase its secure domestic oil supplies.

Because of the high risk involved in any frontier oil exploration area, most investments yield no production. For example, my Company spent about $150 million in the Gulf of Alaska, $50 million in the Atlantic Offshore and $70 million in the eastern Gulf of Mexico. All of these efforts were unsuccessful. For the industry to remain economically viable and carry out its vital role in achievement of the nation's energy goals, it is essential that a producer's successful projects, such as the Prudhoe Bay Unit, not only make an acceptable profit on the investment related to that particular project, but also carry a portion of the investments in unsuccessful projects so that an acceptable rate of return can be achieved on the producer's overall investment program. Thus, fields such as Prudhoe Bay, the new discoveries in the Overthrust Belt, the False River gas field in Louisiana, and the myriad smaller fields must earn sufficient profits to cover the billions of dollars which the industry expends in unsuccessful petroleum exploration efforts in frontier areas, as well as in the thousands of less obvious exploratory dry holes which have been drilled throughout the nation's oil exploration provinces.

DISCRIMINATION AGAINST ALASKA

I would like to briefly mention also the real discrimination of the House version against the State of Alaska. This resource-rich part of the United States which the United States Geological Survey estimates contains about one-third of the undiscovered oil in the U.S. should not be treated as a national stepchild. But, the peculiarly unfavorable tax treatment applied only to a single Alaska oil field can only send another message of federal unfairness to Alaska and its people.

CONCLUSION

In summary, Atlantic Richfield Company believes that all oil produced north of the Arctic Circle should be exempted from the "windfall profit" tax and that the Administration proposal of April 5, 1979, in this regard would encourage the maximum future supply from this important area where significant incremental production potential exists. This is the most certain way to insure the greatest supply of Alaska oil. However, if the Congress, for whatever reason, decides that it must apply a tax to the Prudhoe Bay Sadlerochit crude oil, we believe that it is in the national interest and consistent with the historical treatment relied upon by the producers and the State of Alaska that the Prudhoe Bay Unit Sadlerochit crude receive the same tax base price as other domestic upper tier oil.

Your actions will be an important signal from the Congress as to whether our government is going to fulfill its commitment to provide the maximum domestic energy supplies to our own citizens. Thank you for the opportunity to present our views to you on this critically important issue. I will be glad to answer any questions.

Under the provisions of H.R. 3919, oil that is defined by current DOE regulations as upper tier oil is generally classified as tier 2 oil for windfall profit tax purposes. This oil is to be taxed on the excess of its removal price over its adjusted base price

(May, 1979 upper tier ceiling price escalated for inflation) plus a severance tax adjustment. The tax on tier 2 oil is to be phased out by December 31, 1990.

To accomplish the phase out of the tax on tier 2 oil, the base price of tier 2 oil of any grade and location is to be adjusted incrementally over the 50 month period beginning November 1, 1986 and ending December 31, 1990, such that the gap between the tier 2 base price and the tier 3 base price for such oil is eliminated. The base price for tier 3 oil is defined as the price at which uncontrolled crude oil of the particular grade and location would have sold in December, 1979, if the average landed price for imported crude oil at that time were $16/barrel. Under these provisions, upper tier crude oil in the lower 48 states subject to the tax on tier 2 oil would have its base price increased over the November 1, 1986 to December 31, 1990 time period to the tier 3 base price (reflecting $16/barrel imported oil).

Although H.R. 3919 provides special rules for determining the windfall profit tax for Prudhoe Bay Sadlerochit oil, this production is in fact upper tier crude oil under current DOE regulations. However, application of a literal interpretation of the tier 2 provisions of H.R. 3919 to Prudhoe Bay Sadlerochit oil would tax this production on a basis that would be totally inconsistent in comparison with the tier 2 tax on upper tier oil from the lower 48 states. This inconsistency occurs because, at the point in time selected by H.R. 3919 for establishing the base price for tax purposes, the high transportation cost for Prudhoe Bay oil would cause the tier 3 base price (about $9/barrel wellhead price reflecting $16/barrel imports) to be much lower than its tier 2 base price (about $13/barrel based on the upper tier ceiling price in May, 1979). Because of this peculiarity, a strict application of the tier 2 provision of H.R. 3919 to Prudhoe Bay Sadlerochit oil would cause its adjusted base price to be increased with inflation from the May, 1979 upper tier ceiling price level until November 1, 1986. However, beginning in November, 1986, the adjusted base price would decline until December 31, 1990, when it would coincide with the adjusted base price for tier 3 oil at Prudhoe Bay ($9/barrel increased for inflation).

Clearly, the inconsistency in taxing Prudhoe Bay production under a literal interpretation of the tier 2 provision of H.R. 3919 in comparison with the taxing of tier 2 oil from the lower 48 states would be inappropriate. If Prudhoe Bay Sadlerochit oil is treated as a tier 2 crude, provisions should be made for this oil to receive the same adjusted base price, severance tax adjustment and tax rate as an upper tier crude of the same quality in the lower 48 states.

PREPARED STATEMENT OF W. T. SLICK, JR.; SENIOR VICE PRESIDENT, EXXON CO., U.S.A.

Exxon has long held the view that decontrol of domestic crude prices is the best way to encourage conservation, stimulate domestic production, and promote development of alternate fuels. In fact, we have presented these views to the Committee twice in the past several years. Therefore, we believe President Carter's decision to gradually phase out crude price controls is a bold step in the right direction.

However, we are also convinced that the so-called "windfall profits" tax proposed by the President, or the more onerous tax passed by the House, is unnecessary and counterproductive to the nation's goal of expanding U.S. energy supplies and reducing dependence on imported oil. There is no windfall. The proposed tax is in no way related to profits; it is simply an excise tax on incremental revenue. I am confident these arguments have been and will be effectively made by other witnesses.

My remarks today will focus on the adverse impacts of Section 4991(b) of H.R. 3919 which provides for an excise tax on revenue from production of the Sadlerochit reservoir in the Prudhoe Bay field on the Alaskan North Slope. I intend to make the following points:

The tax will adversely affect ultimate recovery and production levels from the Prudhoe Bay field;

The tax will adversely affect investment in other large, high cost energy projects; and

The tax is discriminatory and inequitable and constitutes a rollback of North Slope crude oil prices.

ADVERSE AFFECT ON PRUDHOE BAY DEVELOPMENT

Government policy has historically recognized the importance of Alaskan North Slope reserves and production to the nation, as well as the unique and costly North Slope operating environment. This recognition has taken the form of special enabling legislation for the Trans Alaska Pipeline and special treatment under the DOE entitlement system.[1] The President's original proposal also recognized the

[1] Alaskan North Slope crude is granted a full foreign entitlement.

special importance of existing and future North Slope reserves and exempted all production from north of the Arctic Circle from the tax on increased revenue from decontrol of oil prices. As we know, H.R. 3919 proposes to reverse this policy and to single out one reservoir in one field on the North Slope for imposition of a 50 percent tax on revenue above $7.50 per barrel.[3]

When the tax on production from the Sadlerochit reservoir in the Prudhoe Bay field was proposed during the House Ways and Means Committee markup, it was stated that all significant costs of discovery, development, and production have been incurred. Nothing could be further from the truth. Development of the Sadlerochit reservoir has only begun. Necessary future investments will be $12 billion—over three times what has been spent to date. So far, only about one-third of the wells required for optimum depletion of the field have been drilled, and the production facilities, power systems, etc., to produce these wells have been installed. These wells and facilities are adequate to bring the reservoir to the early flush state of production and cost about $3.7 billion.

To sustain the producing rate and insure optimum recovery of this large reserve, about $12 billion of additional investments for wells and facilities will be required. These remaining investments fall into three broad categories:

1. Wells and flow lines will cost an estimated $3 billion. Each well at Prudhoe Bay costs over $3 million, more than 15 times as much as the average U.S. well. Maximum oil recovery is heavily dependent upon having the proper number of wells located at the correct places throughout the reservoir. While there were 191 oil wells in the Sadlerochit at the beginning of 1979, full development will require approximately 550 oil producers.

2. Field systems to maintain production capability in future years are expected to require about $6 billion. This includes such items as gas compressors, low pressure gathering systems, an expansion of the field electric power plant, and installation of the field artificial lift system. All of these facilities are necessary to maintain or increase well productivity and maximize recovery over the life of the field.

3. An estimated $3 billion is needed for secondary recovery facilities. This will be primarily for waterflood operations to increase recovery of oil from the reservoir and will include injection water supply facilities and injection wells.

These future investment programs are necessary to recover all of the expected 10 billion barrels of hydrocarbon liquids from the Sadlerochit reservoir. We estimate that if the Prudhoe Bay owners stopped making development investments today, as the House was led to believe they could, and produced the field to depletion with the existing wells and facilities, only about 50 percent of the oil would be recovered. The other 5 billion barrels of otherwise recoverable oil would be left in the ground.

I cannot emphasize too strongly that these future investments will not be made as a matter of course. Each additional well, production facility, artificial lift system, or waterflood must be evaluated individually.

Each investment will vary in economic attractiveness, depending upon the amount of additional oil which may be recovered, or not recovered, and the value of that oil. Recovery of the first 5 billion barrels of oil has required the investment of $3.7 billion, while the next 5 billion barrels will require investments of $12 billion. Clearly, then, future investments in this field follow a classic diminishing returns pattern. Any tax which reduces the effective value of this future production will serve to further reduce the economic attractiveness of some of the investments still needed to maximize recovery. It is important to recognize how high the stakes are. A reduction in ultimate recovery of only one-half of 1 percent from the Sadlerochit reservoir will reduce the nation's supply of proved reserves by 100 million barrels.

While it is difficult to quantify the precise impact of this tax on ultimate recovery, two examples are worth some comment. The West End Sadlerochit reservoir contains about 800 million barrels of oil in place. This would be a giant oil field in the lower 48 states. Found by itself on the North Slope, it would be non-commercial. However, in the West End reservoir, the rock is of poorer quality than the Main Area of Prudhoe Bay, and the oil column is thinner. A well in the West End will cost as much as in the Main Area but will recover only about 10 percent as much oil. Facility costs to produce the West End will be higher since the nearest Main Area facilities are over five miles away. Whether the West End will be developed is a question that we cannot answer at this time. It will depend on economics. It appears to be a marginal prospect today; the proposed tax will make it even less attractive.

The second example is the secondary recovery operations, which will require over $3 billion investment for a potential additional recovery of 1.2 billion barrels. Based on projections before H.R. 3919, this investment was judged attractive but not

[3] Adjusted for inflation and certain changes in Trans Alaska Pipeline (TAPS) tariffs.

unusually so. In fact, as secondary recovery projects go, it was below average. The effective rollback of crude prices from this proposed bill increases our concern about the economic viability of these operations.

Concern over the impact of the tax on development of known discoveries was apparently recognized by the House. The Staff memo of July 2 to the House Ways and Means Committee stated, "Oil from other Alaskan reservoirs located north of the Arctic Circle, including those already discovered but not yet developed, is exempt from the windfall profit tax." One can only conclude that the House was misinformed over the status of development expenditures at Prudhoe Bay—which, from the record, seems likely.

ADVERSE EFFECT ON ENERGY INVESTMENT

It would be a mistake, however, to dwell too long on the incremental economics of future investment in this one field. There is a more important principle at stake in this proposed provision. Simply put, it is the impact on the willingness of investors to undertake high risk ventures in the energy field if government policy is to selectively tax the successful ventures after the risks have been taken.

Prudhoe Bay is a good example of the type of large energy projects this nation must undertake in the future. It is characterized by extraordinarily large investments, pioneer technology, long lead times, and high risk. Fortunately for the nation, and for the private investors involved, this effort was successful, and it is now contributing over one million barrels per day of much needed domestic production. Total profits from this venture will be large because of its unprecedented size. Total industry investments will have to exceed $40 billion if the maximum recovery of oil and gas are to be realized. But the profitability of the venture is not unusually high. Our studies and those of others, published in 1976-77, suggest that the overall industry expected rate of return was about 15 percent (range 11 to 17 percent), even though crude oil prices had more than quadrupled since the field was discovered in 1968.

This massive project was undertaken in 1968 with the expectation of market prices. After significant capital commitments were made, price controls were imposed in 1971. Now, because of its large size and high visibility, it is being singled out for special taxation. This is extremely shortsighted. It ignores the fact that profits from successful projects such as Prudhoe Bay must carry large unsuccessful efforts that must also be undertaken.

Consider, for example, what industry has spent for leases and exploratory drilling in the Northeast Gulf of Mexico (MAFLA)—$1.5 billion, in the Gulf of Alaska—$0.7 billion, and in the Baltimore Canyon—$1.4 billion. The first commercial discovery is yet to be confirmed in any one of these areas. Yet industry put at risk investments of some $3.6 billion. If large successful ventures are taxed down to modest profitability, it is inevitable that potential investors in new high cost, high risk areas will carefully weigh the added risk of "after-the-fact" tax law changes. Obviously, there is no counterpart program that guarantees a return on the unsuccessful ventures. Neither retroactive taxes on successes nor guaranteed profits on failures are proper public policy.

The USGS has estimated that over 30 percent of the remaining potential oil and gas discoveries in the U.S. is in Alaska, most above the Arctic Circle. Over the next five years, a total of seven lease sales are scheduled in high potential but high cost and risk areas of Alaska. These include a sale in the Beaufort Sea in December of this year and two sales in the Norton and St.George Basins in 1982. Planning by industry is already under way for these sales. You can be certain that imposition of a discriminatory tax at Prudhoe Bay will affect the outlook of potential investors in these and other ventures.

TAX DISCRIMINATORY, INEQUITABLE AND CONSTITUTES ROLLBACK OF OIL PRICE

The proposed tax on Sadlerochit oil revenue is discriminatory and inequitable and constitutes a rollback of North Slope crude prices. It is both unprecedented and discriminatory to single out for special taxation a single reservoir from a specific field.

Where the Prudhoe Bay field located in the lower 48 where costs are lower, it would be classified as upper tier oil and subject to no tax at prices below the $13 per barrel upper tier ceiling (as adjusted for inflation). It is inequitable to impose a tax on production from a North Slope reservoir that will result in less revenue per barrel than upper tier oil in the lower 48. Sadlerochit oil, with the proposed tax, will have an effective price about $5 per barrel less than lower 48 upper tier oil for the next several years.

Because of the high transportation costs, the actual netback on the North Slope is about $11.50 per barrel, still below the ceiling price for upper tier oil. Thus, complete decontrol would result in no immediate price increase for Prudhoe Bay production. The purported purpose of HR. 3919 is to remove part of the added benefit to producers resulting from decontrol of oil prices. The Sadlerochit tax goes far beyond that intent, rolling back the price and leaving producers in this one field worse off than if controls had merely been continued.

SUMMARY

In summary, application of the proposed tax to the nation's largest oil field would be shortsighted and counterproductive to the nation's energy goals. The tax results in a price rollback. It will not only adversely affect recovery from the Sadlerochit reservoir, but it will also create an adverse investment climate for other large, high cost energy projects. The production from Prudhoe Bay should be exempt from the proposed tax in keeping with the long standing government policies which recognize the importance of these reserves to the nation and the unique operating environment of the North Slope.

The CHAIRMAN. We will now hear from Mr. John M. Hopkins, president of Energy Mining Division, Union Oil Co. of California.

STATEMENT OF JOHN M. HOPKINS, PRESIDENT, ENERGY MINING DIVISION, UNION OIL CO. OF CALIFORNIA

Mr. HOPKINS. Gentlemen, I am John Hopkins. I am president of the Energy Mining Division of Union Oil Co. of California.

I have submitted a prepared statement and if it is satisfactory to you, I would like to have that in the record but I would then summarize it briefly.

My prepared statement offers the comment that windfall profit tax is unneeded and unnecessary and counterproductive to the production of additional energy. It may well cost the country several hundred thousand barrels per day of crude oil production.

I would like to come specifically to the point of shale oil which is the primary interest I have in talking with you this morning.

We believe that the Nation must develop all sources of energy that are available in the country in great quantity, oil shale, coal liquids, biomass, whatever else can be found. These would be an interim and can fill the gap until the more exotic forms of energy from solar and such production as that can be developed.

Shale technology is further advanced and production of shale oil is more economically feasible than other alternate sources available. Oil shale is second only to coal in the size of resources available in this country. The Green River formation in the States of Colorado, Wyoming, and Utah contain an estimated 1.8 trillion billions of hydrocarbon. If we assume that only one-third of that could be recovered it would be 21 times the present proven reserves of conventional petroleum.

Union Oil Co. has been interested in shale oil since the early 1920's when we acquired 20,000 acres of high-quality oil shale property in the Peon's Basin in Colorado. We estimate this property contains about 2 billion barrels of recoverable oil by today's technology, the technology we have developed. That would permit us to produce about 150,000 barrels per day of oil for the next 30 years.

Over the years we have obtained water rights to support this production, other properties for disposal of retorted shale, and so on. We have been working on retort technology since the early

1940's starting shortly after World War II when it appeared we might be short of crude oil at that time.

We developed that process to the point that we built a demonstration plant in the late 1950's which ran in Colorado at a rate of some 1,200 tons per day for an extended period of time to establish this technology is workable and can produce shale oil.

Unfortunately at that time the regulated gas of natural gas made that energy form available at a low cost and the discoveries of vast reserves in the Middle East made the development of shale oil uneconomic at that time.

We therefore put the project back on the shelf and left it there until the time of the Arab embargo in 1974 at which time we dug out our files and began working on it again. We developed a plan to produce 50,000 barrels per day of shale oil but found rather early on as we worked with that it was uneconomical under the conditions existing in 1974 even after the quadrupling of oil prices.

We therefore found in examining that there was relatively little interest on the part of the Congress or the administration in supporting the development of oil shale at that time so we went back and reexamined our plan and came forth with a more modest and lower risk and better business proposal which was to build one 10,000-ton-per-day retort which would be a full commercial sized retort and would be the first of the several which would be required to produce 50,000 barrels per day.

We indicated at that time we were ready to build such a module but since it was uneconomical we needed some help. We filed an unsolicited proposal with the Department of Energy which was then ERDA in 1976. At that time we were talking about loans or loan guarantees. This proposal was rejected.

In 1977, President Carter came forth with his energy policy and shortly thereafter Senator Talmadge introduced a $3 a barrel tax credit bill in the Senate. That appeared to us to be a very effective way of stimulating the production of shale oil and our president, Mr. Fred L. Hartley, made a commitment to a number of people including Senator Long, that we would if that tax credit passed, build a 10,000-ton-a-day retort module at a cost in excess of $100 million. That commitment still stands based on the expectation that the $3 tax credit would be passed in the 1978 session.

We applied for permits in the early part of the year and expect now to have those permits all in hand during the next month or two.

In the meantime, we have had a continuing problem because the tax credit has not passed. These permits are perishable, that is they all have time limits. You cannot hold them in place and not use them for an indefinite period of time. We are not entirely sure right now where the economics are because not only has the OPEC price change been occurring but inflation has continued.

The investment that would have at one time have cost $110 million is now rapidly approaching $150 million. The present rate of inflation is increasing the cost of that plant at the rate of $1 million per month each and every month.

We feel the tax credit is still the best way to get at this project and really it is the only way that would permit us to use these permits that we now have and start building this retort this year

because all of the other forms of assistance which have been talked about in both the House and Senate have involved in them extensive budgetary and procedural requirements for the Government to establish which would take a year or two and by that time we are afraid our permits would have expired.

We see the tax credit advantages to be that they are available to any and all companies that might want to use them. It does not require this budgetary or organizational procedure in the Government. It provides an opportunity and it provides income to the company only if it succeeds in producing shale oil, and it will permit us to go ahead at an earlier time.

Then there is the Moorhead bill or others that will come along and work in concert with this. We would respond to them, and we need larger production than the 10,000 tons a day and we will respond to that and use whatever form of assistance comes, but we do hope that the $3 tax credit can be included in whatever legislation is forthcoming so that we can get on with this first production.

We recommend, irrespective of how you do it, whether it be with S. 847, which has been introduced, or as an amendment to other legislation, that you provide us with $3 tax credit. Our commitment to build this model still stands and I think, if we can get started, it may well be the first commercial production of alternate energy in this country.

The CHAIRMAN. Thank you very much. We have fought for a tax credit to develop shale and to develop geopressurized methane, which is in that brine down deep in the earth below Louisiana and Texas. We have reason to think that any one of those two energy sources might be the answer to the whole problem.

Then we went to conference with the House and we had to fight the members of two committees and by the time we got through, they wouldn't go along with anything. Now it looks like at long last those people who wouldn't go along and opposed it have seen the light. Now they are going to save the country, they say, by voting for what they voted against 2 years ago, what they frustrated and fought against.

I hope that we are able to do business and that those who have seen the light, late though it may be, will stay true to the cause at least long enough to get something going in oil shale.

Mr. HOPKINS. I certainly hope so.

Senator DOLE. I may not be as strong an advocate of some of their technologies such as shale oil. We are talking about $3 credit, which would be the equivalent of a $6 deduction. Where do you get the water to go through the rock? It takes 10 tons to make 9,000 barrels of shale oil. Moreover we are 10 years away from meaningful supply in this area. There are a lot of unresolved questions in the development of shale oil.

Mr. HOPKINS. I would make two points in that regard if I may. During the time that oil prices have been rising, the cost of producing shale oil has also been rising due to the inflationary effect on the very large capital investment. As I indicated, the cost of this plant is going up at the rate of $1 million a month at least.

The second thing is that, as these prices have risen, the value of the $3 tax credit, the approximate $5 a barrel equivalent that it is worth before taxes, has diminished because the difference between

these two ever-larger numbers tends to—or the need becomes greater as the numbers get larger and perhaps spread further apart.

Senator DOLE. I assumed that such costs were going to rise when it was first discussed. Nevertheless, now everybody has 1 million ideas. A lot of people who caused the problems now have their own solutions to the problems they created. It is going to cost a lot of money.

Mr. HOPKINS. The important thing is that as long as we are importing 8½ million barrels of foreign oil, there is plenty of room for every development that anybody can sponsor or support, and I certainly hope that you won't lose your interest in shale oil or the $3 tax credit, because it is the most ready and most nearly economical and it can make a significant contribution to this overall problem.

[The prepared statement of Mr. Hopkins follows:]

PREPARED STATEMENT OF JOHN M. HOPKINS, PRESIDENT, ENERGY MINING DIVISION, UNION OIL CO. OF CALIFORNIA

Mr. Chairman and members of the committee, I am John M. Hopkins, President of the Energy Mining Division of Union Oil Company of California. This division is responsible for Union Oil's uranium and oil shale operations. I appreciate the opportunity to participate in these hearings.

Union Oil believes that the so-called windfall profits tax on revenues resulting from crude oil decontrol is both unnecessary and unwise. Under present law, the Federal Government receives nearly 50 cents in taxes from each additional dollar of a producer's revenue. In addition, if the Federal Government is the lessor, up to one-sixth of the total additional revenue is payable to the Federal Government in the form of royalty. State and local governments also receive additional tax revenue. Oil companies receive little more than one-third of each additional dollar—every cent of which is needed to develop more additional domestic energy resources.

We are puzzled by the priorities of the Administration, and by some members of Congress, in connection with the nation's energy problems. Apparently a high priority is to punish oil companies, such as Union Oil, who have historically concentrated on searching for oil and gas within the United States. Perhaps this makes political sense—this is not my field—but it certainly doesn't make economic sense.

The core issue Congress must face is whether or not the revenues resulting from decontrol will be available for future U.S. energy investment. The windfall profits tax will only impede this needed energy investment. Even supporters of the windfall profits tax concede that it will not increase domestic production by one barrel. In fact, it is likely that the windfall profits tax will cost this country several hundred thousand barrels per day of crude oil production.

We believe that Congress and the Administration should reorder their priorities. The first priority should not be to punish domestic oil producers. Rather, the first priority should be to encourage conservation and investment in additional sources of energy.

Union Oil Company believes that all possible alternate fuels should be encouraged. Of the possible alternates, shale oil is technologically the most advanced and economically nearest to being commercially feasible. In our opinion, it clearly has a lead over gas or liquids from coal and alcohol from agricultural products.

The nation's oil shale resources are second only to coal in amount of energy available. It is estimated that the Green River formation in Colorado, Wyoming and Utah contains 1.8 trillion barrels of shale oil. If only one-third of this could be recovered, it would be 21 times greater than the nation's present proven crude oil reserves.

Let me give you some background on oil shale. Union's involvement in shale began with land purchases in the early 1920s. Our shale holdings include about 20,000 acres of patented properties and 10,000 acres of valley lands for facility installations and retorted shale disposal. Union's oil shale property contains about two billion barrels of recoverable oil in a 60-foot mineable seam in what is called the Mahogany Zone. This ore averages 34 gallons of shale oil per ton. Our water rights are sufficient to permit total property development. The property is capable of

producing 150,000 barrels per day of shale oil for a period of 30 years by today's technology.

Union Oil Company is ready to proceed with the development of these shale oil holdings, provided the economic uncertainties that we face can be dealt with. In 1957-58, we built a demonstration plant that processed up to 1,200 tons of shale oil per day. A total of 53,000 barrels of crude shale oil was produced, and over 13,000 barrels of shale oil were successfully processed into gasoline and other products at a Colorado refinery. We need now to make this proven technology into an economic success.

In 1977, President Carter announced, in his first energy message, his support for synthetic fuels. Soon thereafter, Senator Talmadge proposed a $3-per-barrel production tax credit for shale oil. The Senate passed the tax credit, but it failed in the House. Fred L. Hartley, Union's chairman, has committed Union Oil Company, provided the tax credit is enacted, to a shale mining and retorting project that will process 10,000 tons of shale per day and produce about 9,000 barrels of shale oil daily. In 1978, we began the process of applying for the necessary state, local and federal permits and licenses so that we could begin construction as soon as the credit became law. We feel that we will have all of the permits by September of this year. We urge you to include the $3 tax credit in the tax bill that is now before you.

With the passage of the $3-per-barrel tax credit and all permits in hand, we plan to begin construction of the 10,000-ton-per-day project by the end of this year. Production of shale oil would begin in 1982. We then would operate the plant for a sufficient time to assure the most economical and environmentally sound process. This would be followed by construction of additional modules of approximately the same size to achieve commercial production of up to 150,000 barrels a day.

Since President Carter's first energy message, two years have passed. As in early 1974, we again have gasoline lines and much talk about alternate fuels. Inflation has reduced the value of the $3 tax credit, and the project we once estimated at about $110 million will now cost nearly $150 million. At today's rate of inflation, the cost of the project is increasing over $1 million every month.

While we consider the tax credit to have advantages to the nation over the other forms of economic assistance, we also feel that a guaranteed purchase contract, such as contained in the House version of the extension of the Defense Production Act, H.R. 3930, could also be a workable additional incentive, especially for larger plants. This bill recently passed the House by a margin of over 300 votes.

In considering the various forms of assistance to shale oil, we believe the Committee should note the following advantages of the tax credit: It would result in tax credits only if companies were successful in putting the plants into operation and had taxable income; it would require no budgetary or organization increase for the government; it would provide equal opportunity for large or small companies whether they own or lease land, to move ahead with projects using different technologies and thus should elicit the broadest possible response from any company with faith in its process; and it would be simple to administer, would have an early effective date, and thus would reduce the possibility of delay.

To summarize: Development of additional domestic energy resources is a high priority national requirement.

A "windfall" profits tax is counterproductive to that objective.

Oil shale is second only to coal in size of resource available and is technologically more advanced and economically more attractive than coal or any other alternate sources of liquid hydrocarbons.

The initial development of oil shale can be started almost immediately if a $3-per-barrel tax credit is made available by the Congress. Most other forms of stimulus that have been discussed would cause delay while bureaucratic procedures of bid solicitation, bids, and bid awards are made.

To conclude, we strongly recommend that legislation authorizing a $3-per-barrel tax credit for shale oil production from pioneer plants be given high priority for consideration by both Houses of the Congress. Whether this can best be accomplished by enacting a bill such as S. 847 or as an amendment to some other legislation, such as the windfall profits tax, is a matter for your judgment.

The important thing is that Union Oil Company has pledged to build a 10,000-ton-per-day oil shale mine and retorting mine if a $3-per-barrel tax credit is available. We expect to have all the necessary permits within the next two months and, if the tax credit is available, will begin construction before the end of this year. We view the first plant as the first step in constructing a much larger facility as soon as possible.

This investment would be the United States *first* commercial operation to produce an alternate oil supply. Obviously, it is long overdue.

The CHAIRMAN. Next we will call Mr. Edwin S. Cohen, chairman of the Taxation Committee of the U.S. Chamber of Commerce. We are happy to see you here. You have given us good advice over the years and you have been very useful to our committee no matter who you were representing. You have always done a good job.

When you were in the Government, we had some mutual efforts, and during the days when you were not in the Government I believe you have served a major interest and I am sure you will have some thoughtful recommendations for us today.

STATEMENT OF EDWIN S. COHEN, CHAIRMAN, TAXATION COMMITTEE, CHAMBER OF COMMERCE OF THE UNITED STATES

Mr. COHEN. Thank you, Mr. Chairman. It is a pleasure to be back before you. I am Edwin S. Cohen, a member of the board of directors of the Chamber of Commerce of the United States and chairman of its Taxation Committee. I am a partner in the law firm of Covington & Burling in Washington, D.C.

The National Chamber of Commerce supports the President's decision to end mandatory price controls on domestically produced crude oil. The chamber estimates that in the absence of any new tax on energy producers, the combined effect of increased conservation and increases in domestic production of oil and alternative energy sources will be a reduction in foreign oil imports of between 3½ and 4 million barrels a day by 1985, about one-half of the current import levels.

Of course, decontrol will increase oil company profits, and the national chamber believes that this is necessary and desirable in order to encourage additional investment in domestic energy sources.

As you have heard this morning from others who have testified, the oil industry has historically reinvested amounts exceeding 100 percent of its profits, with nearly all of these investments devoted to oil-related endeavors.

You have also heard, as Deputy Assistant Secretary of the Treasury Emil M. Sunley testified before a subcommittee of this committee on May 7, that after-tax returns and returns on stockholders' equity and assets employed in the oil industry have been roughly the same or less than that of the average of other industries.

Even if no taxes of a new type are enacted, existing Federal, State and local taxes will take between 50 and 60 percent or more of any additional revenue that will flow to the oil companies by reason of decontrol.

The windfall profits tax as passed by the House is without precedent, and it seems to me that it is a most complex measure. By its terms it depends upon regulations of a highly technical nature heretofore issued by the Department of Energy. For several years those regulations have created administrative difficulties and controversies which decontrol would eliminate but for the fact that they would be perpetuated by this tax bill.

On top of the Energy Department regulations that are now in existence, the bill provides for additional regulations to be issued by the Department of the Treasury. The problems that have developed in the pension field, where the IRS and the Department of

Labor have had overlapping jurisdictions and joint responsibilities, bring us a very vivid illustration of the difficulties that can develop from having two departments both issuing regulations necessary to the determination of the tax.

Inevitably, it seems to me, the administration of this new, complex tax would dilute the efforts of the IRS to administer the income tax, which is the backbone of the Federal revenue system.

If I may, Mr. Chairman, I would like to quote in this connection from an interview by the Bureau of National Affairs with the Assistant Secretary of the Treasury for Tax Policy, Donald Lubick, which was published last Friday, and I would say that I agree with him wholeheartedly. Mr. Lubick said in the interview:

> If the IRS can be permitted to devote its efforts to doing their job of measuring income, and collecting taxes on that income, we will have a pretty efficient tax system. The IRS has to get into a lot of areas and administer programs which are best administered by other agencies. It gets into the areas of housing, energy, product liability insurance, foreign policy and a long list of other things. It just doesn't do a good job.
>
> I think we would like to do the best job we can to collect the revenue fairly and efficiently. To the extent the Internal Revenue Code is used for all kinds of other purposes, that impairs our ability to do a good job and it gives us less efficient government, less good government, less control over expenditures, less fiscal accountability, and just a lot of other things that are not good for the country.

I would agree with that 100 percent, and I believe that all of the others who have occupied that post would join Mr. Lubick in that expression. It seems to me particularly important with respect to an unprecedented complex tax of this type.

Mr. Chairman, I have further comments with respect to the foreign tax credit and the trust fund. They have not been dealt with by any of the previous witnesses. If you would like me to speak briefly about those I would be glad to do so. I think the foreign tax credit provisions are of extreme importance and have not been touched upon heretofore.

The CHAIRMAN. You can go ahead and comment.

Mr. COHEN. With respect to the foreign tax credit provisions that the administration has recommended—and, I might say, they are not pending in any bill before the committee at this point because the bill with respect to that issue has not yet been reported out by the Ways and Means Committee, nor has it passed the House—the national chamber steadfastly believes that our tax structure should permit American business to be fully competitive in world markets.

The tax structure should not place obstacles in the path of American businesses that would impair their capacity to meet the challenges of businesses of other major nations and commerce throughout the world. We believe that this principle should apply to American oil companies as it should to all other businesses in the United States.

A new administration proposal regarding the foreign tax credit would penalize foreign exploration by an American company in foreign countries in which it has no present production and would put foreign production at a disadvantage as against domestic production. Thus it would tend to reduce the ability of U.S. companies to compete in the worldwide search for oil since their foreign competitors would not be so penalized.

Secretary Blumenthal said in his statement before the Ways and Means Committee about the foreign tax credit, and I quote:

> We gain as a nation from the development of oil resources anywhere in the world. It is better for oil to be found and produced abroad by American companies than to have it controlled by foreign companies.

The chamber doesn't think that the foreign tax credit should be so restricted as to reduce the ability of American companies to compete abroad so long as the credit serves solely to eliminate a double taxation and causes no reduction in U.S. tax on United States income.

The principal foreign tax credit problem relating to oil companies, as distinguished from other businesses, lies in making sure what is a foreign tax and what is a royalty, taking into account that the foreign countries often own the natural resource and also have the power to impose a tax on it.

While the national chamber has not yet formulated a specific proposal, I believe that the committee should give careful attention to suggestions made by several witnesses before the Ways and Means Committee in the hearing on this particular topic on June 25. These suggestions have been designed to resolve the special problem of the oil companies.

The witnesses suggested that the rate of tax considered creditable for U.S. purposes with respect to oil resources be limited on a per-country basis to higher of the U.S. corporate tax rate of 46 percent or the generally applicable corporate rate in the foreign country, if there is a tax that is generally applicable in that country.

I commend this to you as a way in which one might solve the particular problem that stems from oil resources and the problem of distinguishing between a foreign tax and a royalty. If that distinction can properly be made, as I think it would under this suggestion, there is no reason to impose further restrictions with respect to the foreign tax credit on oil companies beyond those applicable to other businesses.

Now my last comment, Mr. Chairman, as the committee asked, is with respect to the trust fund aspects of the bill. I might say that the national chamber supports development of alternative energy sources but it is opposed to the creation of a separate trust fund for this purpose.

We believe that whatever is sought to be accomplished here by way of additional revenues or additional expenditures could be accomplished within the general budget, and it is not wise to set up a separate trust fund in this instance.

The CHAIRMAN. Let me ask you, if you would, Mr. Cohen, to see if you could work with some people who are knowledgeable in the area and provide us for the record a few charts, making whatever logical assumptions you would. For example, take an individual who is a typical independent producer. Those who are producing a lot of oil as independents are in a high tax bracket; they may be in the 70-percent bracket.

In Louisiana the producer would start out by paying a severance tax of about 12 percent of gross, and then he would pay a State income tax and a Federal income tax. About the only way he could keep anything to speak of—he could keep as much as 30 percent of

what he is producing—is to do a lot of drilling, which, of course, is postponing the date when all of the tax burden would fall on him. I wish you would provide us a few simple charts, assuming $100 of additional income, how this tax would work.

Secretary Schlesinger testified yesterday that with regard to a lot of the independents, particularly those who are successful and who are paying taxes in the 70-percent personal bracket, they are left about 8 cents on a dollar of the additional revenue if this tax goes into effect. That is a very small incentive to give someone to go out and produce more energy.

If you could give us a few illustrative charts to show what the situation would be, with regard to both a major company and with regard to an independent, it might be helpful to us to see what our problem is.

Mr. COHEN. I will be glad to try, Senator.[1] I have been trying to figure out the practicalities of this situation and how we got to this point of this type of tax. It seems to me that we started with an objective of imposing a tax and then figuring out how we were going to spend the revenue. Normally we have a need for money and we look for sources to provide the revenue, but we seem here to have decided that somebody needs to be taxed and we will collect the money and then we will figure out how to spend it later.

The CHAIRMAN. That is right. Thank you very much, Mr. Cohen.

Mr. COHEN. I will be happy to try to present those figures to you.[1]

[The prepared statement of Mr. Cohen follows:]

PREPARED STATEMENT OF EDWIN S. COHEN, CHAMBER OF COMMERCE OF THE UNITED STATES

My name is Edwin S. Cohen. I am a member of the Board of Directors and Chairman of the Taxation Committee of the Chamber of Commerce of the United States, on whose behalf I am appearing today. I am a member of the law firm of Covington & Burling, of Washington, D.C.

I am accompanied by Christine L. Vaughn, Director, Kenneth D. Simonson, Tax Economist, and Charles W. Wheeler, Tax Attorney, of the Chamber's Tax Policy members to comment on oil price decontrol and proposal for additional taxes on oil producers.

SUMMARY

The National Chamber supports the President's decision to end mandatory federal price control on domestically produced crude oil. Decontrol will reduce our dependence on foreign oil sources by encouraging conservation and domestic production of oil and alternative energy sources.

Decontrol will increase oil company profits. The National Chamber believes this is necessary and desirable in order to encourage additional investment in domestic energy sources. The oil industry has historically reinvested amounts exceeding 100 percent of its profits, with nearly all of these investments devoted to oil-related endeavors.

No additional tax on energy producers is needed. Oil produced now pay federal, state, and local taxes at a rate of 50 to 60 percent on any additional revenues from domestic oil production. The proposed "windfall profits" tax is punitive and contrary to a goal of energy self-sufficiency. Such a tax would siphon off available funds for American crude oil production, and would set a harmful precedent that could lead to similar taxes on other commodities and services which have been subjected to large price fluctuations, governmental controls, or scarcity.

The National Chamber has consistently opposed changes in the foreign tax credit rules that would impair the ability of United States businesses to compete overseas, such as the changes for oil producers recently proposed by the Administration. The

[1] See appendix, p. 291.

exchange of goods, capital, and services in international trade should not be unduly discouraged by taxation. Even if other conditions are favorable, excessive taxation by a single country or multiple taxation by two or more countries of the same property or income will leave no adequate incentives of incurring the risks involved.

The foreign tax credit should avoid double taxation of foreign income, while ensuring that the U.S. tax on U.S. income is not reduced by virtue of the payment of foreign income taxes. The Administration's foreign tax credit proposals would violate this principle of tax neutrality with respect to oil companies, reducing their ability to compete in the world-wide search for oil.

Finally, the National Chamber opposes earmarking taxes from oil producers for an Energy Trust Fund. Historically, special funds, such as the Highway Trust Fund, have been limited to situations where user fees were set aside to provide special benefits to those users. The earmarking of tax revenues from producers to provide special benefits to unrelated persons represents a dangerous precedent which could undermine the budget process and distort spending priorities.

BENEFITS OF DECONTROL

Since June 1 of this year, prices have been decontrolled for newly discovered oil. Price controls for previously discovered oil will be phased out by September 30, 1981.

The National Chamber supports the Administration's decision to end mandatory federal price controls on domestically produced crude oil. Decontrol will reduce our dependence on foreign oil sources by encouraging conservation and domestic production of oil and alternative energy sources. The Chamber estimates that in the absence of any new tax on energy producers, the combined effect of these changes will be reduced in crude oil imports of 3.5 to 4 million barrels per day by 1985. (See Table 1.) This reduction in dependence on foreign crude oil represents nearly one-half of current import levels.

TABLE 1.—*Oil import savings in 1985 from decontrol of domestic crude oil prices* [1]

[Million barrels per day]

Savings from increased domestic production	1.5 to 2.0
Savings from increased conservation	2.0
Total oil import savings	3.5 to 4.0

[1] Assuming no new tax on energy producers, average price of $22 per barrel in third quarter of 1979, and 2 percent annual increase in world oil prices in excess of general inflation.

Source: Chamber of Commerce of the United States, Forecast and Survey Center.

In order to get the most energy for the least cost, the U.S. should allow domestic oil prices to rise to the world level even if oil prices are effectively determined by the OPEC cartel. As long as the price of domestic crude oil is below the world price, more U.S. resources are required to purchase imported oil than would be required to produce that oil domestically. If the world price of oil is $22 per barrel (as it is expected to be by the end of 1979), then the U.S. must use $22 worth of resources to import each barrel of oil, either by exporting an additional $22 worth of goods and services, or by increasing indebtedness to foreigners by $22, or by some combination of both. When the price of domestic oil is below world levels, for instance at the current average domestic price of $9 per barrel, the cost of production for each additional barrel of domestically produced crude oil is less than the $22 cost of resources used to pay for imported oil.

Raising domestic oil prices to world levels would redirect U.S. resources which are currently devoted to obtaining imported oil priced at $22. These resources would then be used to obtain U.S. oil which costs more to produce than the present controlled prices.

Increasing domestic oil production and reducing oil imports would reduce the amount of U.S. resources needed to obtain supplies of oil and more efficiently allocate the resources devoted to energy supply in the United States. This saving in domestic resources would occur regardless of whether foreign oil exporters use any of their receipts to import U.S. goods or to increase investment here.

Continuing mandatory price controls would be disastrous. Domestic crude oil production would fall, because the return on new investments would be inadequate to replace declining current wells. Without an uncontrolled price for oil, there would be insufficient incentive for conservation or for developing new energy sources.

WINDFALL PROFITS TAX

The Administration has proposed, and the House passed an excise tax on crude oil producers. No additional federal tax on energy producers is needed beyond the basic federal income tax on corporations and individuals. After payment of existing federal, state, or local taxes, the revenues from decontrol should be left in the private sector, which can use them much more effeciently than the government. Even without a new tax, 50 to 60 percent of the added revenue would go to governments at all levels, through federal corporates and individual income taxes, royalty payments to governments (or income taxes on private royalty owners), and state and local severance, property, and income taxes.

The "windfall profits" tax passed by the House will seriously impair efforts to achieve energy self-sufficiency in this country. The extent of the impairment would depend upon the presently unknown manner in which monies from the proposed energy trust fund might be spent.

The staff of the Joint Committee on Taxation estimates that over the next five years the "windfall profits" tax will soak up over $40 billion of revenues which could otherwise go for domestic energy production. This $40 billion tax burden will cost the country roughly 400,000 barrels a day in lost production by 1985, the National Chamber estimates. That is 400,000 barrels a day that the United States will have to import or do without, making President Carter's pledge at the recent Tokyo summit that we will keep our imports below 8.5 million barrels a day through 1985 that much harder to fulfill.

Decontrol will raise oil producers' profits. This is essential to attract the capital needed for increasing domestic energy production. Federal and state income taxes will necessarily be paid on the added profits. The increase in net after-tax profits would serve to increase capacity, productivity, and jobs, and therefore reduce inflationary pressure.

The return on equity in the oil industry is about average when compared to other industries. But average profits are not sufficient to achieve the increases in energy capacity, research, and output which we will need in coming years.

How profitable are the oil companies? The most common measures of profitability are after-tax rates of return on (1) stockholders' equity, and (2) total assets employed. As Table 2 shows, rates of return in the oil industry have generally been below, or only slightly above, rates of return in all industry. The only exception to this occurred in 1974, after world oil prices quadrupled. By 1975, oil industry rates of return were again comparable to those of other businesses.

TABLE 2.—RATES OF RETURN FOR OIL AND NONOIL COMPANIES, 1969-77

[In percent]

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Return on equity:									
Oil and gas extraction	12.6	11.4	6.7	7.2	10.6	19.9	15.0	15.2	14.7
Integrated petroleum and refining	11.1	10.5	10.8	10.0	15.2	18.4	12.9	13.9	13.5
Other industries	12.4	10.3	11.3	12.9	14.4	13.0	12.0	14.4	14.8
Return on assets employed:									
Oil and gas extraction	9.0	8.5	6.0	6.0	8.3	14.0	10.3	10.4	10.2
Integrated petroleum and refining	9.2	8.5	8.9	8.4	11.5	12.8	9.2	9.7	9.6
Other industries	10.0	8.9	9.5	10.5	11.2	10.6	10.2	11.2	11.5

Source.—Calculated from data supplied by Standard & Poor's Corporation Compustat file of approximately 3,000 corporations, as reproduced in appendix to statement of Emil M Sunley, Deputy Assistant Secretary of the Treasury for Tax Policy, before the Subcommittee on Energy and Foundations of the Senate Finance Committee, May 7, 1979

As Energy Secretary James Schlesinger pointed out in reply to the question, "Do you think oil company profits are reasonable?" ("Issues and Answers", ABC Television, April 8, 1979): At the present time, they certainly are reasonable. The profits have not increased in this industry since 1974. And in real terms, they have declined. The oil companies are not doing spectacularly well in comparison to other manufacturing industry.

Thus, one may expect that decontrol will temporarily boost oil company rates of return, but not as much as after the OPEC price increases of 1973–74. An increase in profitability is desirable, indeed essential, if the industry is to expand domestic production in the years ahead.

An additional tax on oil company profits is especially misguided in light of the fact that oil companies reinvest their profits so heavily. As Table 3 shows, for each year for which data are available (1971–77), oil companies invested amounts totalling substantially more than 100 percent of net income, and close to 100 percent of cash flow. These investment rates are significantly higher than those of other industries.

Moreover, capital expenditures by oil companies have increased sharply, especially in response to crude oil price increases. For instance, between 1972 and 1974, capital outlays by oil companies jumped 78 percent.[1] By 1976, oil companies accounted for 41 percent of total capital expenditures in this sample, up from 32 percent at the beginning of the crude oil price rise in 1973. (See Table 3.)

TABLE 3.—CAPITAL EXPENDITURES BY OIL AND NONOIL COMPANIES, 1971–77

	1971	1972	1973	1974	1975	1976	1977
Capital expenditures:							
Oil companies (billions)	$11.8	$12.0	$13.4	$21.4	$23.3	$25.0	$27.9
Nonoil companies (billions)	$21.1	$22.3	$28.7	$37.1	$34.3	$35.6	$42.8
Oil companies as percent of total	36	35	32	37	40	41	39
Capital expenditures/net income:							
Oil companies (percent)	159	162	112	125	187	172	178
Nonoil companies (percent)	118	100	103	136	124	96	102
Capital expenditures/cash flow:							
Oil companies (percent)	84	83	68	78	113	98	94
Nonoil companies (percent)	63	57	62	78	69	58	62

Source.—Calculated from data supplied by Standard & Poor's Corporation Compustat file of approximately 3,000 corporations, as reproduced in appendix to statement of Emil M. Sunley, Deputy Assistant Secretary of the Treasury for Tax Policy, before the Subcommittee on Energy and Foundations of the Senate Finance Committee, May 7, 1979. Oil companies include oil and gas extraction plus integrated petroleum and refining companies.

These data strongly suggest that decontrol will lead to another surge in capital outlays by the oil industry, if no "windfall profits" tax is enacted. Most of these outlays are likely to go into exploration, development, and production of domestic energy sources, making energy cheaper and more abundant. If, however, the revenues are turned over to the government and used by it for other purposes, energy development will be impaired.

The proposed tax would set a harmful precedent which could lead to similar taxes on other commodities which are subject to large price fluctuations, such as sugar, beef, or wheat; or on other items when government controls are removed, such as rents or gold; or on items which rise in price due to inflation or scarcity, such as housing.

Oil and gas extraction is an expensive and risky business. Nearly three-fourths of all exploratory wells turn out to be dry holes. Yet the "windfall profit" tax takes no recognition of these risks and losses.

THE HOUSE BILL

H.R. 3919, as passed by the House, would establish an exceedingly complex tax which is likely to prove very difficult to administer. The proposed tax would take effect on January 1, 1980, and generally would be levied at a 60 percent rate on three classes of oil.

The Tier 1 tax would be levied on lower tier oil, which is oil from properties which entered production before 1973. The tax would equal 60 percent of the difference between the May, 1979, controlled price and the actual selling price. This tax, however, would be imposed only on the portion of the lower tier oil not released

[1] Data from the Joint Association Survey, conducted by the oil and gas industry, and from the Census Bureau's Annual Survey of Oil and Gas, show that domestic exploration and development expenditures more than doubled between 1972 and 1974, rising from $6.5 billion to $13.1 billion. These data are not directly comparable to those in Table 3, because they are based on a different sample of producers.

for tax purposes to the upper tier. Under the President's decontrol plan, the amount of lower tier oil that is allowed to sell at upper tier prices will increase by 3 percent each month, starting January 1, 1980. For tax purposes, only 1½ percent would be considered as released to the upper tier each month. The Tier 1 tax would end in 1984. "Marginal oil," which was given special treatment in the President's decontrol program, would not be subject to the Tier 1 tax.

The Tier 2 tax would be imposed on upper tier oil, which includes oil from properties that entered production after 1972 but before 1979. The tax would equal 60 percent of the difference between the actual selling price and the May, 1979, controlled price for upper tier oil, adjusted upward for inflation. This tax would apply to any domestic crude oil receiving upper tier pricing treatment, production from marginal properties, and lower tier oil released to the upper tier in order to provide financing for tertiary recovery projects. Starting in November, 1986, the Tier 2 base price would be adjusted upward to the Tier 3 base price over 50 months, leaving upper and lower tier oil subject only to the Tier 3 tax after 1990.

The Tier 3 tax would be levied on oil discovered after 1979, stripper oil, taxable Alaskan North Slope oil, oil produced on the Naval Petroleum Reserve, and oil from qualified tertiary recovery projects. In general, the Tier 3 tax would be imposed at a 60 percent rate on the difference between the actual selling price and a base price of $16 per barrel. The base price would be adjusted upward for inflation and would take into account differences in quality and location.

The Tier 3 tax has a number of special provisions and is perhaps the most confusing element in an already complex windfall profits tax scheme. One special provision covers oil discovered after 1978 and oil produced through tertiary recovery methods. The base price for such oil starts at $17 per barrel, and the first $9 of profit would be taxed at a 50 percent rate, with any profit over that amount subject to a 60 percent tax rate. In addition, the base price for newly discovered oil would be raised at a rate 2 percentage points higher than the inflation rate.

Oil from the Sadlerochit reservoir on Alaska's North Slope also would be subject to special provisions affecting the tax rate and base price.

Finally, the Tier 3 tax on newly discovered and tertiary recovery oil would cease in 1990. After 1990, the Tier 3 tax would apply only to Alaskan North Slope production from the Sadlerochit reservoir, oil from the Naval Petroleum Reserve, and any production from lower and upper tier properties.

Several provisions of H.R. 3919 would apply to all three tiers. The tax may not be imposed on an amount in excess of 100 percent of the net income from the property. The profit on oil subject to the 60 percent tax may be reduced by the state severance taxes imposed on the same profit, but the amount of the reduction is limited to the severance tax in effect on March 31, 1979.

The so-called "windfall profits" tax is a highly complicated tax. While this tax would be administered by the Treasury Department and the Internal Revenue Service, many of the regulations they would be required to interpret have already been promulgated by the Department of Energy. This can only produce additional confusion. For example, the term "property" is defined one way in the price control regulations issued by the Department of Energy and a second way in section 614 of the Internal Revenue Code.

The current problems confronting the pension field, where the Internal Revenue Service and the Department of Labor have joint responsibilities, provide a vivid illustration of the difficulties. The Service would have to allocate personnel to provide extensive regulations, in conjunction with the Department of Energy, and to conduct field audits in an area in which it has little or no previous expertise, and would have to dilute its efforts to administer the federal income tax that is the backbone of the federal revenue system.

FOREIGN TAX CREDIT

The Adminstration has proposed changes in both the Internal Revenue Code and regulations governing the computation of the foreign tax credit for oil producers. These proposed changes would reduce the competitiveness of America's oil companies in the search for new oil abroad and add additional complexity to an already complicated area of the law.

Importance of the foreign tax credit

Since 1918, the United States has used the foreign tax credit to protect businesses and individuals from the severe burden of multiple taxation on foreign income. Unlike countries that tax income only from domestic sources, the United States has always asserted the right to tax the worldwide income of its citizens and domestic corporations. Such worldwide income, however, is often subject to tax in the country

in which it is earned as well as in the United States. By allowing United States businesses and individuals a credit against their U.S. taxes for "income, war profits, and excess profits taxes" paid or accrued during the tax year to any foreign country, the danger of multiple taxation is avoided.

Adherence to the fundamental principle that businesses operating in more than one country should not be subject to double taxation is essential to the development of United States exports and the growth of the American economy.

The foreign tax credit represents an attempt to make taxes a neutral factor in business investment decisions both here and abroad. United States companies must pay tax on their foreign earnings at a rate at least equal to the U.S. income tax rate, without regard to the country from which the income is derived.

Operation of the foreign tax credit

Under present law, taxpayers subject to United States tax on their foreign source income may claim a tax credit for foreign taxes paid directly on this income. The statute allows a U.S. corporate taxpayer to take a foreign tax credit for the foreign taxes it pays indirectly as well (the so-called deemed-paid credit). Thus, when a foreign subsidiary of a U.S. corporation pays a dividend, the parent company can take a credit against its U.S. tax liability both for the direct foreign taxes the parent pays on the dividend and for the foreign taxes paid by the foreign subsidiary on its earnings from which the dividend was paid.

The Tax Reduction Act of 1975 substantially modified the foreign tax credit available to petroleum companies. The Act limited creditable foreign tax to a percentage of oil and gas extraction income and defined such income to exclude foreign extraction losses. The Tax Reform Act of 1976 placed the percentage at the highest U.S. corporate tax rate.

Originally there was no limit on the foreign tax credits which taxpayers could claim to offset United States tax liability on domestic income. Since 1921, the foreign tax credit has never been allowed to reduce U.S. tax on U.S. income. The "overall" limitation provided that the total foreign taxes used as a credit in any year could not exceed the United States tax attributable to foreign source income for the same year. In 1932, a "per-country" limitation was added whereby the foreign tax credit on the United States tax liability on the income earned in that country in that year.

Between 1932 and 1954, the foreign tax credit was limited to the lesser of the overall or the sum of the per-country limitations. In 1954, the overall limitation was removed because Congress felt it discouraged a company operating profitably in one foreign country from going into another country where it might expect to operate at a loss for a few years. Between 1960 and 1975, the taxpayer had the option of using either the per-country or the overall limitation. In adopting this option, Congress recognized that both limitations were appropriate because both were necessary to reflect the different concepts of how business was conducted abroad. The Tax Reduction Act of 1975 provided that, for the 1976 taxable year and thereafter, the per-country limitation would not apply to foreign oil-related income and therefore the amount of creditable foreign taxes with respect to such income could be computed only on the overall basis. The Tax Reform Act of 1976 repealed the per-country limitation for all taxpayers, for taxable years beginning after December 31, 1975.

Consequences of proposed foreign tax credit changes

The National Chamber believes that America's present dependence on foreign oil makes it imperative that the U.S. oil industry be encouraged to find new oil, both here and abroad. The only way that world oil prices can be lowered is if the supply of oil exceeds the demand. The decision by this Administration to decontrol domestic oil prices will provide needed incentive to locate new domestic oil reserves.

The Administration proposes to limit the foreign tax credit avaiable to oil producers, claiming in its testimony before the House Ways and Means Committee that current tax law acts as an "artificial incentive to explore abroad rather than at home." But as the staff of the Joint Committee on Taxation pointed out, "most oil-producing countries now impose taxes on oil income at effective rates as high as 80 percent or more." [3] The foreign tax credit provisions cannot reduce the taxes an American oil company owes to a foreign government. At most they can relieve the company of U.S. tax liability on the same income. This means that an American oil company faced with a decision on whether to explore for oil in the United States or abroad must choose between—(a) paying U.S. taxes at a 46 percent rate on future U.S. extraction income if it explores in the United States; or (b) paying taxes to a foreign government at a rate 80 percent or higher, and potentially to the United

[3] Staff of Joint Committee on Taxation, Explanation of Foreign Tax Credit Rules Applicable to Petroleum Income and Description of Administration Proposal, p. 11 (June 18, 1979).

States as well, if it explores abroad. The fact that the foreign tax credit could abate most, if not all, of the U.S. tax liability on the income from that foreign operation will not make the investment in a foreign country that imposes an 80 percent tax any more attractive. The most that might be said about the current foreign tax credit provisions, insofar as they affect the choice of drilling in the U.S. or abroad, is that in some cases they reduce the disincentive to explore for oil in high-tax foreign countries.

The Administration's foreign tax credit proposals and any new definition of what constitutes a creditable income tax would likely increase the overall tax burden on American oil companies exploring and producing oil abroad. This Committee should recognize the importance of keeping America's oil companies competitive. The Arab boycott of 1973-1974 showed the dangers of dependence on foreign oil. For the near future at least, it seems impossible for the United States to avoid continuing some degree of dependence. Our vulnerability will be decreased to the extent U.S. oil companies participate in the exploration and development of new sources of oil in a number of different foreign countries as well, of course, as in the United States.

ADMINISTRATION FOREIGN TAX CREDIT PROPOSALS

Limitations on the foreign tax credit

The Administration proposes to limit the foreign tax credit for oil and gas extraction income to the lesser of the overall limitation or the per-country limitation. The Administration also would require a separate computation of foreign tax credits for oil and gas extraction income and for all other foreign income.

The National Chamber believes that, to be effective, the foreign tax credit provisions must be responsive to the actual needs of American business. In order to achieve this goal, the National Chamber supports the right of American business to choose either the per-country or overall limitation in computing the foreign tax credit. Such a rule would recognize the different foreign operating patterns among American taxpayers. To those firms which operate world wide integrated businesses, it is the overall tax burden that is important in assessing the effect of taxes on the economic feasibility of such integrated ventures. The per-country limitation is advantageous when a domestic corporation begins operation in a foreign country in which initial losses are likely to result. Thus the per-country limitation is important to companies in high-risk industries when they enter new foreign ventures.

If, however, American business cannot have this choice, the National Chamber would prefer the overall limitation, as provided in present law, to the per-country limitation. It is difficult enough for a business to determine which items of income and expense are from foreign sources and which are from domestic. Requiring an integrated business then to determine which items of income and expense are properly allocated to each country adds a major degree of complexity and difficulty both for the companies and the Internal Revenue Service.

The Administration's proposals would limit the foreign tax credit for oil and gas extraction income to the lesser of the per-country or the overall limitation and would also place a separate overall limitation on any other foreign income an oil company might have. This will force an integrated American oil company not only to compute its income and expenses on a per-country basis, but also to divide those separate per-country computations between oil and gas extraction income and other foreign income. This would produce major complexities and could reduce the ability of American oil companies to compete in the worldwide search for oil.

Recapture of per-country foreign losses

The Administration also proposes to require the recapture of foreign extraction losses on a per-country basis if extraction income is earned in the same country in future years and if the loss resulted in a "tax benefit". Such losses can only result in a "tax benefit" if they are used to offset income from a foreign country that has a lower tax rate than the United States. The proposal would require the retroactive recapture of "tax benefits" derived from losses that occurred from 1975 to the present.

The National Chamber opposes the recapture of foreign losses. The Administration's proposed change would further complicate the foreign tax credit provisions. For example, the retroactive nature of this proposed change would require the oil companies to reexamine and recompute all of their foreign extraction income between 1975 and the present on a per-country basis in order to determine if they received a tax benefit which would then be subject to recapture in the future.

The proposed regulations

In addition to the legislative proposals outlined above, the Administration has proposed new regulations seeking to define creditable income taxes. The Treasury press release accompanying the proposed regulations emphasized that one of the primary purposes of the regulations is to eliminate the difficulty in determining whether a payment to a foreign government which owns mineral resources is a royalty or a tax. The regulations do this by requiring close adherence to U.S. income tax standards and by requiring that income taxes at rates above 46 percent be applied generally and not just on oil extraction income.

The legislative limitations that the Administration proposes to place on the foreign tax credit for oil and gas extraction income may well restrict the ability of U.S. companies to compete with foreign companies in the search for new oil. The proposed regulations on the creditability of foreign income taxes could reduce their competitive ability even further. This is due to the uncertainty over what foreign taxes, if any, will be considered creditable in the future. The effect of both the legislative and regulatory proposals, and their interelationship, needs full and careful examination before any changes are adopted. Careful consideration should be given to comments on the proposed regulations, which may include suggestions for legislative changes. Any indication that presentations before this Committee by the Administration create any presumptions as to the correctness or suitability of the proposed regulations should be avoided.

While the Chamber has not yet formulated a specific proposal, we believe that careful attention should be given to suggestions made by several witnesses before the House Ways and Means Committee in their testimony on June 25, 1979. These witnesses pointed out that the real issue involves distinguishing between a royalty and a tax when a foreign government imposes a tax on oil production and at the same time owns the rights to the oil. The witnesses suggested that the rate of tax considered creditable for U.S. purposes be limited on a per-country basis to the U.S. corporate tax rate of 46 pervent, or the generally applicable corporate tax rate in the foreign country if higher than 46 percent. This approach offers a great deal of simplicity when compared with the regulations proposed by Treasury. It also eliminates the problem of finding that either the entire charge on oil and gas extraction income is a creditable income tax or that it is all a royalty. If this suggestion is adopted, there would be no reason to impose more stringent foreign tax credit rules on oil companies.

ENERGY TRUST FUND

H.R. 3919 creates an Energy Trust Fund into which revenues from the "windfall profits" tax are to be deposited. The purposes for which the trust fund receipts may be spent have not yet been specified, although when the President proposed the fund in April, he suggested that the revenues be used for three basic purposes: (1) assistance of up to $800 million per year to low-income households; (2) additional funds of up to $350 million a year for "energy-efficient mass transit purposes"; and (3) a range of programs for long-term energy and environmental research, development, production, and conservation.

The National Chamber supports development of alternative energy sources. Primary responsibility for such development, however, should rest with the private sector, not with the Department of Energy or an Energy Trust Fund. The National Chamber opposes establishing such a fund. By setting aside revenues for specific purposes, the fund is likely to undermine the existing budget process. This may lead to higher levels of overall receipts and spending than would otherwise be desirable, particularly because the "windfall profits" tax as passed by the House would generate such a high level of receipts.

All of the projects that the President has suggested for funding through the Energy Trust Fund should be considered through the normal budget process. In that way, funding levels can be kept consistent with other programs and priorities, including the priority of reducing the Federal government's share of national income.

Creation of this trust fund could set a harmful precedent for providing special revenue sources for any given set of programs. Such earmarking of funds encourages continuing or increasing a tax for the sake of protecting the programs that it funds.

Unlike existing trust funds, such as the highway, airport and airways, and social security trust funds, in which expenditures largely benefit the contributors to the fund, the Energy Trust Fund would take revenue from the oil producers and distribute it to an assortment of recipients throughout the economy. Singling out

one set of taxpayers to pay for these programs which affect the entire country, rather than using general revenues, would be an unfortunate precedent.

The CHAIRMAN. We will call Mr. Erskine N. White, Jr., Executive Vice President of Textron, Inc., and chairman of the National Association of Manufacturers' Energy Committee.

STATEMENTS OF ERSKINE N. WHITE, JR., EXECUTIVE VICE PRESIDENT, TEXTRON, INC., AND CHAIRMAN, ENERGY COMMITTEE, NATIONAL ASSOCIATION OF MANUFACTURERS; AND ROLAND M. BIXLER, PRESIDENT, J-B-T INSTRUMENTS, INC., AND CHAIRMAN, TAXATION COMMITTEE, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. WHITE. My name is Erskine White and I am executive Vice President of Textron, Inc. I am appearing before this committee along with my associate Roland M. Bixler, representing the National Association of Manufacturers. I serve as chairman of the NAM Energy Policy Committee; Mr. Bixler is chairman of the NAM Taxation Committee.

NAM represents over 12,000 member firms which employ a majority of the country's industrial labor force. Additionally, as industrial energy users, these firms produce over 75 percent of the Nation's manufactured goods, and over 80 percent are generally classified as small businesses.

We have submitted a written statement for your review and will use our time this morning to highlight some of the issues that we view as most critical.

First is the importance of an uninterrupted supply of petroleum to American industry. Industry currently represents 36 percent of the Nation's total energy demand and petroleum represents 24 percent of our total energy usage—for heating, for process fuels and for feed-stock materials.

I say this to underscore the fact that reliable and adequate sources of petroleum are vital to American industry and its ability to provide jobs. For many years the industrial sector has led the way in energy conservation achievements in the United States, recording a 16-percent improvement in energy efficiency in the period 1973 to 1978.

But, whether we like it or not, industry, like other sectors of our Nation's energy-using public, will continue to be dependent on petroleum for significant and critical portions of its needs for the foreseeable future.

It is for this reason that NAM has supported maximum incentive for the exploration for, and the development and production of, domestic sources of traditional energy supplies as well as new or alternative energy. This must be our primary objective and, we believe, the Nation's primary objective.

We believe that allowing domestic crude oil to reach the market price will accomplish these objectives. However, we are also concerned that this concept and the objectives sought from true market pricing are seriously compromised under a scenario of decontrol with a special excise tax.

Such a tax, by virtue of its very existence, means that we have not, in fact, decontrolled the price of this very valuable resource as far as producers are concerned. What we give in incentives by

decontrol with one hand are taken away, in large part by taxing, with the other hand. To fight this moral equivalent of war we need maximum investments in domestic oil resources as well as alternative forms of energy.

Along with the windfall profits tax, the President proposed and the House endorsed the concept that these revenues go into an energy security fund. We question the establishment of such a fund and all that it would entail to accomplish goals which could be reached through existing governmental structures and processes.

Like the windfall profits tax, it may have political appeal and popular support. However, we see real dangers as the likely result. We do not believe it is possible that a public bureaucracy can properly and effectively administer such a fund. It would most certainly, however, perpetuate itself and tend to institutionalize a process and programs where need and priorities inevitably will change from year to year.

Because of this, we believe that the three currently stated purposes of the fund could best be served by congressional appropriation from the new tax revenues generated by decontrol to those agencies already established to provide those programs or services.

Furthermore, the additional money raised through the existing tax structure will be more than adequate to address the important concern over increased costs for low-income energy consumers as well as the other objectives of the fund.

I would like to introduce my colleague Roland Bixler, chairman of the NAM Taxation Committee, who will address the tax proposal in more detail, and then I would like to return for summation.

Mr. BIXLER. In H.R. 3919 the proposed flat 60 percent tax, or 50 percent tax on certain Alaskan oil, on the difference between prices charged at the wellhead and the number of base prices is merely a disguised price control program. Applying a new tax such as this to the revenue generated by decontrol simply creates a new form of control.

We as manufacturers are opposed to the principle of punitive tax measures applied to one sector of the economy. If it is applied to the oil industry now, which industry will be next?

We further feel it is important to reiterate again that the administration estimates, and these were the original estimates, that over $6 billion of new tax money will be generated and flow to the U.S. Treasury by 1982 as a result of oil decontrol alone.

Since the OPEC price increases recently, this figure has gone up substantially, and perhaps in the order of $10 billion will be coming in without any windfall profit tax whatsoever.

Furthermore, the new tax would be detrimental to the reinvestment of revenue for further exploration and development and on that you have heard a lot today.

Another factor I have not heard mentioned today is that in the administration proposal, and not in the House bill but again I understand Secretary Blumenthal mentioned this the other day, there is a permanent feature that is advocated. The continuing nature of the market incentive tax, the so-called OPEC tax as proposed by the administration, poses another major problem.

By definition, a windfall is a one-time or temporary phenomenon. If there were to be a tax, it should be applied only to short-term

revenue gains from decontrol rather than going on to ongoing revenues derived from new and more expensive resources.

These figures impressed me a great deal. The administration's estimates show that without any windfall tax, the U.S. producers of domestic oil would get only 43 cents on each incremental dollar resulting from decontrol. The remaining 57 cents on each dollar goes to Federal income taxes of 35 cents, State income taxes of 3 cents, royalty payments to property holders of 14 cents, and Government severance taxes of 4 cents.

The proposed windfall profits tax as passed by the House starts out with a 60 percent base on each incremental dollar, and there are estimates that finally what would be left to a corporation by the House bill will be on the order of 20 cents out of each dollar for new high risk investments and for plowback.

The other point that I have not heard mentioned today is industrial capital needs. If we encourage the oil companies to go to the open market to get their capital because they reinvest all of their earnings and they need a lot more besides, we are simply making it unavailable for all of the other kinds of industries which need it for increases in productivity and for increase in various kinds of manufactured products, which we hope to use and to export.

A subcommittee of this committee on May 11 heard from witnesses from the Chase Manhattan Bank saying that they found that the 27 largest oil firms were investing substantially more than their profits currently and they forecast that they will need to raise $100 billion in outside capital to finance the $350 to $400 billion needed for reserve replacements in the years 1979 to 1985. That is $100 billion they will have to go outside for.

Then there is also a study by the Bankers Trust Co. which is covered in our statement which gives some other perspectives on the future amount. The last line of that was that by the early 1980s it is likely that 30 percent of all of the petroleum companies' needs will need to be obtained from outside sources.

The last matter is the foreign tax credit. I heard Mr. Cohen comment on that. On page 12 of our statement, we summarize why we feel that this proposal would be seriously detrimental. Those reasons very briefly are, first, it is an erosion of the integrity of the foreign tax credit's ability to prevent double taxation by foreign governments and by the American Government.

Second, there are recapture rules for prior extraction losses or retroactive losses and what effect they would have.

Third, it does not really seem fair to be talking about something that was in a tax return 5 years ago and suddenly open it up again on a new basis in the future.

And, fourth, the proposed regulations on creditable taxes published in the Federal Register of June 20 need review and analysis before we really can understand them, before they can be affected by statutory limitations.

And, fifth, this is a terribly complex matter already and these new regulations and these proposals for foreign tax changes would be even more complicated.

Mr. WHITE. Our time has expired. I would just like to add one bit of concurrence with the subject discussed a little earlier. We in

industry are very, very concerned about this matter of public perception of the energy problem.

In conclusion, I would like to add a point of particular concern to us, namely, the lack of public recognition of the serious nature of the U.S. energy supply situation. Clearly, one of the greatest hurdles we face, one which interferes with this Nation's ability to address the energy problem in the short or longer term is the overall public perception, still, that there may not be a serious energy problem or that the energy situation is contrived.

We are concerned that this attitude is being reinforced by the national debate on windfall profits while ignoring the critical need to stimulate urgently needed domestic production of energy.

NAM is vitally concerned about this Nation's energy situation. As major users of energy, we are primarily concerned about the apparent lack of focus on increasing the supply and we see the windfall profits tax as compromising that primary objective.

And with or without a special tax, we believe that the creation of a new and redundant bureaucracy as contemplated in the Energy Security Trust Fund could inhibit achievement of the desired goals.

Finally, the manufacturing community remains vitally concerned with all aspects of the foreign tax credit, the cornerstone of U.S. treatment of income from foreign direct investments. These investments provide the only access to many major international markets and we oppose the proposed amendments.

Thank you very much. We appreciate the opportunity to present our views.

[The prepared statement of the National Association of Manufacturers follows:]

PREPARED STATEMENT OF ROLAND M. BIXLER AND ERSKINE N. WHITE, JR., NATIONAL ASSOCIATION OF MANUFACTURERS

Roland M. Bixler, President of J-B-T Instruments, Inc.; and Chairman of the Taxation Committee of the National Association of Manufacturers.

Erskine N. White, Jr., Executive Vice President, Textron, Incorporated, and Chairman of the Energy Committee of the National Association of Manufacturers.

The National Association of Manufacturers represents over 12,000 member companies which employ a majority of the country's industrial labor force and which produce over 75 percent of the nation's manufactured goods. Over 80 percent of the NAM's members are generally classified as small businesses. The Association also is affiliated with an additional 158,000 businesses through the National Industrial Council.

NAM has been vitally concerned with this Nation's energy situation. We are particularly interested in the question of oil decontrol and windfall profits because we are so dependent on a reliable and adequate source of petroleum for our manufacturing operations. Our statement will address these aspects and the proposed restriction on the foreign tax credit.

Industrial energy use

In 1978, the industrial sector of the United States consumed approximately 1.2 billion barrels of petroleum products in its manufacturing processes and boilers. This represented 24 percent of the total energy used by industry and 18 percent of total petroleum consumption of the nation in all sectors last year. Obviously, NAM is vitally concerned with petroleum supply and the nature of governmental policy which affects it.

U.S. industry has, for several years, recognized the need to conserve energy, particularly oil, and has been the leading sector of the American economy in doing so. Since 1973, the industrial sector has reduced its total demand for all forms of energy by nearly 6 percent and and its demand for petroleum by 6.7 percent. During the same time period (1973-1978), the Federal Reserve Board Index of Industrial

Production indicates that industrial production increased by 11.8 percent. This translates into a 16 percent overall improvement in energy efficiency.

Decontrol

While conservation achievements by industry have been, and will continue to be significant, there are some industrial uses of petroleum for which there is no technically or economically feasible substitute. Whether we like it or not, industry, as well as the rest of the nation, will be dependent on petroleum for a large portion of its energy demands for the forseeable future. It is for this reason that NAM has supported maximum incentive for the exploration for, and production of, domestic sources of oil. This must be our primary objective, and we believe, the Nation's primary objective.

Allowing domestic crude oil to reach the market price will not only stimulate increased production of domestic oil, but it will also stimulate the development of alternate energy supply technologies which are not now economically viable in the context of artificially low oil prices which are held below market prices by existing Government controls. These alternate technologies will increase competition among energy supply options and, ultimately, could lead to lower real dollar costs of oil than would exist if additional energy sources are not developed.

Market pricing of oil will also stimulate more energy conservation which will lessen projected demand for this energy source. NAM believes that this concept of, and the objectives sought from, market pricing is seriously compromised under the scenario of decontrol with a special excise tax. Therefore, such a tax, by virtue of its very existence, means that we have not in fact decontrolled the price of this very valuable resource.

The tax as a price control

The problem we now face was described two years ago by President Carter as the "moral equivalent of war". This tax proposal is not justifiable in that context. To fight this war, we need maximum investments in domestic oil resources and alternative forms of energy. Revenues generated from new and successful ventures are necessary to underwrite other risk investments. Less interference in the market is needed. We must permit, even encourage, our producers to become more competitive in world markets as soon as possible. Our concern as manufacturers, as well as consumers, is that the application of this proposed tax mechanism would be extremely disadvantageous to the pursuit of a balanced national energy policy and to the achievement of increased domestic energy supplies.

WINDFALL PROFITS TAXES

The flat 60 percent tax (50 percent on certain Alaskan oil) on the difference between prices charged at the wellhead and a number of base prices is merely a disguised price control program. It dictates that the allegedly decontrolled price be reduced by the amount of the tax. This substitutes a tax approach for legal penalties used to enforce price controls. The decontrol program is intended to get government out of the price control business for all of the reasons already outlined. Applying a new tax to the revenues generated by decontrol simply creates a new form of control.

We are opposed to the principle of punitive tax measures applied to one sector of the economy. Such specifically derived taxes for specifically designated purposes constitute manipulation of the market place and will continue the distortion of market forces that now exist. The concept of a "windfall profits" tax is undesirable and is the equivalent of a penalty tax on specific types of revenues. By their nature, such penalty taxes produce distortions in a free market economy and create numerous inequities U.S. experience with such taxation has been uneventful, even when war time revenue needs have attempted to justify the principle.

NAM feels it is very important to reiterate that there is estimated to be (administration estimates) over 6 billion dollars of new tax money generated and flowing to the U.S. Treasury as a result of oil decontrol alone. The revenue will be collected without the addition of a "windfall profits" scheme. In our view, the creation of the new tax is unnecessary in that normal tax revenues will substantially increase under the existing tax framework; the new tax would be detrimental to reinvestment of revenues for further exploration and development.

The permanent tax

The continuing nature of the market incentive tax (the so-called OPEC tax) proposed by the administration poses another major problem. By definition, a windfall is a one-time, temporary phenomenon. If there were to be a tax, it should be applied only to short-term revenue gains from decontrol rather than to ongoing

revenues derived from new, more expensive resources. Administration estimates show that, without any windfall tax, U.S. producers of domestic oil would get only 43 cents of each incremental dollar resulting from decontrol. The remaining 57 cents on each dollar would go to Federal income taxes (35 cents), state income taxes (3 cents), royalty payments to property holders (14 cents), and Governmental severance taxes (5 cents). The proposed windfall profits tax, as passed by the House, starts with a tax rate of 60 percent of each incremental dollar. The Federal, State and local tax rates apply to what is left, leaving a much lower net figure to the producer. However, because it phases out generally by 1990, this version is preferable to the administration's insistence on a permanent tax.

Industrial capital needs

However, any additional taxing away of new capital is counterproductive, and for two related reasons. First, it reduces the internal capital that the energy industry has available to invest in new resources. Second, to the extent that they do need to make investments beyond their own internally generated funds, they will turn increasingly to financial markets and compete with the rest of industry for external capital.

In testimony presented to a Senate Finance Subcommittee on May 11, 1979, witnesses for the Chase Manhattan Bank reported that their study of investments and profits for 27 of the largest oil firms found them to be investing much more than their profits. On a related matter, they also reported that a detailed cash flow analysis of the President's tax proposal indicates that the industry as a whole will need to raise nearly $100 billion in outside capital to finance the $350 to $400 billion needed for reserve replacements in the period 1979 to 1985. Any scheme which taxes away internally generated revenue will significantly increase demand on the external capital markets that all businesses must rely on for expansions.

A study released in 1978 by the Bankers Trust Company, titled "U.S. Energy and Capital: A Forecast 1978-1982", provides even more details of the existing need for petroleum companies to move into external financing markets. The oil and gas industry increased capital spending 110 percent from $13.1 billion in 1972 to $27.5 billion in 1976. Projections for 1982 show a further 76 percent increase in spending to $4.5 billion, more than 3.5 times their capital formation in 1972.

These tremendous increases are consuming much more than the companies profits and capital consumption allowances. In 1972, Bankers Trust found, the petroleum firm's ratio of external funds to total funds expended was 7 percent or less than $1 billion from capital and credit markets. By 1976, that ratio was 27 percent, and the amount raised was $7.4 billion. The projection for the early 1980's is a 30 percent ratio or about $14.6 billion in 1982.

The impact of this growth on business in general is obvious. Petroleum firms took about 1 percent of the business capital market in 1972 and are estimated to take about 8.5 percent in 1982. That means much more competition to funds with other manufacturers and businesses. By draining away any portion of the petroleum industry's revenues, the tax only makes this problem worse.

ENERGY SECURITY TRUST FUND

The President proposed and the House endorsed the concept that the revenues collected from the so-called "windfall profits" tax go into an Energy Security Fund. We question the establishment of an Energy Security Trust Fund (ESTF) to accomplish goals which could be reached through existing governmental structures. Like the "windfall profits" tax, it may have political appeal and political support. However, creation of this trust fund could set a harmful precedent. Earmarking funds, in this manner, only encourages continuation of and potential increases in the tax for the sake of protecting the programs created by the fund.

Moreover, we do not have confidence that a public body can properly and effectively administer such a fund; it would most certainly, however, perpetuate itself and tend to institutionalize a process and programs where need and priorities inevitably will change from year to year.

A bureaucracy would be established which we believe would be unable to channel funds to the necessary programs for solving technically-based, market-oriented business problems. The three stated purposes of the ESTF are: (1) assistance to low income households; (2) mass transit; and (3) energy program initiatives. These objectives could best be served by Congressional appropriation of the increased income tax revenues generated by the existing tax framework to those agencies already established to provide those services.

NAM recognizes that the increases in home heating oil and gasoline prices which will result from decontrol will have an impact on all consumers, particularly on low

income households. President Carter proposed that a total of $2.1 billion for 1980-1982 of the ESTF be authorized for offsetting the rise in energy costs through low income assistance.

The U.S. Treasury would receive, under a scenario of decontrol alone and without a windfall profit tax, an estimated additional income of $6.5 billion from the oil companies for the period 1980-82. The additional monies raised through the existing tax structure ought to be more than adequate to address the important concern over increased costs for energy consumers. And they could be appropriated and provided through the existing social welfare systems.

Public perception

Finally, we are particularly concerned about the lack of public recognition of the serious nature of the U.S. energy supply situation. We believe it is essential that a credible program be conducted for the American public which presents the facts, removing the distraction of oil company culpability or blame, and which encourages conservation and stresses alternative energy development. This program must be truthful, aggressive, consistent and wholeheartedly adopted by the Congress and the entire Executive Branch. Clearly, one of the greatest hurdles we face, short and long term, which interferes with this Nation's ability to address the energy problem is the overall public perception, still, that there is not a serious energy problem, or that the energy situation is contrived. We are concerned that this attitude is reinforced by the national debate on "windfall profits" while ignoring the critical need to stimulate domestic production of energy.

FOREIGN TAX CREDIT

Although the administration's foreign tax credit proposals purport to affect only the oil industry, the manufacturing community is vitally concerned with all aspects of the foreign tax credit. The manufacturing sector of the U.S. economy plays a crucial role in American trade performance in the international community. The foreign tax credit is the cornerstone of U.S. treatment of income from foreign direct investments, and such investments provide the only access to many major international markets. Structural changes in the credit can have a major impact on those investments.

Because the proposals are aimed at oil company income, it has been suggested that industry in general refrain from speaking out on the issue. Since we view the administration's proposals as essentially a threat to the integrity of the credit generally, we believe strongly that we must defend the principles involved in the foreign tax credit.

Foreign tax credit background

Since the United States taxes the worldwide income of its citizens and domestic corporations, the function of the foreign tax credit is the prevention of double taxation of foreign source income. The foreign tax credit recognizes the principle that the country in which income is earned has the first right to tax. The taxpayer's home country retains a residual right to tax the income, but only to the extent that the tax imposed will not result in double taxation. While some countries exempt all foreign source income from taxation, the foreign tax credit is the prevailing international method for the avoidance of double taxation. We agree with Secretary Blumenthal's statement before the House Ways and Means Committee that "the foreign tax credit is fundamental to the United States' system of income taxation".

Computation of the credit

Although fundamental and manifestly desirable in economic effect, the credit is widely misunderstood. The foreign tax credit does not reduce the U.S. income tax due on income earned in the United States. Rather, the credit offsets foreign taxes paid on foreign source income against U.S. tax liability on the same income, but not further than to the extent that international double taxation is avoided.

Since the adoption of the credit, these calculations have been made using either the "overall" or "per country" limitation or some combination of these two limitations. In 1975, the oil industry was placed solely on the overall method. Since 1976, all taxpayers have been required to use the overall limitation.

Overall limitation.—Under the overall method, the taxpayer combines the income and losses subject to U.S. taxation from all foreign operations and allocates the result against the pre-credit U.S. tax. For example, if 40 percent of the taxpayer's taxable income is from foreign sources, his foreign tax credit cannot exceed 40 percent of his pre-credit U.S. tax. The result of this computation is to limit the overall foreign tax credit to a rate which is equal to that tax payable to the U.S. on such income.

Per-country limitation.—Under the per-country method, the taxpayer computes his foreign tax credit on a country-by-country basis. Thus, the taxpayer is allowed to take a foreign tax credit for taxes paid to any particular foreign country only to the extent that the taxes paid to that country do not exceed the limitation separately determined for that country. Under the per-country limitation, taxes paid to any foreign country can only be used as credits against the portion of the total pre-credit U.S. tax which is allocable to income from sources within that country.

Administration proposals

The administration's proposals would (1) limit the credit for foreign oil extraction taxes to the lesser of the amounts computed on the per country or overall basis, (2) provide for the recapture of the "benefit" of extraction losses incurred in any given foreign country, and (3) require that the credit for taxes on foreign oil extraction income be computed separately from the credit on all other foreign income.

The NAM opposes the Administration's proposals for the following reasons: (1) the proposals represent an erosion of the integrity of the foreign tax credit's ability to prevent double taxation; (2) the recapture rules have an *ex post facto* effect; and (3) the proposed regulations on creditable taxes published in the Federal Register on June 20, 1979, need review and analysis before, existing statutory limitations of the credit are changed; and (4) the changes compound an already very complicated procedure for determining the credit.

Credit limitations

The manufacturing community is very sensitive to changes in the computation of the credit and its limitations. The fact that the Administration's present proposals are directed at oil companies alone does not overcome the fact that previous proposals directed at oil companies have been aimed later at industry generally. Since the 1975 adoption of restrictive oil and gas provisions of sec. 907, there have been recurring suggestions to extend the principles of sec. 907 to foreign income generally. For example, the per country limitation, repealed with respect to the oil industry in 1975, was repealed for all taxpayers in 1976. The "cap" placed on oil income in 1975 was proposed, but rejected, for all taxpayers during discussions of the 1976 Act.

Our concerns with this pattern were not alleviated by Secretary Blumenthal's written comments submitted to the House Ways and Means Committee on June 19. In this statement, the Secretary stated: "The overall limitation gathers together in one category all income from outside the United States and similarly treats all foreign income taxes as a single category. It thus permits the averaging of high taxes in one foreign country with low taxes in another foreign country. This approach *may* be acceptable as a general rule * * *". (emphasis added)

The use of the word "may" with respect to the overall limitation runs counter to the Congressional decision in 1976 to adopt the overall method. It also casts doubt on the Administration's claim that they only have the oil industry in mind.

We do not view the averaging of rates as a problem. In fact, the averaging of high and low tax rates is the feature which distinguishes the overall limitation from the per year country rule. The two methods have been viewed as appropriate to accomodate different taxpayers' situations.

Recapture rules

The Administration proposes to recapture foreign extraction losses on a per country basis against extraction income generated in that country in later years. In other words, to the extent which a loss in a prior year acted to reduce the amount of U.S. tax computed on foreign income from that country in that year, that "tax benefit" would be recaptured when operations in that country became profitable.

The NAM supported loss recapture proposals when such losses offset tax on U.S. source income. However, we do not consider the current situation to be one of double benefits as alleged. Rather, a loss is allowed under circumstances in which a loss should be allowed and a credit is allowed under circumstances in which a credit should be allowed. But the proposal would create new convolutions of the credit, such as the following: Mr. Taxpayer, you are on the overall limitation, unless you are an oil company and the per country limitation is lower. Of course, you are not really on the per country limitation because we are repealing the per country loss rules of sec. 907. But to the extent that you used to be on the overall limitation and a loss reduced your foreign income for the credit calculation, * * * well, we think you should have been on the per country limitation for losses.

We think it is not mere chance that each twist and turn of the credit proposals acts to raise revenue. This is merely a set of tax collector rules without much regard for the purpose or integrity of the foreign tax credit. Changes in the foreign tax credit structure should be based not on projections of revenue gain or loss, but

rather should be based on whether they enhance the credit's ability to do that which it was intended to do, i.e., prevent multiple taxation of income while leaving U.S. source income unaffected.

The most objectional feature of the recapture proposal is its retroactive effect. Under the proposal, losses incurred four years ago will be "recaptured" under the plan. Many of these losses represent start up expenses for new U.S. investment in foreign exploration. To change the rules now and rewrite the law under which this investment was made would have two negative effects. First, it is patently unfair to change the tax rules affecting investment after the investment is made. Second, this reaching back into the past will likely have a chilling effect resulting from greater uncertainty for foreign investment.

Proposed regulations on creditable taxes

The Administration's proposals all tend to coalesce around the sec. 907 limitations on oil and gas income. Under these circumstances, it is important to remember that the principal reason sec. 907 was adopted was the difficulty in determining whether a payment to a sovereign who owned natural resources was an income tax or a royalty.

The Secretary's House testimony explains why he feels the special rule of the lower of per country or overall limitations should be applied to oil company income when he states: "This approach [the overall limitation] may be acceptable as a general rule, but when we are dealing with oil income which foreign countries purport to tax over a wide range of rates, some in excess of 80 percent, the averaging permitted by the overall limitation is inappropriate."

Our principal difficulty with this comment is that the existing sec. 907 credit limitation reduces averageable taxes to a maximum of 46% rather than the 80% plus cited. Consequently, the comment is mistaken or misleading. In either case, it is not valid reason for pushing the legislative proposals since it is the proposed regulations which deal with this royalty versus tax issue. On Friday, June 15, 1979, the Treasury announced proposed regulations (published in the Federal Register for June 20) on the credibility of foreign taxes. The key focus of the regulations were royalty-tax distinctions. We submit that the Congress cannot reasonably know what it is considering with respect to the foreign tax credit until the Congress, the Treasury, and taxpayers understand the basic rules of what constitutes a creditable tax. This will not occur until the regulations become final. To move now would be to juggle the two crucial aspects of the credit—the definition of a tax and the limitation—without a firm understanding of either. The public should be allowed to comment on the regulations, a public hearing should be held and the regulations should be promulgated before additional limitations are discussed. The existing confusion in this area calls for further analysis. At the present time, no one can be sure of precisely what the Administration intends to limit.

CONCLUSION

NAM is vitally concerned about this nation's energy situation. Our manfacturers are dependent upon reliable and adequate sources of petroleum for our operations—for heating, for process and as feedstock raw materials. Therefore, we are opposed to the principle of a "windfall profits" tax which is, in the final analysis, a punitive tax measure selectively applied to one sector of the economy. As major users of energy, our manufacturers are primarily concerned about the apparent lack of focus on increasing the supply.

Taxing away new capital reduces the ability the energy industry has to invest in development of new resources. The investments required to find these resource are high risk ventures. The revenues from these high risk ventures which are successful are necessary to reinvest in further high risk ventures. The energy companies, in turn, are required to turn increasingly to financial markets and compete with the rest of industry for external capital. Market pricing of oil is needed in order to stimulate increased production, energy conservation and the devellopment of alternate technologies.

And with or without a special tax, we urge extreme caution in the creation of a new and redundant bureaucracy that in our opinion could inhibit achievement of the desired goals.

Finally, the manufacturing community remains vitally concerned with all aspects of the foreign tax credit. This tax credit is the cornerstone of U.S. treatment of income from foreign direct investments, which investments provide the only access to many major international markets. We view the foreign tax credit proposals as a threat to the integrity of the credit itself, and we oppose them.

The CHAIRMAN. Thank you very much, gentlemen. We appreciate very much having your views here today.

Next we will call Dr. Richard W. Rahn, executive director of the American Council for Capital Formation.

STATEMENT OF RICHARD W. RAHN, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR CAPITAL FORMATION

Mr. RAHN. Mr. Chairman, in the interest of time I will abbreviate my remarks but I wish my entire statement to be put in the record.

The CHAIRMAN. That will be done.

Mr. RAHN. Mr. Chairman and members of this distinguished committee, my name is Richard W. Rahn, executive director of the American Council for Capital Formation. And I am grateful for this opportunity to present the American Council's testimony on H.R. 3919, the Crude Oil Windfall Profits Tax Act of 1979.

The American Council for Capital Formation is supported by a diverse and growing group of individuals, large and small businesses, and associations.

Our supporters are united in the belief that only through an increase in the rate of saving and productive investment will this nation be able to create the necessary jobs for a growing labor force, and to help achieve the increased productivity necessary to sustain a high rate of economic growth, compete effectively in world markets and reduce inflation.

Rapidly increasing prices for petroleum in recent months, coupled with gasoline shortfalls, have severely strained the social and economic fabric of our country. The planned decontrol of energy prices, along with the windfall profit tax, have been offered as the means for correcting the energy problems.

The windfall profit tax, however, is an attempt to correct a problem that does not exist—excess profits in the oil industry—and it aggravates the real problem of the energy shortage.

The real problem is that there is an inadequate supply of oil at prices our economic structure has been engineered to run on, and around which consumers have developed their lifestyles. The administration and the Congress are to be applauded for facing the necessity of "biting the bullet" of decontrol of petroleum prices.

Decontrol of petroleum prices will help assure adequate supplies of energy products in the future; thus, decontrol of gasoline and other oil prices could eliminate the current gasoline wasting, the time consumption, the unfairness and the increase in social tension which have been caused by rationing gasoline through "queuing." Rationing by price is clearly a superior alternative.

The proposed windfall profit tax would neither increase the supply of petroleum nor alleviate the hardships imposed on low income individuals. In fact, the proposed tax would diminish the incentives for increased production gained by decontrol. Also, it would result in more imported oil and less investment than otherwise would occur.

The Carter administration has estimated that a 50-percent windfall profit tax would decrease production by approximately 200,000 to 300,000 barrels per day as compared to decontrol with no new

tax. Industry spokesmen, however, have estimated that the tax would decrease production by 600,000 barrels of oil per day by 1985.

Despite the difference in estimates, it is clear that the imposition of the tax would reduce the maximum potential production of oil by a significant amount. Economists have long known that if you tax something, you get less of it and if you subsidize something, you get more of it.

The tax-induced decrease in production would be compensated for by either higher prices to consumers or increased importation of oil. Neither of these alternatives is helpful to our economy and society.

In addition, the windfall profit tax would diminish the amount of investment capital available to the oil industry for increased exploration, refining and transportation.

It has been well documented many times before this committee that we suffer a major capital crisis. That is in terms of lack of savings and productive investment. This windfall profits tax would aggravate that, providing less capital for other forms of business, particularly small businesses and marginal businesses.

Many of those who have attacked the oil firms for excessive prices and profits seem not to realize that a price serves two basic functions. first, it rations scarce resources and, second, it motivates future production. Prices motivate future production when they are sufficiently above cost to insure adequate profits.

An adequate profit is one that is sufficiently high to attract investment capital necessary to insure the continued viability of the enterprise. A business needs to make enough profits to provide a basic interest return on its invested capital as well as to compensate it for the risk of doing business.

A recent study by Chase Manhattan Bank indicated that in the latest 5 available years, the capital and exploration outlays of some 30 leading oil companies actually exceeded the net income of these firms during that period. In the aggregate, these outlays equalled $126 billion and were 88 percent larger than net income.

In addition, according to calculations cited recently by The Wall Street Journal, "Between 1968 and 1976 total U.S. domestic exploration and development expenditures increased by 273 percent and that of independents by 454 percent." During the same period, oil companies' net income as a percent of total revenue declined by one-half, dividends declined as a percent of after-tax profits and taxes increased four times faster than net income.

All businesses and in particular the oil companies face substantial market, technological, environmental, economic and political risks. Without the opportunity for making profits to compensate for these risks, investors will not provide businesses with the funds necessary for expansion, since investors always have safe alternatives of putting their money in Government securities or spending it on goods and services.

If businesses fail to attract investment capital, fewer new jobs will be created due to the lack of business expansion. This, in turn, will cause higher prices for supplies made scarce by insufficient production capacity.

Our energy problems do not stem from "excessive" business profits but are instead largely due to the OPEC cartel and underinvest-

ment in domestic energy production. Business profits which could have been used for investment in new energy sources never materialized because of price controls on petroleum and excessive tax and regulatory impediments.

In summary, the national energy crisis is due to inadequate supplies at the prices we have been accustomed to paying.

The solution is not to tax future production through a windfall profit tax but to do everything possible to encourage additional energy supplies. A beginning could be made by the immediate removal of price controls and by reducing the uneconomic tax and regulatory impediments to speed production.

Thank you.

[The prepared statement of Mr. Rahn follows:]

STATEMENT BY DR. RICHARD W. RAHN, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR CAPITAL FORMATION

Mr. Chairman and members of this distinguished committee, my name is Richard W. Rahn, and I am the Executive Director of the American Council for Capital Formation. I am grateful for this opportunity to present the American Council's testimony on H.R. 3919, the "Crude Oil Windfall Profit Tax Act of 1979."

The American Council for Capital Formation is supported by a diverse and growing group of individuals, large and small businesses, and associations. Our supporters are united in the belief that only through an increase in the rate of saving and productive investment will this nation be able to create the necessary jobs for a growing labor force, and to help achieve the increased productivity necessary to sustain a high rate of economic growth, compete effectively in world markets and reduce inflation.

Rapidly increasing prices for petroleum in recent months, coupled with gasoline shortfalls, have severely strained the social and economic fabric of our country. The planned decontrol of energy prices, along with the windfall profit tax, have been offered as the means for correcting the energy problems. The windfall profit tax, however, is an attempt to correct a problem that does not exist—excess profits in the oil industry—and it aggravates the real problem of the energy shortage.

The real problem is that there is an inadequate supply of oil at prices our economic structure has been engineered to run on, and around which consumers have developed their life styles. The Administration and the Congress are to be applauded for facing the necessity of "biting the bullet" of decontrol of petroleum prices. Decontrol of petroleum prices will help assure adequate supplies of energy products in the future; thus, decontrol of gasoline and other oil prices could eliminate the current gasoline wasting, the time consumption, the unfairness and the increase in social tension which have been caused by rationing gasoline through "queuing." Rationing by price is clearly a superior alternative.

There are many who oppose rationing by price because of the financial hardship on low income persons caused by the increased cost. Current indications are that the pump price of gasoline necessary to clear the market would not be much more than the one dollar level—a small price to pay indeed for the elimination of the queues, the correction of misallocation and the stimulation of output.

The proposed windfall profit tax would neither increase the supply of petroleum nor alleviate the hardships imposed on low income individuals. In fact, the proposed tax would diminish the incentives for increased production gained by decontrol. Also, it would result in more imported oil and less investment than otherwise would occur.

The Carter Administration has estimated that a 50 percent windfall profit tax would decrease production by approximately 200,000 to 300,000 barrels per day as compared to decontrol with no new tax. Industry spokesmen, however, have estimated that the tax would decrease production by 600,000 barrels of oil per day by 1985. Despite the difference in estimates, it is clear that the imposition of the tax would reduce the maximum potential production of oil by a significant amount. Economists have long known that if you tax something, you get less of it, and if you subsidize something, you get more of it.

The tax-induced decrease in production would be compensated for by either higher prices to consumers or increased importation of oil. Neither of these alternatives is helpful to our economy and society. In addition, the windfall profit tax would diminish the amount of investment capital available to the oil industry for in-

creased exploration, refining and transportation. This impact was explained in an exceptionally clear manner in "Additional Views of Congressmen James R. Jones and W. Henson Moore" in the Ways and Means Committee Report on H.R. 3919. Congressmen Jones and Moore stated:

The oil industry is projected to require an additional $6.3 billion a year in capital for the next 3 years, for a total of $36.8 billion a year, according to a Bankers Trust Company study. Of this, $25.8 billion a year is expected to be internally generated from earnings, amortization, depreciation and depletion. Decontrol, with the President's originally proposed tax plan would provide another $2 billion a year or $27.8 billion. This would leave industry with a capital shortfall of $9 billion a year and it would have to rely on the capital market for these funds. This would be a substantial increase in borrowing by this industry. The effect of this increased borrowing would be a crowding out of smaller businesses and an upward pressure on interest rates. Therefore, the additional capital generated through decontrol is needed by industry to meet its future capital requirements.

The United States already suffers the lowest rate of saving and productive investment of any of the industrialized countries. This low rate is in large part due to the tax "wedge" that has been driven between users of capital and suppliers of capital. By tax wedge we mean that the tax on capital has lowered the rate of return to both savers and investors, which has caused a reduction in the amount of investment. Thus, as we increase the tax burden on capital, we increase the size of this "wedge." This results in less productive investment which in turn causes higher rates of unemployment, lower rates of productivity and economic growth, and higher rates of inflation.

It has been argued that the windfall profit tax is needed to produce the tax revenue which would be used to finance major spending programs, to develop new sources of energy and to promote energy conservation. A number of alternative energy production schemes have been proposed by Members of Congress and others. Most are predicated on the notion that private enterprise will make incorrect decisions as to where to allocate capital, will be unable to raise the necessary amount of capital for alternative energy sources, or will be unwilling to take the risk.

Many of the American Council's members would not agree with these assertions, since historical experience has demonstrated that the free market tends to be more efficient than government in allocating capital. Given proper incentives, private companies or consortiums of companies have shown their willingness to invest enormous amounts of money in risky ventures. This is not to say that there ought to be no role at all for the government in encouraging new energy production. For reasons of national security and energy independence, it might be totally appropriate for government to guarantee certain minimum prices for the production of oil from oil shale or coal, or to provide other incentives to private industry to encourage production. There is much evidence to indicate that energy supplies could be expanded substantially, if government would reduce its own regulatory red tape and licensing delays for proposed energy projects.

Much of the rhetoric surrounding the proposed windfall profit tax has revealed a misunderstanding of the level of oil company profits. In the last quarter of this century, the rates of return for oil companies have been slightly less than for manufacturing companies as a whole. Even after the 1973 oil embargo, the rates of return for oil companies have, on the average, been less than 15 percent of invested capital.

Many of those who have attacked the oil firms for excessive prices and profits seem not to realize that a price serves two basic functions: First, it rations scarce resources; and second, it motivates future production. Prices motivate future production when they are sufficiently above cost to ensure adequate profits. An adequate profit is one that is sufficiently high to attract investment capital necessary to ensure the continued viability of the enterprise. A business needs to make enough profits to provide a basic interest return on its invested capital as well as to compensate it for the risk of doing business.

A recent study by Chase Manhattan indicated that in the latest five available years, the capital and exploration outlays of some thirty leading oil companies actually exceeded the net income of these firms during that period. In the aggregate, these outlays equalled $126 billion and were 88 percent larger than net income. In addition, according to calculations cited recently by The Wall Street Journal, "Between 1968 and 1976 total U.S. domestic exploration and development expenditures increased by 273 percent and that of independents by 454 percent." During the same period, oil companies' net income as a percent of total revenue

declined by one-half, dividends declined as a percent of after-tax profits, and taxes increased four times faster than net income.

All businesses, and in particular the oil companies, face substantial market, technological, environmental, economic and political risks. Without the opportunity for making profits to compensate for these risks, investors will not provide businesses with the funds necessary for expansion, since investors always have safe alternatives of putting their money in government securities or spending it on goods and services. If businesses fail to attract investment capital, fewer new jobs will be created due to the lack of business expansion. This in turn will cause higher prices for supplies made scarce by insufficient production capacity. Our energy problems do not stem from "excessive" business profits, but are instead largely due to the OPEC cartel and underinvestment in domestic energy production. Business profits which could not have been used for investment in new energy sources never materialized because of price controls on petroleum and excessive tax and regulatory impedients.

In summary, the national energy crisis is due to inadequate supplies at the prices we have been accustomed to paying. The solution is not to tax future production through a windfall profit tax, but to do everything possible to encourage additional energy supplies. A beginning could be made by the immediate removal of price controls and by reducing the uneconomic tax and regulatory impediments to speed production.

Thank you.

The CHAIRMAN. Thank you very much, sir.

There is no doubt that if you put enough money into it and make enough investment, we can solve the problem.

Mr. RAHN. Surely. There is not a limited supply.

The CHAIRMAN. The situation is worse than when the Arabs put the boycott to us in 1973, so one would have to only assume that what we have been doing since that time has been wrong. Since that time we have tried raising the tax and that did not do anything to help.

We have rolled back their price and tied them up in so much redtape they cannot move, and I think we would have to assume that that is not the way to solve the energy problem. The money we are paying to OPEC nations for the oil is not getting us any more production in this country, is it?

Mr. RAHN. Not at all.

The CHAIRMAN. Thank you very much, sir. We will resume hearings on this subject on Wednesday, July 18, at 10 o'clock.

[Whereupon, at 1:45 p.m., the committees were recessed until 10 a.m., Wednesday, July 18, 1979.]

APPENDIX

IMPACT OF CRUDE OIL TAX ON PRODUCER INCOME

RESPONSES OF EDWIN COHEN AND THE TREASURY DEPARTMENT TO QUESTION POSED BY SENATOR LONG

COVINGTON & BURLING,
Washington, D.C., July 31, 1979.

Hon. RUSSELL B. LONG,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: When I testified before the Senate Finance Committee on July 12, 1979, regarding the proposed windfall profits tax, you requested that I submit for the record calculations regarding the total burden of Federal, State and local taxes for both incorporated and unincorporated oil producers on an assumed $100 of oil revenues, determined first under existing law and then under the law as it would be amended by H.R. 3919 (the Crude Oil Windfall Profits Tax Bill of 1979) as it passed the House.

With the collaboration of Christine L. Vaughn and Charles W. Wheeler, of the staff of the Chamber of Commerce of the United States, on whose behalf I testified, I have prepared the enclosed tables showing these calculations and, as you requested, a chart reflecting the results.

As you noted in your request at the hearing, these calculations require making a number of assumptions. The assumptions that we have made are described in an attachment to the tables.

The first table (Table 1) shows the burden of Federal and State taxes on $100 of oil revenue under existing law and the substantially increased burden under the law as it would be amended by H.R. 3919. The table reflects State severance and income taxes and Federal income and "windfall profits" tax. It shows the amount remaining after those taxes are paid if (a) no amounts are reinvested or (b) if the producer reinvests all amounts remaining after reserving enough funds to pay taxes. We have assumed the well is located in Louisiana but in the attachment to the tables we refer also to Texas and Alaska. The tables deal only with revenues remaining after royalty payments; if royalties are paid to State or Federal Governments, the government shares would increase and producers' shares would decrease further.

You will notice in Table 1 that under existing law, without a windfall profits tax, the "producer's share" remaining after the various tax payments is greater for the corporate producer than the noncorporate producer. This is because, despite the difference in the percentage depletion deduction mentioned below, the assumed tax rate for individuals (70%) is substantially above the assumed corporate tax rate (46%). The table does not take into account the additional income tax (probably 40% on the average) that would be payable by shareholders of the corporation if the producer's share were distributed to them as a dividend.

You will also notice that the effect of the windfall profits tax is somewhat greater on the noncorporate producer than on the corporate producer. This occurs primarily because percentage depletion, now available to the noncorporate producer under our assumptions, would be denied by section 2(b)(2) of the pending bill for amounts constituting windfall profits. We have assumed that under existing law in the case of the corporate producer the $100 of revenue is not eligible for percentage depletion, but that in the case of the noncorporate producer it comes from production of less than 1,000 barrels per day and is eligible for percentage depletion under existing law.

We have included two separate columns for the calculations under the windfall profits tax, one of which is based on a 60% tax in the case of old oil and the other is based on a 50% tax on newly discovered oil, as provided in the bill. We have done so

ecause the bill requires that the 50 percent rate is to be applied before the deduction of severance taxes, whereas the 60 percent rate is to be applied to revenues after the deduction of existing severance taxes. At the 12.5 percent rate of Louisiana severance taxes, there is relatively little difference whether the 50 percent tax or the 60 percent tax is applicable; the difference would be more significant in States in which the severance tax would be lower.

As noted in the attachment regarding the assumptions made in making the calculations, the interplay of the Federal and Louisiana income taxes requires some interdependent calculations and interpretation of the Louisiana income tax law. It may be that some minor changes in the Louisiana income tax calculations and corresponding minor changes in the Federal income tax should be made, but these would not affect the results to any significant extent.

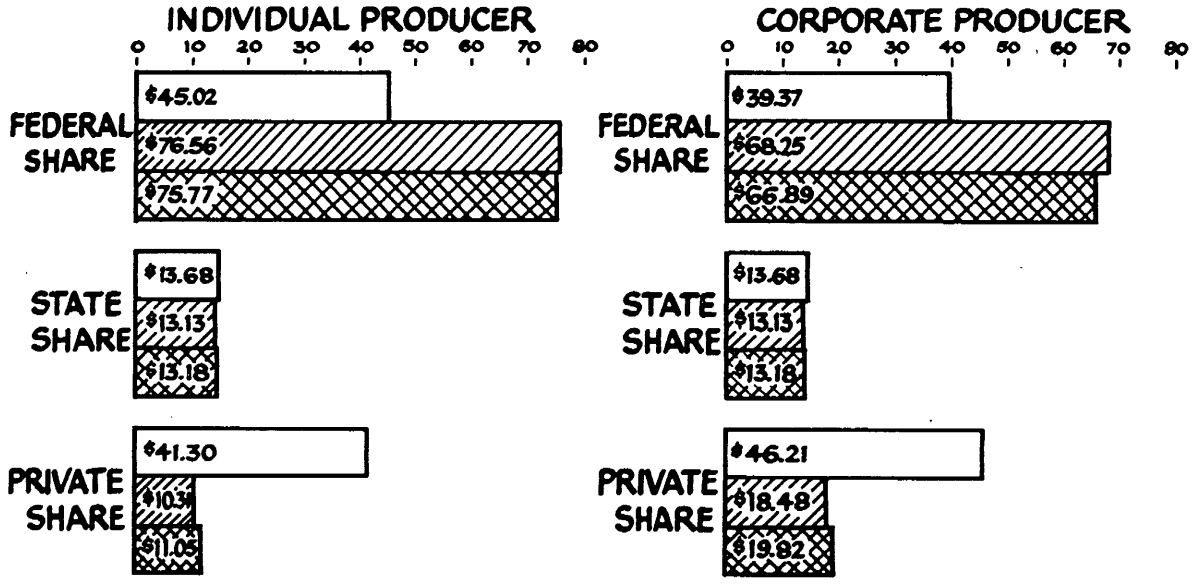
I shall be glad to try to answer any questions you may have about the calculations, and would be pleased to submit any supplemental data that you or any other member of the Committee may wish.

Sincerely yours,

EDWIN S. COHEN.

Enclosures.

FEDERAL, STATE AND PRIVATE SHARES OF $100 ADDITIONAL INCOME FROM DECONTROL



SOURCE: TAX POLICY CENTER, CHAMBER OF COMMERCE OF THE UNITED STATES, JULY 26, 1979

TABLE 1.—FEDERAL, STATE, AND PRODUCER'S SHARE OF $100 ADDITIONAL INCOME FROM DECONTROL

	Windfall profits tax		
	None	60 percent (old oil)	50 percent (new oil)
Federal share:			
Noncorporate producer	$45.02	$76.56	$75.77
Corporate producer	39.37	68.25	66.89
State share:			
Noncorporate producer	13.68	13.13	13.18
Corporate producer	14.42	13.27	13.29
Producer's share:			
Noncorporate producer	41.30	10.31	11.05
Corporate producer	46.21	18.48	19.82

The above table assumes no current reinvestment of the "producer's share." If on the other hand, it is assumed that the producer reinvested all of his share remaining after reserving enough funds to pay taxes, and that one-half of the amounts reinvested represented intangible drilling expenses or dry holes (thus causing reduction in income tax), the producer's share would be as follows:

	Windfall profits tax		
	None	60 percent (old oil)	50 percent (new oil)
Noncorporate producer	$63 79	$15 92	$17.07
Corporate producer	60 48	24.20	25.92

One-half of these amounts would consist of the intangible drilling expense and dry hole expense, and the remaining one-half would consist of equipment costs, lease hold costs, geological and geophysical costs and other capital expenditures; no cash would remain on hand.

TABLE 2.—NONCORPORATE PRODUCER

	Windfall profits tax		
	None	60 percent (old oil)	50 percent (new oil)
Additional income from decontrol	$100.00	$100 00	$100.00
State severance tax (12.5 percent)	−12.50	−12.50	−12.50
Total	87 50	87.50	87.50
Windfall profits tax	0	[1] −52.50	[2] −50.00
Total	87.50	35.00	37.50
Federal percentage depletion	- 22.00	0	0
	65.50	35.00	37.50
Individual State income tax (6 percent)	−1.18	-- 63	−.68
Total	64.32	34.37	36.82
Individual Federal income tax (70 percent)	−45 02	−24.06	−25.77
Total	19.30	10.31	11.05
Add back percentage depletion	22.00	0	0
Producer's share	41.30	10.31	11.05

[1] 60 percent multiplied by $87 50
[2] 50 percent multiplied by $100

TABLE 3.—CORPORATE PRODUCER

	Windfall profits tax		
	None	60 percent (old oil)	50 percent (new oil)
Additional income from decontrol	$100.00	$100.00	$100.00
State severance tax (12.5 percent)	−12.50	−12.50	−12.50
Total	87.50	87.50	87.50
Windfall profits tax	0	[1] −52.50	[2] −50.00
Total	87.50	35.00	37.50
Federal percentage depletion	0	0	0
Total	87.50	35.00	37.50
State corporate income tax (8 percent)	−1.92	−.77	−.79
Total	85.58	34.23	36.71
Federal income tax (46 percent)	−39.37	−15.75	−16.89
Producer's share	46.21	18.48	19.82

[1] 60 percent multiplied by $87.50
[2] 50 percent multiplied by $100

DESCRIPTION OF ASSUMPTIONS MADE IN ATTACHED CALCULATIONS

The foregoing calculations require making a number of assumptions. Among the principal assumptions we have made are the following:

1. Windfall profits.—The calculations have been made on the assumption that the $100 of gross oil revenue represents amounts in excess of the base price, and thus constitutes windfall profits under the bill.

2. State taxes.—We have assumed that the oil well exists in the State of Louisiana. The Louisiana severance tax is 12.5 percent, but severance taxes vary from State to State. We understand that in Alaska the severance tax is 12.25 percent. In Texas the severance tax is slightly above 4.6 percent but we understand that ad valorem property taxes on oil in the ground bring the aggregate severance and property tax burden on oil producers in Texas to about 7 percent of production.

Of course, State corporate and individual income taxes vary substantially. The top bracket Louisiana income tax is 8 percent for corporations and in effect 6 percent for individuals when applied to net income, but the Federal income tax in effect is deductible in computing the Louisiana income tax and the Louisiana depletion rules are different from those in the Federal law. The interplay of the Louisiana and Federal income tax laws require some difficult inter-dependent calculations, but we believe the attached calculations are rougly accurate. In Texas there is no income tax. In Alaska the income tax is substantially higher than in Louisiana, and we are advised that for Alaska corporate income tax purposes the windfall profits tax would not be deductible in computing Alaskan income tax.

Although the State severance, property and income taxes vary substantially, we do not think the variations between the States make a major difference in the overall calculations.

3. Depletion.—We have assumed that no depletion is available for Federal income tax purposes in the calculations for the corporate producer, but that the unicorporated producer would qualify for the "independent producers exemption" under section 613A of the Internal Revenue Code and that the oil involved would be less than 1,000 barrels per day. This provides a 22 percent depletion deduction in the calculations for the noncorporate producer under existing law (although it would reduce to 15 percent by 1984); but it provides no percentage depletion deduction for the noncorporate producer if the pending bill is enacted, because the bill would deny percentage depletion on revenues that would constitute "windfall profits." (Bill, section 2(b)(2).)

4. Royalty.—The $100 of oil revenue is assumed to be net of royalty payments. Private royalty owners would, in general, be subject to the same tax burdens as the producer; thus, the Federal and State shares would be unchanged if the royalty is

paid to an individual in the same tax bracket. If the royalty is paid to the Federal or State government, that government's share would increase but the remaining State and Federal taxes and the producer's share would be reduced correspondingly.

5. Federal income tax rate.—It has been assumed that the producer is subject to the Federal income tax in the top bracket, i.e., 46 percent for corporations and 70 percent for individuals. The calculations in Tables 2 and 3 assume that the oil revenues have not been reinvested in additional drilling. We understand that, generally speaking, if the producer's share were fully reinvested in drilling, about one-half of the share would be deductible for Federal and State tax purposes as intangible drilling costs or dry holes and the other one-half would be paid for capitalized expenditures that are not currently deductible. The deductible expenses would reduce the producer's Federal and State income tax liability and increase the producer's share; the effect of reinvestment is shown in Table 1.

6. Corporate distributions.—We understand that on average corporate producers about 40 percent of their after-tax net income in dividends to shareholders. Those dividends would be subject to Federal income taxes at a rate that is likely to average about 40 percent, and they would also be subject to State income tax. The income tax payable on those corporate distributions has not been reflected in these calculations.

COVINGTON & BURLING,
Washington, D.C., August 1, 1979.

Hon. RUSSELL B. LONG,
Russell Senate Office Building,
Washington, D.C.

DEAR SENATOR: In my letter to you of yesterday I enclosed a Table 1 which shows out of $100 of oil revenue the amounts that would go in taxes to the Federal and State governments and the amounts that would be left as the "producer's share." The basic calculations in Table 1 were made on the assumption that no amounts were reinvested in drilling, but in the latter half of Table 1 a calculation was shown as to the results if the producer reinvested the entire amount remaining after payment of taxes. I thought it might perhaps be helpful if I sent you the enclosed Table 1A which uses precisely the same figures but shows how the $100 would be expended on the assumption that the producer reinvested all the amounts remaining after taxes.

Sincerely,

EDWIN S. COHEN.

Enclosure.

TABLE 1A.—AMOUNTS EXPENDED OUT OF $100 ADDITIONAL INCOME FROM DECONTROL IF ALL AMOUNTS REMAINING AFTER TAXES ARE REINVESTED

	Windfall profits tax		
	None	60 percent (old Oil)	50 percent (new oil)
Noncorporate producer:			
Gross revenue (after royalties)	$100.00	$100.00	$100.00
Expenditures:			
State severance tax	12.50	12.50	12.50
Windfall profits tax	0	52.50	50.00
State income tax	.63	.51	.54
Federal income tax	23.08	18.57	19.89
Intangible drilling costs	31.90	7.96	8.54
Tangible drilling costs [1]	31.90	7.96	8.54
Total expenditures	100.00	100.00	100.00
Cash remaining	0	0	0
Corporate producer:			
Gross revenue (after royalties)	100.00	100.00	100.00

TABLE 1A.—AMOUNTS EXPENDED OUT OF $100 ADDITIONAL INCOME FROM DECONTROL IF ALL AMOUNTS REMAINING AFTER TAXES ARE REINVESTED—Continued

	Windfall profits tax		
	None	60 percent (old Oil)	50 percent (new oil)
Expenditures:			
State severance tax	12.50	12.50	12.50
Windfall profits tax	0	52.50	50.00
State income tax	1.26	.50	.54
Federal income tax	25.76	10.30	11.04
Intangible drilling costs	30.24	12.10	12.96
Tangible drilling costs [1]	30.24	12.10	12.96
Total expenditures	100.00	100.00	100.00
Cash remaining	0	0	0

[1] Equipment costs, leasehold costs, geological and geophysical costs and other capital expenditures

Response of the Treasury Department

Impact of Windfall Profits Tax on $100
of Increased Producer Income from Decontrol

Assumptions:

State: Texas

Taxpayer: Noncorporate producer

Reinvestment: None

State marginal income tax rate: 0

State severance tax rate: 4.6 percent

Federal marginal income tax rate: 70 percent

Federal depletion: 22 percent of gross income reduced by the windfall profit before the severance tax deduction

	Without the windfall profits tax	With the windfall profits tax
Gross producer receipts from decontrol	$100.00	$100.00
Less: State severance taxes (4.6 percent)	4.60	4.60
Taxable windfall profit	n.a.	95.40
Less: Windfall profits tax (60 percent)	n.a.	57.24
Less: Depletion	22.00	--
Federal taxable income	73.40	38.16
Less: Federal income tax (70 percent)	51.38	26.71
Federal taxable income less income tax	22.02	11.45
Plus: Depletion	22.00	--
After-tax income	44.02	11.45

Office of the Secretary of the Treasury
Office of Tax Analysis

July 26, 1979

Impact of Windfall Profits Tax on $100
of Increased Producer Income from Decontrol

Assumptions:

State: Texas

Taxpayer: Corporate

Reinvestment: After-tax income invested in oil production activities; 50 percent of investment is deductible currently.

State marginal income tax rate: 0

State severance tax rate: 4.6 percent

Federal marginal income tax rate: 46 percent

	Without the windfall profits tax	With the windfall profits tax
Gross producer receipts from decontrol	$100.00	$100.00
Less: State severance taxes (4.6 percent)	4.60	4.60
Taxable windfall profit	n.a.	95.40
Less: Windfall profits tax	n.a.	57.24
Less: Deductible investment expenditures	33.45	13.38
Federal taxable income	61.95	24.78
Less: Federal income tax (46 percent)	28.50	11.40
Federal taxable income less income tax	33.45	13.38
Plus: Deductible investment expenditures	33.45	13.38
After-tax income	66.90	26.76

Office of the Secretary of the Treasury, Office of Tax Analysis July 26, 1979

Note: The windfall profits tax reduces the after-tax income by 60 percent.

Impact of Windfall Profits Tax on $100
of Increased Producer Income from Decontrol

Assumptions:

State: Texas

Taxpayer: Corporate

Reinvestment: None

State marginal income tax rate: 0

State severance tax rate: 4.6 percent

Federal marginal income tax rate: 46 percent

	Without tax windfall profits tax	With tax windfall profits tax
Gross producer receipts from decontrol	$100.00	$100.00
Less: State severance taxes (4.6 percent)	4.60	4.60
Taxable windfall profit	n.a.	95.40
Less: Windfall profits tax (60 percent)	n.a.	57.24
Federal taxable income	95.40	38.16
Less: Federal income tax (46 percent)	43.88	17.55
After-tax income	51.52	20.61

Office of the Secretary of the Treasury
Office of Tax Analysis

July 26, 1979

Note: The windfall profits tax reduces the after-tax income by 60 percent.

Impact of Windfall Profits Tax on $100
of Increased Producer Income from Decontrol

Assumptions:

State: Texas

Taxpayer: Noncorporate producer

Reinvestment: After-tax income invested in oil production activities; 50 percent of investment is deductible currently.

State marginal income tax rate: 0

State severance tax rate: 4.6 percent

Federal marginal income tax rate: 70 percent

Federal percentage depletion: 22 percent of gross income reduced by the windfall profit before the severance tax deduction.

	Without the windfall profits tax	With the windfall profits tax
Gross producer receipts from decontrol	$100.00	$100.00
Less: State severance taxes (4.6 percent)	4.60	4.60
Taxable windfall profit	n.a.	95.40
Less: Windfall profits tax (60 percent)	n.a.	57.24
Less: Deductible investment expenditures	33.86	8.81
Less Federal percentage depletion	22.00	--
Federal taxable income	39.54	29.35
Less Federal income tax (70 percent)	27.68	20.55
Federal taxable income less income tax	11.86	8.80
Plus: Deductible investment expenditures	33.86	8.81
Plus: Depletion	22.00	--
After-tax income	67.72	17.61

Office of the Secretary of the Treasury
Office of Tax Analysis

July 26, 1979

CRUDE OIL TAX

WEDNESDAY, JULY 18, 1979

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m. in room 2221, Dirksen Senate Office Building, Hon. Russell B. Long (chairman of the committee) presiding.

Present: Senators Long, Talmadge, Byrd, Nelson, Gravel, Bentsen, Matsunaga, Baucus, Bradley, Dole, Roth, Durenberger, and Wallop.

The CHAIRMAN. There was a memorial service for the late Mrs. Everett Dirksen who passed away and a number of our colleagues attended the service and are on their way here now.

This morning, we will commence with a panel consisting of Mr. John Lichtblau, executive director, Petroleum Industry Research Foundation; Mr. E. Anthony Copp, vice president, accompanied by Ronald M. Freeman, vice president, Salomon Bros.; Mr. William Talley, R. A. M. Associates.

Gentlemen, we are very happy to have you here.

As the Senators can make their way here from the memorial services, they will be here. Meanwhile, we had better get on with business.

Mr. Lichtblau, you may lead off.

Mr. LICHTBLAU. Would you like me to start, Senator?

The CHAIRMAN. Yes, sir.

STATEMENT OF JOHN H. LICHTBLAU, EXECUTIVE DIRECTOR, PETROLEUM INDUSTRY RESEARCH FOUNDATION, INC.

Mr. LICHTBLAU. The so-called windfall profits tax on domestic crude oil production may be viewed as a corollary of the announced price decontrol of domestic crude oil which the President has ordered to be phased in beginning June 1, 1979. Decontrol will gradually raise all domestic oil prices to world levels by October 1, 1981.

As we know, world oil prices are not determined by competitive market forces but by the governments of a group of major oil exporting countries, acting in concert through OPEC. In addition, several of these countries have individually imposed production ceilings which are well below their current sustainable production capabilities from their recoverable resources bases.

It is assumed, correctly, that the OPEC-administered prices are substantially higher than if they were set by market forces in the absence of any supply restrictions other than those dictated by technical considerations.

Consequently, it is argued that while U.S. consumers should pay the full world price for all oil, domestic and foreign, since this price represents the effective replacement costs of the commodity under existing circumstances, domestic producers should not receive the full world price since it includes a cartel-administered increment above the market-clearing price level. Hence, the proposed windfall profits tax on the differential between controlled U.S. prices and world prices.

The theory certainly has merits on perceived grounds of equity and fairness. To justify it on economic grounds as well requires the assumption that the Government can apply the collected funds more effectively toward solving our energy problem that the oil industry would if it were allowed to retain them. I submit this assumption is questionable.

Nevertheless, on balance I believe a windfall profits tax of limited scope and duration on domestic oil production may be justifiable. However the tax passed by the House of Representatives, H.R. 3919, has a number of shortcomings, some of which I would like to discuss briefly.

The bill contains three tiers for taxing purposes. Tier 1 consists essentially of lower tier crude oil which is taxed on the full differential between the domestic lower tier price of about $6 a barrel and the landed world price, currently about $21 per barrel.

This taxation assumes implicitly that the entire differential is due to OPEC's cartel power, since it would be most unusual to enact a special tax on a price increase brought about by legitimate competitive market forces. Yet, there is no question that a large part of the vast differential between lower tier and current world prices is due to factors other than OPEC's cartel power.

In both the last 10 years and last 5 years before the first OPEC price revolution of 1973, world oil demand rose at an annual rate of about 7.5 percent. This must therefore be considered the long-term growth rate at the prices prevailing during that period.

Had the growth rate continued, total non-Communist world oil demand in 1979 would be about 22 million barrels per day higher, or 42 percent, than the likely actual demand figure for this year. Not even under the most sanguine supply assumptions could such a volume have been reached or approached.

Thus, even in the absence of any individual or collective OPEC supply constraint or price administration, the world price of oil, including of course U.S. oil would have had to rise sufficiently in real terms to reduce the world petroleum demand growth rate by at least 50 percent over the last 6 years from its previous long-terms rate to balance supply and demand.

Yet, lower tier oil prices were frozen in mid-1973 and have not even been fully adjusted for inflation since then. Thus, the big spread between domestic lower tier and foreign oil prices is due not only to the fact that OPEC raised world prices administratively above the market-clearing level, but also to the fact that the U.S. Government has kept the price through Federal controls below the market-clearing level.

Furthermore, drilling costs for development wells have increased faster than the U.S. inflation index and most producers lost the advantage of the depletion allowance in the year following the

price freeze. The factors also indicate that under free-market conditions the price of lower tier oil today would be substantially higher than $6 without any assist from OPEC.

The House bill's phasing out of all lower tier oil for tax purposes by June 1984 is a partial recognition of this inequity. But in view of the considerations I have mentioned it should probably be phased out more rapidly than over a 5-year period. The administration's proposed May 1983 phaseout date is at least somewhat better in this regard.

This would also shorten the time during which lower tier producers have a clear incentive not to maximize output so as to keep more oil in the ground for the time when they will receive upper tier prices for the old oil.

Oil in the proposed tier 2 category, which initially would consist mostly of upper tier oil, that is, oil discovered after 1972 and before June 1, 1979, has been priced much closer to world levels under existing controls than lower tier oil.

In January 1979, before the OPEC price explosion, its price was approximately $2.50 per barrel below, or 16 percent less than the average cost of landed foreign crude oil. Some of this upper tier oil is relatively expensive to produce and as the fields from which it is produced get older and require secondary recovery and other additional maintenance expenditures, its real cost can be expected to rise further.

Given these circumstances, the 60-percent tax on the price differential could be excessive from the point of view of future production maximization. In this connection, the possibility must be considered that following OPEC's 60-percent increase this year, world prices could once again show a decline in real terms in some subsequent years, particularly if conservation, recession, and substitution temporarily depress demand.

This is what happened in the period 1974–78 following the OPEC price rise of 1973. This would of course depress producers' revenue on tier 2 production from its then prevailing level and make the 60-percent profit tax more burdensome, relative to production costs.

Tier 3 prices appear to be the most generous for the industry, since the base price for taxing purposes for much of the oil in this category is $16 and for some of it, newly discovered oil, would be adjusted upward at a faster rate than actual U.S. inflation.

Furthermore, much of the oil in this category is taxed at a 50-percent rather than the 60-percent rate applying to tiers 1 and 2.

Yet, I believe the taxation proposed in tier 3 to be the least justifiable of the three tiers and the one most likely to be counterproductive to the national goal of maximizing domestic oil production, for it would tax all new oil for the next 11 years and all existing Alaskan North Slope production in perpetuity.

There can be no question that in principle any tax increase on new oil is a disincentive. True, we don't know how much more oil will be produced in the United States at $23 per barrel than at, say, $18. But by the same token we don't know how much production we would lose if we held prices to the lower level.

When the world oil price rose nearly fourfold in 1973–74 it was said the increase was in excess of what was needed to stimulate

new production. Yet, last year a substantial volume of oil production would have been unprofitable at prices just a few dollars below the prevailing world level. The North Sea, the Alaskan North Slope, and the Athabasca tar sands are cases in point.

If the amount of new oil discovered under untaxed world prices should turn out to be relatively small, the Treasury will not have lost a significant amount of tax revenue. If production turns out to be large the country will have been much better served than if the money had been collected from the oil-producing industry and channeled into a fund for the construction of synthetic fuel facilities. These facilities should of course be constructed and Government funding of some sort is likely to be required to get this new industry off the ground.

But to deprive the oil industry of funds for investment in conventional oil and gas production in order to have more available for investment in synthetics would make no sense whatever since environmentally, economically, and technologically, conventional oil and gas is clearly superior to the still noncommercial synthetic fuels with their innumerable unknowns.

To tax Alaskan crude oil would put a special profit constraint on the most costly frontier oil ever discovered in the United States. If world prices for some reason had dropped $1 or $2 this year, instead of rising as they did, at least the portion of Alaskan crude shipped to the gulf coast would have become literally unprofitable.

Would the administration or Congress in that case have proposed a subsidy on that oil? Or would they have permitted its exportation to minimize freight costs? From the record of the past several years, I doubt that either of these measures would have been taken. Then, why put a special tax on this oil when world prices move upward? Can one really make a case that a venture of the unique financial and engineering dimensions of the North Slope should bear all the risks but should share all gains with the Government? Or that North Slope oil producers should pay a windfall profit tax based on a wellhead price of $7.50 per barrel which is 42 percent lower than the proposed tax base for the far less risky lower 48 upper tier production?

I would also like to point out that under current Federal and State tax and royalty regulations at least 62 percent of any increase in the Alaskan wellhead price would go to State and Federal Government agencies. This is more than the incremental tax and royalty share in the lower 48 States.

I would like to conclude with a suggestion for an additional oil tax concept. The public has recently been flooded with comments on the energy crisis. It has been told about the promises of synthetic fuels, the need for conservation, and the danger of excessive reliance on foreign oil sources.

Essentially, all these concepts are abstractions for most people. If the experts don't know what promise synthetics really holds or how safe atomic power is, how can the public form an opinion? What the public does know, however, is how much energy costs and how much the cost has risen. This applies particularly to gasoline.

Yet, while the price of gasoline has gone up, largely because of the direct and indirect effect of OPEC price increases, the Federal

tax on gasoline has remained at 4 cents a gallon for the past 20 years. If it had been adjusted only by inflation during this period, it would today amount to over 10 cents a gallon. Proposals to raise it to that modest level have fared no better than proposals to decontrol gasoline prices.

They were dismissed as politically unacceptable. I would like to suggest that the public ought to be made a direct participant in gasoline conservation through the only mechanism it clearly understands and cares about—the price level.

The President's original national energy plan contained an imaginative proposal that the administration set an annual target for U.S. gasoline consumption. If that target were exceeded, it was proposed that a gasoline excise tax of a meaningful magnitude be enacted in the following year and be maintained until the earlier target was met.

I believe we should reconsider this proposal under the new circumstances we are faced with. It would give the public a direct personal economic stake in keeping gasoline consumption down. Possibly, this would get better results than the exhortative rhetorics and threats of shortages the public has been exposed to so far.

An interesting aspect of the scheme is that if the tax is actually activated, it would give the Government additional funds for the development of alternate energy sources. If it is not activated, such additional funds may not be needed because of progress in gasoline conservation.

In the present atmosphere, the political risks of such a program may be considerably lower than they were perceived to be when the proposal was first evaluated by the Congress.

The CHAIRMAN. Let me just say to members of the committee that several members have arrived while this witness was testifying. He has made an extremely thoughtful and challenging statement.

I would hope that while the other people are testifying, the members who did not hear Mr. Lichtblau would undertake to read his opening statement.

I would hope that every member would try to read the statement of all these witnesses.

Next we will call on Dr. Anthony Copp.

STATEMENTS OF DR. E. ANTHONY COPP, VICE PRESIDENT, MANAGER-ENERGY RESEARCH AND DEVELOPMENT GROUP, AND RONALD M. FREEMAN, VICE PRESIDENT, MANAGER-ENERGY GROUP, CORPORATE FINANCE, SALOMON BROS.

Mr. COPP. Mr. Chairman and members of the committee, our purpose today is to provide you with Salomon Bros.' overview of the current world oil supply and demand situation and our analysis of the effect of the so-called windfall profits tax on the U.S. oil supply and demand outlook, in light of President Carter's recent energy proposals.

Oil supply and demand is gradually returning to a normal status following the severe cutback in oil supply from Iran. Oil companies are slowly trying to rebuild stocks of crude products while meeting current refined product demand.

Slower growth in demand may provide the opportunity to launch new energy programs. However, our concern is that the administration's proposals may fail to take full advantage of this opportunity.

Free world oil supply in this post-Iranian crisis period is expected to average 53.5 million barrels daily for 1979. OPEC is expected to account for slightly more than 30 million barrels daily of this supply, or about 57 percent of the free world total. Non-OPEC crude oil and natural gas liquids supply will contribute about 21 million barrels daily or about 38 percent with the United States, the North Sea, Canada, and Mexico as the predominant supply factors.

Communist countries and processing gain account for the remainder of this supply. Slight increases in non-OPEC production are possible in 1980. These higher production levels worldwide for 1980 however, may be offset by lower oil production in Middle Eastern countries as a result of conservation and/or politics. Many OPEC countries have recently been producing oil at capacity levels that may not be sustainable. Through the first half of 1979, the United States has been importing about 8.2 million barrels of crude and products daily.

Notwithstanding, we believe that the President's import quota program of 8.2 million barrels per day for 1979 can be achieved without undue stress on domestic supply. Given our expectation for a recession in 1980, we expect the 8.2 million barrel import limit to be potentially sustainable even through next year.

However, price rises are on a different trajectory. The United States paid to OPEC countries $35.6 billion in 1977 and $32.9 billion in 1978 for oil. For 1979, this figure could total more than $45 billion.

The production of oil in the United States, now averaging 8.6 million barrels daily of crude oil plus 1.6 million barrels daily of natural gas liquids, accounts for about 54 percent of domestic demand.

President Carter's proposal to limit imports to 8.2 million barrels daily implies that foreign oil supply will be frozen at 44.6 percent of current domestic demand in the near term. If the President's program is successful, this reliance on foreign oil could decline sharply by 1990.

However, we have major reservations regarding the proposed approach to developing synthetic fuels, solar energy, and other nonconventional sources. The administration proposes using the windfall profits tax to facilitate Government investments in new energy sources; we are deeply concerned that President Carter's energy solutions are weighted toward more Government intervention in the development and financing of this Nation's energy capital stock.

As investment bankers, we do not believe that a permanently and massively increased Government role is a necessary condition for the financing of new domestic supply either of conventional or synthetic fuels.

Before this committee endorses such a critical step, we urge that it first consider the potential for more cost-effective U.S. energy

development through regulatory reforms, tax incentives and interim, not permanent, Government support programs.

In this country, we have always managed to solve our energy problems by enhancing domestic output. Because leadtimes for petroleum and other natural resource developments are not as long, as leadtimes for synthetic fuel development we need to combine a sensible, national conservation effort with an effort to maximize both near and long term domestic energy supply. President Carter's program does not, in our opinion, fully exploit this Nation's domestic potential for exploring and rapidly developing hydrocarbons. The administration appears to have settled for a lower than possible effort at exploration in this country in favor of more capital intensive, long-term and uncertain technologies.

The focus of our concern is the so-called windfall profits tax which we think is the Achilles' heel of this country's mobilization and war effort on energy. This program, estimated by the administration to yield between $146 and $270 billion over the 1980-90 period, we feel requires major scrutiny by this committee.

I would like to call on Mr. Ronald Freeman to continue the statement.

Mr. FREEMAN. From 1971 to 1978 the oil companies in our sample of 33 leading corporations invested in their business an amount equal to almost 175 percent of their net income. Looking at 1 year of this period, 1975, capital expenditures for the industry of $21.2 billion were more than twice total industry net income; in no year between 1971 and 1978 were capital expenditures less than 131 percent of net income.

While the capital expenditure level in 1978 of $25.7 billion was $15.5 billion greater than the 1971 level, contributions to retained earnings in 1978 of $8.1 billion exceeded the 1971 figure by only $4.9 billion.

In other words, the increase in the oil industry capital expenditure budget between 1978 and 1971 was in excess of 300 percent of the increase in retained earnings contributions.

This clearly challenges the implicit assumption of the windfall profit program about the private sector's ability to mobilize massive financial resources for energy development.

The foregoing data also help put the windfall tax program in perspective. The estimated 1980-90 receipts of $146 billion represent, on an average, annual basis, $9 billion per year. This is equal to 137 percent of industry profits in 1978 and to more than 330 percent of industry dividends in the same year.

Assuming one-half this amount represents additional industry taxes, and one-half a diversion from income tax revenues a 50-percent windfall profits tax in 1978 would have eroded industry capital expenditures by more than 35 percent. Other analyses carried out by Salomon Bros. further underline the willingness of the private sector to invest in energy projects.

We analyzed the respective levels of retained cash flow and capital expenditures for the 33 energy companies in our sample. The result of this inspection revealed that in only 1 year, 1973, during the 1971 through 1978 period was the industry able to generate retained cash flow in excess of its capital expenditure program.

In every other year, capital expenditures significantly outpaced retained cash flow leaving the companies with a net deficit to be financed from external sources. The annual capital expenditures in excess of retained cash flow ranged from a low of $76 million in 1974 to a high of $6.5 billion in 1975 for a total deficit of $16.9 billion during this 8-year period.

In other key points of testimony which we presented previously to this committee, it was our conclusion that, No. 1, oil company capital expenditures have continued to outpace significantly the growth of their net income and retained cash flow; No. 2, the specific expenditures for exploratory drilling and well equipping within oil company capital budgets have grown faster than have capital budgets as a whole; and No. 3, however, the ability of oil companies to continue to fund growing exploration programs is primarily contingent upon the existence of adequate profitability to enable them to satisfy the credit and profitability criteria of third party lenders and equity investors in their securities.

This brings us to the potential effects of the administration's energy tax proposals on oil company profitability and more specifically, on oil company ability to find new U.S. oil and gas reserves.

In 1978, the most recent year for which we have American Petroleum Institute data and one of the most active drilling years in recent U.S. history, 1.35 billion barrels of crude oil were added to total U.S. proved reserves.

In addition, 10.6 trillion cubic feet were added to proved gas reserves having an oil equivalent value of 1.77 billion barrels. Thus, total additions to proved reserves which represent reserves both found and developed of crude oil and crude oil equivalents in 1978 totaled 3.12 billion barrels. This compares with average, gross annual additions to U.S. proved reserves of 2.86 billion barrels of oil and oil equivalents from 1976 and 1978.

Ideally, to realize our national energy goal of reducing dependence on foreign supply, the faster the foreign oil producers raise their prices the harder U.S. companies should be looking for U.S. domestic reserves. This is how decontrol should lead to realization of national goals of energy self-sufficiency.

Instead, the windfall tax proposal would effectively divert the flow of world market price revenues away from oil producers and consequently, away from exploration programs and would make the U.S. Government the cobeneficiary of future OPEC price rises. Because oil and gas discoveries provide the most certain near-term bridging mechanism between excessive foreign oil dependence and future synthetic fuel availability, this aspect of the windfall profits tax potentially exacerbates our near terms energy problem.

To wager so heavily on synfuels by imposing specialized excise taxes that will inevitably reduce oil and gas exploration programs strikes us as a flagrant example of objectives in conflict.

Mr. Chairman and members of the committee, we have tried to outline our reservations about the approach taken by this administration in meeting what we all agree is our common goal of releasing this country from undue reliance of foreign oil. We have all borne the costs of too much temporizing, and too much conflict between the Government and the private sector while the energy crisis deepened. Now with a crucial decision concerning energy

capital allocation facing us, we must be certain beyond a doubt that our financial resources will be deployed to protect and develop our vital energy supply most effectively.

Thank you for your attention.

The CHAIRMAN. Mr. Freeman, I want to thank you. I know you did a lot of work on this.

Let me say this. Your statement is a good example of why this energy crisis is in such a horrible mess. I have two college degrees and I do not understand what it is you are talking about. I would hate to try to explain that to a truckdriver when I am trying to figure it out.

One of these days we have to find a way to present something where you say: This is how much money we took in and this is how much we paid out.

It reminds me of what my father told a man one time. This man was a great orator. He used all these high-faluting terms that only an erudite audience could understand.

One time they were sharing this platform, this fellow rose and said, ladies and gentlemen, he said, I beg your indulgence on this occasion, I am suffering from an attack of laryngitis.

My father said, tell them you've got a sore throat.

Mr. Freeman, you will have to have some way of explaining this matter so that people will understand it.

Mr. FREEMAN. In closing, when my wife wonders about energy problems, I tell her what we tell investors on Wall Street: If you cannot pay, you cannot play. If you do not have the money, you cannot find the oil.

The CHAIRMAN. Yes, sir. That is something a truckdriver would understand.

STATEMENT OF WILLIAM W. TALLEY II, RAM GROUP

Mr. TALLEY. Mr. Chairman and members of the committee, my name is William W. Talley II. I am the managing partner of the Resource Analysis & Management Group in Oklahoma City and have served as chairman of the Governor's advisory council on energy for the State of Oklahoma for the past 5 years.

I appreciate the opportunity to appear before you today to discuss the President's crude oil pricing program, the proposed "windfall profits tax" and H.R. 3919, "Crude Oil Windfall Profits Tax Act of 1979" as amended.

I have confidence in the American private enterprise system and energy industries. America's energy industries through competitive markets can best meet the President's goal of increasing domestic energy production and reducing oil imports by one-half by 1990. The positive proposals regarding the "windfall profits tax" contained in my statement should increase domestic crude oil deliverability by more than 1.4 million barrels per day by the end of 1984—35 percent of President Carter's stated 1990 goal.

I do not believe that a windfall profits tax or an excise tax, however structured, is needed to protect the consumer. Without any new taxes, the third estate stands to collect more than 50 cents in taxes of every dollar increase in domestic crude oil prices.

The U.S. Senate sits as the citadel of our economy, our Government and our American enterprise system. As the vanguard of the

American people, you must carefully weigh the consequences of actions taken based on substituting Government involvement for competitive enterprise. The proposed "windfall profits tax," either the President's or H.R. 3919, are, in my opinion, structured to substitute political expediency for competitive enterprise and to use oil revenues to subsidize grand Government programs.

I base my conclusions on "The Oklahoma Experience." The Oklahoma Experience summarized on the chart on page 5 has shown the positive responses of Oklahoma's energy industry to positive crude oil pricing policies.

Stripper remaining oil-in-place has been escrowed for future enhanced recovery projects;

Substantial new oil production has resulted from increased cash flow to the operator;

Stripper economic well life has been lengthened; and

Well abandonments have dropped to one-fifth the 1968 level.

However, if a tax must be passed for political reasons, then that tax should be applied only to the largest international oil companies with a plowback provision to force them to spend the revenues derived from their U.S. oil production into the development of new domestic energy sources. If a tax is enacted, the following exemptions must be given:

Crude oil and condensate production from stripper wells;

Crude oil production from marginal wells—expand the stripper well definition;

The first 3,500 net barrels per day of domestic crude oil and condensate production by any person;

Crude oil production from enhanced recovery projects recognized by State regulatory bodies; and

Crude oil and condensate production from properties from which no crude oil production occurred in 1978.

The estimated industry response—more than 1.4 million barrels per day of incremental crude oil production in 1984, more than 1.25 billion barrels of incremental domestic oil production between 1980 and 1984; and more than 469,800 new jobs created—from the increased cash flow from these proposals are shown in the figure below.

Note the shaded area which shows the independent exemption—the first 3,500 net barrels a day—covers a substantial portion of the stripper exemption; approximately 90 percent is our estimate.

The effects of these exemptions—stripper, marginal and independents—would be to incrementally increase domestic production by approximately 808,710 barrels per day in 1984, to reduce foreign oil imports by more than 723,100,000 barrels of oil between 1980 and 1984, and to add approximately 269,570 new jobs to our economy.

The effects of a plowback provision on major oil companies would be to incrementally—in addition to the levels outlined above—increase domestic oil production by approximately 600,750 barrels per day in 1984;

Reduce foreign oil imports by more than 537,200,000 barrels of oil between 1980 and 1984; and

Add approximately 200,250 new jobs to our economy.

I am now going to summarize the importance and the reasons for granting the exemptions if a tax must be passed. This is contained on page 4 of my full statement.

The exemption of stripper wells does several things. First, it lengthens economic well life. Since only 70 to 80 percent of the original oil-in-place has been produced from wells by primary and first secondary recovery methods, longer well life escrows the remaining 70 to 80 percent of original oil-in-place that is still in the ground for future recovery by enhanced recovery projects. It increases domestic oil production by more than 300,000 barrels a day.

In addition, 93 percent of the committee members have stripper production in their States and 18 States produce more than 2 million barrels a year of stripper oil production. Those are States that include Arkansas, California, Colorado, Illinois, Indiana, Senator Dole's State of Kansas; Kentucky; Senator Long's State of Louisiana; Michigan; Montana, Senator Baucus' State; Nebraska; New Mexico; Ohio; Oklahoma, Senator Boren's State; Pennsylvania, Senator Heinz' State; Texas, Senator Bentsen's State; West Virginia; and Senator Wallop's State, Wyoming.

Senators, the exemption of marginal wells can be accomplished by including expanded stripper definition, as already has been published by the Federal Government. We estimate that the marginal well exemption would increase domestic production by more than 200,000 barrels a day and provide more than 196 million barrels of incremental recovery over the next 5 years.

Probably the most important exemption to consider is the exemption of the first 3,500 net barrels per day of domestic production. It is important because it covers 90 percent of the stripper oil, we estimate, and the independents which drill 85 percent of the new onshore wells and find 50 percent of the reserves.

It creates 186,000 new jobs above the stripper exemption alone. It reduces the regulatory impact and the paperwork, by, we estimate, a factor of 1,000 by taking away from more than 30,000 people down to the 30 largest oil companies.

It frees farmers, ranchers and other mineral owners from the tax, allowing them to receive royalties based on the true present value of their own minerals.

We estimate that this exemption only affects about 20 percent of the total domestic production, excluding stripper.

The exemption of new oil and enhanced recovery is very important because capital that is used for these projects must compete in a world economy. In addition, the consumer should get a break. If he is going to invest in higher prices, then somebody ought to be finding new oil to replace the oil that he has consumed from domestic sources.

We also know that the cost of finding and developing crude oil has increased dramatically since 1973, exceeding costs of inflation and finally we also should pay our own producers at least what we are willing to pay foreigners and foreign governments for the same commodity.

The windfall profits tax, if it is adopted with the exemptions I have suggested, should have a plowback provision because this plowback provision would provide the incentive to the board of directors and to the executive committee of the major oil compa-

nies to invest those revenues that they receive from the production of U.S. oil into developing replacement energy sources.

Amolified investments would not be in our proposals, limited to crude oil. It would include all domestic energy resources.

The Nation's Governors recently concurred on a plowback credit in July of 1979 at the National Governors' Association meeting, they stated:

> The Governors further recommend that revenues from the windfall profits tax be used for energy production and development, especially alternatives to petroleum fuels, including the device of a plowback credit.

Let me finally say that I have confidence in the American private enterprise system and in our energy industry, American industry, that through competitive markets can best meet the President's goal of increasing domestic production and decreasing oil imports by one-half.

I do not believe the windfall profits tax, or an excise tax, however structured, is needed to protect the consumer, since the Government, without any new taxes, stands to collect more than 50 cents in taxes for every dollar increase in the domestic crude oil prices.

Thank you very much.

[The prepared statements of the preceding panel follow:]

STATEMENT OF DR. E. ANTHONY COPP, VICE PRESIDENT, MANAGER—ENERGY RESEARCH AND DEVELOPMENT GROUP AND RONALD M. FREEMAN, VICE PRESIDENT, MANAGER—ENERGY GROUP, CORPORATE FINANCE, SALOMON BROS.

Mr. Chairman and members of the Committee, our purpose today is to provide you with Salmon Brothers' overview of the current, world oil supply and demand situation and our analysis of the effect of the so-called windfall profits tax on the U.S. oil supply and demand outlook, in light of President Carter's recent energy proposals.

Oil supply/oil prices, and oil revenues

Oil supply and demand is gradually returning to a normal status following the severe cutback in oil supply from Iran. Oil companies are slowly trying to rebuild stocks of crude products while meeting current refined product demand. Slower growth in demand may provide the opportunity to launch new energy programs. However, our concern is that the Administration's proposals may fail to take full advantage of this opportunity.

Free-world oil supply in this post-Iranian crisis period is expected to average 52.5 million barrels daily for 1979. OPEC is expected to account for slightly more than 30 million barrels daily of this supply, or about 57 percent of the free-world total. Non-OPEC crude oil and natural gas liquids supply will contribute about 21 million barrels daily or about 38 percent, with the U.S., the North Sea, Canada, and Mexico as the predominant supply factors. Communist countries and processing gain account for the remainder of this supply. Slight increases in non-OPEC production are possible in 1980. These higher production levels worldwide for 1980, however, may be offset by lower oil production in Middle Eastern countries as a result of conservation and/or politics. Many OPEC countries have recently been producing oil at capacity levels that may not be sustainable. Through the first half of 1979, the U.S. has been importing about 8.2 million barrels of crude and products daily. Notwithstanding, we believe that the President's import quota program of 8.2 million barrels per day for 1979 can be achieved without undue stress on domestic supply. Given our expectation for a recession in 1980, we expect the 8.2 million barrel import limit to be potentially sustainable even through next year. However, price rises are on a different trajectory. The U.S. paid to OPEC countries $35.6 billion in 1977 and $32.9 billion in 1978 for oil. For 1979, this figure could total more than $45 billion.

One benefit of import quotas may be to enhance the moderating power of Saudi Arabia within OPEC. The recent increase in oil prices by the OPEC cartel at their Geneva meeting reflected not only the tight world oil sellers' market but also the

current limited capacity of the Saudis to expand oil output sharply. At $18 per barrel, Saudi Arabian crude remains the lowest priced OPEC crude; moreover the Saudis have increased output from 8.5 to 9.5 million barrels daily. Other OPEC countries have scaled up their prices to as much as $23.50 per barrel. The weighted average OPEC price is now slightly over $20.00 per barrel compared with about $13.00 in 1978. The average, landed cost of crude into the U.S. today exceeds $21.00 per barrel. Indeed, for the higher quality, low sulfur crudes we import from North Africa, the landed costs are around $25.00 per barrel compared with almost $15.50 in 1978.

The production of oil in the U.S., now averaging 8.6 million barrels daily of crude oil plus 1.6 million barrels daily of natural gas liquids, accounts for about 54 percent of domestic demand. President Carter's proposal to limit imports to 8.2 million barrels daily implies that foreign oil supply will be frozen at 44 percent of current domestic demand in the near term. If the President's program is successful, this reliance on foreign oil could decline sharply by 1990.

There are also significant, downstream investment implications underlying President Carter's national goal of reducing foreign oil imports by 4.5 million barrels daily by 1990. U.S. oil is about two-thirds sweet, low sulfur, and the remaining output is widely dispersed between low and high gravity, high sulfur crudes. Increasingly, however, new discoveries of oil in the U.S. are of the high sulfur variety and therefore, of relatively lower quality. A similar trend is occurring with both OPEC and non-OPEC crudes around the world. This development is forcing significant investments in refinery conversion units in the U.S. Alaskan crude is low gravity, sour crude. Expansion of Alaskan output will also require additional refinery conversion. Thus, we welcome the President's proposal to decontrol prices of heavy crude in the U.S. as a proper and rational policy to encourage greater exploration and development of this promising resource.

However, we have major reservations regarding the approach to developing synthetic fuels, solar energy, and other nonconventional sources. The Administration proposes using the windfall profits tax to finance new energy sources. More fundamentally, we are deeply concerned that President Carter's energy solutions are weighted toward more government intervention in the development and financing of this nation's energy capital stock. As investment bankers, we do not believe that a permanently and massively increased Government role is a necessary condition for the financing of new domestic supply either of conventional or synthetic fuels. Before this Committee endorses such a critical step, we urge that it first consider the potential for more cost-effective U.S. energy development through regulatory reforms, tax incentives and interim, not permanent Government support programs.

The windfall profits tax proposal and petroleum industry financial performance

We recognize that the U.S. will need to develop all its energy resources to combat reliance of foreign oil. At a minimum, OPEC will raise prices in real terms annually throughout the next decade. Even if large excess productive oil capacity within OPEC returns, the cartel will still be in a position to extract uninterrupted increases in oil prices though, under our most optimistic case, a freeze on oil prices by OPEC for one or two years might be feasible. But the probability of this latter event occurring is low.

In this country, we have always managed to solve our energy problems by enhancing domestic output. Because lead times for petroleum and other natural resource developments are long, we need to combine a sensible, national conservation effort with an effort to maximize both near and long-term domestic energy supply. President Carter's program does not, in our opinion, fully exploit this nation's domestic potential for exploring and rapidly developing hydrocarbons. The Administration appears to have settled for a lower than possible effort at exploration in this country in favor of more capital-intensive, long-term and uncertain technologies. The focus of our concern is the so-called windfall profits tax which we think is the Achilles heel of this country's mobilization and war effort on energy. This program, estimated by the Administration to yield between $146 and $270 billion over the 1980-1990 period, we feel requires major scrutiny by this Committee.

We believe the private sector, encompassing the petroleum industry and all other segments of the energy industry, is prepared to respond to President Carter's request for help in reducing reliance on foreign oil. However, the windfall profits tax is in fact a massive diversion of revenues from the private sector. It is based on the assumption that the private sector will be less effective than Government in achieving national energy goals. Our analysis of the financial performance of the U.S. energy industry directly challenges this critical assumption.

In our earlier testimony before the Energy Subcommittee of this Committee and also before the House Ways and Means Committee, we reported our findings on the

financial data and performance of the U.S. petroleum industry, paying particular attention to the relationship between net income, dividends, cash flow, and capital expenditures. From this analysis we derived the following results: From 1971 to 1978, the oil companies in our sample invested in their business an amount equal to almost 175 percent of their net income. Looking at one year of this period, 1975, capital expenditures for the industry of $21.2 billion were more than twice total industry net income; in no year between 1971 and 1978 were capital expenditures less than 131 percent of net income. Because corporations do not retain the entirety of their net income, but are obliged to pay out an appropriate portion to their shareholders, we also considered the level of industry capital expenditures relative to the contributions to retained earnings, i.e., net income less dividends. On this basis, we noted that common dividends for the period averaged 40 percent of net income, placing the oil industry at the median of 83 industry groups in terms of its payout ratio. Considering this relationship in terms of the growth of these two figures, we noted that while the capital expenditures level in 1978 of $25.7 billion was $15.5 billion greater than the 1971 level, contributions to retained earnings in 1978 of $8.1 billion exceeded the 1971 figure by only $4.9 billion. In other words, the increase in the oil industry capital expenditure budget between 1971 and 1978 was in excess of 300 percent of the increase in retained earnings contributions.

This clearly challenges the implicit assumption of the windfall profit program about the private section's ability to mobilize massive financial resources for energy development.

The foregoing data also help put the windfall tax program in perspective. The estimated 1980-1990 receipts of $146 to $270 billion represent, on an average, annual basis, $19 billion per year. This is equal to 137 percent of industry profits in 1978 and to more than 330 percent of industry dividends. Assuming one half this amount represents additional industry taxes, (and one half a diversion from income tax revenues), a 50 percent windfall profits tax in 1978 would have eroded industry capital expenditures by more than 35 percent.

Other analyses carried out by Salomon Brothers further underline the willingness of the private sector to invest in energy projects. We analyzed the respective levels of retained cash flow and capital expenditures for the 33 energy companies in our sample. The result of this inspection revealed that in only one year (1973) during the 1971 through 1978 period was the industry able to generate retained cash flow in excess of its capital expenditure program. In every other year, capital expenditures significantly outpaced retained cash flow leaving the companies with a net deficit to be financed from external sources. The annual capital expenditures in excess of retained cash flow ranged from a low of $76 million (1974) to a high of $6.5 billion (1975) for a total deficit of $16.9 billion during this eight-year period.

In order to finance this deficit of capital expenditures relative to retained cash flow, to pay back maturing long term debt, and to maintain working capital at acceptable levels, the oil companies in our analysis raised more than $46.3 billion from 1971 to 1978 by the issuance of long term debt and new equity. More than 28 percent of this total amount, or $13.1 billion of external capital, was raised in the two years 1977 and 1978.

In other key points of the testimony presented earlier, it was our conclusion that:

1. Oil company capital expenditures have continued to outpace significantly the growth of their net income and retained cash flow;
2. The specific expenditures for exploratory drilling and well equipping within oil company capital budgets have grown faster than have capital budgets as a whole;
3. However, the ability of oil companies to continue to fund growing exploration programs is primarily contingent upon the existence of adequate profitability to enable them to satisfy the credit and profitability criteria of third party lenders and equity investors in their securities.

This brings us to the potential effects of the Administration's energy tax proposals on oil company profitability, and more specifically, on oil company ability to find new U.S. oil and gas reserves.

In 1977, the most recent year for which we have Department of Commerce data and one of the most active drilling years in recent U.S. history, 1.09 billion barrels of crude oil were added to total U.S. proved reserves. In addition, 11.9 trillion cubic feet were added to proved gas reserves having an oil equivalent value of 1.98 billion barrels. Thus, total additions to proved reserves (which represent reserves both found and developed) of crude oil and crude oil equivalents in 1977 totaled 3.07 billion barrels. This compares with average, gross annual additions to U.S. proved reserves of 2.70 billion barrels of oil and oil equivalents from 1976 to 1978.

A precise estimate of the sole cost of finding new oil and gas reserves in the United States is complicated by the highly uncertain lag between the time the expenditure is made and a barrel is found and by the specific characteristics of the oil field. Consequently, several studies which we have reviewed provide a broad range of average finding cost per barrel for the period 1973-1978 which varies from $2.00 to $9.00 depending upon location and producer. For purposes of this discussion, we have attempted to come up with a rule of thumb finding cost based on the following simplifying assumptions and data approximations:

1. Assume that additions to proved reserves are a usable proxy for new reserves found, as reported in "20th Century Petroleum Statistics" published by DeGolyer and MacNaughton and based on U.S. Department of Energy, Joint Association Survey, American Petroleum Institute and American Gas Association sources, after adjustment for development data;
2. Assume that exploration expenditures, as reported in the Department of Commerce "Annual Survey of Oil & Gas," are a proxy for finding costs; and
3. Assume that the exploration costs incurred and the new proved reserves reported in 1977 are directly related.

On this basis, and by correcting for inflation, we have derived an expected, near term proxy for the cost of finding new oil and oil equivalent reserves, without regard to specific field risks, in the United States of approximately $3.75 to $5.00 per barrel.

We trust that it is not necessary to emphasize that the difference between this current estimated finding cost and the current market price for oil is not profit to the oil finder, nor is it the true replacement value for crude. The market price for a barrel of crude oil or crude oil equivalents must cover, in addition to the sole cost of exploration expenses over the economic life, the costs required to acquire the mineral rights, develop the reserves of any, bring them to the surface, transform them into products required by the market, transport them to the market and sell them. The market price must also cover all state and federal taxes borne by the seller whether excise taxes, such as those proposed in the Administration's new proposals, or income taxes. Finally, the market price must also include an allowance for both the return on and the return of capital to the producers, lenders and shareholders. Given the current return required by investors in industrial assets today, we estimate that the total market price required to cover all of these costs for new oil is greater than $16.00 per barrel.

We then attempted to estimate the impact of the proposed "windfall profits" tax on the revenues to be received by the producers of crude oil in the U.S. as the result of the removal of present price controls.

As stated in the analysis of H.R. 3919 prepared by the staff of the Joint Committee on Taxation, "The Administration estimates that the net revenue from its proposed windfall profits tax, allowing for its being deductible under the income tax, would be $0.5 billion in calendar year 1980, $1.5 billion in 1981 and $1.7 billion in 1982", or a total of $3.7 billion in crude oil producer after tax revenues as a result of the tax in the 1979-1981 period.

Based upon the above calculated benchmark finding cost per barrel, this diversion of funds is equivalent to foregoing an increases in domestic crude oil and crude oil equivalent reserves of 750 million to 1.0 billion barrels. Alternatively, if the U.S. were obliged to import this amount of crude oil from foreign producers rather than generate it from domestic reserves at current price levels, it would amount to an additional balance of payments outflow of $15.0 to $20.0 billion.

We stress that this estimate is only for the first three years of the Administration's tax proposal. As revenues rise thereafter, the diversion of funds which would normally be available for new oil and gas exploration programs would presumably have an even greater negating effect on our domestic reserve position. The longer term impact of the tax will be determined by the problematical rate at which OPEC raises prices, by the future course of the GNP deflator, and by the pricing points set in the Administration's or Congress' present and future tax measures. While the net dollar impact of these uncertain variables cannot today be quantified, one thing is certain: the permanent tax being proposed on new oil discoveries is a disincentive to exploration.

Ideally, to realize our national energy goal of reducing dependence on foreign supply, the faster the foreign oil producers raise their prices the harder U.S. oil companies should be looking for U.S. domestic reserves. This is how decontrol should lead to realization of national goals of energy self-sufficiency. Instead, the windfall tax proposal would effectively divert the flow of world market price revenues away from oil producers and, consequently, away from exploration programs and would make the U.S. Government the co-beneficiary of future OPEC price rises.

Because oil and gas discoveries provide the most certain near-term bridging mechanism between excessive foreign oil dependence and future synthetic fuel availability, this aspect of the windfall profits tax potentially exacerbates our near term energy problem. To wager so heavily on synfuels by imposing specialized excise taxes that will inevitably reduce oil and gas exploration programs strikes us as a flagrant example of objectives in conflict.

Mr. Chairman and Members of the Committee, we have tried to outline our reservations about the approach taken by this Administration in meeting what we all agree is our common goal of releasing this country from undue reliance of foreign oil. We have all borne the costs of too much temporizing, and too much conflict between the Government and the private sector while the energy crisis deepened. Now, with a crucial decision concerning energy capital allocation facing us, we must be certain beyond a doubt that our financial resources will be deployed to protect and develop our vital energy supply most effectively. Thank you for your attention.

CONSOLIDATED FIRMS

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	9093.1	9908.8	14048.5	19530.8	14688.6	18316.5	20293.2	23899.6
CAPITAL EXPENDITURES	10175.3	10752.4	12639.5	19606.1	21196.6	22451.4	24085.5	25653.6
RET CASH FLOW/CAP EXPENDITURES (PCT.)	89.4	92.2	111.1	99.6	69.3	81.6	84.4	93.2
ISSUANCE OF LONG TERM DEBT	3981.3	2914.2	3104.7	4473.7	7881.4	8432.5	6905.5	8360.2
EQUITY ISSUANCE	197.4	240.2	334.1	335.2	551.5	830.9	1360.7	467.1
COMMON DIVIDENDS	3134.0	3132.1	3295.9	3849.6	4156.5	4406.8	5064.3	5619.6
PREFERRED DIVIDENDS	190.9	181.0	184.0	165.3	171.4	165.7	149.7	124.5
CASH DIVIDENDS	3325.0	3313.2	3479.9	4014.9	4328.4	4570.0	5212.1	5744.1
CAPITALIZATION:								
TOTAL LONG TERM DEBT	19834.9	20298.5	21264.6	23578.8	27691.8	33361.5	37761.9	41376.1
PREFERRED STOCK (CARRYING VALUE)	468.9	464.6	419.9	326.4	313.2	249.4	267.6	NA
TOTAL COMMON EQUITY	58515.9	61468.0	67637.1	77249.7	81301.8	89503.2	98268.7	108458.4
TOTAL CAPITALIZATION	80241.3	83738.5	90979.7	103279.3	111582.7	125589.9	138705.6	149195.6
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	24.7	24.2	23.4	22.8	24.8	26.6	27.2	27.7
PREFERRED STOCK	0.6	0.6	0.5	0.3	0.3	0.2	0.2	NA
TOTAL COMMON EQUITY	72.9	73.4	74.3	74.8	72.9	71.3	70.8	70.0
INCOME STATEMENT DATA:								
NET INCOME	6218.1	6272.0	9639.7	13535.8	10206.3	11987.0	12621.0	13720.3
COMMON DIVIDENDS	3134.0	3132.1	3295.9	3849.6	4156.5	4406.8	5064.3	5620.2
AVAILABLE FOR COMMON	6111.8	6168.4	9530.2	13433.4	10096.6	11883.6	12532.8	13675.0
PAYOUT RATIO	51.3	50.8	34.6	28.7	41.2	37.1	40.4	41.1

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FIRMS INCLUDED IN CONSOLIDATION:

AMERADA HESS
PELCO PETROLEUM
KERR MCGEE
RESERVE OIL AND GAS
STANDARD OF CALIFORNIA
PENNZOIL
GULF OIL
OCCIDENTAL PETROLEUM
PANHANDLE EASTERN
EL PASO
LOUISIANA LAND
CITIES SERVICE
MARATHON OIL
SHELL OIL
SUN COMPANY
MOBIL OIL
EXXON CORP
COASTAL STATES GAS
MESA PETROLEUM
ASHLAND OIL
CONTINENTAL OIL
MURPHY OIL
STANDARD INDIANA
STANDARD OHIO
HOUSTON OIL AND MINERALS
UNION OIL CL.
TEXACO OIL
TEXAS OIL AND GAS
GENERAL AMERICAN OIL
SUPERIOR OIL
ATLANTIC RICHFIELD
GETTY OIL
PHILLIPS

CONSOLIDATED FIRMS

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	4835.2	5197.0	8164.7	10721.7	6151.4	8234.0	8766.2	10152.7
CAPITAL EXPENDITURES	5616.4	5582.9	6317.5	9186.3	8804.6	9333.3	9701.5	10815.4
RET CASH FLOW/CAP EXPENDITURES (PCT.)	86.1	93.1	129.2	116.7	69.9	88.2	90.4	93.8
ISSUANCE OF LONG TERM DEBT	2252.4	1345.7	1504.0	1753.5	2636.6	2743.1	1757.8	1016.1
EQUITY ISSUANCE	42.5	8.6	5.2	18.3	108.3	284.0	225.2	75.3
COMMON DIVIDENDS	2142.9	2129.6	2266.9	2662.8	2733.6	2884.0	3137.1	3363.4
PREFERRED DIVIDENDS	20.3	19.2	19.3	19.3	28.5	26.5	27.6	32.4
CASH DIVIDENDS	2163.2	2148.8	2286.3	2682.2	2757.3	2909.5	3163.5	3395.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT	9156.2	9028.8	9171.5	10208.3	11014.2	12827.9	13132.0	15503.8
PREFERRED STOCK (CARRYING VALUE)	5.2	5.2	5.2	5.2	7.9	7.7	10.5	NA
TOTAL COMMON EQUITY	34444.5	36044.8	39686.0	45031.6	46676.0	50370.8	53765.2	55356.0
TOTAL CAPITALIZATION	43460.2	45995.7	49860.6	56419.1	58977.7	64680.4	68879.4	72982.6
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	20.6	19.6	18.4	18.1	18.7	19.8	19.2	21.7
PREFERRED STOCK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
TOTAL COMMON EQUITY	77.5	78.4	79.6	79.8	79.1	77.9	78.5	77.6
INCOME STATEMENT DATA:								
NET INCOME	3985.7	4008.8	6308.3	8133.8	5790.6	6334.7	6344.7	6644.7
COMMON DIVIDENDS	2142.9	2129.6	2266.9	2662.8	2733.6	2884.0	3137.1	3364.1
AVAILABLE FOR COMMON	3965.4	3989.6	6289.0	8114.4	5766.1	6308.2	6317.0	6644.7
PAYOUT RATIO	54.0	53.4	36.0	32.8	47.4	45.7	49.7	50.6

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FIRMS INCLUDED IN CONSOLIDATION:

STANDARD CALIFORNIA
MOBIL OIL
TEXACO
EXXON CORP
OCCIDENTAL PETROLEUM
GULF OIL

STANDARD OIL CO (CALIF)

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	617.9	678.2	1018.9	1153.8	1018.3	1069.6	1197.3	1335.1
CAPITAL EXPENDITURES.....	722.8	596.9	672.7	1144.3	1025.9	793.7	890.9	1049.7
NET CASH FLOW/CAP EXPENDITUR	85.5	113.6	151.5	100.8	99.3	134.8	134.4	127.2
ISSUANCE OF LONG TERM DEBT..	378.4	28.7	82.3	1.6	401.1	306.9	97.7	27.7
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	237.4	245.8	263.0	326.6	339.3	365.0	400.0	438.6
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	237.4	245.8	263.0	326.6	339.3	365.0	400.0	438.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	1054.4	1032.0	1063.7	1015.1	1347.1	1571.0	1567.7	2153.3
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	4919.5	5220.7	5806.4	6850.2	6485.1	7007.0	7638.2	8230.6
TOTAL CAPITALIZATION.....	5973.9	6252.7	6870.1	7865.3	7832.2	8578.0	9205.9	10383.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	17.7	16.5	15.5	13.6	17.2	18.3	17.0	20.7
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	82.3	83.5	84.5	86.4	82.8	81.7	83.0	79.3
INCOME STATEMENT DATA:								
NET INCOME.....	511.1	547.1	883.6	970.0	772.5	880.1	1016.4	1105.9
COMMON DIVIDENDS.....	237.4	245.8	263.0	326.6	339.3	365.0	400.0	438.6
PAYOUT RATIO.....	46.5	45.0	31.2	33.7	44.0	41.5	39.4	39.4

MOBIL CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	653.9	771.8	1078.1	1606.6	790.9	1218.9	1443.6	1642.1
CAPITAL EXPENDITURES.....	911.0	1030.0	1185.8	1449.7	1206.2	1286.2	1285.2	1760.7
RET CASH FLOW/CAP EXPENDITUR	71.8	74.9	90.9	110.8	65.6	94.8	112.3	93.3
ISSUANCE OF LONG TERM DEBT..	280.9	334.7	92.7	733.6	710.6	864.5	634.2	203.5
EQUITY ISSUANCE.....	9.8	8.6	5.2	0.1	0.3	231.9	5.8	3.8
COMMON DIVIDENDS.....	258.8	269.3	285.1	325.9	346.3	363.6	413.0	455.6
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	258.8	269.3	285.1	325.9	346.3	363.6	413.0	455.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	1134.3	1083.4	1087.3	1729.2	1834.4	2881.8	3076.9	3409.3
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	4831.9	5145.4	5714.8	6436.4	6841.0	7651.8	8249.3	8910.3
TOTAL CAPITALIZATION.....	5988.0	6251.0	6826.9	8190.0	8698.9	10582.3	11375.2	12376.4
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	18.9	17.3	15.9	21.1	21.1	27.2	27.0	27.5
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	80.7	82.3	83.7	78.6	78.6	72.3	72.5	72.0
INCOME STATEMENT DATA:								
NET INCOME.....	540.8	574.2	849.3	1047.4	809.9	942.5	1004.7	1125.6
COMMON DIVIDENDS.....	258.8	269.3	285.1	325.9	346.3	363.6	413.0	455.6
PAYOUT RATIO.....	47.8	46.9	33.6	31.1	42.8	38.5	41.1	40.5

TEXACO INC

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	855.7	867.1	1455.9	2064.6	338.8	977.6	1238.6	1558.9
CAPITAL EXPENDITURES.....	1087.2	1112.6	1240.7	1859.2	1387.3	1239.8	1287.8	1348.8
RET CASH FLOW/CAP EXPENDITUR	81.7	77.9	117.3	111.0	24.4	78.9	99.3	116.0
ISSUANCE OF LONG TERM DEBT..	334.7	123.9	470.7	198.3	305.8	440.9	50.9	68.8
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	435.7	451.6	470.8	570.6	543.0	542.9	542.9	542.9
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	435.7	451.6	470.8	570.6	543.0	542.9	542.9	542.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	1289.6	1359.7	1777.9	1897.0	2234.2	2585.5	2558.8	3639.5
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	6745.0	7178.9	7992.3	9002.8	8678.8	9002.1	9390.7	9462.5
TOTAL CAPITALIZATION.....	8117.0	8627.0	9874.3	11017.2	11031.7	11716.1	12086.9	13194.7
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	15.9	15.8	18.0	17.2	20.3	22.1	21.2	27.6
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	83.1	83.2	80.9	81.7	78.6	76.8	77.7	71.7
INCOME STATEMENT DATA:								
NET INCOME.....	903.9	889.0	1292.4	1586.4	830.6	869.7	930.8	852.5
COMMON DIVIDENDS.....	435.7	451.6	470.8	570.6	543.0	542.9	542.9	542.9
PAYOUT RATIO.....	48.2	50.8	36.4	36.0	65.4	62.5	58.3	63.7

EXXON CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	1836.1	2000.5	3127.0	3990.5	2456.2	3459.1	3158.4	3818.9
CAPITAL EXPENDITURES.....	1810.8	1988.0	2238.9	2910.1	3558.4	4098.4	3596.3	4186.9
RET CASH FLOW/CAP EXPENDITUR	101.4	100.8	139.9	137.1	69.0	84.4	87.7	91.2
ISSUANCE OF LONG TERM DEBT..	547.8	546.7	624.5	619.8	815.3	833.0	620.0	330.0
EQUITY ISSUANCE.....	32.2	NA	NA	NA	5.9	25.1	0.0	0.0
COMMON DIVIDENDS.....	851.5	851.9	952.5	1118.9	1118.3	1220.1	1343.9	1472.2
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	851.5	851.9	952.5	1118.9	1118.3	1220.1	1343.9	1472.2
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	2679.2	2616.9	2670.9	3051.7	3851.1	3696.8	3870.0	3749.2
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	11592.9	12269.5	13717.7	15728.0	17028.4	18870.4	19512.9	20228.6
TOTAL CAPITALIZATION.....	14766.3	15422.8	16979.7	19460.3	21185.8	22981.7	24208.2	24858.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	18.1	17.0	15.7	15.7	16.3	16.1	16.0	15.1
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	78.5	79.6	80.8	80.8	80.4	80.5	80.6	81.4
INCOME STATEMENT DATA:								
NET INCOME.....	1516.6	1531.8	2443.3	3142.2	2503.0	2641.0	2423.0	2763.0
COMMON DIVIDENDS.....	851.5	851.9	952.5	1118.9	1118.3	1220.1	1343.9	1472.2
PAYOUT RATIO.....	56.1	55.6	39.0	35.6	44.7	46.2	55.5	53.2

OCCIDENTAL PETROLEUM CORP

	1971	1972	1973	1974	1975	1976	1977	1978
INDUSTRY AGGREGATE:								
RETAINED CASH FLOW.....	72.5	100.4	220.8	416.3	339.2	282.8	507.3	321.7
CAPITAL EXPENDITURES.....	216.9	181.5	199.4	424.0	495.7	553.6	627.2	798.4
RET CASH FLOW/CAP EXPENDITUR	33.4	55.3	110.7	98.2	68.4	51.1	80.9	40.5
ISSUANCE OF LONG TERM DEBT..	206.6	182.7	173.8	204.2	247.8	141.9	155.0	390.4
EQUITY ISSUANCE.....	0.5	0.0	0.0	18.2	102.1	27.0	219.4	71.5
COMMON DIVIDENDS.....	47.5	0.0	0.0	13.8	55.7	56.4	77.3	87.1
PREFERRED DIVIDENDS.....	20.3	19.2	19.3	19.3	24.5	26.5	27.6	32.4
CASH DIVIDENDS.....	67.8	19.2	19.3	33.1	79.4	81.9	103.7	119.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	898.7	995.8	963.8	1040.3	853.3	924.8	751.6	1063.5
PREFERRED STOCK (CARRYING VA	5.2	5.2	5.2	5.2	7.9	7.7	10.5	498.9
TOTAL COMMON EQUITY.....	838.1	825.8	886.8	1089.2	1192.7	1297.5	1637.1	767.9
TOTAL CAPITALIZATION.....	1755.0	1845.2	1875.7	2172.3	2124.2	2355.3	2528.2	2458.5
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	51.2	54.0	51.4	47.9	40.2	39.3	29.7	43.3
PREFERRED STOCK.....	0.3	0.3	0.3	0.2	0.4	0.3	0.4	20.3
TOTAL COMMON EQUITY.....	47.5	44.7	47.2	50.1	56.1	55.1	64.8	31.2
INCOME STATEMENT DATA:								
NET INCOME.....	(48.0)	19.7	79.8	322.7	174.6	185.4	217.9	6.7
COMMON DIVIDENDS.....	47.5	0.0	0.0	13.8	55.7	56.4	77.3	87.1
PAYOUT RATIO.....	(69.4)	0.0	0.0	4.5	37.2	35.7	40.7	NA

GULF OIL CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	799.0	779.0	1268.0	1490.0	1208.0	1226.0	1225.0	1476.0
CAPITAL EXPENDITURES.....	908.0	678.0	784.0	1399.0	1131.0	1362.0	2058.0	1680.0
RET CASH FLOW/CAP EXPENDITUR	88.0	114.9	161.2	106.5	106.8	90.0	59.6	87.9
ISSUANCE OF LONG TERM DEBT..	504.0	129.0	60.0	NA	156.0	156.0	200.0	NA
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	312.0	311.0	296.0	307.0	331.0	336.0	360.0	371.0
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	312.0	311.0	296.0	307.0	331.0	336.0	360.0	371.0
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	2100.0	1981.0	1608.0	1471.0	1298.0	1168.0	1307.0	1489.0
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	5521.0	5409.0	5569.0	6329.0	6458.0	6942.0	7337.0	7757.0
TOTAL CAPITALIZATION.....	7860.0	7597.0	7483.0	8118.0	8105.0	8507.0	9075.0	9711.0
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	26.7	25.5	21.6	18.1	16.0	13.7	14.4	15.3
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	70.2	71.2	74.4	78.0	79.7	81.6	80.8	79.9
INCOME STATEMENT DATA:								
NET INCOME.....	561.0	447.0	800.0	1065.0	700.0	816.0	752.0	791.0
COMMON DIVIDENDS.....	312.0	311.0	296.0	307.0	331.0	336.0	360.0	371.0
PAYOUT RATIO.....	55.6	69.8	36.9	28.8	47.2	41.2	47.9	46.8

CONSOLIDATED FIRMS

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	324.9	404.9	492.6	717.4	738.9	971.1	1083.3	1354.7
CAPITAL EXPENDITURES	322.5	517.0	815.2	938.4	906.9	965.9	1386.6	1882.7
RET CASH FLOW/CAP EXPENDITURES (PCT.)	100.7	78.3	60.4	76.4	81.0	100.5	78.1	71.9
ISSUANCE OF LONG TERM DEBT	391.9	542.6	305.9	478.7	803.9	733.7	645.2	1143.6
EQUITY ISSUANCE	33.3	18.6	153.7	1.3	75.3	102.4	81.9	108.1
COMMON DIVIDENDS	87.8	89.7	93.7	114.5	135.6	137.5	188.0	218.4
PREFERRED DIVIDENDS	16.0	14.5	16.8	9.6	12.2	13.1	10.8	13.4
CASH DIVIDENDS	103.8	104.2	110.5	124.1	149.1	149.4	198.2	227.8
CAPITALIZATION:								
TOTAL LONG TERM DEBT	1831.1	1682.0	1852.4	2115.4	2345.5	2429.3	2728.7	3095.7
PREFERRED STOCK (CARRYING VALUE)	54.2	52.8	51.8	48.5	46.3	40.7	38.1	35.0
TOTAL COMMON EQUITY	1623.7	1820.6	2233.5	2436.4	2770.7	3286.2	3825.0	4125.1
TOTAL CAPITALIZATION	3201.5	3679.7	4270.5	4810.8	5419.8	5925.4	6810.2	7858.9
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	44.7	45.7	43.4	44.0	43.3	41.0	40.1	41.5
PREFERRED STOCK	1.7	1.4	1.2	0.9	0.9	0.7	0.5	.5
TOTAL COMMON EQUITY	50.7	49.5	52.3	50.6	51.1	55.5	56.2	55.3
INCOME STATEMENT DATA:								
NET INCOME	188.8	231.8	311.5	463.2	435.5	538.8	601.5	602.0
COMMON DIVIDENDS	87.8	89.7	93.7	114.5	135.6	137.5	188.0	218.3
AVAILABLE FOR COMMON	185.7	228.8	305.2	453.3	422.4	525.7	591.3	580.0
PAYOUT RATIO	47.3	39.2	30.7	25.3	32.1	26.2	31.8	36.3

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FIRMS INCLUDED IN CONSOLIDATION:

RESERVE OIL AND GAS	GENERAL AMERICAN OIL	HOUSTON OIL AND MINERALS
MESA PETROLEUM	SUPERIOR OIL	PENNZOIL
TEXAS OIL AND GAS	PANHANDLE EASTERN	LOUISIANA LAND AND EXPLORATION

RESERVE OIL & GAS

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	6.4	10.0	24.0	24.7	25.0	30.6	33.0	42.9
CAPITAL EXPENDITURES.....	9.0	7.0	14.2	19.5	24.7	30.8	41.9	77.5
RET CASH FLOW/CAP EXPENDITUR	71.3	142.7	168.2	126.7	100.9	99.1	78.8	55.4
ISSUANCE OF LONG TERM DEBT..	2.3	1.7	19.5	8.7	17.1	126.4	6.3	23.1
EQUITY ISSUANCE.....	5.9	0.1	1.5	0.0	0.2	1.1	47.7	5.9
COMMON DIVIDENDS.....	0.0	0.0	0.0	1.2	1.5	2.0	2.6	3.2
PREFERRED DIVIDENDS.....	0.4	0.4	0.4	0.4	0.4	0.3	0.4	3.5
CASH DIVIDENDS.....	0.4	0.4	0.4	1.7	1.9	2.3	3.0	6.7
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	8.0	8.7	16.1	17.5	20.7	88.6	85.2	102.1
PREFERRED STOCK (CARRYING VA	7.7	7.7	7.7	7.7	7.2	3.2	2.0	2.0
TOTAL COMMON EQUITY.....	53.3	55.6	79.3	85.7	101.6	122.6	186.3	206.3
TOTAL CAPITALIZATION.....	71.6	74.8	107.6	114.0	133.1	220.3	280.2	316.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	11.1	11.6	15.0	15.3	15.6	40.2	30.4	32.3
PREFERRED STOCK.....	10.8	10.3	7.1	6.7	5.4	1.5	0.7	.6
TOTAL COMMON EQUITY.....	74.4	74.2	73.7	75.2	76.3	55.6	66.5	65.2
INCOME STATEMENT DATA:								
NET INCOME.....	3.7	4.0	10.3	13.7	17.0	15.1	17.9	20.3
COMMON DIVIDENDS.....	0.0	0.0	0.0	1.2	1.5	2.0	2.6	3.2
PAYOUT RATIO.....	0.0	0.0	0.0	9.3	8.9	13.9	15.5	19.2

MESA PETROLEUM

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	16.7	21.5	25.8	36.8	41.2	68.9	97.9	109.1
CAPITAL EXPENDITURES.....	17.8	82.3	115.7	119.3	100.6	108.7	185.8	194.3
RET CASH FLOW/CAP EXPENDITUR	93.6	26.1	22.3	30.9	41.0	63.4	52.7	56.2
ISSUANCE OF LONG TERM DEBT..	8.4	63.0	NA	NA	29.9	79.4	178.1	187.3
EQUITY ISSUANCE.....	6.9	0.9	73.6	0.3	71.1	1.2	2.5	0.0
COMMON DIVIDENDS.....	0.3	0.4	1.0	0.6	0.6	1.3	5.4	5.4
PREFERRED DIVIDENDS.....	1.5	1.3	1.1	0.2	3.3	4.9	2.4	0.0
CASH DIVIDENDS.....	1.8	1.6	2.1	0.8	3.9	6.2	7.2	5.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	33.5	91.8	76.7	144.2	185.2	210.9	300.7	384.7
PREFERRED STOCK (CARRYING VA	0.6	0.5	0.4	0.1	3.1	3.0	0.0	0.0
TOTAL COMMON EQUITY.....	49.3	63.9	185.2	190.1	273.4	297.5	337.2	374.4
TOTAL CAPITALIZATION.....	83.5	156.3	262.3	334.3	421.7	511.4	637.9	759.1
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	40.2	58.7	29.2	43.1	34.4	41.2	47.1	50.7
PREFERRED STOCK.....	0.7	0.4	0.2	0.0	0.7	0.6	0.0	0.0
TOTAL COMMON EQUITY.....	59.1	40.9	70.6	56.9	64.8	58.2	52.9	49.3
INCOME STATEMENT DATA:								
NET INCOME.....	12.7	15.2	19.1	24.9	19.2	30.7	41.3	41.8
COMMON DIVIDENDS.....	0.3	0.4	1.0	0.6	0.6	1.3	5.4	5.4
PAYOUT RATIO.....	3.3	3.1	2.9	2.6	4.0	5.0	9.4	16.7

TEXAS OIL & GAS CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	13.0	18.0	25.9	40.0	67.5	91.7	139.5	171.0
CAPITAL EXPENDITURES.....	33.2	37.1	53.2	83.3	111.5	106.3	196.5	240.9
RET CASH FLOW/CAP EXPENDITUR	39.3	48.5	48.8	48.1	60.5	86.2	71.0	71.0
ISSUANCE OF LONG TERM DEBT..	33.7	41.3	39.7	59.6	104.0	11.8	125.3	196.1
EQUITY ISSUANCE.....	12.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	0.2	0.2	0.2	0.2	0.2	3.9	4.3	5.9
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	0.2	0.2	0.2	0.2	0.2	3.9	4.3	5.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	58.3	61.9	87.2	128.7	185.8	185.8	246.9	344.4
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	69.4	95.9	113.5	139.2	179.2	223.5	286.0	359.4
TOTAL CAPITALIZATION.....	127.7	157.8	200.7	267.9	365.0	409.2	532.9	703.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	45.6	39.2	43.4	48.0	50.9	45.4	46.3	48.9
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	54.4	60.8	56.6	52.0	49.1	54.6	53.7	51.1
INCOME STATEMENT DATA:								
NET INCOME.....	9.0	12.2	16.5	25.9	40.1	48.2	66.7	78.9
COMMON DIVIDENDS.....	0.2	0.2	0.2	0.2	0.2	3.9	4.3	5.9
PAYOUT RATIO.....	4.3	1.8	1.4	0.9	0.6	8.1	6.5	7.5

GEN AMER OIL CO OF TEXAS

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	38.0	32.5	33.0	40.3	44.6	53.1	54.8	70.7
CAPITAL EXPENDITURES.....	32.4	22.4	34.4	33.9	42.0	64.2	57.8	86.4
RET CASH FLOW/CAP EXPENDITUR	117.3	145.3	96.0	118.9	106.4	82.7	94.9	81.8
ISSUANCE OF LONG TERM DEBT..	0.0	2.1	14.1	0.0	0.0	20.0	0.0	0.0
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	3.5	3.6	3.7	3.8	5.2	5.7	6.9	7.9
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	3.5	3.6	3.7	3.8	5.2	5.7	6.9	7.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	0.0	1.1	15.0	15.0	14.6	29.3	24.4	17.0
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	208.5	220.7	226.3	246.5	264.6	280.2	300.4	314.6
TOTAL CAPITALIZATION.....	208.5	221.8	241.3	261.5	279.2	309.5	324.9	331.6
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	0.0	0.5	6.2	5.7	5.2	9.5	7.5	5.1
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	100.0	99.5	93.8	94.3	94.8	90.5	92.5	94.9
INCOME STATEMENT DATA:								
NET INCOME.....	8.5	15.4	11.1	24.0	23.3	23.3	27.2	23.1
COMMON DIVIDENDS.....	3.5	3.6	3.7	3.8	5.2	5.7	6.9	7.9
PAYOUT RATIO.....	39.9	22.7	32.7	15.5	21.9	24.0	24.9	34.2

SUPERIOR OIL CO

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	39.4	41.5	47.0	115.4	91.6	109.3	127.4	128.3
CAPITAL EXPENDITURES	33.0	49.2	92.4	83.5	80.4	84.4	152.8	223.7
RET CASH FLOW/CAP EXPENDITURES (PCT.)	119.5	84.4	50.9	138.1	113.9	129.4	83.4	57.4
ISSUANCE OF LONG TERM DEBT	14.2	21.7	58.9	28.4	27.4	0.9	21.3	342.5
EQUITY ISSUANCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS	5.7	5.6	5.6	5.6	6.4	7.2	7.6	10.0
PREFERRED DIVIDENDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS	5.7	5.6	5.6	5.6	6.4	7.2	7.6	10.0
CAPITALIZATION:								
TOTAL LONG TERM DEBT	89.9	95.5	145.8	130.4	96.7	76.7	85.0	381.4
PREFERRED STOCK (CARRYING VALUE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY	319.1	333.0	360.8	494.2	541.8	584.7	642.8	677.7
TOTAL CAPITALIZATION	408.9	428.5	506.6	690.0	719.7	761.1	877.8	1222.3
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	22.0	22.3	28.8	18.9	13.4	10.1	9.7	31.2
PREFERRED STOCK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY	78.0	77.7	71.2	71.6	75.3	76.8	73.2	55.4
INCOME STATEMENT DATA:								
NET INCOME	4.3	5.1	32.7	61.0	51.9	50.4	62.5	30.9
COMMON DIVIDENDS	5.7	5.6	5.6	5.6	6.4	7.2	7.6	10.0
PAYOUT RATIO	132.1	110.2	17.3	9.2	12.4	14.3	12.2	32.4
DIVIDENDS PER SHARE	1.4	1.4	1.4	1.4	1.6	1.8	1.9	2.5
EARNINGS PER SHARE	1.1	1.3	8.1	15.2	12.9	12.6	15.6	7.7

PANHANDLE EASTERN PIPE LINE

	1971	1972	1973	1974	1975	1976	1977	1978
INDUSTRY AGGREGATE:								
RETAINED CASH FLOW.....	84.2	97.2	105.2	121.8	133.9	155.7	180.1	215.6
CAPITAL EXPENDITURES.....	51.8	78.1	103.9	148.6	116.6	143.2	169.0	321.8
NET CASH FLOW/CAP EXPENDITUR	163.9	124.8	101.2	82.0	118.8	108.7	106.6	67.0
ISSUANCE OF LONG TERM DEBT..	12.5	99.7	94.2	147.2	191.7	96.6	18.0	118.1
EQUITY ISSUANCE.....	8.0	0.8	0.2	0.0	0.0	78.1	23.8	21.3
COMMON DIVIDENDS.....	26.0	26.8	27.9	29.0	29.7	33.2	42.2	47.3
PREFERRED DIVIDENDS.....	2.6	2.6	2.6	2.5	2.4	2.3	2.2	2.0
CASH DIVIDENDS.....	28.6	29.0	30.5	31.5	32.1	35.5	44.4	49.3
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	562.9	540.8	595.7	688.1	798.7	746.4	687.1	723.1
PREFERRED STOCK (CARRYING VA	39.1	38.5	37.8	35.6	35.0	33.3	31.0	29.4
TOTAL COMMON EQUITY.....	269.6	327.5	377.4	415.2	455.7	586.6	672.7	766.2
TOTAL CAPITALIZATION.....	911.6	986.1	1089.6	1172.9	1325.5	1400.8	1428.3	1589.4
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	61.8	57.2	56.8	58.3	60.3	53.3	48.2	46.7
PREFERRED STOCK.....	4.3	4.1	3.6	3.0	2.6	2.4	2.2	2.0
TOTAL COMMON EQUITY.....	29.6	34.6	36.0	35.4	34.4	41.9	47.2	49.5
INCOME STATEMENT DATA:								
NET INCOME.....	42.9	57.0	64.4	69.0	72.3	88.0	106.4	122.9
COMMON DIVIDENDS.....	26.0	26.8	27.9	29.0	29.7	33.2	42.2	47.3
PAYOUT RATIO.....	60.3	48.5	45.2	43.6	42.4	39.4	40.4	39.5

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HOUSTON OIL & MINERALS CORP

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	1.8	2.7	5.0	17.2	28.8	71.0	143.6	161.9
CAPITAL EXPENDITURES.....	8.1	7.2	29.9	44.7	71.9	163.0	229.0	215.0
RET CASH FLOW/CAP EXPENDITUR	23.0	36.9	16.9	38.4	40.0	43.6	62.7	75.3
ISSUANCE OF LONG TERM DEBT..	5.5	11.0	27.6	23.0	126.2	168.2	135.3	89.8
EQUITY ISSUANCE.....	0.6	1.9	3.2	1.0	4.0	22.0	7.9	80.8
COMMON DIVIDENDS.....	0.0	0.0	0.0	2.4	3.1	8.9	19.0	23.2
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
CASH DIVIDENDS.....	0.0	0.0	0.0	2.5	3.2	8.9	19.0	25.7
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	5.2	11.7	33.1	50.7	119.6	187.2	279.2	236.2
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
TOTAL COMMON EQUITY.....	3.6	6.7	13.5	28.0	38.5	89.9	144.7	213.6
TOTAL CAPITALIZATION.....	8.8	18.4	46.7	78.8	158.1	277.2	423.9	452.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	58.9	63.2	70.9	64.4	75.6	67.5	65.9	52.1
PREFERRED STOCK.....	0.5	0.3	0.1	0.1	0.0	0.0	0.0	.7
TOTAL COMMON EQUITY.....	40.5	36.6	29.0	35.6	24.3	32.4	34.1	47.8
INCOME STATEMENT DATA:								
NET INCOME.....	0.8	1.2	3.6	16.0	17.1	38.8	65.9	55.6
COMMON DIVIDENDS.....	0.0	0.0	0.0	2.4	3.1	8.9	19.0	23.2
PAYOUT RATIO.....	0.0	0.0	0.0	15.6	18.7	23.4	29.4	43.9

PENNZOIL CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	78.3	127.6	157.3	200.7	193.9	255.7	149.8	263.3
CAPITAL EXPENDITURES.....	90.0	126.2	292.7	285.8	241.6	157.1	207.3	331.3
RET CASH FLOW/CAP EXPENDITUR	87.0	101.1	53.7	70.2	80.3	162.7	72.3	79.5
ISSUANCE OF LONG TERM DEBT..	314.3	213.0	52.0	211.9	300.2	212.0	158.0	226.0
EQUITY ISSUANCE.....	0.0	0.0	75.3	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	16.2	17.2	18.6	33.1	48.2	32.5	54.9	65.0
PREFERRED DIVIDENDS.....	11.5	10.2	12.7	6.5	6.1	5.7	5.8	5.8
CASH DIVIDENDS.....	27.6	27.5	31.3	39.6	55.6	36.9	60.7	70.8
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	645.2	773.8	791.8	797.8	815.5	729.6	822.1	778.9
PREFERRED STOCK (CARRYING VA	6.7	6.0	5.8	1.1	1.1	1.0	1.0	0.6
TOTAL COMMON EQUITY.....	463.6	495.8	622.0	513.9	572.3	703.8	759.5	663.5
TOTAL CAPITALIZATION.....	1165.3	1351.2	1503.1	1816.7	1523.0	1462.2	1612.9	1448.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	55.8	57.2	52.6	56.3	53.5	49.9	51.0	53.9
PREFERRED STOCK.....	0.6	0.8	0.8	0.1	0.1	0.1	0.1	0.0
TOTAL COMMON EQUITY.....	39.8	36.7	41.4	36.3	37.6	48.1	47.1	45.9
INCOME STATEMENT DATA:								
NET INCOME.....	47.2	58.7	83.7	120.8	106.8	148.0	115.5	128.2
COMMON DIVIDENDS.....	16.2	17.2	18.6	33.1	48.2	32.5	54.9	65.0
PAYOUT RATIO.....	55.2	44.4	32.9	30.3	39.5	30.3	50.9	53.5

LOUISIANA LAND & EXPLORATION

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	47.0	53.9	69.3	120.6	108.4	135.2	157.1	191.9
CAPITAL EXPENDITURES.....	47.7	107.4	78.8	120.0	117.6	108.1	146.6	191.8
RET CASH FLOW/CAP EXPENDITUR	98.5	50.2	88.0	100.5	92.2	125.1	107.2	100.0
ISSUANCE OF LONG TERM DEBT..	1.1	89.0	0.0	0.0	7.4	18.3	2.9	4.6
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	36.0	36.2	36.6	38.4	40.6	42.8	45.0	46.4
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	36.0	36.2	36.6	38.4	40.6	42.8	45.0	46.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	28.2	97.2	91.5	187.5	188.7	174.7	198.1	127.7
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	187.5	221.9	255.4	323.6	383.6	397.6	495.4	549.4
TOTAL CAPITALIZATION.....	215.7	328.9	352.6	474.7	498.5	573.7	695.4	679.4
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	13.1	29.9	25.9	31.1	30.1	30.5	28.5	18.7
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	86.9	68.3	72.4	68.2	69.5	69.3	71.2	80.9
INCOME STATEMENT DATA:								
NET INCOME.....	59.7	63.0	70.2	108.0	87.7	96.7	98.1	100.4
COMMON DIVIDENDS.....	36.0	36.2	36.6	38.4	40.6	42.8	45.0	46.4
PAYOUT RATIO.....	60.0	57.5	52.1	35.6	46.3	44.2	45.5	46.2

CONSOLIDATED FIRMS

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	3932.9	4306.9	5391.1	6091.7	7802.2	9111.4	10443.7	12392.2
CAPITAL EXPENDITURES	4236.4	4652.5	5506.8	9481.4	11485.2	12152.2	12957.4	12954.6
NET CASH FLOW/CAP EXPENDITURES (PCT.)	92.8	92.6	97.9	85.3	67.9	75.0	80.6	95.7
ISSUANCE OF LONG TERM DEBT	1337.0	1026.0	1294.8	2241.4	4800.9	4955.6	4502.6	2200.6
EQUITY ISSUANCE	121.6	213.0	175.2	315.6	367.9	444.5	1053.6	283.8
COMMON DIVIDENDS	903.3	912.8	935.2	1072.2	1287.3	1385.2	1739.1	2081.8
PREFERRED DIVIDENDS	154.5	147.4	147.9	136.5	134.8	126.0	111.3	78.7
CASH DIVIDENDS	1057.9	1060.1	1083.1	1208.7	1422.0	1511.2	1850.4	2120.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT	9287.6	9587.6	10240.7	11259.1	14332.1	18108.3	21901.1	22776.6
PREFERRED STOCK (CARRYING VALUE)	409.5	406.6	362.9	276.7	259.0	201.0	223.0	288.5
TOTAL COMMON EQUITY	22887.7	23602.6	25717.5	29781.8	31855.1	35846.1	40678.5	44976.3
TOTAL CAPITALIZATION	32579.6	34063.1	36839.6	42049.4	47185.3	54948.1	63416.0	68758.1
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	28.4	28.1	27.8	26.8	30.4	33.0	34.5	33.1
PREFERRED STOCK	1.3	1.2	1.0	0.7	0.5	0.4	0.4	0.4
TOTAL COMMON EQUITY	68.9	69.3	69.8	70.8	67.5	65.2	64.1	65.4
INCOME STATEMENT DATA:								
NET INCOME	2043.7	2031.5	3019.9	4938.9	3980.2	5113.5	5678.8	6473.6
COMMON DIVIDENDS	903.3	912.8	935.2	1072.2	1287.3	1385.2	1739.1	2081.8
AVAILABLE FOR COMMON	1960.7	1950.0	2935.9	4865.6	3908.1	5049.6	5624.8	6441.3
PAYOUT RATIO	46.1	46.8	31.9	22.0	32.9	27.4	30.9	31.7

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FIRMS INCLUDED IN CONSOLIDATION:

AMERADA HESS
DELCO PETROLEUM
KERR MCGEE
COASTAL STATES
CITIES SERVICE
MARATHON OIL
SHELL OIL
SUN COMPANY
ATLANTIC RICHFIELD
GETTY OIL
ASHLAND OIL
CONTINENTAL OIL
MURPHY OIL
STANDARD INDIANA
UNION OIL CALIFORNIA
PHILLIPS
STANDARD OHIO
EL PASO

AMERADA HESS CORP

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	216.5	148.0	323.2	327.8	258.1	298.0	360.9	380.1
CAPITAL EXPENDITURES.....	175.7	182.1	282.0	417.2	283.2	291.3	421.6	353.3
RET CASH FLOW/CAP EXPENDITUR	123.3	108.1	133.6	78.5	91.1	102.3	85.6	96.2
ISSUANCE OF LONG TERM DEBT..	229.9	107.1	162.5	128.0	282.2	253.0	298.5	42.7
EQUITY ISSUANCE.....	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	5.1	6.0	6.8	6.6	6.7	8.7	18.5	26.7
PREFERRED DIVIDENDS.....	30.5	25.8	23.9	23.7	23.7	23.7	23.0	19.5
CASH DIVIDENDS.....	35.6	31.8	30.3	30.3	30.5	32.8	41.5	46.2
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	427.9	438.2	558.5	681.2	638.2	681.7	753.1	788.9
PREFERRED STOCK (CARRYING VA	7.6	6.9	6.8	6.8	6.8	6.8	6.0	4.3
TOTAL COMMON EQUITY.....	548.1	547.6	766.8	938.8	1036.3	1155.1	1293.7	1387.8
TOTAL CAPITALIZATION.....	983.6	992.7	1332.1	1586.8	1681.3	1843.5	2052.8	2181.0
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	43.5	44.1	41.9	40.8	38.0	37.0	36.7	38.9
PREFERRED STOCK.....	0.8	0.7	0.5	0.4	0.4	0.4	0.3	.2
TOTAL COMMON EQUITY.....	55.7	55.2	57.6	59.2	61.6	62.7	63.0	63.8
INCOME STATEMENT DATA:								
NET INCOME.....	133.2	86.2	285.8	201.9	128.8	152.6	178.9	182.5
COMMON DIVIDENDS.....	5.1	6.0	6.8	6.6	6.7	8.7	18.5	26.7
PAYOUT RATIO.....	8.1	23.6	8.5	5.6	8.9	9.5	16.5	27.1

BELCO PETROLEUM CORP

INDUSTRY AGGREGATE:	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW	20.8	21.3	27.1	63.8	42.2	52.1	68.2	82.3
CAPITAL EXPENDITURES	28.3	27.3	21.2	55.7	56.5	46.0	56.0	64.5
NET CASH FLOW/CAP EXPENDITURES (PCT.)	73.3	78.1	127.6	114.5	74.7	113.3	121.7	127.6
ISSUANCE OF LONG TERM DEBT	29.3	17.6	17.2	0.0	15.9	3.4	0.0	7.7
EQUITY ISSUANCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS	3.4	1.8	0.0	3.8	4.5	5.3	7.6	8.4
PREFERRED DIVIDENDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS	3.4	1.8	0.0	3.8	4.5	5.3	7.6	8.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT	58.0	68.8	61.4	68.2	72.8	66.3	51.8	51.5
PREFERRED STOCK (CARRYING VALUE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY	94.6	101.8	116.8	156.2	173.0	199.2	234.9	282.7
TOTAL CAPITALIZATION	152.5	170.6	178.2	224.4	245.8	265.5	286.7	334.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT	38.0	40.3	34.4	30.4	29.6	25.0	18.1	15.4
PREFERRED STOCK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY	62.0	59.7	65.6	69.6	70.4	75.0	81.9	84.6
INCOME STATEMENT DATA:								
NET INCOME	11.0	9.8	15.0	43.2	21.2	31.4	42.2	55.6
COMMON DIVIDENDS	3.4	1.8	0.0	3.8	4.5	5.3	7.6	8.4
PAYOUT RATIO	31.4	18.2	0.0	8.7	21.2	16.9	18.1	15.2
DIVIDENDS PER SHARE	0.5	0.3	0.0	0.5	0.6	0.7	1.0	1.1
EARNINGS PER SHARE	1.6	1.4	2.0	5.8	2.8	4.1	5.5	7.2

KERR-MCGEE CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	88.0	112.0	109.4	171.3	189.5	206.0	226.3	247.1
CAPITAL EXPENDITURES.....	69.9	76.1	113.0	163.9	238.7	261.0	269.2	270.2
RET CASH FLOW/CAP EXPENDITUR	125.9	147.3	96.7	104.5	80.7	78.9	84.1	91.5
ISSUANCE OF LONG TERM DEBT..	23.5	23.2	8.9	62.8	85.3	132.0	0.3	0.4
EQUITY ISSUANCE.....	2.3	94.9	29.8	0.9	68.1	1.7	0.2	0.1
COMMON DIVIDENDS.....	12.2	14.0	14.7	21.3	25.4	30.7	32.3	32.3
PREFERRED DIVIDENDS.....	1.2	1.2	0.9	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	13.4	15.2	15.6	21.3	25.4	30.7	32.3	32.3
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	225.7	124.4	122.8	158.6	216.4	321.2	299.4	255.3
PREFERRED STOCK (CARRYING VA	27.2	26.5	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	351.5	481.8	558.6	658.7	807.9	913.1	1002.8	1088.8
TOTAL CAPITALIZATION.....	604.2	639.1	688.8	822.0	1039.0	1253.9	1324.9	1369.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	37.0	19.5	17.8	19.3	20.8	25.6	22.6	18.6
PREFERRED STOCK.....	4.5	4.1	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	57.7	75.4	81.1	79.6	77.8	72.8	75.7	79.5
INCOME STATEMENT DATA:								
NET INCOME.....	80.7	50.6	62.8	116.4	131.1	138.1	119.2	118.2
COMMON DIVIDENDS.....	12.2	14.0	14.7	21.3	25.4	30.7	32.3	32.3
PAYOUT RATIO.....	31.1	28.0	23.8	18.3	19.4	22.9	27.1	27.4

COASTAL STATES GAS CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	65.5	72.7	112.1	135.5	151.3	172.8	175.9	192.8
CAPITAL EXPENDITURES.....	89.9	116.8	122.8	121.6	98.3	214.9	241.9	293.0
RET CASH FLOW/CAP EXPENDITUR	72.9	62.3	91.3	111.4	154.0	80.2	72.7	65.7
ISSUANCE OF LONG TERM DEBT..	49.5	98.9	60.8	50.1	81.1	185.0	430.8	398.8
EQUITY ISSUANCE.....	0.7	2.6	86.1	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	4.2	5.6
PREFERRED DIVIDENDS.....	0.8	0.8	5.0	5.0	5.0	5.0	5.0	5.0
CASH DIVIDENDS.....	0.8	0.8	5.0	5.0	5.0	5.0	9.2	10.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	288.5	321.2	625.7	574.4	589.0	601.0	678.1	806.7
PREFERRED STOCK (CARRYING VA	2.8	2.8	0.9	0.9	0.9	0.9	0.9	0.9
TOTAL COMMON EQUITY.....	245.7	288.3	428.8	478.9	457.7	511.1	575.5	626.0
TOTAL CAPITALIZATION.....	537.0	612.3	1085.1	1082.4	1034.3	1156.4	1296.4	1474.1
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	53.7	52.5	57.7	53.1	53.1	52.0	52.3	54.7
PREFERRED STOCK.....	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1
TOTAL COMMON EQUITY.....	45.7	47.1	39.5	44.2	44.3	44.2	44.4	42.5
INCOME STATEMENT DATA:								
NET INCOME.....	36.7	40.9	38.2	55.1	54.3	58.4	73.2	60.4
COMMON DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	4.2	5.6
PAYOUT RATIO.....	0.0	0.0	0.0	0.0	0.0	0.0	6.3	10.3

CITIES SERVICE CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	185.8	243.6	242.4	381.8	342.5	458.6	438.6	529.7
CAPITAL EXPENDITURES.....	296.5	261.7	402.2	446.9	435.9	524.3	500.0	636.1
RET CASH FLOW/CAP EXPENDITUR	62.7	93.1	60.3	85.4	78.6	87.5	87.7	83.3
ISSUANCE OF LONG TERM DEBT..	222.0	22.3	53.9	18.1	243.7	132.8	182.8	159.9
EQUITY ISSUANCE.....	6.1	12.9	6.7	0.8	4.0	20.1	14.5	1.2
COMMON DIVIDENDS.....	61.6	56.7	57.3	61.0	64.5	70.7	82.7	85.8
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	61.6	56.7	57.3	61.0	64.5	70.7	82.7	85.8
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	562.8	564.0	601.4	569.3	767.9	791.7	937.7	1055.1
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	1365.5	1433.8	1530.1	1673.7	1631.8	1798.2	1937.6	1971.0
TOTAL CAPITALIZATION.....	1935.6	2004.8	2139.9	2250.4	2406.7	2597.5	2883.5	3036.3
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	29.1	28.1	28.1	25.3	31.9	30.5	32.5	34.8
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	70.5	71.5	71.5	74.4	67.8	69.2	67.2	64.9
INCOME STATEMENT DATA:								
NET INCOME.....	108.5	99.1	135.6	203.8	137.7	217.0	210.2	118.0
COMMON DIVIDENDS.....	61.6	56.7	57.3	61.0	64.5	70.7	82.7	85.8
PAYOUT RATIO.....	58.2	57.3	42.2	29.9	46.9	32.6	39.4	72.6

MARATHON OIL CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	142.3	136.7	211.9	244.3	214.9	295.3	391.0	438.8
CAPITAL EXPENDITURES.....	94.8	138.5	128.5	249.8	230.9	385.5	491.1	502.3
NET CASH FLOW/CAP EXPENDITUR	150.8	98.7	164.9	97.9	93.1	85.5	81.3	86.5
ISSUANCE OF LONG TERM DEBT..	55.6	43.2	12.6	21.3	68.2	788.8	169.6	263.1
EQUITY ISSUANCE.....	4.8	0.6	1.1	0.5	2.9	0.0	0.0	0.0
COMMON DIVIDENDS.....	47.9	47.9	47.9	53.9	53.8	58.6	66.2	66.5
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	47.9	47.9	47.9	53.9	53.8	58.6	66.2	66.5
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	294.2	318.4	252.9	207.8	249.5	1032.2	1008.0	1051.8
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	760.9	787.3	886.0	996.5	1011.7	1150.5	1286.7	1447.5
TOTAL CAPITALIZATION.....	1055.1	1105.7	1138.9	1204.3	1261.2	2182.7	2294.7	2499.4
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	27.9	28.8	22.2	17.3	19.8	47.3	43.9	42.1
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	72.1	71.2	77.8	82.7	80.2	52.7	56.1	57.9
INCOME STATEMENT DATA:								
NET INCOME.....	88.7	79.8	129.4	170.5	128.1	195.8	197.0	197.1
COMMON DIVIDENDS.....	47.9	47.9	47.9	53.9	53.8	58.6	66.2	66.5
PAYOUT RATIO.....	54.1	59.9	37.0	31.6	42.1	29.9	33.6	33.7

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SHELL OIL CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	500.4	506.9	623.4	974.6	938.6	1244.4	1343.9	1373.6
CAPITAL EXPENDITURES.....	450.5	590.9	580.6	929.2	1075.5	1384.3	1818.8	1774.4
NET CASH FLOW/CAP EXPENDITUR	111.1	85.8	107.4	104.9	87.3	89.9	73.9	77.4
ISSUANCE OF LONG TERM DEBT..	26.0	214.0	31.5	19.6	263.6	28.4	413.8	71.5
EQUITY ISSUANCE.....	0.3	0.2	10.2	12.6	57.5	124.1	167.7	172.7
COMMON DIVIDENDS.....	161.7	161.8	161.7	165.1	220.7	150.1	229.0	267.6
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	161.7	161.8	161.7	165.1	220.7	150.1	229.0	267.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	836.8	1025.6	1020.9	976.6	1202.1	1175.2	1500.9	1572.7
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	2826.0	2925.0	3095.1	3559.7	3911.4	4591.2	5265.0	6105.8
TOTAL CAPITALIZATION.....	3662.8	3950.5	4115.9	4536.3	5113.4	5766.3	6765.9	7678.5
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	22.8	26.0	24.8	21.5	23.5	20.4	22.2	20.5
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	77.2	74.0	75.2	78.5	76.5	79.6	77.8	79.5
INCOME STATEMENT DATA:								
NET INCOME.....	244.5	260.5	332.7	620.5	518.8	705.8	735.1	813.6
COMMON DIVIDENDS.....	161.7	161.8	161.7	165.1	220.7	150.1	229.0	267.6
PAYOUT RATIO.....	66.1	62.2	48.6	26.6	34.3	27.7	31.3	33.0

SUN CO

	1971	1972	1973	1974	1975	1976	1977	1978
INDUSTRY AGGREGATE:								
RETAINED CASH FLOW.....	262.1	274.1	392.9	535.8	515.9	573.6	557.9	555.8
CAPITAL EXPENDITURES.....	323.9	269.8	283.9	730.0	537.3	517.9	444.7	570.0
RET CASH FLOW/CAP EXPENDITUR	80.9	101.6	138.4	73.4	96.0	110.8	125.4	97.5
ISSUANCE OF LONG TERM DEBT..	19.2	105.6	90.4	92.0	71.0	95.0	86.4	60.3
EQUITY ISSUANCE.....	15.4	0.0	10.2	7.4	6.1	0.0	0.0	0.0
COMMON DIVIDENDS.....	31.1	32.4	33.9	37.1	41.1	70.4	107.0	140.9
PREFERRED DIVIDENDS.....	39.4	37.2	36.6	36.6	36.5	36.1	24.7	13.1
CASH DIVIDENDS.....	70.5	69.6	70.5	73.7	77.7	106.5	131.6	153.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	495.4	568.9	627.4	678.9	657.3	732.0	737.9	799.3
PREFERRED STOCK (CARRYING VA	17.1	16.3	16.3	16.2	16.2	15.1	6.4	5.1
TOTAL COMMON EQUITY.....	1696.6	1743.9	1913.4	2230.6	2375.1	2540.0	2754.1	2943.9
TOTAL CAPITALIZATION.....	2213.0	2329.1	2557.0	2925.7	3048.6	3287.1	3498.4	3748.3
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	22.4	24.4	24.5	23.2	21.6	22.3	21.1	21.3
PREFERRED STOCK.....	0.8	0.7	0.6	0.6	0.5	0.5	0.2	0.1
TOTAL COMMON EQUITY.....	76.7	74.9	74.8	76.2	77.9	77.3	78.7	78.5
INCOME STATEMENT DATA:								
NET INCOME.....	151.6	154.7	229.7	377.7	220.1	356.2	361.9	365.4
COMMON DIVIDENDS.....	31.1	32.4	33.9	37.1	41.1	70.4	107.0	140.9
PAYOUT RATIO.....	27.8	27.6	17.6	10.9	22.5	22.0	31.1	40.0

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ATLANTIC RICHFIELD CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	347.2	510.8	440.9	808.9	768.6	1029.1	1199.6	1643.2
CAPITAL EXPENDITURES.....	543.9	363.5	499.6	1162.7	1750.6	1826.5	1681.3	1358.2
RET CASH FLOW/CAP EXPENDITUR	63.8	140.5	88.3	69.6	43.9	56.3	71.4	121.0
ISSUANCE OF LONG TERM DEBT..	35.0	0.0	281.3	274.7	523.7	569.8	427.4	42.4
EQUITY ISSUANCE.....	13.9	6.9	11.2	6.1	15.2	26.8	384.3	NA
COMMON DIVIDENDS.....	90.9	91.9	92.8	105.4	118.1	136.1	187.3	262.2
PREFERRED DIVIDENDS.....	40.2	39.9	39.5	39.1	38.7	38.3	37.8	26.3
CASH DIVIDENDS.....	131.2	131.9	132.3	144.5	156.8	174.4	225.1	288.5
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	856.0	809.5	987.0	1219.3	1602.8	2162.1	2811.8	3300.4
PREFERRED STOCK (CARRYING VA	48.9	48.8	48.7	48.5	48.4	48.2	48.1	42.6
TOTAL COMMON EQUITY.....	2848.3	2919.1	3069.0	3406.2	3615.2	4042.9	4903.7	5464.9
TOTAL CAPITALIZATION.....	3753.2	3777.4	4104.6	4742.5	5314.0	6253.2	7763.6	8807.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	22.8	21.4	24.0	25.7	30.2	34.6	36.2	37.5
PREFERRED STOCK.....	1.3	1.3	1.2	1.0	0.9	0.8	0.6	0.5
TOTAL COMMON EQUITY.....	75.9	77.3	74.8	71.8	68.0	64.7	63.2	62.0
INCOME STATEMENT DATA:								
NET INCOME.....	210.5	192.5	270.2	474.6	350.4	575.2	701.5	804.3
COMMON DIVIDENDS.....	90.9	91.9	92.8	105.4	118.1	136.1	187.3	262.2
PAYOUT RATIO.....	53.6	58.8	42.0	26.9	40.6	28.3	31.3	36.4

GETTY OIL CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	302.5	279.8	230.0	537.2	581.7	565.8	720.1	840.1
CAPITAL EXPENDITURES.....	214.6	273.0	437.0	450.5	519.6	624.5	691.9	874.7
RET CASH FLOW/CAP EXPENDITUR	141.0	102.5	52.6	119.2	112.0	90.6	104.1	96.0
ISSUANCE OF LONG TERM DEBT..	0.8	16.7	59.2	9.7	65.9	23.6	23.8	5.4
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	336.3	0.0
COMMON DIVIDENDS.....	21.5	21.9	22.6	24.3	46.6	46.6	78.0	88.3
PREFERRED DIVIDENDS.....	1.9	1.8	1.6	1.4	1.3	1.2	1.2	1.1
CASH DIVIDENDS.....	23.4	23.7	24.1	25.7	47.9	47.8	79.3	89.5
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	105.3	112.9	178.9	157.7	179.1	186.3	191.5	170.4
PREFERRED STOCK (CARRYING VA	38.6	35.5	30.6	28.4	26.5	25.8	24.7	23.1
TOTAL COMMON EQUITY.....	1382.5	1437.0	1562.1	1812.6	1875.7	2131.4	2697.9	2936.6
TOTAL CAPITALIZATION.....	1727.0	1784.5	1966.0	2206.5	2280.5	2568.5	2914.1	3130.0
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	6.1	6.3	9.1	7.1	7.9	7.3	6.6	5.4
PREFERRED STOCK.....	2.2	2.0	1.6	1.3	1.2	1.0	0.8	0.7
TOTAL COMMON EQUITY.....	80.1	80.5	79.5	82.1	82.3	83.0	92.6	93.8
INCOME STATEMENT DATA:								
NET INCOME.....	120.1	76.1	135.0	281.0	256.7	258.5	327.8	327.8
COMMON DIVIDENDS.....	21.5	21.9	22.6	24.3	46.6	46.6	78.0	88.3
PAYOUT RATIO.....	18.1	29.4	16.9	8.7	18.2	18.1	23.7	27.0

ASHLAND OIL INC

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	95.3	122.8	141.8	169.8	195.4	227.2	268.9	363.8
CAPITAL EXPENDITURES.....	84.6	253.2	176.1	183.7	278.7	252.4	500.8	317.3
RET CASH FLOW/CAP EXPENDITUR	112.7	48.5	80.5	92.4	70.1	90.0	53.7	114.7
ISSUANCE OF LONG TERM DEBT..	0.0	22.8	22.7	18.0	79.3	11.9	314.8	109.7
EQUITY ISSUANCE.....	NA	NA	NA	NA	3.3	0.0	65.9	0.0
COMMON DIVIDENDS.....	25.6	26.5	27.6	31.4	34.2	40.3	49.9	55.2
PREFERRED DIVIDENDS.....	6.7	7.2	7.1	9.1	10.7	10.6	12.7	13.0
CASH DIVIDENDS.....	32.4	33.6	34.8	40.4	45.0	50.9	62.6	68.1
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	298.6	413.3	447.4	462.2	512.0	502.1	686.8	577.2
PREFERRED STOCK (CARRYING VA	39.8	39.9	35.8	76.8	74.9	59.3	102.5	198.9
TOTAL COMMON EQUITY.....	409.8	467.2	513.8	585.0	650.7	749.7	860.3	951.1
TOTAL CAPITALIZATION.....	765.1	941.6	1019.9	1146.8	1261.2	1336.7	1673.5	1727.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	39.0	43.9	43.9	40.3	40.6	37.6	41.0	33.4
PREFERRED STOCK.....	5.2	4.2	3.5	6.7	5.9	4.4	6.1	11.5
TOTAL COMMON EQUITY.....	53.6	49.6	50.4	51.0	51.6	56.1	51.4	55.1
INCOME STATEMENT DATA:								
NET INCOME.....	39.2	68.0	85.2	113.0	119.4	136.0	164.3	244.8
COMMON DIVIDENDS.....	25.6	26.5	27.6	31.4	34.2	40.3	49.9	55.2
PAYOUT RATIO.....	81.6	45.3	36.4	30.9	33.4	32.8	33.9	24.2

CONTINENTAL OIL CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	332.6	321.8	476.5	550.9	623.1	730.3	744.9	860.0
CAPITAL EXPENDITURES.....	387.5	458.1	372.8	674.3	797.2	775.6	837.2	1107.4
NET CASH FLOW/CAP EXPENDITUR	85.8	70.2	127.8	81.7	78.2	94.2	89.0	77.7
ISSUANCE OF LONG TERM DEBT..	76.2	65.6	51.7	230.4	105.8	214.1	90.6	310.0
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	148.7	0.0	0.0
COMMON DIVIDENDS.....	74.8	74.9	76.5	85.8	101.6	120.3	144.7	153.0
PREFERRED DIVIDENDS.....	1.5	1.4	1.2	0.9	0.8	0.6	0.5	0.4
CASH DIVIDENDS.....	76.3	76.4	77.7	86.8	102.4	121.0	145.2	153.4
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	711.0	702.0	700.2	892.5	904.1	1081.4	1349.0	1488.5
PREFERRED STOCK (CARRYING VA	2.6	2.5	1.8	1.6	1.4	1.0	0.8	0.7
TOTAL COMMON EQUITY.....	1533.5	1637.5	1806.6	2052.7	2133.5	2634.4	2848.8	3147.1
TOTAL CAPITALIZATION.....	2362.0	2458.7	2632.8	3090.9	3205.0	3867.8	4421.1	4887.0
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	30.1	28.6	26.6	28.9	28.2	26.9	30.5	30.5
PREFERRED STOCK.....	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	64.9	66.7	68.6	66.4	66.6	68.1	64.4	64.4
INCOME STATEMENT DATA:								
NET INCOME.....	180.1	170.2	242.7	327.6	330.9	460.0	380.6	451.3
COMMON DIVIDENDS.....	74.8	74.9	76.5	85.8	101.6	120.3	144.7	153.0
PAYOUT RATIO.....	54.0	44.4	31.7	26.3	30.8	26.3	38.0	33.9

MURPHY OIL CORP

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	44.2	55.0	112.2	142.9	134.6	144.9	133.9	151.5
CAPITAL EXPENDITURES.....	57.2	117.4	103.1	141.0	195.1	156.1	244.2	255.6
RET CASH FLOW/CAP EXPENDITUR	77.4	46.9	108.7	101.3	69.0	92.9	54.8	59.3
ISSUANCE OF LONG TERM DEBT..	28.8	67.4	45.6	144.2	59.0	72.5	126.8	166.3
EQUITY ISSUANCE.....	25.7	16.9	3.2	21.5	0.0	18.7	0.0	0.0
COMMON DIVIDENDS.....	3.0	3.2	3.7	7.5	7.5	7.5	9.9	9.9
PREFERRED DIVIDENDS.....	1.1	1.1	0.1	0.1	0.1	0.0	0.0	0.0
CASH DIVIDENDS.....	4.1	4.3	3.8	7.6	7.6	7.5	9.9	9.9
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	102.9	153.6	166.7	263.7	296.2	281.7	358.5	480.9
PREFERRED STOCK (CARRYING VA	20.2	2.6	2.1	1.6	1.1	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	158.3	185.0	238.1	310.4	338.5	379.5	415.5	452.3
TOTAL CAPITALIZATION.....	360.2	425.9	500.0	678.7	753.8	815.3	935.1	1108.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	28.6	36.1	33.3	38.9	39.3	34.6	37.9	43.4
PREFERRED STOCK.....	5.6	0.6	0.4	0.2	0.1	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	43.9	43.4	47.6	45.7	44.9	46.6	44.4	40.8
INCOME STATEMENT DATA:								
NET INCOME.....	11.1	14.3	48.5	66.6	40.1	48.9	47.1	46.6
COMMON DIVIDENDS.....	3.0	3.2	3.7	7.5	7.5	7.5	9.9	9.9
PAYOUT RATIO.....	29.9	24.3	7.6	11.2	18.8	15.3	21.1	21.3

STANDARD OIL CO (INDIANA)

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	539.5	619.8	790.7	1325.5	1188.1	1355.9	1586.5	1807.5
CAPITAL EXPENDITURES.....	572.9	749.5	900.8	1511.3	1529.9	1360.7	1852.0	1748.0
RET CASH FLOW/CAP EXPENDITUR	94.2	82.7	87.8	87.7	77.9	99.6	109.3	103.6
ISSUANCE OF LONG TERM DEBT..	242.9	100.1	256.0	496.3	378.8	126.8	463.8	128.9
EQUITY ISSUANCE.....	NA	53.5	0.0	285.8	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	158.8	166.8	180.3	233.9	293.8	337.5	381.3	410.0
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	158.8	166.8	180.3	233.9	293.8	337.5	381.3	410.0
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	1028.1	1061.5	1235.1	1827.8	1708.7	1757.7	2891.0	2532.8
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	3557.3	3798.9	4125.3	5125.1	5584.9	6186.7	6788.1	7186.3
TOTAL CAPITALIZATION.....	4600.5	4861.8	5368.1	6552.5	7293.6	7908.8	9238.6	9698.9
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	22.3	21.8	23.0	21.8	23.4	22.2	27.0	26.1
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	77.3	78.1	76.9	78.2	76.6	77.8	73.0	73.7
INCOME STATEMENT DATA:								
NET INCOME.....	341.7	374.7	511.2	970.3	787.0	893.0	1011.6	1076.8
COMMON DIVIDENDS.....	158.8	166.8	180.3	233.9	293.8	337.5	381.3	410.0
PAYOUT RATIO.....	46.5	44.5	35.3	24.1	37.3	37.8	37.7	38.0

UNION OIL CO OF CALIFORNIA

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	313.7	336.6	408.4	643.5	575.4	671.6	793.2	827.0
CAPITAL EXPENDITURES.....	283.8	318.4	390.8	688.1	686.4	813.7	812.9	732.0
RET CASH FLOW/CAP EXPENDITUR	110.5	107.1	104.5	93.5	83.8	82.5	97.6	113.0
ISSUANCE OF LONG TERM DEBT..	28.9	70.3	28.2	170.1	207.2	271.6	118.6	69.5
EQUITY ISSUANCE.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMON DIVIDENDS.....	45.4	45.4	47.0	60.3	63.1	75.1	91.4	102.8
PREFERRED DIVIDENDS.....	24.1	24.1	23.9	20.1	17.5	10.0	6.0	0.0
CASH DIVIDENDS.....	69.5	69.5	70.9	80.4	80.6	85.1	97.5	102.8
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	546.0	578.3	564.2	688.0	732.4	925.8	1024.5	1250.1
PREFERRED STOCK (CARRYING VA	104.3	104.3	102.3	84.6	71.9	33.3	24.0	0.0
TOTAL COMMON EQUITY.....	1448.2	1500.7	1612.3	1838.1	1847.6	2070.5	2413.4	2658.6
TOTAL CAPITALIZATION.....	2115.5	2201.7	2299.3	2593.0	2673.1	3048.8	3478.8	3922.0
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	25.8	26.3	24.5	25.0	27.4	30.4	29.5	31.9
PREFERRED STOCK.....	4.9	4.7	4.5	3.3	2.7	1.1	0.7	0.0
TOTAL COMMON EQUITY.....	68.5	68.2	70.1	70.9	69.1	68.0	69.4	67.7
INCOME STATEMENT DATA:								
NET INCOME.....	114.7	121.9	180.2	288.0	232.8	268.8	338.2	382.3
COMMON DIVIDENDS.....	45.4	45.4	47.0	60.3	63.1	75.1	91.4	102.8
PAYOUT RATIO.....	50.0	46.4	29.5	21.4	29.1	27.9	27.7	26.3

PHILLIPS PETROLEUM CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	235.9	269.8	371.1	648.4	602.1	681.0	831.9	936.0
CAPITAL EXPENDITURES.....	225.0	264.7	329.0	618.0	693.9	727.8	1091.4	956.2
RET CASH FLOW/CAP EXPENDITUR	104.9	101.9	112.8	104.9	86.8	93.6	76.2	97.9
ISSUANCE OF LONG TERM DEBT..	257.0	49.7	80.7	76.9	310.6	55.1	75.4	3.4
EQUITY ISSUANCE.....	20.8	19.8	11.5	18.0	7.7	18.1	17.2	23.5
COMMON DIVIDENDS.....	96.8	97.6	98.2	110.0	121.8	133.7	149.5	184.8
PREFERRED DIVIDENDS.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	96.8	97.6	98.2	110.0	121.8	133.7	149.5	184.8
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	800.2	791.8	799.1	658.2	892.7	839.0	923.0	796.5
PREFERRED STOCK (CARRYING VA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	1749.2	1819.8	1963.6	2273.7	2424.3	2720.3	3086.8	3635.9
TOTAL CAPITALIZATION.....	2555.9	2616.4	2768.2	2939.9	3329.0	3569.9	4020.1	4442.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	31.3	30.3	28.9	22.4	26.8	23.5	23.0	17.9
PREFERRED STOCK.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	68.4	69.6	70.9	77.3	72.8	76.2	76.8	81.8
INCOME STATEMENT DATA:								
NET INCOME.....	132.3	148.4	230.4	429.8	342.6	411.7	516.9	710.5
COMMON DIVIDENDS.....	96.8	97.6	98.2	110.0	121.8	133.7	149.5	184.8
PAYOUT RATIO.....	73.0	65.7	42.6	25.6	35.6	32.5	28.9	26.0

STANDARD OIL CO (OHIO)

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	108.9	119.5	152.9	192.6	192.4	215.7	358.0	949.7
CAPITAL EXPENDITURES.....	174.6	128.4	219.2	700.4	1641.6	1698.8	1087.1	762.3
NET CASH FLOW/CAP EXPENDITUR	62.4	96.1	69.8	27.5	11.7	12.7	32.6	124.6
ISSUANCE OF LONG TERM DEBT..	12.5	1.4	35.7	395.2	1154.5	1696.6	1077.8	289.7
EQUITY ISSUANCE.....	4.3	2.0	5.2	2.0	141.4	3.9	0.0	0.0
COMMON DIVIDENDS.....	36.3	36.4	36.7	37.1	50.0	52.4	54.2	90.2
PREFERRED DIVIDENDS.....	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4
CASH DIVIDENDS.....	36.8	36.9	37.2	37.5	50.5	52.8	54.6	90.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	493.8	408.8	413.5	804.9	1949.2	3626.8	4687.6	4397.6
PREFERRED STOCK (CARRYING VA	14.4	13.4	12.2	11.2	11.1	10.6	9.6	8.9
TOTAL COMMON EQUITY.....	1028.1	1061.7	1119.8	1232.4	1450.2	1538.8	1670.1	2031.7
TOTAL CAPITALIZATION.....	1536.3	1479.9	1545.5	2048.5	3410.5	5176.1	6367.3	6438.2
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	32.1	27.4	26.8	39.3	57.2	70.1	73.6	68.3
PREFERRED STOCK.....	0.9	0.9	0.8	0.5	0.3	0.2	0.2	0.1
TOTAL COMMON EQUITY.....	66.9	71.7	72.5	60.2	42.5	29.7	26.2	31.6
INCOME STATEMENT DATA:								
NET INCOME.....	58.8	59.7	74.1	125.9	126.6	136.9	181.1	450.2
COMMON DIVIDENDS.....	36.3	36.4	36.7	37.1	50.0	52.4	54.2	90.2
PAYOUT RATIO.....	83.6	82.6	66.9	39.5	39.8	38.3	31.1	20.8

EL PASO CO

	1971	1972	1973	1974	1975	1976	1977	1978
RETAINED CASH FLOW.....	131.7	155.7	224.1	237.6	287.8	189.5	247.9	258.0
CAPITAL EXPENDITURES.....	163.2	111.3	184.1	237.2	445.1	330.9	325.2	383.1
RET CASH FLOW/CAP EXPENDITUR	80.7	139.8	121.7	100.2	64.7	57.3	76.2	67.3
ISSUANCE OF LONG TERM DEBT..	NA	NA	NA	34.0	449.0	295.7	205.8	79.0
EQUITY ISSUANCE.....	27.9	NA	NA	0.0	61.6	82.5	67.5	86.3
COMMON DIVIDENDS.....	27.1	27.6	27.9	27.9	33.7	41.4	45.3	51.6
PREFERRED DIVIDENDS.....	6.4	6.8	7.5	0.0	0.0	0.0	0.0	0.0
CASH DIVIDENDS.....	33.6	34.5	35.4	27.9	33.7	41.4	45.3	51.6
CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	1116.4	1130.4	877.6	850.1	1201.8	1380.0	1414.7	1408.6
PREFERRED STOCK (CARRYING VA	85.9	107.2	105.6	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	443.6	466.4	411.5	457.0	529.5	573.5	687.8	702.5
TOTAL CAPITALIZATION.....	1655.0	1712.8	1403.3	1418.0	1834.4	2054.4	2200.6	2281.8
ITEMS AS A PCT OF CAPITALIZATION:								
TOTAL LONG TERM DEBT.....	67.5	66.0	62.5	59.9	65.5	67.2	64.3	61.7
PREFERRED STOCK.....	5.2	6.3	7.5	0.0	0.0	0.0	0.0	0.0
TOTAL COMMON EQUITY.....	26.8	27.2	29.3	32.2	28.9	27.9	31.3	30.8
INCOME STATEMENT DATA:								
NET INCOME.....	64.1	63.9	53.1	73.0	58.2	73.4	92.1	108.7
COMMON DIVIDENDS.....	27.1	27.6	27.9	27.9	33.7	41.4	45.3	51.6
PAYOUT RATIO.....	47.2	48.8	61.0	38.3	58.5	55.6	49.1	47.3

STATEMENT OF WILLIAM W. TALLEY II, PH. D., MANAGING PARTNER OF THE RESOURCE ANALYSIS & MANAGEMENT GROUP

INTRODUCTION

Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear before you today to discuss the President's crude oil pricing program, his proposed "windfall profits tax" and H.R. 3919, "Crude Oil Windfall Profits Tax Act of 1979" as amended.

I have confidence in the American private enterprise system and energy industries. America's energy industries through competitive markets can best meet the President's goal of increasing domestic energy production and reducing oil imports by one-half by 1990. The positive proposals regarding the "windfall profits tax" contained in my statement should increase domestic crude oil deliverability by more than 1.4 million barrels per day by the end of 1984 --- 35% of President Carter's stated 1990 goal.

I do not believe that a windfall profits tax or an excise tax, however structured, is needed to protect the consumer. Without any new taxes, the third estate stands to collect more than $.50 in taxes of every dollar increase in domestic crude oil prices. (See Exhibit I on page 17.)

The producer collects only $.28 out of every one dollar increase in crude oil prices if he makes no investment to find replacement energy sources and less than $.50 with complete re-investment of all revenues received. (See Exhibit I on page 17).

The United States Senate sits as the citadel of our economy, our government and our American enterprise system. As the vanguard of the American people, you must carefully weigh the consequences of actions taken based on substituting government involvement for competitive enterprise.

The proposed "windfall profits tax", either the President's or H.R. 3919, are, in my opinion, structured to substitute political expediency for competitive enterprise and to use oil revenues to subsidize grand government programs.

I base my conclusions on The Oklahoma Experience beginning on page 7 of my testimony. Valid political concerns such as protection of those Americans on fixed incomes, the poor and the elderly can be handled by existing programs and agencies.

For the first time in our nation's history we have made, implemented and suffered the consequences of paying foreign governments more for a commodity (crude oil and now natural gas) than we have been and apparently are willing to pay our own people--Americans--to explore for, develop and produce that same commodity in the United States. If we are finally going to have the consumer pay the true replacement cost of oil, at least give the consumer an advantage and let the money spent be used to find more domestic energy resources to replace the oil he used.

Does it not logically follow that we, as a nation, would become more dependent on foreign supplies and adversely affect the economic attractiveness of alternative energy sources such as solar power, oil shale, tar sands, coal gasification and liquefaction, wind power, biomass, etc. since we failed to pay the replacement cost and paid foreigners more than our own producers.

CONCLUSIONS AND RECOMMENDATIONS

However,if a tax must be passed for political reasons, then that tax should be applied only to the 30 largest international oil companies

with a plowback provision to force them to spend the revenues derived from their U.S. oil production into the development of new domestic energy sources. If a tax is enacted, the following exemptions must be given:

- Crude oil and condensate production from stripper wells;
- Crude oil production from marginal wells (expand the stripper well definition);
- The first 3,500 net barrels per day of domestic crude oil and condensate production by any person;
- Crude oil production from enhanced recovery projects recognized by state regulatory bodies; and
- Crude oil and condensate production from properties from which no crude oil production occurred in 1978.

A summary of this proposal with plowback credit is given in Exhibit II attached.

The effects of these exemptions (stripper, marginal and independents) would be to incrementally increase domestic production by approximately 808,710 barrels per day in 1984, to reduce foreign oil imports by more than 723,100,000 barrels of oil between 1980 and 1984, and to add approximately 269,570 new jobs to our economy.

Action	Positive Response		
	Incremental 1984 Production[1] (BPD)	Incremental Cumulative Production 1980-1984[1] (BBls)	New Jobs Added[2]
Exempt Stripper	307,580	275,000,000	102,530
Exempt Marginal	219,240	196,000,000	73,080
Exempt Independents	281,890	252,100,000	93,960
TOTAL	808,710	723,100,000	269,570

[1]*Assumes a twelve-month time lag from when revenues are received and the effect of the revenue is realized in increased production. Therefore only after-tax revenues received from 1980-1983 are included. Assuming a 10-year productive life and a 12% annual decline, the first year's production from a well is 15% of its new primary reserves.*

[2]*Three BPD of domestic production equals one new job.*

The effects of a plowback provision on major oil companies would be to incrementally (in addition to the levels outlined above)

- increase domestic oil production by approximately 600,750 BPD in 1984;
- reduce foreign oil imports by more than 537,200,000 barrels of oil between 1980 and 1984; and
- add approximately 200,250 new jobs to our economy.

Exemption of Stripper Wells

The stripper well exemption is important for several reasons:

- Increases in price lengthen economic well life (See Figure 1 on page 8).
- Longer well life escrows the 70-80% of the original oil-in-place already found for recovery by future enhanced recovery methods. (See Exhibit III on page 28.)
- The revenue from the stripper well exemption would incrementally increase domestic oil production an estimated 307,580 barrels per day by 1984 and provide more than 275,000,000 barrels of incremental domestic oil production over the next five years, 1980-1984 (See The Oklahoma Experience on page 7 and Exhibit IV.)
- Presently, eighteen states have significant stripper production, (i.e., produce more than 2,000,000 barrels of stripper oil per year).

Arkansas	Montana
California	Nebraska
Colorado	New Mexico
Illinois	Ohio
Indiana	Oklahoma
Kansas	Pennsylvania
Kentucky	Texas
Louisiana	West Virginia
Michigan	Wyoming

Exemption of Marginal Wells

By including the presently-defined marginal wells in an expanded stripper definition and exempting marginal wells from the windfall profits tax, I estimate that:

- The revenue from the marginal well exemption would increase the U.S. domestic production an estimated 219,240 barrels per day by 1984, and

- Provide more than 196,000,000 barrels of incremental domestic oil production over the next five years, 1980-1984. (See The Oklahoma Experience on page 7 and Exhibit IV.)

Exemption of the First 3,500 Barrels Per Day of Domestic Production

The exemption of the first 3,500 barrels per day of domestic production per day is important because:

- The exemption would incrementally increase domestic oil production by approximately 558,710 barrels per day by 1984, including independents' stripper (approximately 281,840 barrels per day by 1984, excluding independents' stripper). (See The Oklahoma Experience on page 7 and Exhibit IV.)

- The exemption would provide the production of 499,600,000 barrels of incremental domestic oil production over the next five years, 1980-1984, including independents' stripper (approximately 252,100,000 barrels, excluding independents' stripper). (See The Oklahoma Experience on page 7 and Exhibit IV.)

- The exemption would provide 186,237 new jobs by 1984 including independents' stripper (approximately 93,960 new jobs by 1984, excluding independents' stripper).

- Independents drill 85% of new onshore wells and find 50% of new reserves.

- The exemption reduces the regulatory impact and paperwork by a factor of 1,000, from more than 30,000 independents to approximately 30 major oil companies.

- The exemption frees farmers, ranchers and other mineral owners from the tax, allowing them to receive royalties based on the true present value of their owned minerals.

- The exemption effects only approximately 20% of the total domestic production, excluding stripper.

Exemption of New Oil and Enhanced Recovery

The exemption of new oil (oil produced from a property which had no commercial production in 1978) and from recognized enhanced

recovery projects authorized by state regulatory bodies is important because:

- The capital to explore for, develop and produce crude oil must compete with capital needs in a world economy.
- The consumer should, at the very least, "invest his higher prices in finding new oil to replace the oil he has consumed."
- The cost of finding, developing and producing crude oil has increased dramatically since 1973.
- We should pay our own producers at least what we are willing to pay foreigners and foreign governments for the same commodity.

Windfall Profits with Plowback Provision

By applying the "windfall profits tax", if enacted, only to the major oil companies and including a plowback provision, tremendous incentive is given to the board of directors and to the executive committee of those companies to invest the revenues received from U.S. domestic oil production in developing replacement domestic energy sources. I estimate that the plowback provision on major oil companies alone, if the tax is enacted with the stripper, marginal and independent exemptions would:

- Incrementally increase domestic oil production by approximately 600,750 barrels per day by 1984. (See The Oklahoma Experience on page 7 and Exhibit IV.)
- Provide the production of 537,200,000 barrels of increased domestic oil production over the next five years, 1980-1984.
- Provide 200,250 new jobs.

The Nation's governors concur with using a plowback credit. At the July, 1979 National Governors' Association meeting, they stated:

"The Governors further recommend that revenues from windfall profits tax . . . be used for: energy production and development, especially alternatives to petroleum fuels, including the device of a plowback credit. . . ." (See Exhibit V for the full text.)

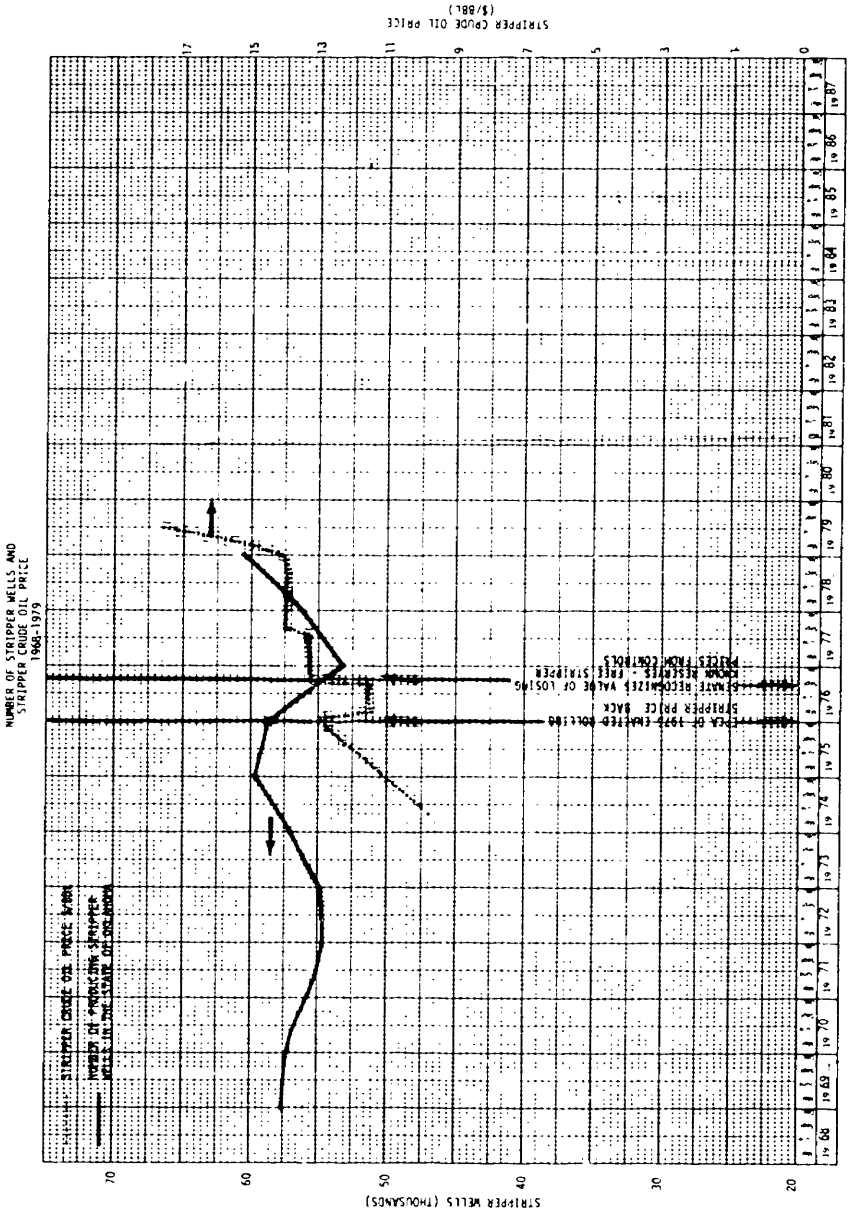
THE OKLAHOMA EXPERIENCE

INTRODUCTION

Oklahoma ranks fifth among the states in the production of crude oil. It is the fourth largest energy exporting state. Over 80.5% of Oklahoma's 75,308 crude oil wells are stripper wells. These stripper wells account for 49.45% of Oklahoma's crude oil production. However, under the Department of Energy Energy Regulatory Administration's regulations and subsequent interpretations, only 36.5% of Oklahoma's crude oil presently qualifies for stripper free market pricing. (ERA rules prevent 27.5% of Oklahoma's stripper production from having free market pricing.) The remaining crude oil produced in Oklahoma is 32.9% new oil (priced as upper tier) and 30.6% lower tier (priced at approximately $6.00 per barrel). The average oil well in Oklahoma produced 5.47 barrels per day of crude oil in 1978.

SENSITIVITY OF STRIPPER WELLS TO CRUDE OIL PRICE

Figure 1 on page 8 shows the total number of stripper wells in Oklahoma and stripper crude oil prices from 1968 through January 1, 1979. The number of stripper wells in Oklahoma since 1973 declined to a low of 53,357 with the enactment of the Energy Policy and Conservation Act of 1975 which rolled back the price of stripper oil from free market to upper tier price. In 1975, some 1,739 stripper wells in

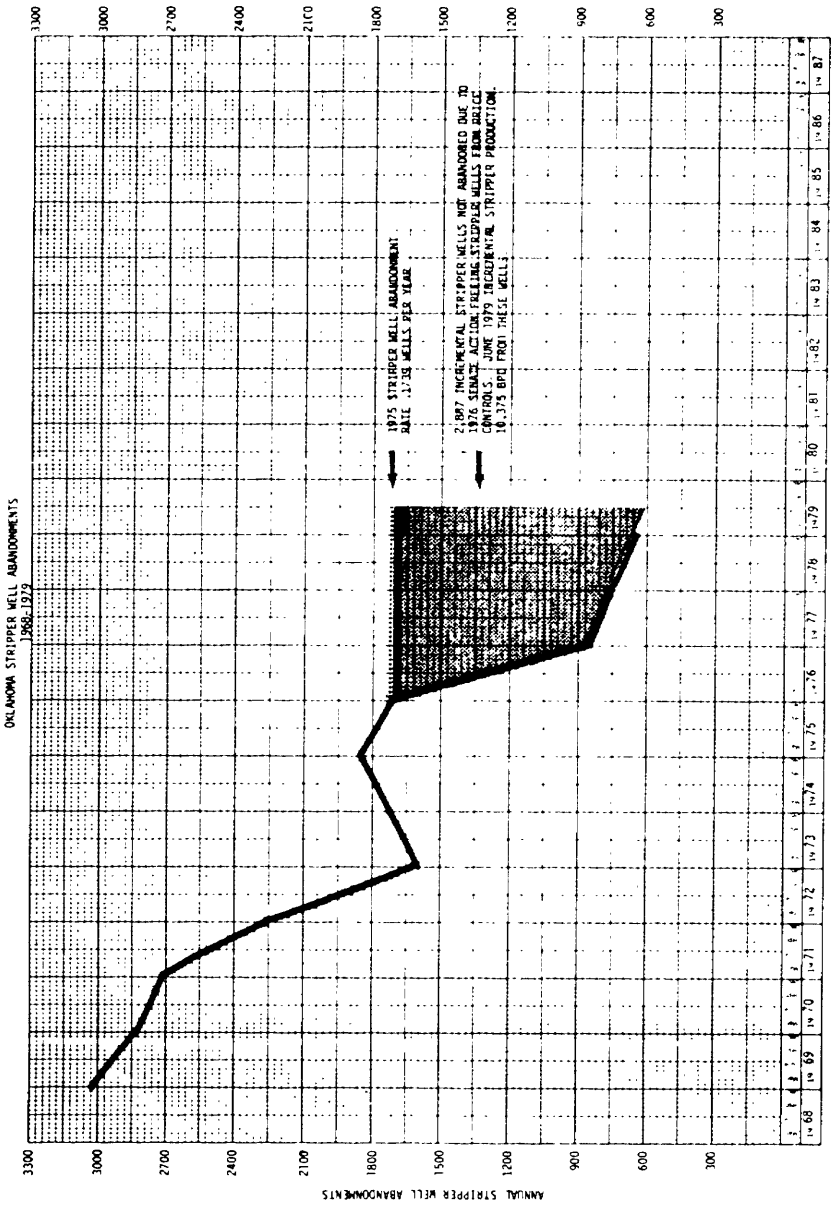


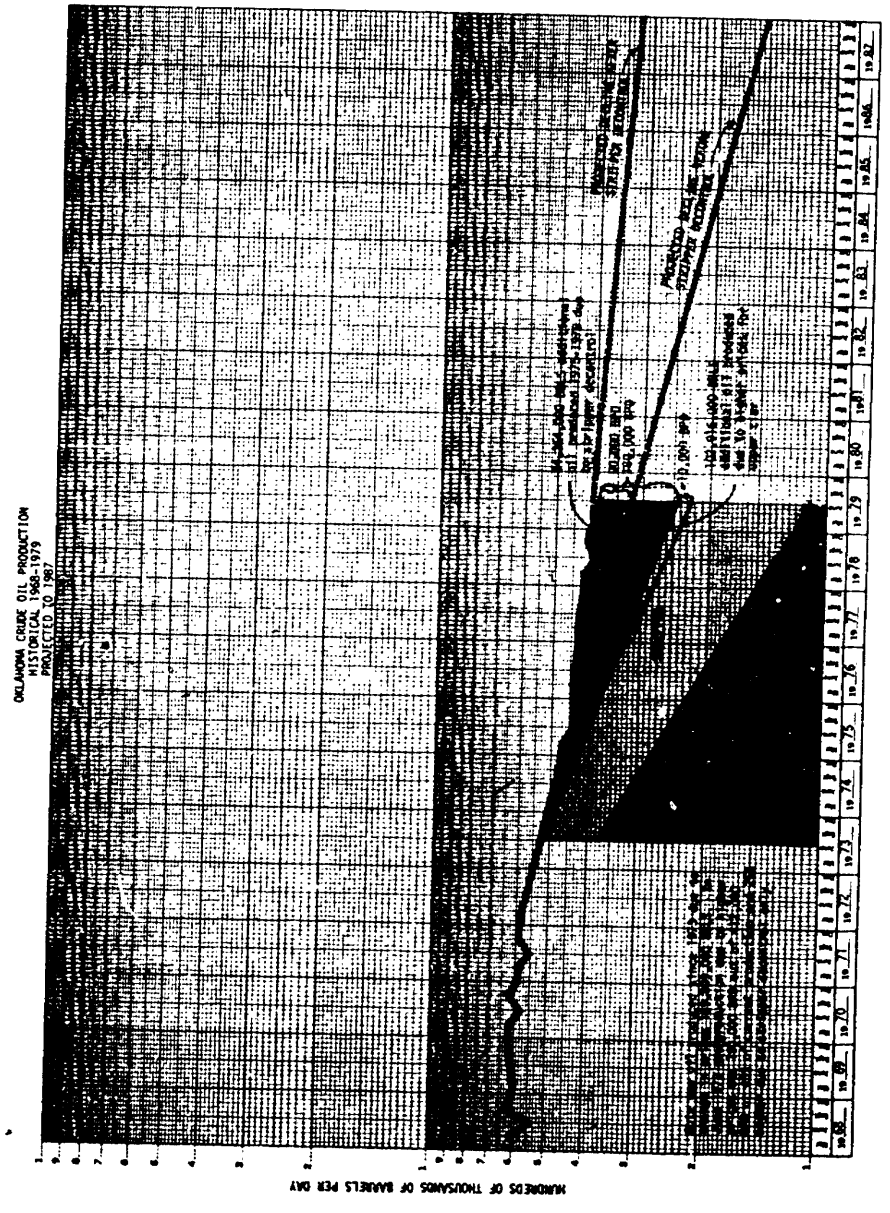
Oklahoma were abandoned. In September, 1976, the United States Senate recognized the value of escrowing the known reserves and remaining oil-in-place associated with stripper wells and freed stripper crude oil production from price controls.

As a result of the United States Senate's action, the number of stripper wells in Oklahoma has increased to 60,620 as of January 1, 1979 and the number of abandonments has declined sharply (See, Figure 2 on page 10). In fact since 1975, 2,887 stripper wells were not abandoned (relative to the 1975 abandonment rate) due to the 1976 Senate action freeing stripper wells from price controls. As is shown as the shaded area on Figure 2 on page 8, this reduction in abandonments has been significant. In fact, the abandonment rate in 1978 was approximately one-fifth the abandonment rate in 1968. The associated production from these stripper wells which were not abandoned amounts to approximately 10,375 barrels per day. This 10,375 barrels per day would not be available had stripper prices remained controlled.

THE IMPACT ON PRICES AND STRIPPER WELL PRICING ON OKLAHOMA'S CRUDE OIL PRODUCTION

Figure 3 on page 11 summarizies Oklahoma's crude oil production from 1968 through 1979. The historical trend lines both with and without substantial changes in pricing policy are also shown. If stripper wells, marginal wells, new oil and independent producers were freed from the threat from windfall profit taxes, my opinion is that the oil production decline in the state of Oklahoma can be arrested and, in fact, production increased. A historical perspective on Oklahoma crude oil production and prices is included on Table 1 on page 12. The average





STATE OF OKLAHOMA
HISTORICAL CRUDE OIL PRODUCTION

1969 - 1979

Year	Total Production [1] (BBLS/Day)	Average Value [2] ($/BBL)	Number Of Stripper [3] Wells	Stripper Crude Production From Any Well That Has Met Stripper Well Criteria [3]	"DOE Qualified" Stripper Production [2]	Number Of Stripper Wells Abandoned [1]
1968	595,149	2.94	57,691	243,216	NA	3,021
1969	615,697	3.09	57,429	238,260	NA	2,854
1970	603,955	3.18	55,718	234,644	NA	2,705
1971	584,394	3.39	54,712	221,632	NA	2,273
1972	567,287	3.39	54,788	213,024	NA	1,604
1973	523,830	3.78	57,000	203,041	NA	1,737
1974	487,064	7.18	59,817	201,903	UKN	1,869
1975	446,895	8.52	58,736	198,714	UKN	1,739
1976	441,054	9.19	53,357	200,308	UKN	881
1977	428,444	9.98	56,239	203,837	UKN	793
1978	412,205[6]	10.90	60,620[4]	207,550	150,373[5]	656
1979	392,432[7]	YTD 6/79	-	-	-	-

[1] *Source: Oklahoma Corporation Commission*
[2] *Source: Oklahoma Tax Commission*
[3] *Source: Interstate Oil Compact Commission*
[4] *Represents 80.5% of Oklahoma 75,308 oil wells producing January 1, 1979*
[5] *Represents approximately 72.5% of Oklahoma's true stripper production*
[6] *Oklahoma Tax Commission Data:*

Price Category	*% of Total Production*	*1978 Production (BBLS)*	*1978 Production (BPD)*	
Stripper	*36.48*	*54,885,976*	*150,373*	
Lower Tier	*32.94*	*49,559,868*	*135,780*	
Upper Tier	*30.58*	*46,009,130*	*126,052*	
Total	*100.00*	*150,454,974*	*412,205*	*or 5.47 BPD/Well*

[7] *Average decline 4.7% mid-1978 to mid-1979*

value of crude oil produced in the state of Oklahoma has increased in current dollars from $3.68 in 1973 to $10.90 in 1978. The number of stripper wells has increased and their economic life has been significantly extended. There has been a three-fold reduction in abandonments of wells since the enactment of the Senate legislation in 1976 which allowed stripper wells to be priced at free market prices.

RESULTS OF ANALYSIS OF STATE TAX COMMISSION DATA

By using the historical information on Oklahoma's crude oil production and pricing available from the Oklahoma Tax Commission and the Oklahoma Corporation Commission, one is able to show that since the removal of price controls on stripper production in 1976, Oklahoma's incremental production has increased by approximately 100,000 barrels per day. This 100,000 barrels per day is primarily attributable to the revenue which was received from the removal of price controls on stripper wells. Of the 100,000 barrels per day, approximately 10,375 barrels per day came from stripper wells which would have been abandoned but were not, due to free market pricing, and - approximately 90,000 barrels per day came from production of new oil from other leases. This new oil production is directly attributable to the increased cash flow from higher crude oil prices to the independent oil operator in the state of Oklahoma.

From the end of 1975 through June, 1979, approximately 54,354,000 barrels of additional crude oil has been produced in Oklahoma due to the decontrolling of stripper prices in 1976.

In addition, approximately 90,000 barrels per day of incremental new oil production has occurred due to higher prices provided under the Energy Policy and Conservation Act of 1979 for upper tier and lower tier

oil. This 90,000 barrels per day of incremental new oil production has resulted in production of 102,916,000 barrels of additional domestic oil and in decreased exports of U.S. dollars and U.S. jobs to foreign countries.

In summary, it should be noted that new oil produced since 1973 due to changes in prices exceeds 169,899,000 barrels. This is 13% more than 150,450,000 barrels of oil produced in Oklahoma in 1978. *Price incentives over a five-year period in the fifth largest crude oil producing state resulted in an incremental one year's production.*

In June, 1979, new crude oil production of approximately 190,000 per day or approximately 45% of current Oklahoma production can be directly related to price incentives. Oklahoma's current production level would be 25% lower if it had not been for stripper well decontrol in 1976.

A historical summary of the severance taxes received on Oklahoma production for fiscal years 1974-1979, state royalties from production from State of Oklahoma lands for 1974-1978 and State bonus payments received from 1974 through 1979 are included in Exhibit IV.

THE OKLAHOMA EXPERIENCE CAN BE EXTENDED TO OTHER STATES

Eighteen other states have a principal interest in stripper pricing because these states produce more than 2 million barrels of stripper oil per year. Of the total stripper production in the United States, Oklahoma accounts for 18.9% and has 15.2% of the United States' 368,930 stripper wells.

"The Oklahoma Experience" of free market prices for stripper well production and controlled prices on the remaining two-thirds of

its crude oil production is not unique, but it is particularly informative and necessary in consideration by those charged with the responsibility of formulating energy policy for domestic crude oil.

Therefore, a historical perspective on the impact of crude oil prices on stripper well operations in Oklahoma and their impact on crude oil production is important not only in Oklahoma, but also for the Nation as a whole.

The Oklahoma Experience can be used to extend the impact of crude oil taxing and pricing policies to the Nation as a whole. By using the new information available in the Oklahoma experience, the effects of other policy decisions can be dimensioned using actual responses based on hisotrical price and cash flow information.

The basis for these extensions to national levels are outlined in Exhibit IV.

SUMMARY

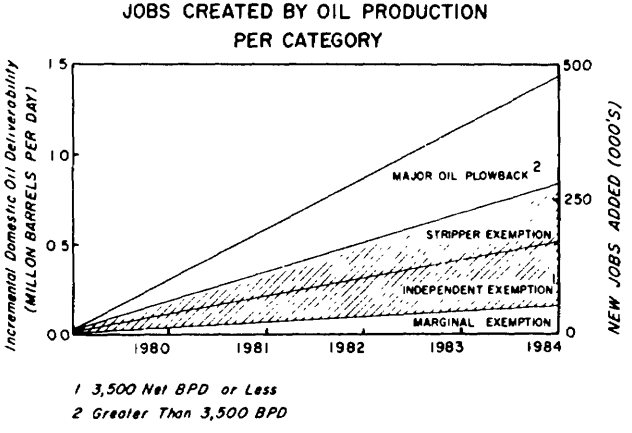
The Oklahoma Experience has shown the positive responses of Oklahoma's energy industry to positive crude oil pricing policies:

- Stripper remaining oil-in-place has been escrowed for future enhanced recovery projects;
- Substantial new oil production has resulted from increased cash flow to the operator;
- Stripper economic well life has been lengthened; and,
- Well abandonments have dropped to one-fifth the 1968 level.

Using the documented Oklahoma Experience, the nationwide positive responses of the energy industry to windfall tax exemptions and

plowback provisions have been dimensioned. The estimated industry response --- more than 1.4 million barrels per day of incremental crude oil production in 1984, more than 1.25 billion barrels of incremental domestic oil production between 1980 and 1984; and more than 469,800 new jobs created --- from the increased cash flow from these proposals are shown in the Figure below.

FIGURE 4



1 3,500 Net BPD or Less
2 Greater Than 3,500 BPD

-/-

EXHIBIT I

TAX CONSEQUENCES OF EACH ONE DOLLAR INCREASE
IN DOMESTIC CRUDE OIL PRICES

INTRODUCTION

This Exhibit dimensions the distribution of an additional dollar of crude oil revenue. The largest share of any increase in the wellhead price of crude oil would flow to government.

The revenue share received by government depends on whether normal dividend distributions to shareholders are considered or whether reinvestment of the available cash flow is assumed. The Federal, state, and local government share of any crude oil price increment would fall in the range of 50 to 60 percent, regardless of approach or assumptions as to the nature of any reinvestment expenditures.

CONCLUSION

Accordingly, the government, not the petroleum industry, would capture the bulk of any increase in domestic crude oil prices.

GOVERNMENT PARTICIPATION IN ONE DOLLAR OF ADDITIONAL REVENUE
FROM DOMESTIC CRUDE OIL PRICE INCREASES

	Before Reinvestment[2]	Based on Full Reinvestment[3]
State and Local Governments		
Royalty	.01	.01
Taxes on Private Royalty	.01	.01
Taxes on Producers	.09	.12
	.11	.14
Federal Government		
Royalty, Bonus, Rental	.02	.08
Taxes on Private Royalty	.05	.06
Producer Income Tax	.35	.21
Income Tax on Dividends	.05	---
	.47	.35[1]
Total Government	.58	.49[1]
Total Producer/Shareholder	.36	.44
Total Private Royalty Owner	.06	.07

[1]Ignores incremental taxes on petroleum industry suppliers and shareholders.
[2]See Attachment A for details of calculation.
[3]See Attachment B for details of calculation.

BASIS

Before Reinvestment

Before reinvestment but after normal dividend distribution, the existing tax structure would capture an estimated 55 percent of incremental revenue. Forty-five percent would flow to the Federal government in the form of income taxes (assuming a 46 percent tax rate on producers and a 40 percent effective tax rate on normal dividend distributions and royalty payments), 10 percent to state governments via state severance taxes, property taxes on crude oil reserves, and state income taxes.

Federal, state, and local government royalties would bring governments' share of the price increase to about 58 percent (an additional 3 percent -- 2 percent Federal and 1 percent state).

Of the remaining 42 percent, royalty owners would net an estimated 6 percent of the incremental dollar and shareholders of producing companies an estimated 8 percent. Thus, only 28 percent would remain for the producing companies:

DISTRIBUTION OF AN ADDITIONAL DOLLAR OF CRUDE OIL REVENUE

Government	
Federal	47%
State and Local	11
Total	58%
Private Sector	
Royalty Owners	6%
Shareholders of Producing Companies	8
Producing Companies	28
Total	42%

Details of these calculations are presented in Attachment A.

After Reinvestment

Governments would still receive the largest share (exceeding 50 percent) even if the distribution of the revenue received from crude oil price increases is viewed in context with the producers' ongoing operations including reinvestment. Carried to the extreme, one could assume an unlikely case in which all additional cash flow is reinvested in petroleum exploration and development with none of the increased producer revenue distributed to shareholders.

Even after including current tax deductions for expenditures such as intangible drilling costs (IDC), the Federal government would receive an estimated 35 percent of the price increase. Of the 35 percent, taxes on producers and royalty owners would account for 27 percent; and additional bonuses, rents, and royalties on Federal properties, 8 percent.

The share to state and local governments would amount to about 14 percent, bringing the government "take" to at least 49 percent even before considering incremental taxes paid by petroleum industry suppliers. The inclusion of taxes attributable to suppliers of goods and services coupled with a reasonable assumption as to the dividend distributions to shareholders required to attract future capital to the industry, would raise the government "take" well above the 50 percent level.

Details of these calculations are included in Attachment B.

TAX RATES APPLICABLE TO CRUDE OIL PRICE INCREASES

The full statutory Federal income tax rate must be used in determining the actual tax burden of the producer on incremental crude oil income. In Attachment A a corporate producer received 76¢ in additional taxable income, which would be subjected to a tax at the full 46 percent rate applicable to income in excess of $100,000. Conversely, an overall "effective tax rate" would not correctly measure the tax impact on the incremental dollar income.

In reality, such an incremental tax computation is exactly the kind of computation an individual would make in determining how much of a pay raise would be available to "take home". For example, take the case of a married employee with one child who has income from salary of $25,000 and after deductions would have a taxable income of $21,400. The tax on $21,400 would be $3,609 at 1979 rates (or an "effective rate" of 14.4 percent (3609 ÷ 25,000). With a $3,000 a year raise, taxable income would increase to $24,400 and tax would increase by $840 to $4,449. The incremental $3,000 in income has created an additional tax liability of $840 at the 28 percent incremental rate provided in the Internal Revenue Code. While the 28 percent incremental tax rate is almost double the overall "effective tax rate", clearly it is the incremental rate which must be used to measure the net benefits to be received from the $3,000 raise. In the same manner, it is the 46 percent incremental rate that must be used to determine the net amount retained by a producer from an incremental increase in crude oil prices.

The 9¢ of state and local taxes represent estimated state severance taxes, ad valorem property taxes on crude oil reserves, and state income taxes averaging an overall 11 percent of the incremental revenue. This estimate is derived from a comparative state tax burden study that was prepared for the Alaska Oil and Gas Association by Arthur Andersen & Company for use in conjunction with Alaska income tax hearings in 1978. Other state and local taxes were not included in this calculation because they would not appear to increase by virtue of the increase in wellhead price.

ATTACHMENT A
TO EXHIBIT I

ESTIMATED PARTICIPATION IN INCREMENTAL
$1 OF CRUDE OIL REVENUE
(WITHOUT REGARD TO REINVESTMENT)

PRODUCER					
Federal Tax***		.35			
State and Local Tax		.09			
Gross Tax			.44		
Tax--Federal	.05				
Net to Shareho der	.08				
Dividend Payo,t*		.13			
Net Available for Reinvestment		.28			
Net to Producer			.41		
Producer				.85	
ROYALTY					
Government**(State $.01, Federal $.02)			.03		
Federal Tax	.05				
State Tax	.01				
Federal & State		.06			
Net to Private		.06			
Gross to Private			.12		
Gross Royalty				.15	
TOTAL REVENUE					1.00

RECAP

Net Available for Reinvestment by Producer				.28
Net to Shareholder				.08
Private Royalty Net				.06
Federal Tax	.45			
State and Local Tax	.10			
Federal & State Tax		.55		
Royalty**(State $.01, Federal $.02)		.03		
Government				.58
TOTAL REVENUE				1.00

* Assumes 40% payout on estimated 80% attributable to corporate producers.

** Ignores state royalties on North Slope production new at market price.

*** Assumes 46% corporate tax rate. Actual incremental composite rate for corporations and individuals is estimated at about 50%.

COMPUTATION EXPLANATION ATTACHMENT A

The computation in Attachment A shows the allocation of an incremental dollar of revenue realized from an increase of $1 in crude oil price as it would insure to producers, shareholders, and governments.

1. Federal and state taxes are derived as follows:

a. From the incremental dollar deduct a 15¢ normal royalty to determine the producer gross income	1.00 -.15	.85
(1) Deduct state and local taxes of 9¢ (derived from an Arthur Andersen & Co. study of state and local taxes in producing states); and	.09	
(2) Deduct Federal income tax (85¢ gross less 9¢ state and local taxes equals 76¢) which, when subjected to the top incremental corporate tax rate of 46 percent, equals 35¢ (46% of 76¢).	.35	-.44
NET PRODUCER REVENUE AFTER TAXES AND BEFORE DIVIDENDS		.41

2. The 13¢ dividend payout and the 5¢ Federal tax thereon are derived as follows:

a. A Chase Bank survey indicates at least 80 percent of domestic production is produced by corporate producers. Thus, at least 80 percent of the net producer after tax revenue of 41¢ is assumed available for dividends (80% of 41¢ equals 32.8¢). Assuming a 40 percent average dividend payout level, 13¢ (40% of 32.8¢) is the level of dividends paid out.	.13
b. Assuming a 40 percent incremental tax rate on recipients of 13¢ in dividends, the tax on these dividends would be 5¢ (40% of 13¢).	.05

3. Thus, only 28¢ would be available to producers for reinvestment (41¢ net producer revenue after taxes less 13¢ in dividends equals 28¢).

NET RETAINED BY PRODUCER AFTER TAXES, ROYALTIES, AND DIVIDENDS	.28

4. Governments, on the other hand, would realize 58¢ computed as follows:

Federal income tax on producers	.35	
State tax on producers	.09	
Federal tax on shareholders	.05	
Federal tax on royalty owners	.05	
State tax on royalty owners	.01	
Federal and state royalties	.03	.58

ATTACHMENT 8
TO EXHIBIT I

ESTIMATED PARTICIPATION IN INCREMENTAL $1 OF CRUDE OIL REVENUE

(Assuming investment of maximum available cash flow in proportion to 1975 JAS exploration and development expenditures and attributing the tax efforts from new projects to incremental revenue stream from existing production.)

PRODUCER					
Federal Tax***		.21			
State and Local Tax		.12			
Gross Tax			.33		
Government (Federal)	.06				
Private	.02				
Lease Bonus and Rentals		.08			
Exploration (Ex-drilling)		.07			
Dry Holes	.10				
IDC (Successful)	.15				
Drilling		.25			
Production Equipment		.12			
Expenditures			.52		
Producer Gross				.85	
ROYALTY					
Government* (State $.01, Federal $.02)			.03		
Federal Tax	.05				
State Tax	.01				
Federal & State Tax		.06			
Net		.06			
Private			.12		
Gross Royalty				.15	
TOTAL REVENUE					1.00
RECAP					
Net Royalties			.06		
Net Bonus and Rentals (AFIT of $.01)			.01		
Private Royalty				.07	
Net Cash Flow Retained by Producer				-0-	
Net Cash Flow to Shareholders				-0-	
Federal Tax		-.27			
State and Local Tax		.13			
Federal, State & Local Tax**			.40		
Royalty, Bonus, & Rental *(State $.01,Fed.$.08)			.09		
Government				.49	
Exploration			.07		
Drilling			.25		
Equipment			.12		
Suppliers of Equipment & Services (Gross)				.44	
TOTAL REVENUE					1.00

* Ignores state royalties on North Slope production now at market price.

** Ignores tax on suppliers of equipment and services.

*** Assumes 45% corporate rate and ignores $.04 deferred tax expense.

COMPUTATION EXPLANATION ATTACHMENT B

The computation in Attachment B shows the allocation of an incremental dollar of revenue if the maximum cash flow available to producers after the payment of the current year's taxes attributable to the $1 of incremental revenue is reinvested. Assumptions as to investments are derived from the most recent Joint Association-Survey numbers as to the proportionate amounts spent by the industry for each category of exploration or development expenditures.

1. Allocation of Incremental Dollar of Revenue would be as follows:

a.	Property (e.g. lease bonus and first year rentals) - 8¢, of which 3/4 would go to governments, e.g. OCS property (6¢) and 1/4 to private holders (2¢). Of this 8¢ only 1¢ for first year lease rentals is deductible for book and tax purposes and 7¢ must be capitalized for such purposes.	.08	
b.	Exploration other than drilling (e.g. G&G costs, etc.) - 7¢, all of which is deductible for book purposes but must be capitalized for tax purposes.	.07	
c.	Drilling - 25¢, of which 40 percent (10¢) is allocable to dry hole costs which are deductible for both book and tax purposes and 60 percent (15¢) is allocable to IDC which must be capitalized for book pruposes but which is deductible for tax purposes.	.25	
d.	Production Equipment - 12¢ (capitalized for book purposes generally except for first year depreciation allowance).	.12	
	Maximum Cash Available for Reinvestment		.52
e.	State and local taxes	.12	
f.	Net Federal income taxes	.21	
			.33
	Producer Gross Revenue After Royalty		.85

2. The 21¢ Federal income tax cost attributable to an incremental dollar of revenue is derived as follows:

a.	From the 85¢ producer gross income remaining after payment of a 15¢ royalty deduct:	1.00 -.15	.85
(1)	State and local taxes of 12¢ (3¢ more than the 9¢ deducted in Attachment A due to increased activity, property taxes, sales taxes, etc).	.12	
(2)	Lease rental only are deducted currently - bonuses, etc. are not.	.01	
(3)	Dry hole costs and IDC are deducted currently (but G&G and other exploration costs are not).	.25	-.38
	Taxable Income		.47

b.	The top incremental corporate rate of 46 percent applied to this taxable income yields a Federal income tax of 22¢ (46% of 47¢).	.22
c.	This tax liability is reduced by an investment tax credit of 1¢ (10% credit on 12¢ purchases of production equipment) which leaves a net Federal income tax liability of 21¢.	-.01
	Federal Income Tax	.21

EXHIBIT II

DEREGULATION OF CRUDE OIL WITH EXCESS PROFITS TAX AND PLOWBACK PROVISIONS

To expand the production of domestic oil, wellhead prices should be phased to the world market price and an excess profits tax with strong plowback provisions should be imposed instead of the wellhead tax provision. The world market price is the OPEC posted price, plus transportation landed U.S. Gulf Coast.

Phased Decontrol:

The crude oil produced from properties which had NO crude oil production in 1978, from enhanced recovery methods, from stripper wells (including the expanded deep stripper/marginal well definition) and the first 3,500 barrels per day of domestic production by any person shall be exempt from price controls immediately. Since the cost of finding and developing crude oil has increased significantly since 1974, lower and upper tier crude oil prices are increased to the world oil price by January 1, 1981.

Excess Profits:

The excess profits is the difference between (1) the price received for upper or lower tier oil and (2) the price trendline specified for upper or lower tier oil as defined under the EPCA Act escalated at the domestic rate of inflation (GNP deflator plus 1/2% per quarter for upper tier and lower tier oil) with production decline adjustments.

Plowback Provision:

(1) No plowback is required for revenues received as royalty payments to mineral fee interest owned by persons who are independent producers as defined in Sections 613 A(c) of the Internal Revenue Code and the first 3,500 net barrels per day of crude oil and condensate produced by other producers.

(2) Plowback is required for all other interests or non-independent producers.

This means that farmers, ranchers, other royalty owners, and independent producers will receive the fair market value of their owned minerals as produced and that producers must spend more than their additional revenue in order to recoup the excess profits tax.

Plowback Credit

A plowback credit against the excess profits tax will be allowed. The plowback credit will be 90% of a producer's qualified investment.

The plowback credit and excess profits tax are to be treated for balance sheet and tax purposes the same as other tax liabilities and credits. This allows a three-year period to reinvest accrued liability in increasing domestic energy production. Unreinvested liabilities after three years are payable as tax.

Qualified investment includes amounts expended for intangible drilling and development costs, lease acquisition costs, geological and geophysical expenses, dry hole costs, depreciable assets (whether constructed or purchased) used in the exploration, development or production of domestic crude oil or natural gas, field gathering facilities, secondary or tertiary recovery of crude oil or natural gas, domestic coal and lignite mining and processing facilities, domestic coal gasification and liquefaction facilities, domestic tar sands and oil shale, development and processing facilities, domestic uranium and thorium, exploration, mining, and processing facilities, energy related research and development expenditures and investments in solar, wind and other alternative sources of energy and other facilities as defined by the Secretary of Energy.

To prevent double tax benefits from expenditures made for qualified investments, no tax deduction is allowed for a qualified investment (which would otherwise be deductible) to the extent it is used as a plowback credit. Furthermore, where a person's qualified investment consists of leasehold acquisition costs or the purchase of depreciable property, the person's basis credit is claimed. Where the qualified investment consists of both deductible and capital items, the qualified investment is prorated.

All controls and all provisions for excess profits taxes shall terminate December 31, 1982.

EXHIBIT III

IMPACT OF "STRIPPER OIL" ON U.S. PETROLEUM RESOURCE BASE

INTRODUCTION

Everyone would agree that it is in the best interest of the consumer and the Nation's economy to produce every last barrel of oil from existing wells. This expectation can be extended only if the present economic incentives are continued for the category of crude oil production conveniently known as "stripper". Present policy has been proven. It works.

DEFINITION

Stripper wells by definition, and as defined in law, average 10 barrels or less of crude oil production daily. Stripper wells in those 28 states having stripper production embrace 73% of all U.S. oil wells.

SENSITIVE TO CHANGES IN PRICE AND REGULATIONS

Stripper wells, for the most part, are not operated by the major oil companies but by the smaller independents whose operating procedures are characterized by lower overhead and more economical operation procedures. Hence, these wells are quick to react to adverse economics such as would be present in the proposed tax. (See, Figure 1 on Page 8.) The so-called "windfall profits tax" would result in the plugging and abandoning of thousands of wells with producible oil locked within the reservoir lost. (See, Figure 1, Page 8.) Stripper production is only 14% of total domestic crude oil supply but now every single percent is important. These wells serve as the principal resource for future potential enhanced recovery. This domestic crude oil source for the U.S. consumer will dry up rapidly if incentives are taxed away.

- The proposed tax would accelerate abandonments.
- Clean out of wells and general maintenance would be delayed or restricted and additional drilling of stripper properties would be reduced.

The country would lose much of the 7.8 billion barrels of proven stripper well reserves recoverable by primary and secondary methods -- reserves that we already have defined and are not subject to the vagaries of wildcat drilling.

Indeed, a 10% to 20% increase in incremental recovery by new sophisticated and costly enhanced recovery techniques of the 80% of the oil remaining in the ground after primary production can be obtained.

This producible oil, now available, is subject to rapidly improving technology whose objective is to extract more and more from this large reservoir of remaining oil-in-place.

PRICE ESCROW OF REMAINING OIL-IN-PLACE

Vast reserves of oil, to be forever lost, have been made available by the economic provisions for stripper crude. At the same time, the resource-in-place associated with stripper wells provided the feed stock for millions of barrels to enhanced recovery methods now existent or being planned. Premature abandonment of tens of thousands of wells would lose much of these reserves forever.

Plug and we will lose the avenue now open to this great national resource by virtue of abandonment of the present producing wells. The gates will clang shut or the path made intolerably restricted, due primarily to the expense of drilling new wells. Once plugged, these properties are far less attractive candidates for enchanced recovery techniques and operations.

STRIPPER PRODUCTION RESPONDS TO PRICE

The influence of positive economic incentives has become apparent since stripper oil has been exempt from price controls. It has been determined that stripper operators increased recoverable reserves by 2.3 billion barrels from January 1, 1974 to January 1, 1978, a direct result of the more favorable and correct economic treatment. These 73,000 wells were saved from premature abandonment for economic reasons and an additional 181 million barrels of crude was produced in direct response to improved economics. I repeat, 182 million barrels paid for here and not from the OPEC, with the additional benefit of preserving these reservoirs of oil-in-place for future additional enhanced recovery techniques. Led by senate legislation, price changes for stripper oil resulted in only 9,916 wells being plugged in 1976 - a 16-year low. During 1977, plugged and abandoned wells declined even further to 9,000 wells. Preliminary figures for 1978 indicate a further reduction.

SUBSTANTIAL FUTURE RECOVERY FROM THE ESCROWED REMAINING OIL-IN-PLACE

It is estimated that an additional 30 to 40 billion barrels of oil can be recoverable by enhanced oil recovery techniques according to a recent study by the Congressional Office of Technology Assessment. Think what this means to this country when balanced against substituting OPEC oil instead.

SUMMARY

In short, the present free market pricing policy for stripper well production is increasing and extending the production of oil from our own country and reducing imports from OPEC in exchange for valuable dollars. In addition, vast reservoirs of recoverable oil-in-place are being held in trust for further extraction by enhanced recovery techniques already here or on the way. To change this delicate balance will be disastrous for increasing the recovery of known domestic oil resources.

EXHIBIT IV

METHODOLOGY FOR FORECASTING
INCREASED CRUDE OIL DELIVERY AND
CUMULATIVE PRODUCTION
1980-1984

BASIS

1. The Oklahoma Experience

   - $2049.64MM in increased after-tax revenue to the producer between 1974 and 1977 resulted in:

     . 190,000 BPD in new production in 1979;

     . 169,899,000 barrels of incremental oil production over the period 1974-1979;

     (See Figure 3 on Page 11).

   - Incremental after-tax revenue of $2,049,677 in 1978 dollars from 1974 through 1977 to the operator from incremental crude oil prices above the 1973 average inflated price.

2. Forecast crude oil prices (See Table 2 on Page 32).

3. Incremental after-tax revenue of $3,318,130,000 in 1978 dollars 1980 through 1983 from the stripper well exemption (See Table 3 on Page 33).

4. Incremental after-tax revenue of $2,365,070,000 in 1978 dollars from 1980 through 1983 to the operatior from the marginal well exemption (See Table 4 on Page 34).

5. Incremental after-tax revenue of $3,040,960,000 in 1978 dollars from 1980 through 1983 to the operator from the independent exemption. (20% of producer taxes 1980-1983 in constant 1978 dollars).

6. Incremental after-tax revenue of $6,481,000,000 in 1978 dollars from 1980 through 1983 to major oil companies, excluding 10% of the stripper exemption invested due to plowback provision (assumes 100% plowback).

TABLE 2

STATE OF OKLAHOMA
INCREMENTAL REVENUES TO THE PRODUCER
ABOVE 1973 AVERAGE CRUDE OIL PRICE

Year	Average Price Received[1] ($/BBL)	1973 Price Current Dollars[2] ($/BBL)	Increased Price ($/BBL)	Incremental Gross Revenue To Operator[3] (MM $)	Incremental Net Revenue After Taxes With No Reinvestment[4] (MM $)	Incremental Net Revenue After Taxes With Complete Reinvestment[5] (MM $)
1973	3.78	3.78	-0-	-0-	-0-	-0-
1974	7.18	4.15	3.03	431	151	280
1975	8.52	4.54	3.98	519	182	338
1976	9.19	4.78	4.41	570	199	370
1977	9.98	5.06	4.92	616	215	400
1978	10.90	5.43	5.47	658	230	428
Cumulative 1973-1978	NA	NA	NA	2,794	997	1,816

[1] *Source: Oklahoma Tax Commission*
[2] *$3.78/BBL adjusted for GNP deflator*
[3] *80% of total revenue*
[4] *0.280 of gross revenue - See Exhibit I.*
[5] *0.520 of gross revenue - See Exhibit I.*

NOTE: Incremental after-tax revenue to operator in constant 1978 dollars from 1974 through 1977 = $2049.67MM.

TABLE 3

FORECAST CRUDE OIL PRICE BASIS FOR
EXCISE TAX CALCULATIONS

1974 - 1984

Year	Inflation GNP Deflator 1978=100	OPEC Market Crude Constant 1978 Dollars[1] ($/BBL)	Average U.S. Imports ($/BBL)	U.S. Free Market Price ($/BBL)	Upper Tier Price ($/BBL)	Stripper Tax Basis Price[2] ($/BBL)	New-New Tax Basis Price[3] ($/BBL)
1974	76.28	14.29	12.17	10.13	10.13	-	-
1975	83.60	12.82	12.47	12.03	12.03	-	-
1976	87.95	13.09	13.39	12.22	11.69	-	-
1977	93.11	13.32	14.24	13.58	11.25	-	-
1978	100.00	12.70	14.32	13.95	12.15	-	-
1979	109.50	14.60	18.30	18.50	13.35	-	-
1980	118.81	17.00	23.65	23.60	14.55	16.70	17.92
1981	127.72	17.50	25.90	25.60	15.80	18.15	19.86
1982	136.02	18.05	28.45	27.85	17.05	19.60	21.87
1983	143.50	18.60	31.15	30.25	18.35	21.05	23.93
1984	150.68	19.15	34.00	32.90	19.65	22.50	26.06

[1] *Assumes 3% per year real price increase from the 1979 year-end level through 1985. Market crude is Saudi Light.*

[2] *$16.00 per barrel inflated with GNP deflator.*

[3] *$17.00 per barrel inflated with GNP deflator plus ¼% per quarter.*

TABLE 4

UNITED STATES INCREMENTAL REVENUE FROM
REMOVING EXCISE TAX FROM STRIPPER WELLS

Year	Projected Free Market Price[1] ($/BBL)	Base Price For Tax[2] ($/BBL)	Excise Tax[3] ($/BBL)	Stripper Production[4] (000's BPD)	Gross Incremental Revenue ($ MM)	Net Revenue To Operator[5] ($ MM)
1979	18.50	-	-	1,252.0	-	-
1980	23.60	16.70	4.14	1,201.9	1,816.2	1,453.0
1981	25.60	18.15	4.47	1,153.8	1,882.5	1,506.0
1982	27.85	19.60	4.95	1,107.7	2,001.3	1,601.1
1983	30.25	21.05	5.52	1,063.4	2,142.5	1,714.0
1984	32.90	22.50	6.24	1,020.9	2,325.2	1,860.2
Cumulative 1980-1984	-	-	-	-	10,167.7	8,134.3

[1] *Based on inflation +3%*
[2] *$16.00 on Jan 1, 1980 escalated at inflation.*
[3] *60% of difference*
[4] *Declined at 1% per year.*
[5] *Based on 80% of gross revenue.*

NOTE: Incremental after-tax revenue to operator in constant 1978 dollars from 1980 through 1983 = 0.52 x $6381.03MM = $3318.13MM.

TABLE 5

UNITED STATES INCREMENTAL REVENUE FROM
REMOVING EXCISE TAX FROM MARGINAL WELLS

Year	Projected Free Market Price[1] ($/BBL)	Base Price For Tax[2] ($/BBL)	Excise Tax[3] ($/BBL)	Marginal Production (000's BPD)	Gross Incremental Revenue ($ MM)	Net Revenue To Operator[4] ($ MM)
1979	18.50	-	-	-	-	-
1980	23.60	14.55	5.43	600	1,189.2	951.3
1981	25.60	15.80	5.88	640	1,373.6	1,098.9
1982	27.85	17.05	6.48	680	1,608.3	1,286.7
1983	30.25	18.35	7.14	710	1,850.3	1,480.3
1984	32.90	19.65	7.95	710	2,060.2	1,648.2
Cumulative 1980-1984	-	-	-	-	8,081.6	6,465.4

[1] *Based on inflation +3%.*

[2] *$16.00 on Jan 1, 1980 escalated at inflation.*

[3] *60% of difference.*

[4] *Based on 80% of gross revenue.*

NOTE: Incremental after-tax revenue to operator in constant 1978 dollars from 1980 through 1983 = 0.82 x $4,548.31MM = $2,365.07MM.

TABLE 6

OKLAHOMA INCREMENTAL REVENUE FROM
REMOVING EXCISE TAX FROM STRIPPER WELLS

Year	Projected Free Market Price[1] ($/BBL)	Base Price For Tax[2] ($/BBL)	Excise Tax[3] ($/BBL)	Stripper Production[4] (000's BPD)	Gross Incremental Revenue ($ MM)	Net Revenue To Operator[5] ($ MM)
1979	18.50	-	-	144.4	-	-
1980	23.60	16.70	4.14	138.6	209.4	167.6
1981	25.60	18.15	4.47	133.0	217.0	173.6
1982	27.85	19.60	4.95	127.7	230.7	184.6
1983	30.25	21.05	5.52	122.6	247.0	197.6
1984	32.90	22.50	6.24	117.7	268.1	214.5
Cumulative 1980-1984	-	-	-	-	1,172.2	937.9

[1] *Based on inflation +3%.*

[2] *$16.00 on Jan 1, 1980 escalated at inflation.*

[3] *80% of difference.*

[4] *Declined at 4% per year.*

[5] *Based on 80% of gross revenue.*

NOTE: Incremental after-tax revenue to operator in constant 1978 dollars from 1980 through 1983 = 0.52 X $517.6MM = $269.15MM.

METHODOLOGY

Stripper Exemption

307,583 BPD in 1984 = $\frac{\$3,318.13MM}{\$2,049.67MM}$ X 190,000 BPD

275,000,000 BB, 1980-1984 = $\frac{\$3,318.13MM}{\$2,049.67MM}$ X 169,899,000 BBD

Marginal Exemption

219,236 BPD in 1984 = $\frac{\$2,365.07MM}{\$2,049.67MM}$ X 190,000

196,000,000,000 BBl, 1980-1984 = $\frac{\$2,365.07MM}{\$2,049.67MM}$ X 169,899,000 BBl

Independent Exemption

- *Exoluding Stripper*

281,890 BPD in 1984 = $\frac{\$3,040.96MM}{\$2,049.67MM}$ x 190,000 BPD

252,100,000 BBl, 1980-1984 = $\frac{\$3,040.96MM}{\$2,049.67MM}$ x 169,899,000 BBl

- *Inoluding Stripper*

558,710 BPD in 1984 = 281,890 BPD + 0.90 (307,583 BPD)

499,600,000 BBl, 1980-1984 = 252,100,000 BBl + 0.90 (275,000,000 BBl)

Plowback Provision

600,750 BPD in 1984 = $\frac{\$6,481MM}{\$2,049.67MM}$ x 190,000 BPD

537,200,000 BBl, 1980-1984 = $\frac{\$6,481MM}{\$2,049.67MM}$ x 169,899,000 BBl

OKLAHOMA PRODUCTION INCREASES

Stripper Exemption

24,950 BPD in 1984 = $\frac{\$269.15MM^{1}}{\$2,049.67MM}$ X 190,000 BPC

22,310,000 BBl, 1980-1984 = $\frac{\$269.15MM^{1}}{\$2,049.67MM}$ x 169,899,000

1 *See Table 6 on Page 36.*

Independent Exemption

- *Excluding Stripper*

13,390 BPD in 1984 = 0.0475 x 281,890 BPD in 1984

11,975,000 BBl, 1980-1984 = 0.0475 X 252,100,000 BBl, 1980-1984

- *Including Stripper*

35,845 BPD in 1984 = 13,390 + 0.9 (24,950)

33,087,000 BBl, 1980-1984 = 22,310,000 + 0.9 (11,975,000)

Plowback Provision

28,535 BPD in 1984 = 0.0475 X 600,750 BPD in 1984

25,517,000 BBl, 1980-1984 = 0.0475 X 537,200,000 BBl, 1980-1984

EXHIBIT V

D. - 42

OIL POLICY

THE NATIONAL GOVERNOR'S ASSOCIATION SUPPORTS THE PRESIDENT'S POLICY TO DEREGULATE OIL PRICES. DEREGULATION IS NECESSARY TO PROVIDE INDUSTRY THE INCENTIVE TO PRODUCE MORE ENERGY AND MOVE TOWARD FULL REPLACEMENT COSTS. PRICING ALL OIL AND GAS AT WORLD PRICES WILL ENCOURAGE CONSERVATION AND MAKE ALTERNATIVE ENERGY SOURCES MORE ECONOMICALLY COMPETITIVE. FURTHERMORE, THE INFLATIONARY EFFECT OF DEREGULATION WILL BE SIGNIFICANTLY COUNTERED BY THE STRENGTHENING OF THE DOLLAR AND A CORRESPONDING REDUCTION IN ALL IMPORT COSTS, INCLUDING THOSE FOR OIL.

THE GOVERNORS FURTHER RECOMMEND THAT REVENUES FROM A WINDFALL PROFITS TAX AND OTHER APPROPRIATE FUNDING SOURCES BE USED FOR:

- ENERGY PRODUCTION AND DEVELOPMENT, ESPECIALLY ALTERNATIVES TO PETROLEUM FUELS, INCLUDING THE DEVICE OF A PLOWBACK CREDIT.
- ENERGY CONSERVATION.
- ENERGY EMERGENCY IMPACT ASSISTANCE PROGRAMS FOR INDIVIDUALS ON FIXED AND LOW INCOMES.

EXHIBIT VI

TABLE 7

SEVERENCE TAXES ON OKLAHOMA PRODUCTION

Fiscal Year[1]	Oil	Natural Gas
1974	$ 67,320,038	$ 27,311,856
1975	90,098,794	33,494,327
1976	97,920,899	48,809,789
1977	104,048,707	81,440,571
1978	106,080,289	105,332,750
1979	120,334,764	102,373,939

[1] *July 1 to June 30*

Calender Year	Oil	Natural Gas
1974	$ 89,353,291	$ 25,244,592
1975	96,814,687	33,426,408
1976	103,767,829	53,225,121
1977	109,103,509	83,335,624
1978	116,228,934	92,500,731

Source: Oklahoma Tax Commission

TABLE 8

ROYALTIES[1] FROM PRODUCTION ON STATE OF OKLAHOMA LANDS

Fiscal Year	Oil	Natural Gas
1974	$2,372,054	$1,378,015
1975	2,874,094	1,745,908
1976	3,027,934	2,303,009
1977	2,870,028	4,585,627
1978	3,096,601	4,960,427

[1] *99.1% of revenue is dedicated to education.*
0.9% of revenue accrues to the State Building Fund

SOURCE: Oklahoma School Land Department

TABLE 9

STATE BONUS PAYMENTS

Fiscal Year	
1974	$ 588,490
1975	2,212,238
1976	88,586
1977	-0-
1978	301,594
1979	4,783,187

SOURCE: Oklahoma School Land Department

The CHAIRMAN. Let me just submit a question to the committee and see what the committee would like to do.

The hour is now 10:45. The Senate will be in session and there will be voting.

We have some witnesses whom we would like to hear who are awaiting their turn. For example, we have Mr. Jerry McAfee, chairman of the board, Gulf Oil Corp.; E. L. Williamson, president, Louisiana Land & Exploration Co.; Mr. Harold Hoopman, president, Marathon Oil Co.; and Jack F. Bennett, senior vice president, Exxon.

Then beyond that, we have Mr. Rudolph Oswald, director of research, AFL-CIO and Mr. Robert S. McIntyre, director, Tax Reform Research Group.

The way this usually works out is by the time we get through interrogating the first panel of witnesses, the other Senators have to go vote. The chairman is usually left to hear those witnesses, unless I can recruit somebody else.

I would suggest that we go ahead and hear this next panel and then interrogate the witnesses from both panels.

Is that all right with the committee?

In that case, each witness will have a chance to be heard by a number of Senators. Otherwise, by the time the Senators get involved, and they all have questions to ask, the other witnesses just will not be heard by most Senators.

If you will excuse yourselves, gentlemen, we will call you back after we have heard from the other witnesses.

Next, let's call a panel on behalf of the American Petroleum Institute.

Jerry McAfee, chairman of the board, Gulf Oil Co.; E. L. Williamson, president, Louisiana Land & Exploration Co.; Mr. Harold D. Hoopman, president, Marathon Oil Co.; Mr. Jack F. Bennett, senior vice president, Exxon Corp.

We will hear you in the order that you gentlemen would like to be heard.

We will start with you, Mr. McAfee.

STATEMENT OF JERRY McAFEE, CHAIRMAN OF THE BOARD, GULF OIL CORP.

Mr. MCAFEE. Thank you, Mr. Chairman.

Mr. Chairman and other distinguished members of the Committee on Finance, I am Jerry McAfee, chairman of the board and chief executive officer, Gulf Oil Corp., Pittsburgh, Pa. Accompanying me are Mr. E. L. Williamson, president, Louisiana Land & Exploration Co., New Orleans, La.; Mr. Harold D. Hoopman, president and chief executive officer, Marathon Oil Co., Findlay, Ohio; and Mr. Jack F. Bennett, senior vice president and director, Exxon Corp., New York, N.Y.

We appear before you as a panel in behalf of the American Petroleum Institute, the Mid-Continent Oil & Gas Association, the Rocky Mountain Oil & Gas Association and the Western Oil & Gas Association. The memberships of these organizations engage in all aspects of oil and gas operations and account for upwards of 90 percent of domestic oil and gas production.

With your permission, Mr. Chairman, my colleagues and I may interpolate some extemporaneous comments in view of recent developments which are not contained in our prepared statements before you, and we hope and believe that all of our testimony, Mr. Chairman, will be clearly understandable by both truckdrivers and college graduates.

The CHAIRMAN. I hope so. Some truckdrivers are college graduates. I could not understand it, and I am a college graduate.

Mr. MCAFEE. We hope this will be perfectly straightforward and clear to everybody.

Since I had the privilege of appearing before the House Ways and Means Committee on H.R. 3919, much has taken place which reemphasizes the importance of reaching a sound policy with respect to domestic crude oil pricing. At its recent meeting in Geneva, OPEC raised oil prices another 24 percent or more. In the United States, gasoline lines have become commonplace; fuel oil inventories have been dangerously low; the Federal Government has reached into public buildings to set thermostats; and there has been a growing demand for renewed emphasis for the development of synthetic fuels and alternate sources of energy.

I believe that now most of our Nation's leaders accept the crucial need to get this country moving on a sensible energy course.

What you do with the legislation you are currently considering will influence the direction of that course. Your decisions will determine just how successful this Nation will be in finding and producing conventional oil and gas and in developing and using alternate energy sources.

Our energy problem today pivots around oil. This energy source has the broadest application, is easiest to use, is environmentally acceptable, and even at today's world prices is still cheaper than known alternate sources.

There is much more oil and gas to be found, both in the United States and in other parts of the world. The U.S. Geological Survey and other studies estimate that there are more than 50 billion barrels of crude oil remaining to be produced in this country either by conventional or enhanced recovery methods from known fields and extensions of known fields, plus another 50 to 125 billion barrels in as yet undiscovered but potentially recoverable resources.

It is estimated that non-Communist world's proven crude oil reserves amount to 466 billion barrels. But even with these reserves, the energy-hungry free world's sources of crude oil production will probably peak in the next 20 years. Then, production would be about 70 million barrels a day compared to today's rate of about 50 million barrels a day. That level could be held for nearly 10 years before it would decline.

Clearly, the world as well as the United States must move rapidly toward developing other energy sources. The United States is fortunate in having more extensive known resources of these energy supplies such as coal, uranium, and shale oil. But developing these resources and the technology for capturing and utilizing solar energy in its various forms will take time and enormous capital investments. Until then, we must find more oil and gas.

Besides developing U.S. petroleum and other energy resources, the most effective countermeasure to OPEC's increasing control over the world is the discovery and development of petroleum reserves elsewhere. It is essential, I believe, that the United States continue to be well represented in the competition to develop foreign oil as well as U.S. resources.

In order to compete effectively with foreign companies, American oil companies will need the strong support of the U.S. Government. Among other manifestations of that support, perhaps the most important is avoiding double taxation, a subject Mr. Bennett will address in detail.

If the Nation is to make the long-range transition to increased use of other energy forms, prices must rise to levels which make the required investments economically attractive, and which provide the capital funding for the huge investments required for energy development.

In this context, the decontrol of domestic oil prices is essential. The phased decontrol portion of the President's program would accomplish replacement cost pricing with minimum adverse economic impact. This is fundamental for both conservation and increased production of all kinds of energy.

The excise tax you are considering, however, is a step backward—it would divert revenue from domestic energy production, thereby hindering the Nation's ability to reach its energy production goals.

Government controls—which the excise tax would prolong—are not a solution to the supply problems this country has faced during the past decade. Our current energy problem is largely a result of controlled prices that have simultaneously kept demand artificially high while hindering the industry's ability to increase production of both conventional and alternate energy sources. It is a hard problem—but responsible leaders must resolve it now.

Essentially, the excise tax has support because some feel that the industry does not deserve or need the revenue from decontrol or that the industry will not responsibly reinvest that revenue in energy production.

Quite to the contrary, there is really no basis for either of these assertions, as was very clearly brought out, Mr. Chairman, in the excellent testimony the committee heard earlier today.

In spite of the disincentives that abound today, the industry has demonstrated that it is prepared to devote the great bulk of its earnings to energy development and has attractive opportunities to develop more investment funds than are available.

An analysis by Chase Manhattan Bank of investments by 23 major oil companies indicates that less than 5 percent of their fixed assets were outside the petroleum and petrochemical industries. This less-than-5-percent includes other energy sources, such as coal and uranium.

Thus, it is clear that the industry has invested virtually all of its available capital in energy.

As we move from the artificially low-price structure under which we have been operating since 1971 toward a realistic replacement cost-price structure, it is inevitable that additional revenues not now available to the industry will be generated.

Some people feel constrained to call these additional revenues "windfall" although there are well-based views to the contrary. While it could be debated endlessly to whom these so-called windfalls properly belong—the owners of the oil inventory in the ground, namely the producers and the royalty owners; the Government; or the consumers—the really important question, Mr. Chairman, is who will make the best use of these additional funds in providing for the Nation's present and future energy needs.

Theoretically—some may say that it should be possible for the Government to reinvest such funds efficiently in energy-related projects. With all due respect, however, we would strongly urge that the companies who know the business can best reinvest these funds most effectively.

In addition, as has been frequently pointed out, existing income taxes and Government royalties will direct into the public treasuries about 60 percent of the increased revenues or windfalls which will provide substantial additional funds to support whatever Government involvement in energy-related activities that the administration and the Congress decide are in the Nation's best interest.

Therefore, I submit most strongly and most sincerely that the best use, in the national interest, of these additional funds will probably be realized by leaving them in the hands of the oil industry—the majors, independents, wildcatters, and royalty owners alike—who have demonstrated over many years that they have both the will and the wit to use such funds wisely and effectively.

Finally, Mr. Chairman, I would like to address the issue of industry profits.

Earnings this year are up, I am glad to say, but largely so only in comparison to the depressed and inadequate earnings of last year. In fact, industry real earnings have increased less than 1 percent a year since 1974 and petroleum industry returns on investment have not equaled all-industry averages in the last several years.

The most important issue is how these profits are going to be used. It is clear that most of these additional profits will, in due course, be reinvested in the business. Already, the process has begun.

Gulf, my company, for example, has already increased its 1979 capital budget for exploration and production in the United States by $100 million. We have previously announced our intention to spend several hundred million dollars over the next 3 years to expand and improve our U.S. refining capability and we expect to confirm several specific projects in this program shortly.

Furthermore, I have publicly reaffirmed Gulf's commitment to increase investments in energy development commensurate with whatever increased earnings result from crude oil decontrol.

Mr. Chairman and members of the committee, we all recognize that even phased decontrol will be difficult for the consumer in the short run. But it is the only way to meet his energy needs in the long run.

The proposed excise tax would detract from the industry's ability to meet these needs. The industry should be given the chance to employ this revenue in energy development, because that is what

the industry intends to do, knows how to do, and is better at doing than the Government or any other entity.

And now, Mr. Chairman, I am pleased to present my industry colleague, Mr. Williamson, who is president of Louisiana Land & Exploration Co.

Thank you very much.

The CHAIRMAN. Mr. Williamson?

STATEMENT OF E. L. WILLIAMSON, PRESIDENT, LOUISIANA LAND & EXPLORATION CO., NEW ORLEANS, LA.

Mr. WILLIAMSON. Thank you, Mr. McAfee.

Mr. Chairman, committee members, I am E. L. Williamson, president of the Louisiana Land & Exploration Co., with headquarters in New Orleans. When my colleagues and I appeared before this committee 2 years ago, we discussed the concern over this country's dangerously high level of dependence on foreign oil. We agreed that the situation was weakening our economy and endangering our security.

We talked about the need for energy conservation and the development of new sources of energy. We agreed that the quickest and most reliable road to strengthening the energy position of our country is to find and develop more of our country's own oil and gas resources.

A lot has happened in the last 2 years, but nothing has weakened the validity of these observations. To the contrary, it is more obvious now than it has ever been that we must do all we can to develop indigenous energy, and we must do it as fast as we can.

Today we would like to emphasize that this country has substantial oil and gas that can still be found and produced, with some big ifs. If the incentives for investment are adequate; if the overall political and economic climates are favorable; and if we can obtain access to places where petroleum is likely to be found.

At this point, Mr. Chairman, I would like to depart from the remarks that had been earlier submitted to the committee. The events of the last couple of days justify it. I do hope that these revised remarks have been distributed to the committee. If not, I apologize for that.

This country is fortunate in having an efficient oil and gas industry. It is efficient because it is healthy and it is prosperous.

American oil companies are the best oil finders in the world. It is an industry with the desire and the capability of finding oil and gas.

That industry will find and produce whatever amounts of oil and gas the rules of the game permit. Back during the debates on the natural gas bill, the question was often asked, "How much should new gas sell for at the wellhead to elicit new supplies."

That is like the question, "How far is up?" There is no precise answer to the question as asked.

The answer is, the economics of gas exploration permit a certain quality of prospect to be drilled for gas that sells for $1 a 1,000. At $1.50 a 1,000 there are additional prospects that can be tested. At $2 a 1,000, yet more prospects, and on and on.

New supplies, new discoveries, are obviously some function of the amount of drilling done.

I would like to stay with our gas experience for a moment. During the 1970's, we saw the growth across the country of the intrastate market, and the action of the Federal Power Commission to raise wellhead prices and the adoption of the Natural Gas Policy Act.

The economics of gas exploration changed and many areas became drillable that were not drillable earlier. Activity increased and a lot of gas has been found and is still being found.

I would like to cite three examples.

The Fort Worth Basin area around Abilene is an area of shallow, low-deliverability gas. The price was low.

A strong intrastate market developed. Gas went from under 50 cents to over $1. A lot of companies, large and small, went into the area and started drilling. A substantial amount of new gas was found.

The overthrust belt in the Rocky Mountains was long considered an area that had potential for oil and gas accumulation. It is a complex geological area, geologically difficult to operate in because of terrain and very high cost drilling.

The first discovery in the overthrust was made in 1975. Since then, there have been a number of discoveries made, some of which are major. Total recoverable reserves in the overthrust may run as high as 5 billion barrels of oil and 20 trillion cubic feet of gas.

That is the oil equivalent of almost 8 billion barrels of oil.

Now, assuming a 20-year producing life, that is the equivalent of almost 1 million barrels a day. This assumes, of course, that the ultimate potential and all the production came out at the same time.

In Louisiana, one of the oldest, most mature oil-producing States in this country, we have seen the same phenomena. The deep low Tuscaloosa trend has been recognized for a long time as having potential for oil and gas accumulation, but with geologic risk, and extremely high costs to drill wells 20,000 to 23,000 feet deep. At 50-cent gas, the play could just not get started.

The economics changed; the industry did start drilling. The result, Chevron drilled a new discovery well—the No. 1 Alma Plantation in May 1975. The well flowed 10 million feet of gas a day from below 21,000 feet.

A number of discoveries have been made in this trend since then.

A total ultimate recovery from this trend could be as high as 15 to 20 trillion cubic feet of gas. That is the oil equivalent of some 3 billion barrels of oil, and should that potential be realized and all placed onstream, that is the equivalent of some 400,000 to 500,000 barrels of oil a day.

Incidentally, let us not lose sight of the fact that it is the cash flow from these projects, together with all other projects, that are going to fuel the search for the next similar trend. If we put a permanent cap on the realization by the producer of the heavy tax on that cash flow, I assure you that we are not going to be able to find all of the overthrust belts and all the deep lower Tuscaloosa trends in this country.

The point is, there is definitely a supply response to price.

Back to oil, new oil in this country is going to come from many sources. Enhanced recovery from existing reservoirs, expansion of

existing reservoirs, those reservoirs that heretofore have been marginal or submarginal and more importantly, new reservoirs. Oil from many of these sources is going to become increasingly expensive in looking for new reservoirs, we are looking for very subtle traps, small traps, small reservoirs, deep accumulations, tight rocks and prospects in remote, inhospitable areas, et cetera.

Back to my point, the industry will do whatever of these things the rules of the game permit. Now, these rules are many. They include things like access to potentially productive areas, permitting difficulties, et cetera.

The critical parameter, the critical rule, is the value of the product found. We cannot make the rules. We play by the rules. If the Congress and the American people in their infinite wisdom adopt a pricing scheme that would place a cap on the value of a barrel of domestic oil, then they can expect a level of activity which level is determined by fundamental economics.

If, on the other hand, it is determined that this barrel of oil—and I am emphasizing the new barrel of oil—is worth what it would cost to replace it with a unit of energy from some other source, foreign, synthetics, or whatever, then the economics will support a different and higher level of activity.

This country must make the decision as to how important it is to the consumer and to the economy, to the country, to add additionally now over the next few years to our domestic production. I use the word "now"; this is obviously important.

We all agree with the President, the necessity of developing alternative sources of supply, alternative to the conventionally produced oil and gas, but this takes time. We have a serious problem now and will have for the next few years and I am frightened that we are not addressing that short-term problem.

This industry represents the largest contributor to the solution of that short-term problem. It has the desire and the technical capability of making a significant contribution.

The President's decontrol plan is a major step toward increasing in the short term domestic production and the corresponding decreasing dependence on foreign oil. The kind and extent of the tax now being considered is obviously some impediment to that effort.

Congress is going to have to make the judgment call as to the degree of that impediment.

Thank you very much.

I would like to turn the next part over to Mr. Harold Hoopman.

STATEMENT OF HAROLD D. HOOPMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, MARATHON OIL CO.

Mr. HOOPMAN. Mr. Chairman and committee members, my name is Harold D. Hoopman. I am president and chief executive officer of the Marathon Oil Co.

We believe that the removal of price controls from domestic crude oil is absolutely necessary to a sound solution of our energy problems. The action taken and proposed in that regard is encouraging. Decontrol of prices will provide incentives for producers to find new oil reserves, increase production from existing reservoirs, and encourage development of alternative energy sources, permit the generation of capital to replace existing energy supplies, en-

courage energy conservation, eliminate the entitlements program and help fulfill the President's international commitments to raise domestic crude oil prices to world levels and restrain imports.

I agree with our witnesses on the necessity to encourage domestic energy production. The constraints on domestic production have been largely economic and political, not physical.

Oil companies have substantially increased drilling and capital spending since 1973, but more is needed. For the past decade, the annual volumes of oil produced in the United States have substantially exceeded the reserves added. A massive exploration and development effort is required to enlarge our domestic oil and gas base.

Bank studies have independently concluded that the industry would have to spend over the next several years some $40 billion annually on exploration and production just to maintain the present level of reserves.

Recently we have been spending about $20 billion a year. The additional $20 billion is almost two times the $12 billion in increased average annual gross revenue resulting from decontrol. All these figures are in constant 1978 dollars.

After payment of existing taxes and royalties with no additional taxes, decontrol of crude oil prices would net producers less than $6 billion annually, or about 30 percent of the industry's additional capital requirements. With a windfall profit tax like H.R. 3919 producers would be left with about $2.5 billion annually or only about 12 percent of those requirements.

Producers must be able to generate large amounts of capital internally and must have the ability to borrow additional money to obtain the funds they need. They compete with Government and other businesses in seeking investment dollars, and investors naturally put their money where they believe they have the best chance of earning a good return. Decontrol of producer prices is an essential step in generating the capital needed.

Oil profits are large in dollar amounts, but they are certainly not out of line with the rates of return of other industries. We know that the industry and the financial community have grave concern as to whether oil company profits are strong enough to support the kind of exploration and production the country so vitally needs.

Removal of price controls will encourage conservation. Price controls have misled consumers on the true value of oil and petroleum products. By holding prices artificially low, the Government encouraged consumption and discouraged production at the same time.

Increasing consumption led to increasing imports. By allowing prices to reflect the replacement or true value of domestic crude oil, decontrol will bring a significant reduction in oil consumption and will encourage consumers to make decisions about efficient consumption. Industry estimates indicate we could save some 500,000 barrels a day by the mid 1980's.

We have said that decontrol of oil prices will bring on other energy supplies. Those supplies from alternate fuel sources in any significant amounts are several years away. In the meantime, oil and gas will continue to be our principal energy source and will

respond more quickly to the incentive of decontrol through new discoveries and through increased production from existing fields.

Additional taxes are not warranted. Any additional taxes on the increased revenue stream beyond the already substantial tax burden paid by producers would be counterproductive. The largest share of any increase in the wellhead price of crude oil will go to Federal, State, and local governments which will take from 50 to 60 percent of the incremental dollar without new taxes.

H.R. 3919 as passed by the House would increase the Government's share to over 75 percent and would leave producers with less than 20 cents of the incremental dollar. The real question is whether Government will take too much of the incremental revenue rather than too little.

In his April energy message, President Carter pointed out that, "through replacement cost pricing, new sources of energy will come into commercial use" and further reduce foreign oil dependency. We applaud the recognition that producers should receive the replacement cost or true value of domestic crude oil and that it will encourage the development of alternate energy sources.

But additional taxes that would drain a significant portion of this revenue away from new exploration and development impair the anticipated result. Industry's past performance gives convincing evidence that any net increment of crude oil receipts would be utilized in the discovery and development of new energy supplies.

Current tax laws impose an inflation tax on capital by failing to recognize the sharply increasing replacement costs for finding, developing and producing new reserves. In this period of rising costs, a producer's profit must be sufficient to replace each barrel sold with another barrel of reserves in the ground. Unless that is done, petroleum reserves and our business will be liquidated.

An additional tax on domestic production would inhibit the aggressive domestic exploration and development programs we need. It is inconsistent with our Nation's supply objectives and requirements. No tax should interfere with incentives to increase domestic energy supplies.

If there is to be a tax like that in H.R. 3919, let us examine some of the basic flaws. The old oil properties taxable under tier 1 hold the greatest promise for an immediate supply response to higher prices as well as increasing the ultimate recovery. However this old oil production bears the heaviest tax load which in the long run will inhibit the maximum recovery.

The tier 2 tax continues until January 1, 1991. This period is too long. This tier should be phased out as quickly as possible to restore investor and producer confidence and give a firm basis for maximum incentives to make investments now which could begin producing results by the mid-1980's.

The tier 3 tax puts a permanent tax cap on future crude oil realizations in place of a regulatory ceiling. It takes away essential incentives to maximize energy production in the United States and holds producer revenues below world price levels. This tax tells the world that the United States will continue a policy of paying more for imported crude than it is willing to pay its own producers for domestic crude oil.

The tax may invite additional OPEC price increases. With a 60-percent excise tax, OPEC could raise its prices 2½ times as much as real cost increases in the United States and still remain competitive with U.S. oil.

If we do not let domestic crude oil prices rise to market levels without a permanent tax, literally billions of barrels of U.S. oil will be left in the ground.

No tax should be levied on newly discovered oil, tertiary oil, and stripper oil. Taxing these categories of oil will result in effective rollbacks of producer prices and could prevent development or force early abandonment of some properties.

You have heard from the principal operators of the Alaska North Slope about their special problems with the tax. Clearly, the Nation's energy needs would be best served by exempting North Slope, along with newly discovered, tertiary and stripper production.

H.R. 3919 is a complicated tax bill with multiple tax rates. We believe that all rates should be the same and should not be more than 50 percent. We have identified in my detailed statement other serious problems with H.R. 3919, the tier 3 tax reference price, the adjustments for severance and other State and local taxes, the inflation adjustment, the production payments, and the reduction of depletion income.

Mr. HOOPMAN. At this point, I would like to depart from my prepared statement and comment briefly on the concept of the administration's $140 billion energy security trust fund. I should emphasize first that the API and the companies it represents do not oppose helping poor people meet higher energy costs. Further, we do not oppose paying our just share of taxes for the operation of the government, be it Federal, State, or local.

Funds to provide help to the poor should be paid from the additional income taxes generated from decontrol.

We do oppose the creation of a special energy security trust fund. If any windfall profits tax is to be imposed, this revenue should go to the Government's general revenues and be subject to all the checks and balances of congressional scrutiny.

Thank you, and I would like to pass the podium to Jack Bennett of Exxon.

STATEMENT OF JACK F. BENNETT, SENIOR VICE PRESIDENT, EXXON CORP.

Mr. BENNETT. Mr. Chairman, gentlemen, I appreciate this opportunity to comment on the administration's recent proposals to alter the law relating to credits for taxes paid abroad by U.S. investors. In brief, the administration would, one, restrict foreign exploration loss deductions to only one category of income even though domestic exploration losses can be taken against all income. Two, limit the foreign tax credit on oil-producing income by the method per country or overall which gives the higher tax, and, three, impose complex and onerous loss recapture provisions with retroactive features on foreign exploration losses.

I agree with the comment of the Secretary of the Treasury that these proposals are technical in nature but important in substance. But I hope to demonstrate to you that the proposals are inequitable

and if enacted would damage the U.S. economy and U.S. national security.

I hope also to show that these proposals have been improperly described as being just the closing of loopholes and the carrying out of the intent of earlier congressional action. The proposals would change important aspects of existing law which were placed in the statute books, not through inadvertence, but in conscious recognition of their beneficial effect. And I am referring to features of the law of general application to all types of investors, not to some special rules of benefit to oil companies.

In fact, the administration proposals would add greatly to the already significant amount of discrimination in the tax code against the foreign operations of U.S. oil companies. Such increased discrimination would handicap U.S. companies in relation to foreign competitors. It would retard the search for new sources of energy and increase the dangerous degree of U.S. dependence on high-cost OPEC oil.

The official rationale for these proposals contends that the proposals are needed to prevent integrated U.S. oil companies from deriving undue benefit from the taxes they have paid abroad in some oil-producing countries at rates above the present 46-percent rate of U.S. corporate tax.

That obsessive fear of profit for oil companies seems inordinate to me, since I know that oil company returns have not generally been better than those of other U.S. industries. And I know that over the past 5 years the investor in my company, whose results have been a little above average, has actually had a negative return on his investment when inflation is taken into account.

But four "explanations" have surfaced on how the oil companies may be getting improper benefits from the credits allowed in the U.S. tax code for foreign income taxes. I will comment on each explanation.

In doing so, Mr. Chairman, I am not sure I'll be either realistic or relevant. I haven't been able to avoid a strong feeling in recent days that the proposals of the administration have arisen in large part from a political calculation that it would be profitable "to throw some meat to the lions." U.S. companies which explore for oil abroad seem to be the meat. And the lions are those who would react to the Nation's energy problems by lashing out in anger or demagogy without careful thought to the longer range consequences. Only in this way can I explain the administration's apparent lack of concern about the effect of these proposals in reducing the supply of oil to the United States and increasing the cost of that which will be available. In the rest of my remarks today, however, I will deal, not in hunches about motivation, but rather with the official rationale.

First, the official White House factsheet explanation that under the new proposals excess credits earned on foreign oil and gas extraction income would not be able to shelter low-tax income such as shipping and foreign refineries, which they can currently do.

Unfortunately, that statement and similar ones since, severely misrepresent the facts. Under present U.S. law, there is no circumstance in which high foreign tax on foreign-producing income can reduce U.S. tax on foreign shipping or refining income.

Second, the factsheet expresses a fear that the companies might avoid U.S. tax on income from some foreign-producing project subject to a low rate of foreign tax by crediting against the U.S. tax the higher portions of the taxes which might be imposed by governments of other producing countries at such high rates that the higher portions should be considered to be royalties, which are deductible for U.S. tax purposes, rather than income taxes, which are creditable.

In fact, this could never have happened for taxes paid by Aramco in Saudi Arabia, the largest source of oil for world trade because Aramco's shareholders cannot use any part of its credit against their other income. The administration has never bothered to point out that the problem could not arise in those major OPEC-producing countries which will no longer obtain their revenue by taxes and royalties on oil production but will get their income from the sale of oil from nationalized properties. The administration hasn't pointed out that any denial of foreign tax credits because of this aspect of the fear would primarily handicap activities in those foreign areas where U.S. companies are now seeking diversified sources of oil.

I doubt however that this problem really exists to any significant extent in those other areas either. U.S. companies already pay royalties in the producing countries at rates negotiated before the ventures began at levels not out of line with royalties paid in the United States.

But even if the problem were found to exist in some special cases, I am sure that an appropriate, careful study of the subject would conclude that this broad, complex new legislation proposed by the administration is not needed. I doubt that a change is needed, but if it is, a much simpler, less disruptive change could be designed.

For example, the law could be simply changed to provide that any foreign income tax applicable solely to oil would not be considered creditable to the extent it exceeds the U.S. tax rate or the generally applicable local rate if higher than the U.S. rate.

Instead of this simple approach, however, the administration has proposed a vast set of complex new legislative provisions, a program of bureaucratic overkill in which the proposed legislative remedy is so out of proportion to the supposed problem as to damage overall U.S. welfare.

And simultaneously the Treasury has proposed a new set of regulations which in practice would supersede all the existing legislation on the foreign tax credit. In the words of the Joint Tax Committee staff, "it can be expected that under the criteria contained in the proposed regulations, most foreign petroleum taxes would not be considered to be income taxes."

Third, the Treasury staff has explained that, even when there is no question as to the validity of the foreign income taxes involved, the high tax rate on producing income in one country, say at 56 percent could be used to offset U.S. tax on producing income from another country with a lower tax rate of, say 36 percent.

It is not clear to me that this is a problem. Certainly it is not one unique to the oil business, since the same situation really arising in oil production, since there is a high probability that any significant

oil-producing country will impose income taxes at a rate of at least the 46-percent U.S. rate over the life of any producing project.

Some foreign governments do spread depreciation and other deductions allowed for tax purposes over the life of projects differently from the United States, so that there might appear in some years to be some low rates of foreign tax on production. Those however are likely to be merely timing differences which would not result in any permanent revenue for the United States even in the absence of tax credits transferable from one foreign area to another.

The fourth explanation is really just a special case of the previous one, but since the administration has laid so much stress on this special case, I will treat it separately. It arises when a low tax in some country comes about for a particular company because of carryforward of a loss which was incurred in a previous year when there was no other taxable income in that country.

This could happen in any industry, not just the oil industry. It happens because Congress has mandated lumping together the foreign taxes of different countries. It could arise whether the company involved did or did not have low-taxed refining or shipping income in some other country. It could arise whether or not the earlier foreign loss had any effect on U.S. taxes paid.

Yet the administration has misleadingly fostered the impression that there is some special loophole here which is benefiting integrated oil companies with foreign shipping and refining. It just "ain't so." But the administration is using this argument in an attempt to justify the use of blunderbuss legislation which would mean the denial of proper U.S. tax recognition of almost all foreign exploration losses. Present U.S. law gives no benefit to exploration losses abroad relative to exploration losses in the United States. There is no tax encouragement to go abroad, in fact there is already some tax discrimination against foreign losses.

Yet the administration would increase this discrimination to the point at which companies would be forced to reconsider their present efforts to explore in new areas in Africa, in Latin America, and in Asia, including China. To the extent U.S. companies withdrew, their place might be taken to some extent by foreign companies, but it cannot be in the U.S. interest to encourage dependence to a much larger degree on foreign-owned ventures.

In any event, the total amount of exploration would be reduced, further increasing our future dependence on OPEC. The extent to which the Treasury proposals seem oblivious to the harmful effects on the Nation's energy future naturally leads me to wonder whether the Treasury staff has its eyes riveted on some hidden agenda which considers the present proposals as opening wedges for a more general attack in the future on current provisions for the recognition of foreign tax credits and foreign losses for all types of U.S. investment abroad.

The "heads-I-win, tails-you-lose" tax credit limitation now being proposed for the oil companies could soon be extended to other companies, just as the 1975 denial of some types of foreign losses of oil companies was extended a year later to all other companies. Additional special recapture rules of a mind-boggling complexity

now being proposed for oil companies could also soon be extended to all others.

These specific proposals contrast strangely with the Treasury's general recognition that the earnings and exports generated by U.S. private investment abroad strengthen the U.S. balance-of-payments position and that new discoveries of oil anywhere in the world tend to restrain the price of oil and enhance U.S. security.

In recent years, U.S. oil companies alone are estimated to have added $2 billion to $3 billion a year in net balance of payment flows to the United States. Since 1970, American firms have aided in the discovery of over half of the discoveries of crude reserves in both OPEC countries and non-OPEC countries where private firms are permitted to function.

This effort added almost 60 billion barrels to estimated world-wide oil reserves. By comparison, less than 5 billion barrels of reserves were found with considerably more effort in the United States during the same period.

After the dramatic demonstration we have been having in recent weeks of the effects on our economy and our society of just a small shortfall in energy supply, a shortfall arising from concentrated dependence on a few sources, I cannot believe that this committee will accept legislative proposals which have no justification in equity and which would reduce the amount and diversity of our future energy supply.

Thank you.

[The prepared statements of the preceding panel follow:]

STATEMENT OF

JERRY McAFEE

CHAIRMAN OF THE BOARD
And
CHIEF EXECUTIVE OFFICER

GULF OIL CORPORATION

Before The

SENATE COMMITTEE ON FINANCE

Regarding The

CRUDE OIL WINDFALL PROFIT TAX ACT OF 1979

H. R. 3919

In Behalf Of

AMERICAN PETROLEUM INSTITUTE

MID-CONTINENT OIL & GAS ASSOCIATION

ROCKY MOUNTAIN OIL AND GAS ASSOCIATION

WESTERN OIL AND GAS ASSOCIATION

Washington, D. C.

July 18, 1979

Executive Summary

STATEMENT OF JERRY McAFEE

This statement discusses the pivotal position of oil in solving our nation's energy problems. The demand for oil exceeds that of other forms of energy. The domestic supply of oil has not kept up with increased demand. Although there is significant potential for additional oil, replacement cost pricing will be needed to maximize this potential. Phased decontrol of domestic oil prices would accomplish replacement cost pricing with minimum adverse economic effect and would help provide the investment climate required to develop additional energy resources including petroleum. On the other hand, failure to decontrol would cause demand to stay at artificially high levels and impede the development of alternate fuels. The proposed "windfall profits tax" would divert capital away from oil production, with the result that domestic barrels would not be produced and imports would increase.

World energy outlook: Oil represents about half the energy currently used in this country and in the world. At the beginning of 1978, there were proved reserves of crude oil in the noncommunist world of 466 billion barrels. Of the noncommunist world's oil supply, 64 percent is in the Middle East, 6 percent in the U. S. and another 6 percent in other western industrialized nations.

During the last several years, annual crude oil production has exceeded the new discoveries. Without greater economic incentives to stimulate investments in new oil supplies, it will be difficult to reverse this trend.

Changing conditions in the world oil market: The U. S. has moved from a position of having surplus oil production to the point where we import almost half of the oil we consume. Since two-thirds of the oil in international trade comes from five Persian Gulf countries, both the price and supply of crude oil can be affected by conditions or decisions in the Middle East. Thus, there is an urgent need to diversify the sources of crude oil. It is important that U. S. companies participate in this diversification effort, for their presence ensures that the United States will continue to have access to imported oil.

Nearly three decades of federal price regulation: The petroleum industry has been under some form of price controls by the federal government for nearly three decades. Historically, the number of wells drilled bears a direct relationship to the price received for crude oil (or natural gas). For example, drilling increased in 1974 because the price of new oil was uncontrolled.

Import experience and outlook: Since 1973, imports have been a growing drain on the U. S. economy -- an estimated $52 billion in 1979. And there is a consensus that this country will be dependent on foreign oil for at least some time in the future, with imports as high as 11.8 million barrels a day by 1985 -- unless additional domestic oil can be produced.

Decontrol is long overdue: President Carter, in his 1977 National Energy Plan, called for energy prices to reflect replacement costs. Increased prices will curtail demand; they will also increase conventional supplies. The so-called "windfall profits" tax is unnecessary, since more than half of incremental revenues would flow to governments due to taxes and royalties. The improved

economic climate resulting from decontrol will help promote increased domestic exploration and production.

Energy supply and demand situation: While U. S. oil production increased in 1978 with the flow from Alaska's North Slope, demand has surged and imports are expected to increase by 5 percent in 1979, despite limited availability. The United States Geological Survey estimates domestic crude oil inferred reserves at 23 billion barrels, and undiscovered, recoverable oil resources in the 50 to 127 billion barrels range. Studies indicate another 30 billion barrels in known reservoirs that tertiary recovery techniques might recover. The USGS also estimates enough reserves of natural gas to carry us into the 21st century.

The nation's largest energy resource is coal, with an estimated reserve base of 435 billion tons. In spite of institutional difficulties, coal production could reach 1.2 billion tons by 1990, and 2.0 billion by 2000.

Uranium is our third most important source of energy. It is essential that safety requirements and licensing procedures be in place so that nuclear power can achieve its proper place in America's energy future.

Alternative energy sources: The U. S. also has the potential for utilization of other energy resources: oil shale, with reserves estimated at 1,800 billion barrels; nonconventional gas from coal seams, Devonian shale and tight sands; deep offshore oil and gas; coal synthetics, including production from gasification and liquefaction; solar energy in all its forms, including biomass, gasohol, and wind; and fusion, though its availability is not likely until the mid-21st century. The development of all of these alternate energy sources will be aided by replacement cost prices for domestic oil and gas.

Petroleum industry profitability: First quarter comparisons to 1978 are misleading, because that was a period of depressed earnings for the oil industry. Increases in the first quarter of 1979 occurred partly because of increased use of foreign refining capacity and a strengthening of the U. S. dollar. For oil companies, first quarter profits indicated a return on shareholders equity (ROSE) of 17.9 percent compared to 18.3 percent for non-oil companies. The petroleum industry has been below all manufacturing for the last three years.

There is a demonstrated relationship between crude oil prices and capital spending. Capital expenditures have exceeded net income by two to one in more recent years and there has been a substantial rise in the long-term debt of the industry. The investment pattern of the industry is an assurance to the public that the industry will spend any increased earnings from decontrol in the continuing search for energy in the United States.

Mr. Chairman and Members of the Committee on Finance, my name is Jerry McAfee, and I am Chairman and Chief Executive Officer of the Gulf Oil Corporation, headquartered in Pittsburgh, Pennsylvania. In behalf of the named sponsoring organizations, I would like to submit for the record of this hearing today the following testimony. This testimony is substantially as presented to the House Committee on Ways and Means, and is an analysis of the various factors involved in the current national and world energy situations. There are presented a number of specific recommendations for managing our energy needs more effectively.

Our energy problems and opportunities pivot around oil, since this is the energy source with the broadest application, is easiest to use, is environmentally acceptable, and even at today's world prices is still cheaper than known alternate sources. As a result, the demand for oil exceeds the demand for any other form of energy, either here or abroad, and that demand continues to grow rapidly.

The other side of our demand problem is one of supply, and despite a dramatic increase in efforts and expenditures, noncommunist world oil production probably will ultimately exceed reserve additions leading to an eventual decline in production. In the U.S., the annual consumption of oil has exceeded discoveries in every year since 1968, when the huge Prudhoe Bay field was discovered in northern Alaska. In fact, simply to replace our present domestic production would require that we find a new Prudhoe Bay field every three years. We simply have not been able to do that in

recent years, in large measure because of price controls and accompanying regulations.

It is also important to recognize that the imbalance between current production and the ability to add to reserves has occurred even though the number of wells drilled annually in the U.S. has increased 72% since 1972. This effort resulted in adding a yearly average of nearly 1.6 billion barrels to U. S. proved oil reserves, or an amount equal to 45% of our total current domestic production. Unquestionably, the continued search for and finding of such reserves is crucial to our energy supply; it is also crucial to our national security and our economic well-being. The recent actions of OPEC underline our vulnerability.

Fortunately, this nation does have many unexplored areas which have significant potential for additional oil, if market incentives are available. Additionally, we have substantial known reserves that can be recovered through the use of enhanced recovery techniques -- again requiring market incentives. And finally, we have extensive known resources of other conventional energy supplies such as coal and uranium, and of alternate energy forms, such as shale oil and solar energy in its various forms. If the nation's energy needs are to be met, an orderly and long-range transition to increased use of these alternate fuels, will have to take place.

The situation which I have just outlined is neither new nor original. It was effectively outlined in the comprehensive study done by the National Petroleum Council in 1970-1972, and has been confirmed by a myriad of subsequent reports by industry, government, academia, and numerous public policy institutes. If the nation is to make the long-range transition to increased use of energy forms other than petroleum-derived oil and gas, it is unavoidable that energy prices must rise to levels which will be adequate to make the required investments economically attractive, and to provide the capital funding for the huge investments required.

In this context, the decontrol of domestic oil prices is essential. The phased decontrol portion of the President's program would accomplish replacement cost pricing with minimum adverse economic impact. This is important for two reasons: First, if decontrol is not effected, demand will be maintained at artificially high levels, and domestic production of all forms of energy will be inhibited. Secondly, decontrol will help supply the needed capital for the investments to develop additional energy resources, whether conventional fuels such as oil and gas or alternate fuels. If this capital is diverted to other uses through the proposed windfall profits tax, which is really a crude oil excise tax, the nation will either be forced to use less energy, which will cause economic hardship, or may be forced to import ever-increasing quantities of oil, which will contribute to more rapid acceleration of foreign oil prices.

In the following presentation, a number of factors will be discussed which have a bearing on our nation's energy problems and opportunities. Among these are: the world energy outlook, including current conditions in the world marketplace, the effect of Federal price controls and regulations, the current import experience and outlook, and a more detailed statement of our domestic supply/demand situation. Additionally, there will be a discussion on the availability of alternate fuels, and we will conclude with a brief statement on petroleum industry profitability.

The picture that we are going to paint is one of hard choices, but our national security and economic well-being are at stake. Fortunately, we know there are significant additional domestic crude oil supplies to be found, if the proper incentives are there. And the industry has demonstrated its ability to find additional reserves, given replacement cost pricing. Today, the petroleum industry stands ready to do the job that needs to be done.

A. WORLD ENERGY OUTLOOK

The level of economic activity is probably the most important determinant of demand for energy. Some historical relationships between economic growth and energy consumption for the industrialized world are shown on Table 1. Develop-

TABLE 1

THE CHANGING RELATIONSHIP BETWEEN GROWTH IN GNP AND ENERGY CONSUMPTION IN THE INDUSTRIALIZED WORLD*

	1960-1973	1973-1976	1976-1980
	---Average Annual Growth Rates---		
GNP	5.0%	1.3%	3.6%
Total Energy	5.0	(0.1)	3.1
Non-Oil Energy	2.9	0.7	4.0
Oil	7.6	(0.9)	2.5
Ratio:			
Energy Growth / GNP Growth	1.00	-	0.86

*OECD Countries

ments in the Organization for Economic Cooperation and Development (OECD) group of industrialized nations are important because this group of countries consumes about 80% of the energy used in the noncommunist world. During the period 1960 to 1973, the average growth in Gross National Product (GNP) for OECD was 5.0% and the average growth in energy demand was 5.0% The one-to-one relationship between economic growth and energy demand was the result of many factors, but the key element was that the price of energy was declining relative to the cost of other goods and services.

This encouraged the substitution of energy, in particular oil, for both capital and labor in the economy and was one reason for the dramatic rise in labor productivity over that period. The quadrupling of oil prices mandated by OPEC in 1973-1974 put an end to the declining price of energy and contributed to a world recession in 1974 and 1975. The data for 1973 to 1976 suggest that a change in the pattern of energy consumption was occurring. This could have been simply the result of a one-time change in the pattern of energy use--for example, people setting their thermostats lower in the winter, or higher in summer. Although it is too early to tell positively, it appears that a more fundamental change has occurred. That is, the historical one-to-one relationship between energy and economic growth has been changed. As the higher price of energy gets reflected in more sectors of the economy--i.e., as the old capital stock gets replaced with new--the ratio of energy demand growth to economic growth may fall well below 1.0.

Table 2 displays the current pattern of energy consumption in the world. All types of energy are shown,

TABLE 2

1977 WORLD ENERGY CONSUMPTION

(Millions of barrels/day oil equivalent)

	U.S.		Noncommunist World		Total World*	
	MMB/D	% Share	MMB/D	% Share	MMB/D	% Share
Petroleum	18.3	50	49.6	53	61.3	47
Natural Gas	9.2	25	15.7	17	24.0	18
Coal	6.8	18	19.6	21	37.1	28
Nuclear	1.3	4	2.3	2	2.5	2
Hydro & Others	1.1	3	6.4	7	6.9	5
Total	36.7	100	93.6	100	131.8	100

Includes Communist bloc

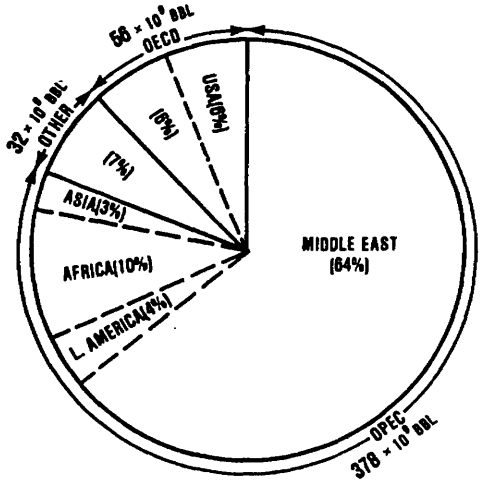
although they are shown in energy equivalent barrels of crude oil for ease of comparison. The U.S. consumes about 28% of the energy used in the world and about 39% of the energy used in the noncommunist world. The pattern of U.S. consumption is also different than the average for the world. We use more natural gas and nuclear energy than average. We use less coal and less hydroelectric power than average. Oil represents about 50% of the total energy consumed. This makes oil the most important form of energy currently being used. It is not likely to decline in importance in the near future because there are significant technological, logistic, environmental, and/or safety problems associated with the rapid expansion of any of the alternative forms of energy.

According to World Oil, which has published reserve estimates on a global basis for many years, the noncommunist world's proved crude oil reserves amount to 466 billion barrels at the beginning of 1978. These estimates have been grouped on Figure 1 to highlight the geopolitical distribution. Only 12% of the reserves are located within the OECD

NON-COMMUNIST WORLD CRUDE OIL RESERVES Figure 1

TOTAL RESERVES AS OF JAN. 1, 1978: 466 X 10^9 BBL

(10^9 = Billions)



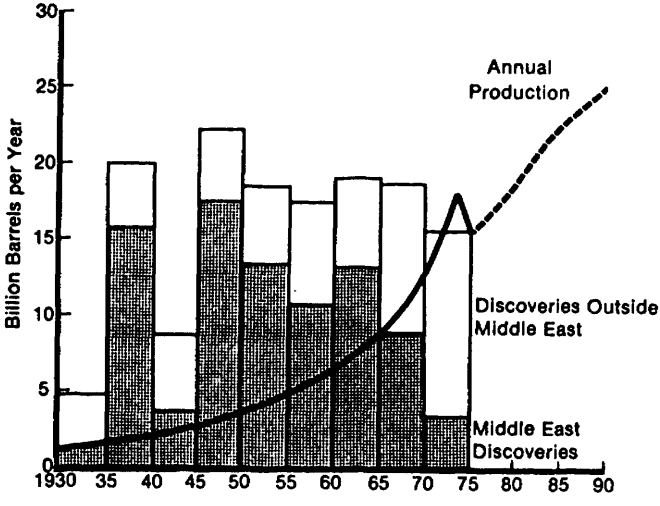
group of countries, although these countries consume over 80% of the noncommunist world's petroleum supplies. About 80% of the crude oil reserves are located in OPEC, 64% of them are located in the Middle East, and nearly 25% are in a single country, Saudi Arabia. Saudi Arabia's proved

reserves amounted to almost 110 billion barrels at the beginning of 1978. However, the existence of these reserves does not ensure that they will always be made available in the quantities desired.

Figure 2 illustrates that the rate of crude oil discovery, adjusted backward for extensions, revisions, etc., has ranged between 14 and ~~26~~ 23 billion barrels per year (averaged over a five-year period) since the end of World War II.

Figure 2

Rate of Discovery of Non-Communist World Crude Oil Reserves
(Annual Averages for 5 Year Periods)

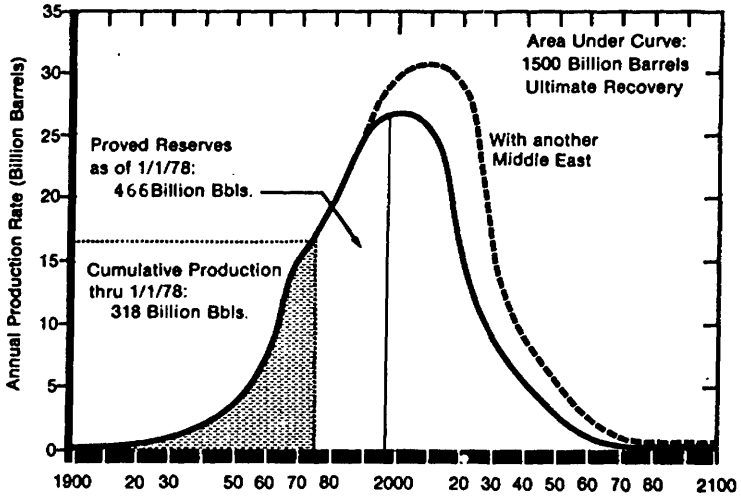


This figure also demonstrates that, historically, the annual rate of crude oil production has been below the discovery rate. During the last several years, however, annual crude oil production has exceeded the rate of new discoveries. Without greater incentives to stimulate the search for new oil supplies, it will be difficult to reverse this trend, given increasing rates of production. Understandably, this trend of annual production exceeding the finding rate of new reserves will place progressively greater strain on the ability of a reserve base to support withdrawal increases in future years.

Figure 3 displays an idealized production cycle that is based on 1500 billion barrels of ultimately recoverable crude oil resources. This is an estimate of ultimately recoverable crude oil which is widely considered as reasonable. On the basis of these assumptions about the shape of the curve and the total amount of resource available, we can draw a projection of future production rates. It is likely that crude oil production will peak at 26 billion barrels per year in the year 2000. This level could be maintained for about 10 years and then production levels would rapidly decline.

Figure 3

Estimated Cycle of Non-Communist World Crude Oil Production



The shaded area under the curve represents the 318 billion barrels of cumulative production through 1977; the open area shows the 466 billion barrels of proved reserves at the beginning of 1978. As shown on this figure, less than one-half of the assumed 1500 billion barrels ultimate recovery have already been discovered.

It is interesting to observe what would happen if, for example, 400 billion more barrels (approximately the

volume of current Middle East reserves) were added to the estimated resource base. The dotted line in Figure 3 shows that, contingent upon the development timing of these additional 400 billion barrels, their influence might be such as to increase production levels an additional 10 million barrels per day. Conversely, let us assume that a 400 billion barrel resource addition results from more efficient recovery techniques such as future widespread application of enhanced oil recovery techniques. The impact would be to reduce decline rates rather than to add to producing rates of those reservoirs to which such measures were applied. Accordingly, if the 400 billion barrel addition to the resource base is considered to be attributable to enhanced recovery, the 26 billion barrel per year production peak would not increase but that level of production could be maintained for a longer time.

B. CHANGING CONDITIONS IN THE WORLD OIL MARKET

The world crude oil markets have changed dramatically in the past ten years. The U.S. has moved from a position of surplus productive capacity to a point where it imports almost one half of the oil it consumes. This places the United States in a much more vulnerable strategic position than it has ever been before. The recent supply interruption in Iran is a reminder of the fragility of the world's crude oil supply base. For example, two-thirds of the oil that moves in international trade by sea comes from five countries in the Persian Gulf--Saudi Arabia, Iran, Iraq, Kuwait, and Abu Dhabi--and passes through the Strait of Hormuz at the rate of one tanker every hour supplying 85% of Japan's needs and more than half of Europe's. A political crisis or an oil-field disruption in any of these countries could throw the world into another petroleum supply crunch at any time. Furthermore, the supply situation can also change at any moment at the decision of a few Middle East leaders to raise prices or curtail production or both. Hence, the uncertainty associated with buying a large portion of our crude oil in the international markets is not just a question of how much it will cost; there is also a great deal of uncertainty as to how much will be physically available for us to buy at any price at any given time.

This indicates an urgent need to do everything possible to develop domestic oil and gas resources and to diversify the sources of our imported crude oil. Obviously, the more different sources for oil, the less important any single source is, the easier it would be to withstand the supply interruption from any given source, and that interruptions are less likely to occur. If significant amounts of crude oil were discovered outside of OPEC, it would tend to increase the overall security of supply. This would have the added benefit of tending to hold down the increase in the price of crude oil. If OPEC controls a smaller portion of the total crude supply, it will have less power to raise prices. For these reasons, exploration and development throughout the non-Communist world must be encouraged.

The international oil companies in the past have played a vital role in assuring the United States' security of supply. Robert B. Stobaugh, a noted Harvard professor, documents the role of the international oil companies during the 1973 oil crisis in his paper, "The Oil Companies in the Crisis." He concludes that, even in the absence of an international oil-sharing agreement, the oil companies did an efficient and fair job of allocating scarce crude oil to the importing nations. It is important that United States-based oil companies be able to maintain their presence in the international markets because they provide the necessary diversity of supply which ensures that the United States will continue to have access to imported oil. That is why

it is in the national interest for U. S. policies not to impede U. S. oil companies in their operations throughout the world.

The United States is one of the few developed nations which taxes the overseas earnings of its citizens, both corporate and private. The United States avoids "double taxation" -- that is a tax in the country of operation and a tax on the same income by the United States -- through the foreign tax credit. Eliminating or restricting the foreign tax credit by legislation or regulation so that foreign production income is taxed by the United States and the country of production will put U. S.-based corporations at a competitive disadvantage vis-a-vis multinationals based in other countries. In addition, other OECD governments subsidize the overseas oil exploration efforts of their domestic corporations -- Japan and the Federal Republic of Germany through a system of loan guarantees and interest subsidies, and France through tax shields. Until now, the foreign tax credit has mitigated the effects of these differences in tax policies and allowed U. S.-based oil companies to compete effectively abroad. If, however, U. S. international oil companies cannot maintain their competitive position, the sources of supply for oil imported to the United States will become increasingly insecure.

C. NEARLY THREE DECADES OF FEDERAL REGULATIONS

The petroleum industry has been under some form of price controls by the Federal Government for nearly three decades. In 1954 the Supreme Court decided that prices of natural gas were subject to regulation by the Federal Power Commission under the Natural Gas Act of 1938. In the early 1960s, the Federal Power Commission revised its basis for determining prices and further restrained natural gas prices. Consequently, the completion of new gas wells reached a peak in 1962 and by 1968 had declined by 41%. Table 3 illustrates the pattern of reserve additions in the period 1966-1975.

TABLE 3

UNITED STATES GAS RESERVE ADDITIONS

1966-1975

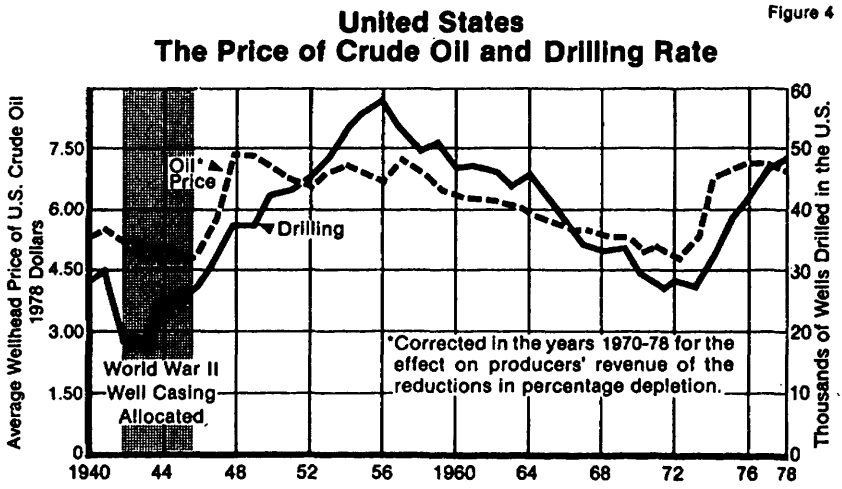
	Gas Reserve Additions - Trillions of Cu. Ft.		
Year	Total	Committed to Interstate	Committed to Intrastate
1966	14.8	10.0	4.8
1967	14.8	9.9	4.9
1968	9.8	6.4	3.4
1969	9.6	6.2	3.4
1970	11.3	3.5	7.8
1971	11.1	2.2	8.9
1972	10.7	5.0	5.7
1973	10.1	1.7	8.4
1974	9.7	2.4	7.3
1975	10.0	1.3	8.7

Note: Data from FPC Opinion 770A, P. 116.

During this time reserve additions committed to the interstate market declined steadily, while reserves dedicated to the intrastate market climbed. This was because intrastate gas had no price regulations and gas could be sold at prices which took into account replacement cost. There was no shortage of natural gas in the intrastate market, while the interstate market was suffering from steadily declining gas availability.

Figure 4 illustrates the historical relationship between the real price of crude oil and the number of wells

Figure 4



drilled in the U.S. During World War II, oil prices were frozen at about the pre-war level. When the controls were removed in 1947, the real price of crude rose about 50% in two years and remained at about the same level for a decade. Measuring from 1946 (because steel was allocated, depressing drilling 1942-1945) the drilling rate increased sharply; the increase lagged the price increase but continued on upward after the price leveled out. This 1947-1956 drilling boom created a surplus productive capacity of several million barrels per day in the United States.

In 1959 a mandatory oil import control program was imposed. This program tended to set a ceiling on prices. Section 6 of Presidential Proclamation 3279 dated March 10, 1959, provided that the Director of the Office of Civil and Defense Mobilization would maintain a constant surveillance of the program and specifically said "...in the event prices of crude oil or its products or derivatives should be increased after the effective date of this proclamation, such surveillance shall include a determination as to whether such increases are necessary to accomplish the national security objectives." This provision resulted in warnings against increases in the price of crude oil and investigations when prices were raised. From 1959 to 1972 the real price of crude oil declined 21%.

From 1958 to 1972, as the real price of crude oil declined, drilling declined even more. Then in 1973, the average price of oil turned upward because of the effect of world prices on U.S. prices. By 1978, the average domestic oil price was nearly 50% above the 1972 level, after correction for the effect of eliminating percentage depletion.

Virtually all prices, including oil prices, had been frozen by the government in August 1971. Although price controls on other goods and services expired in May 1974, August 1973 legislation kept price controls on lower-tier (so-called "old") oil and on petroleum products. During 1974 and 1975 the price of upper-tier ("new") oil was free of federal controls, which led to an upturn in drilling during those years. Controls were imposed on upper-tier oil in December 1975, however, and they have remained until now in ever-increasing complexity.

Price controls have not been the only Federal impediment to domestic oil and gas production. Access to Federal acreage has been severely restricted, lease sales have been unduly limited, and unrealistic environmental stringencies have been imposed.

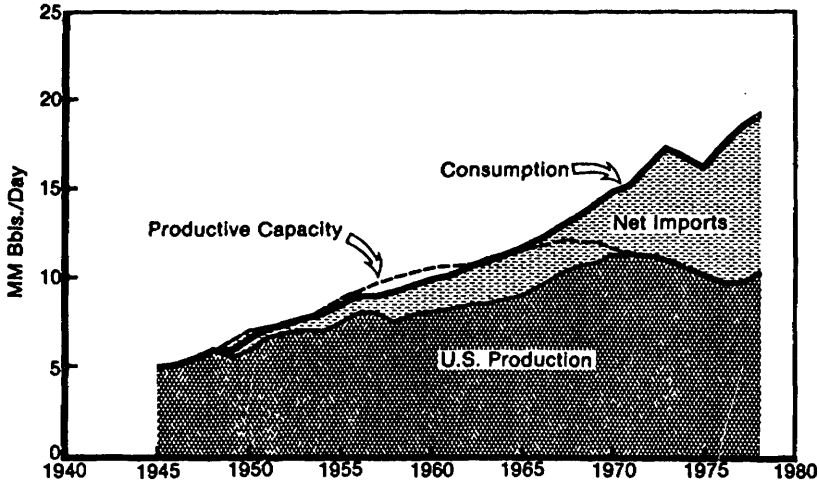
D. IMPORT EXPERIENCE AND OUTLOOK

The nation's dependence on oil has been growing for the past 30 years. In the mid-1950s, Middle East oil plus ocean freight to the U.S. East Coast was less than U.S. oil prices, and U.S. producers became concerned that imported oil would displace so much of U.S. production as to threaten the existence of the domestic producing industry. In 1957, a voluntary import control program was instituted and in 1959 a mandatory import control program was imposed.

Figure 5 shows some of the effects of this control program.

Figure 5

U.S. Petroleum Consumption, Production and Imports



In 1947, imports were 8% of U.S. demand. When the mandatory import control program was imposed in 1959, imports were about 18% of demand. From 1959 to 1969, imports were nearly stable as a percent of demand, reaching 22% in 1969. Today they amount to almost 50%.

These controls were imposed in the name of national security. They certainly were not a complete success, because, as Figure 4 illustrated, drilling declined steadily and by 1970, the United States was out of spare productive capacity and has been producing at capacity since. United States consumption has continued to increase, so since 1970 imports have increased to nearly one-half of consumption. In 1973, when producing country governments pushed the price of foreign crude above that of U.S. crude, the import controls were not needed for national security and could no longer be used to control oil prices, so the program became obsolete.

Table 4 shows that since 1973, imports have continued to be an even larger drain on the U.S. economy, and our dependence continues to grow.

TABLE 4

THE VOLUME AND COST OF U.S. PETROLEUM IMPORTS

	Petroleum Imports	% of U.S. Demand	Cost of Imports
1973	6,256 MB/D	36%	$ 8.4
1974	6,112	37	26.6
1975	6,056	37	27.0
1976	7,313	42	34.6
1977	8,724	47	45.0
1978	8,108	43	44.7
1979 Est.	8,500	45	52.0

Since 1973 crude oil production in the lower 48 states has continued its decline, unabated. The only major bright spot in the domestic crude oil production picture was Alaska's North Slope. This field was brought onstream during 1977 and temporarily halted the decline in U.S. production. Yet even this landmark had to be accomplished in the face of intense opposition to the Alaskan pipeline.

Because of our high dependency, and the long lead times involved, the outlook is that we will continue to be dependent on imports, at least for the near term. From the published studies shown in Table 5, there seems to be a consensus that the United States will be dependent on foreign oil for at least some time in the future, but the point cannot be overemphasized that any increase in domestic supply reduces this dangerous dependency.

TABLE 5

FORECASTS OF U. S. PETROLEUM IMPORTS

Energy Forecast	Estimated Imports Millions of Barrels Per Day 1985	1990
Congressional Research Service[1/]	11.8	12.9
Exxon - May, 1978	11.7	11.4
Shell - July, 1978	--	11.3
National Energy Plan, 1977	11.5[2/]	--
National Energy Plan, 1977	7.0[3/]	--

[1/] Project Interdependence, November 1977, Reference Case

[2/] Without Plan.

[3/] With Plan.

E. DECONTROL IS LONG OVERDUE

President Carter in his 1977 Energy Plan called for a major change in U.S. energy policy when he said energy prices should generally reflect the true replacement cost of energy. This raised the hope that the short-sighted "cheap energy" policy which had been in effect for 25 years or longer had ended.

Crude oil price controls have been in effect since 1971. They increase demand and discourage supply development, and they should be abandoned. The track record speaks for itself. We are now more dependent on foreign oil and paying more for it than ever before. In the short term, increased prices will curtail demand; in the longer term, they will increase conventional supplies and provide the needed incentive to develop the alternate fuels we will badly need.

The state of U.S. dependence on foreign crude is the result principally of the onerous price controls and other government restrictions that the U.S. oil industry has labored under for the last quarter century. The number one issue today has to do with domestic crude-oil prices, which are being artificially held below world levels, thus discouraging domestic energy development.

At the same time, both H.R. 3919 and the President's proposal for a so-called "windfall profits" tax are counterproductive and unnecessary. For one thing, more than half of any incremental increase in domestic petroleum prices would be returned to governments in the form of existing income taxes, severance taxes, and royalties; for another, the increased earnings accruing to oil companies would provide cash flow to finance increased domestic exploration for and production of oil and gas.

F. ENERGY SUPPLY AND DEMAND SITUATION

1. Current Situation

The energy supply picture in the United States improved briefly in early 1978. With the flow of oil from Alaska's North Slope increasing in early 1978, imported crude and product volumes declined. As the year progressed, however, gasoline demand surged, North Slope production reached maximum deliverability, and production from "lower-48" reserves continued their decline. This resulted in a return to increasing levels of crude and petroleum product imports. Full year imports of 8.1 million barrels per day accounted for 43% of the country's oil consumption. With imports expected to increase by 5% in 1979 and the recent price hikes by the OPEC nations, the U.S. bill for imported petroleum in 1979 could easily exceed $50 billion, up from $45 billion last year.

Natural gas production continued to decline in 1978, despite surplus producing capacity in the intrastate market The American Gas Association (AGA) reported that production was 19.3 trillion cubic feet (TCF) in 1978 down from 19.4 in 1977. The Natural Gas Policy Act of 1978 may or may not help to alleviate this decline. Although it allows for somewhat higher ceiling prices for newly found gas and provides for phaseout of the price controls for this gas by 1985, the Act is incredibly complex and extends

Federal regulations and price controls to an area which had never before been touched--that is the intrastate gas market.

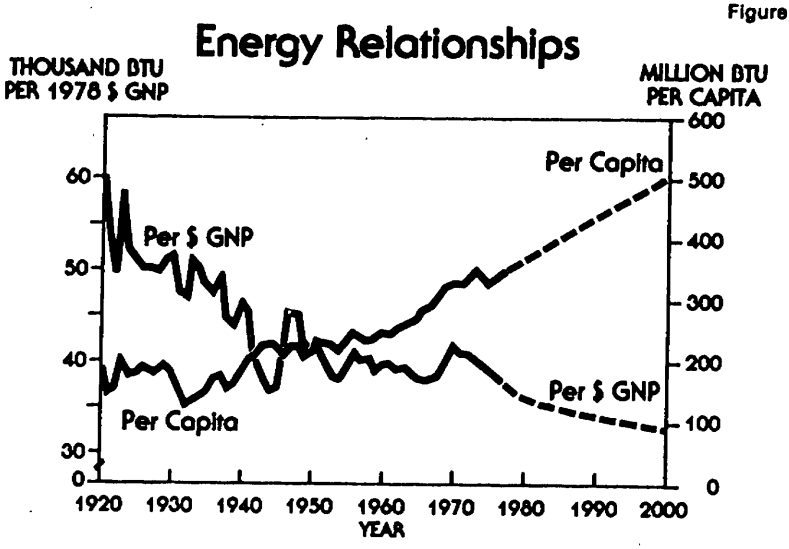
In the area of coal, 1978 saw the longest strike in recent coal mining history and a generally soft market for coal as environmental constraints limited demand. For the year, production was down 5% from 1977. More serious was the uncertainty facing producers as various unknowns remained to cloud the horizon including mining regulations for both surface and underground mines, air quality standards for both producers and users, and safety requirements.

Nuclear energy did show some growth in 1978 as 3,000 megawatts capacity was added.

2. Conservation and the Pattern of Energy Use

It is enlightening and instructive to begin our discussion of energy use by examining some historical data. Figure 6 shows two primary energy demand relationships from 1920 to present.

Figure 6



How efficiently we use energy can be measured by the number of BTUs needed to produce one dollar of GNP. This is shown on the left-hand scale of Figure 6. In 1920, approximately 60,000 BTUs were required to produce one dollar of GNP (1978 $). During the 1920s and the 1930s, this ratio generally declined and reached a low point of 36,000 BTUs per dollar in 1944. This was a period when we were moving away from coal to oil and gas. The direct burning of these fuels is considerably more efficient than is the use of coal. During this period there was also considerable improvement

in power generation technology. The heat rate, the number of BTUs of primary energy needed to generate a kilowatt-hour of electricity, declined from 25,000 to 11,000 BTUs. There have been few significant changes in how we use energy since that time, and energy requirements to produce GNP settled around the 40,000 BTU/$ GNP ratio during the 1950s. It rose sharply during the period 1968-1972 when there was a sharp increase in the number of new houses using electricity for heating purposes. It was also a time when families were buying second cars and gasoline demand was growing at 5% per year. Since then, due to price increases and conservation, the rate has declined. Most projections of future energy use show some further improvement even though major technological changes like those that occurred in the 1930s and 1940s cannot be foreseen. As a matter of fact, as we increase the use of coal for power generation, primary energy requirements will increase at a faster rate than otherwise since this results in conversion losses of close to 70%. In the longer term, conversion losses will also increase as we convert coal into more usable energy forms such as synthetic gas and liquid fuels. One possible extrapolation of the 50-year trend is shown by the dashed line which continues the decline in the energy-GNP ratio although not at as fast a rate as was experienced historically.

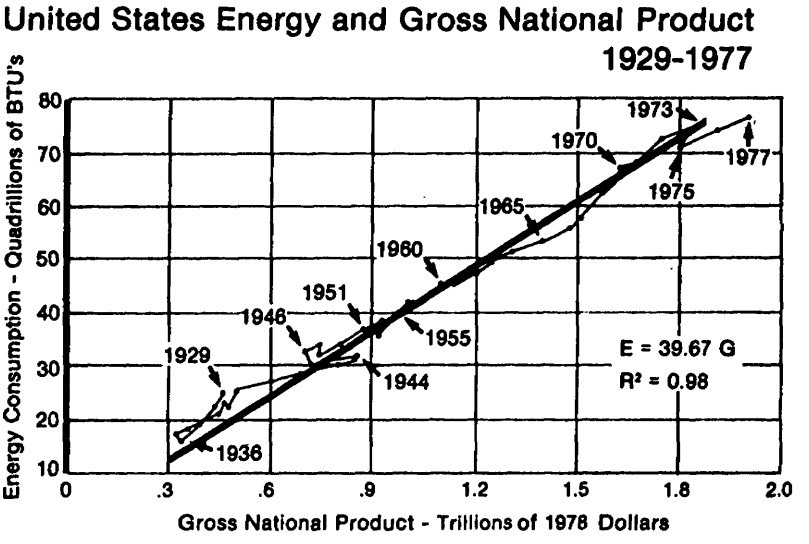
The right-hand scale of Figure 6 is another important energy related ratio, primary energy consumption per capita.

As is observed, energy consumption per capita has been increasing since the depression years (2.6%/yr. for the period 1933-1973) and without much deviation from the trend line. A possible projection of this ratio continues the increase although at lower growth rates because of greater conservation efforts, efficiency improvements, technology improvements, and approaching saturation levels in devices for personal use such as hair dryers, air conditioners, and appliances.

The single most important determinant of total energy demand is the size of our economy. This is illustrated by the linear relationship between energy and GNP shown in Figure 7. The relationship is not perfectly linear because, among other things, efficiencies have been increasing over time as illustrated in Figure 6.

During the 20-year period 1953-1973, energy consumption grew at an annual rate of 3.7% per year, almost a direct one-to-one relationship to GNP growth of 3.6% per year. The United States, as well as any other developed country, needs energy to support its economic growth. Without energy we cannot expect to maintain, let alone improve, our standard of living and achieve other national goals, including providing jobs and taking care of the poor and disadvantaged. Figure 7 illustrates the linear relationship of energy and GNP.

Figure 7



Throughout the time from 1929-1977 there were depressions and wars as well as periods of strong economic growth. During all this period, there is a very precise relationship between energy use and economic growth. Statistically, over 98% of the variations in energy use are accounted for by changes in GNP.

Energy growth, and economic growth, are needed since these appear to be the solutions to coping with many specific social and economic conditions such as unemployment and

inflation. Economic growth is needed to employ our growing work force and increased labor productivity will lower inflation--neither is apt to occur without an adequate energy supply. Coupled with these are national security concerns.

Conservation needs to be a part of any national energy policy, but history tells us that the "market" is the best allocator and it will cause conservation to happen.

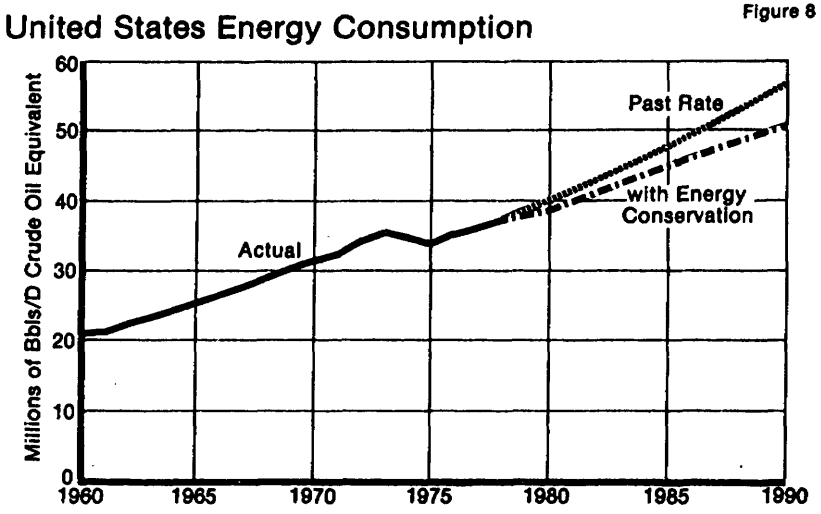
There are countervailing forces at work in regard to energy conservation and its efficient use. Since the United States has an abundant supply of coal, increased use of coal is a desired objective. But unless we are willing to return to coal stoves, the coal will be converted to electricity and this conversion process loses, not saves, primary energy. Cleaning up the environment is likewise a desired national objective, but it also results in use of energy without a direct output of economic goods when compared to past practices.

3. The Future

Forecasts of future energy demand must take the above considerations into account. With rising energy prices, most energy projections are based on the assumption that we will not continue to have this one-to-one relationship in

the future. Perhaps we can sustain an economic growth rate of 3.6% per year, and an energy growth rate of 2.7% per year. Figure 8 illustrates how a break from the historical

Figure 8



one-to-one relationship would affect energy demand. By 1990 conservation would have accounted for a 6 million barrel per day reduction in energy demand. Since this volume would represent a reduction in crude oil imports, it is significant. With higher prices it is certain that energy conservation

will take place. There is still a great deal of debate over the amount of conservation that can or will occur. One thing is clear, however, that is that our needs for energy are increasing while domestic supplies of conventional oil and gas are declining. Let us now examine the outlook for our energy supplies.

Petroleum is and will continue to be our most important source of energy. It supplies one-half of our energy needs. Domestic production of crude oil was 8.7 million barrels per day in 1978, natural gas liquids added another 1.6 MMB/D. However, production exceeded additions to proved reserves. The API estimated proved reserves of crude oil in the United States to be 27.8 billion barrels on December 31, 1978. This is equivalent to about nine years production at current rates.

This is not to say that there is little or no oil left in the United States. The United States Geological Survey in its Circular #725 estimated that inferred reserves, that is, extensions and revisions of known fields, are 23 billion barrels. In addition, the USGS estimated that undiscovered, recoverable oil resources range from 50-127 billion barrels with a mean of 82 billion barrels. These estimates indicate that there is indeed oil there to be found if the oil industry can be given the necessary incentives. Studies estimated that there are 30 billion barrels of oil present in

known reservoirs that tertiary recovery techniques might recover.

Natural gas is our second largest energy source and accounted for about 25% of our energy needs in 1978. Domestic production accounted for 95% of total natural gas consumption.

The AGA estimated proved gas reserves to be 200.3 TCF on December 31, 1978. This is equivalent to 10 years of consumption at current rates.

The USGS in its 1975 study estimated the additional amount of natural gas resources to be as follows: inferred reserves of 202 TCF and undiscovered recoverable resources of 322 to 655 TCF with a mean of 484 TCF. Here again the volumes of this resource necessary to carry us into the 21st century are available. Finding and producing these reserves will cost more and more as deeper wells in less accessible areas are drilled.

By far, the nation's largest energy resource is coal. The U.S. Bureau of Mines' estimate of the reserve base is 435 billion tons of economically mineable coal. At a 50% recovery rate this is equivalent to more than 300 years of production at current rates. Although some people point to

coal as the answer to our energy problems, there are difficulties to be resolved before increased coal production can significantly help us. Many of these difficulties are institutional and include mining and safety issues, EPA clean air standards, transportation issues, and access to coal resources located on public lands. In spite of these difficulties, coal production will increase over the next 20 years. The bulk of the increase will go to power plants as demand for electricity is likely to increase at rates greater than total energy demand. President Carter's 1977 goal of 1.2 billion tons of coal production in 1985 is probably not attainable. Production volumes of 850-900 million tons in 1985 are likely. By 1990, the 1.2 billion ton figure is attainable, if the issues raised earlier are resolved satisfactorily. The turn of the century could see coal volumes as high as 2.0 billion tons per year if synthetic fuels become competitive.

The last major fuel currently in the U.S. energy picture is uranium. The short-term outlook for nuclear fuel is at best clouded although in the longer term, growth in the use of this resource must occur. Hopefully, by the mid-1980s, adequate safety requirements and licensing procedures could be in place so that nuclear power can achieve its proper place in America's energy future.

G. ALTERNATE ENERGY SOURCES

Although domestic resources of oil, gas, coal, and uranium, are large and obviously adequate to carry us into the 21st Century, some discussion is warranted about other alternative energy sources. For this discussion we will define alternative energy sources as those not presently being produced on a commercial scale. Some of the more likely sources to play a role in the U.S. energy picture in the 21st Century are shale oil, nonconventional gas, and deep offshore oil and gas. Coal liquefaction and gasification is also likely to occur. Other possibilities include solar, biomass, fusion, and wind.

Quite obviously, the following descriptions are hedged in numerous uncertainties and assumptions. They represent possibilities that are subject to many influences and time delays. Technology developments and unforeseen problems are likely to occur and could have unpredictable effects on the outcomes. One thing does seem certain, however, and that is they will all be more costly.

Oil shale is perhaps the best known of the alternative energy sources. High-grade recoverable resources are estimated at 150 billion barrels, five times our current proved reserves of crude oil. The total oil shale resource

base has been estimated to be 1,800 billion barrels. Technology to produce oil from shale is known and has, in fact, been demonstrated in the United States and other countries. As with many alternative resources, the problem is economics. Work is presently going on to improve technology and develop various retorting schemes. Other problems include upgrading to refinery feedstocks, transportation, and environmental concerns.

Nonconventional gas resources include gas from coal seams, geopressurized zones in the Gulf of Mexico, Devonian shales in Appalachia, and tight sands formations in the Rocky Mountains. Each of these energy sources shows a large resource base. Each of these resources will also prove to be technically difficult to exploit. Geopressurized gas resources are estimated to be from 3,000 to 50,000 TCF. The nature of these geopressurized gas formations is, however, largely unknown. It may prove impossible to produce any but a small fraction of these resources. Rocky Mountain tight sands gas resources are estimated to be 600 TCF. Gas from the Devonian shales is estimated to be 300 to 800 TCF and could aid the eastern United States by supplying needed gas after the turn of the century. Preliminary economics on these resources indicate prices needed to produce this gas range upwards of twice the present cost of conventional gas.

Deep offshore oil and gas resources are located in water depths of 200 to 1,000 meters. These resources are in much deeper waters than most current offshore production. Special production and transportation techniques will have to be developed to solve the problems associated with their development. These oil and gas deposits will undoubtedly be more expensive to exploit than current conventional ones.

Coal synthetics, liquids and gases, might be the most likely alternative fuel supplies to surface in the next quarter century. Our huge coal resource base provides us with economically available feedstock. The conversion to synthetics will provide us fuels that fit our present preference for liquids and gas and allow for efficient use of our already in-place distribution network. Still, the capital requirements for a commercial liquefaction or gasification plant range up to $1 billion or more. Other problems include environmental damage to clean air at the plant site, transportation from plant to markets, and the problems previously discussed with regard to the mining of coal.

Solar energy has its place in our future. It is now used regionally for space and hot water heating, including some commercial applications, although not on a very large scale. Future use will likely grow as heat transfer and storage problems are solved, as technology improves and

production costs are lowered. Still, the regional limitations and the dependence on sunny days will limit solar's contribution. The other potential use for solar is direct generation of electricity by photovoltaic cell. Work is currently being done in this area but estimates for large-scale competitive electricity from this source indicate extensive commercial feasibility is still somewhat down the road. Currently, this application is being used as the power source for some remote locations.

Energy from biomass is really a form of solar energy because plants use the sun's energy to grow. It includes a whole range of prospects such as the use of gasohol, the burning of municipal waste, and the production of methane from animal waste. Currently, there are several of these processes which are marginally economic. A plant in Saugus, Massachusetts, burns municipal waste and generates commercial steam. However most are currently uneconomic. The other alternative energy sources, including fusion and wind, are not likely to affect our energy picture until the mid-21st century or beyond.

The future of these alternative energy sources is unclear. At the present time they are at best marginal. That is why they currently play such a small role in our energy system. Some of the ones discussed here will prove to be impossible to develop for technical reasons. Some may

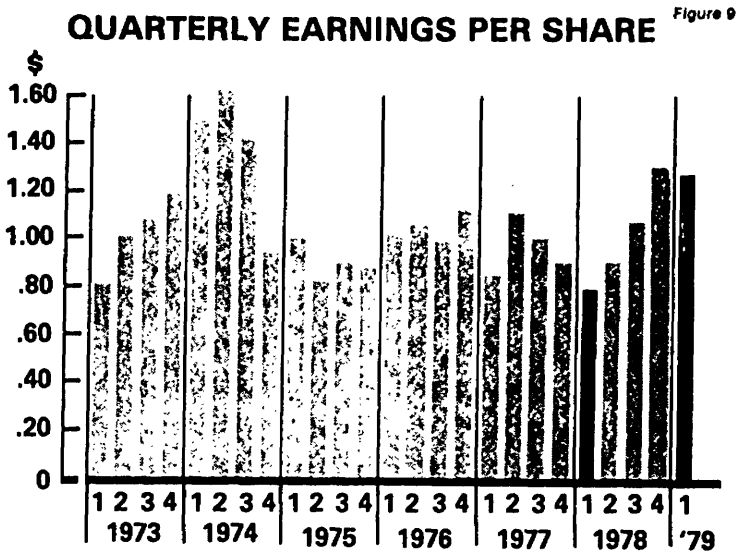
never become economic. There may be a technological innovation which would bring on a source that is not currently being considered. For these reasons it is vital that the research in these fields be expanded.

It is important that there be a strong and healthy energy industry which will be able to respond to changing conditions and underwrite the huge investments that will be necessary to allow us to change the way in which we use energy. We will need some of these higher-cost resources before the 21st century. Therefore, we must move toward the higher prices needed to commercialize them.

H. PETROLEUM INDUSTRY PROFITABILITY

Industry profitability has received a great deal of attention recently. Much of the focus has been on 1979 first quarter profits with comparisons being made with those of the 1978 first quarter. Such quarter-to-quarter comparisons are frequently misleading, and this is particularly true with the current first quarter profits of the petroleum industry. In Gulf's case, for example, as shown on Figure 9, earnings for the first three months of 1978, the quarter for comparison, were the lowest Gulf reported over the past six years. In contrast, as the chart also shows, if a quarterly comparison had been made to the last quarter of 1978, a decrease in profitability would have resulted. Not just for Gulf but for the petroleum industry generally, the 1978 first quarter was depressed. Consequently, comparisons with that quarter only have shown substantial increases for the first quarter of 1979.

It is not unlikely that this same misleading effect will continue in the comparison of second quarter profits. Again, for Gulf, as shown in Figure 9, the second quarter of 1978 was one of the lowest of the past six years.



If quarterly comparisons are to be made, underlying data should be examined to determine the factors leading to significant increases (or decreases) in profitability. In the case of the international petroleum companies, for example, the first quarter 1978 profits were depressed by underutilization of foreign refining capacity and the weak position of the U.S. dollar. In 1979, both these conditions were reversed and although available information is not complete, it would appear that these two factors alone may have contributed to more than half of the quarterly increase.

A much more significant indication of industry profitability would be a comparison of the industry's return on investments with those of other industries. The most frequently utilized measure of profitability is return on shareholder's equity (ROSE), wherein profit is calculated as a percent of a stockholder's investment. With respect to first quarter 1979 profitability, the ROSE of 23 leading oil companies remains below that for nonoil firms. For oil companies, the first quarter profits indicated an annualized return of 17.9%, whereas nonoil companies reported a return for the first quarter of 1979 of 18.3%. Table 6, based on preliminary Citibank figures, shows petroleum industry return on equity was 14.3% for the full year 1978 as compared to 15.9% for all manufacturing. The chart also shows that the petroleum industry has been below all manufacturing for the last three years.

TABLE 6

NET INCOME AS A PERCENT OF NET WORTH

TEN YEARS, 1969-1978

Year	Petroleum	Total Manufacturing
1969	11.9%	12.4%
1970	10.9	10.1
1971	11.2	10.8
1972	10.8	12.1
1973	15.6	14.9
1974	19.6	15.2
1975	13.9	12.6
1976	14.8	15.0
1977	14.0	14.9
1978	14.3	15.9

Source: Citibank, "Monthly Economic Letter," April of each year.

In terms of absolute profits of the industry, even a comparison of first quarter profits as far back as the year 1974 would show a modest 8.1% annual increase, but if these same quarterly comparisons are made as in Table 7, the growth in real terms would be only 0.5%. In Gulf's case, as illustrated by Figure 10, profits, as adjusted for inflation, have actually decreased for the last six years.

TABLE 7

FIRST QUARTER PROFIT GROWTH
OF 23 LEADING PETROLEUM COMPANIES

FIVE YEARS, 1974-1979

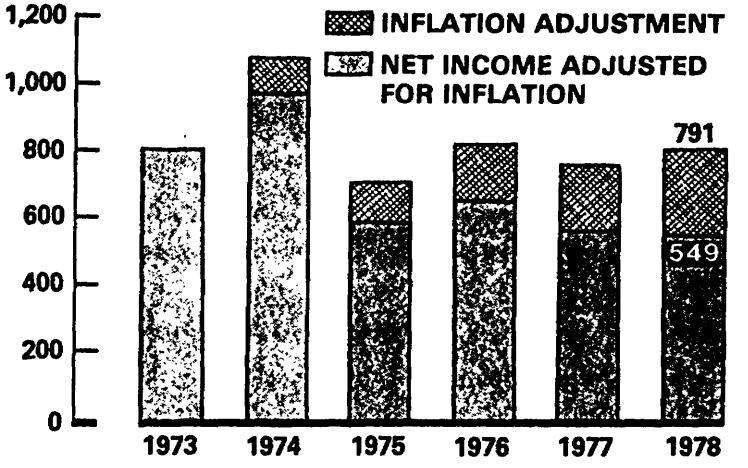
(Dollar Amounts in Millions)

First Quarter	Current Dollars	Constant Dollars
1974	$2,965.5	$2,658.2
1975	2,090.5	1,683.0
1976	2,756.2	2,097.6
1977	2,803.5	2,027.6
1978	2,767.8	1,881.6
1979	4,370.6	2,726.5 (Est.)
% Change, 1974-1979	47.4%	2.6%
	(8.1% per annum)	(0.5% per annum)

Figure 10

NET INCOME ADJUSTED FOR INFLATION

MILLIONS OF DOLLARS

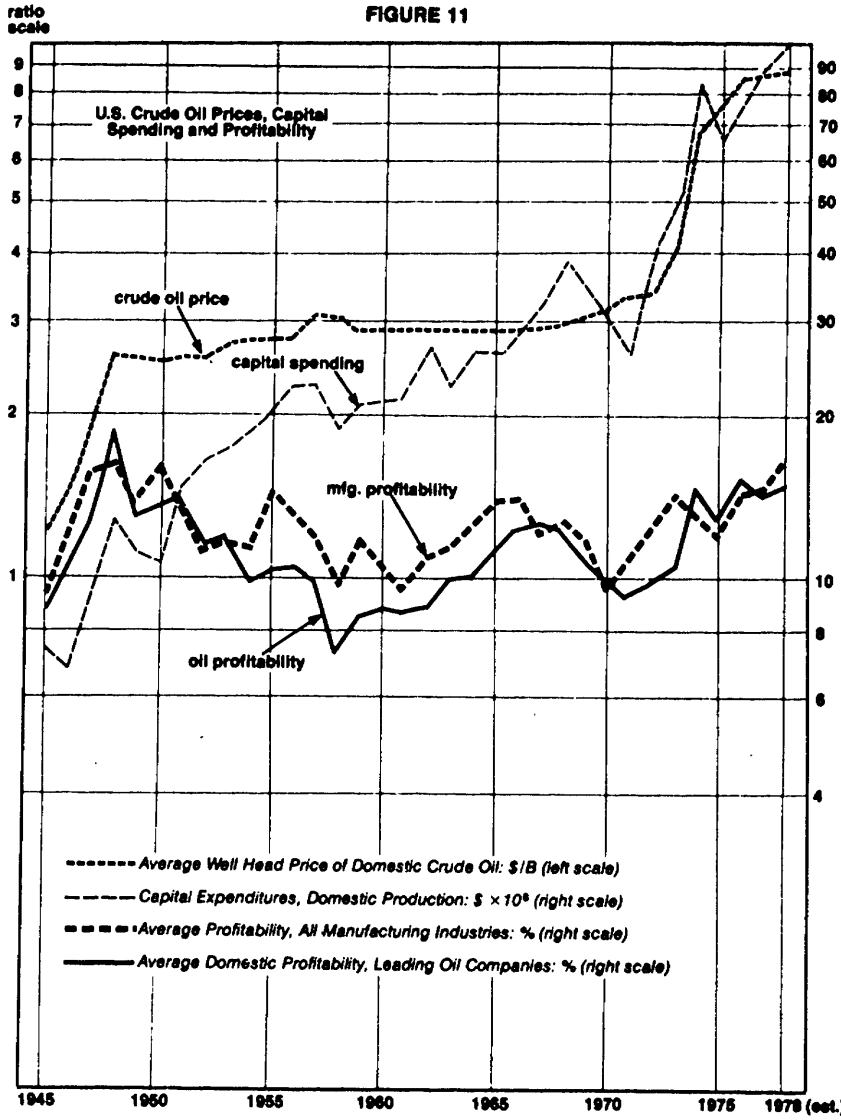


I. INDUSTRY INVESTMENTS

The prior discussion has attempted to dispell the misunderstandings concerning certain comparisons of industry profitability. The importance of industry profitability, however, cannot be overstated, for without profits it will be impossible to achieve the high level of expenditures required for an adequate domestic energy program. Not only profits, but cash flows play an important role with respect to the level of capital expenditures. As Figure 11 graphically shows, there is a very pronounced relationship between crude oil prices and capital spending. Prior to the 1973 oil embargo, industry capital spending roughly tracked the price of crude oil (and profitability) but in subsequent years it has substantially exceeded profitability.

The recent quarterly reports of some of the companies are illustrative of the industry's continuation of this investment pattern. For example, thirteen companies indicated first quarter 1979 capital and exploration expenditures of $4.8 billion or $1.4 billion greater than their combined income of $3.4 billion.

FIGURE 11


ratio scale
U.S. Crude Oil Prices, Capital Spending and Profitability
crude oil price
capital spending
mfg. profitability
oil profitability
Average Well Head Price of Domestic Crude Oil: $/B (left scale)
Capital Expenditures, Domestic Production: $ ×10⁸ (right scale)
Average Profitability, All Manufacturing Industries: % (right scale)
Average Domestic Profitability, Leading Oil Companies: % (right scale)
1945
1950
1955
1960
1965
1970
1975
1978 (est.)

In Gulf's case, Figure 12 shows that investments for capital and exploration expenditures have exceeded net income in all years since 1974. Figure 12 also shows that more than two-thirds of Gulf's expenditures have been invested in the United States and, in fact, U.S. investments alone have exceeded worldwide earnings since 1974.

Figure 12

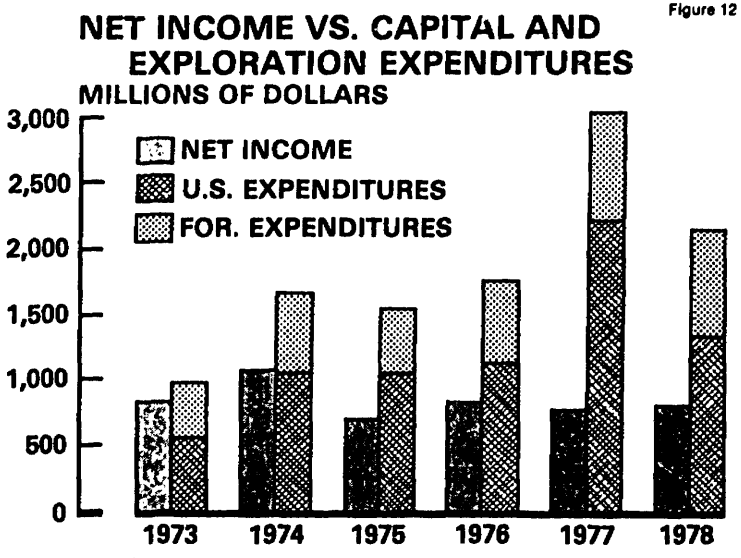


Table 8 shows a similar pattern on an industry-wide basis. Capital expenditures have exceeded net income by virtually two to one in the more recent years (1974 on). Table 8 also illustrates the substantial rise in long-term debt of the industry, which is not surprising in view of the substantial capital expenditures that have been undertaken.

TABLE 8

NET INCOME, DEBT AND CAPITAL EXPENDITURES
FOR A GROUP OF 27 PETROLEUM COMPANIES*

Term Year	Return on Equity	Net Income	Capital Expenditures	Ratio of Capital Expenditures to Net Income	Long-term Debt
	(%)	($ Bil.)	($ Bil.)		($ Bil.)
1972	9.4	6.9	13.2	1.9	21.9
1973	14.0	11.7	14.6	1.3	22.7
1974	17.3	16.4	22.9	1.4	25.6
1975	12.0	11.5	25.0	2.2	30.6
1976	12.9	13.1	26.8	2.1	36.2
1977	13.0	14.4	28.0	1.9	39.9

*The Chase Manhattan Bank

The investment pattern of the industry is assurance to the American public that the industry will spend any increased earnings from decontrol in the continued search for energy in the United States. It is noted that already a number of petroleum companies have spoken out on this issue and so pledged decontrol revenues. In the case of Gulf, the 1979 capital budget for exploration and production expenditures in the United States has been increased by $100 million, substantially more than the net income anticipated from the Administration's decontrol program.

BACKGROUND STATEMENT OF E. L. WILLIAMSON, PRESIDENT, THE LOUISIANA LAND & EXPLORATION CO., IN BEHALF OF AMERICAN PETROLEUM INSTITUTE, MID-CONTINENT OIL & GAS ASSOCIATION, ROCKY MOUNTAIN OIL & GAS ASSOCIATION, AND WESTERN OIL & GAS ASSOCIATION

Executive Summary

STATEMENT OF E. L. WILLIAMSON

Introduction: Events of the past two years have made it abundantly clear that the U.S. must move rapidly to reduce its heavy dependence on imported oil. Conserving energy and developing supplemental fuel sources can help us reach that goal, but the quickest and most reliable approach is to do all we can to increase domestic oil and gas production. To do that, this country must: eliminate government price controls on domestic petroleum production; revise environmental rules to facilitate energy production, transportation and consumption; and make potentially productive publicly owned lands, onshore and offshore, available for exploration and development.

Domestic oil is more valuable than imported oil: The real value of domestic oil to the U.S. economy is greater than an imported barrel at the same price, in that it adds to security of supply and at the same time guarantees that some transfer payments, such as state and local severance taxes will remain in the U.S.

Much more oil and gas can be found: All the really knowledgeable studies indicate that this country can still find and produce substantial amounts of oil and natural gas -- perhaps 40 times current annual production. How much and how soon will depend on many factors including pricing, incentives for investment, technological progress, the availability of new areas to explore, and the overall political and economic climate.

Geologists believe most of the really large discoveries of the future will occur in frontier areas onshore and offshore, many of which have never been made available for exploration. These include the Outer Continental Shelf and publicly owned lands in the West and Alaska. Recent experience also proves that significant amounts of oil and gas can be found in mature producing provinces through drilling deeper and using modern technology. Large amounts of oil and gas in known fields have not been economically feasible to produce under price controls but may become producible as controls are phased out.

Decontrol is a key factor: Removal of federal price controls on domestic crude oil production, as scheduled by the President, is an important step toward an accelerated drilling and production program. Drilling and production costs will be high, whether producers are exploring new frontier areas, drilling deeper in older areas, or keeping existing fields active over a longer period of time. The amounts of oil and gas produced will

be related directly to the prices at which they can be sold. Any reduction in incentives, such as the imposition of new taxes, would reduce the amount of oil and gas available to American consumers.

Greater effort will be needed: Even under the heavy impediment of federal controls on oil and natural gas prices, domestic producers have increased exploration and drilling in the past five years. In 1978, more than 47,000 wells were drilled in search of oil and gas in the U.S. -- a gain of 77 percent over the number completed in 1973, the year of the embargo. Oil companies have increased their capital spending and gone deeper into debt to achieve these results. A much greater exploration and production effort can be undertaken if the industry has the necessary incentives for investment and risk-taking and if it has access to areas of high potential.

The oil companies will reinvest their earnings: History demonstrates convincingly that when oil companies' revenues have increased, they have used their cash flow to do more exploration and have borrowed more money to develop energy resources and bring them to market.

More drilling will bring on more production: Major increases in oil production cannot occur overnight. The quickest response will probably be seen in existing fields as improving prices make it economic to produce petroleum which was not producible under controls. Exploration and development of new areas will take longer -- up to several years in remote frontier areas. Several oil companies believe that by the mid-1980's, U.S. oil and gas production can be increased by the equivalent of 1.5 million barrels a day, compared to production under continued controls. This assumes reinvestment of incremental revenues resulting from decontrol without new taxes and the attraction of additional funds from outside the industry.

Realistic pricing also is expected to encourage more energy conservation, resulting in a saving of 500,000 barrels a day of oil by the mid-1980's, compared to consumption under continued price controls. The combination of more production and less consumption could make a difference of 2 million barrels a day in U.S. oil imports by the mid-1980's.

We must balance environmental goals and energy needs: Overly strict environmental laws and regulations are hampering the discovery and development of oil and natural gas as well as newer forms of energy. In the light of today's changed circumstances, those laws and rules must be re-examined and -- where necessary -- revised to achieve a balance between environmental goals and energy needs.

Mr. Chairman and Members of the Committee, my name is E. L. Williamson. I am president of The Louisiana Land and Exploration Company with headquarters in New Orleans, Louisiana. I have been with that company for the past 25 years and have been its president since 1974. I have been directly involved in exploration and production activities for the past 29 years.

I am here today to testify on behalf of the American Petroleum Institute, the Mid-Continent Oil & Gas Association, the Rocky Mountain Oil and Gas Association, and the Western Oil and Gas Association. The members of these organizations engage in all aspects of oil and gas operations and account for upwards of 90 percent of domestic oil and gas production.

When I appeared before the Senate Finance Committee two years ago, my colleagues and I emphasized that we shared the concern of the President and the Congress over this country's energy supply problems. We stressed the need for energy conservation and for more efficient use of all forms of energy. We

urged that this country move ahead rapidly to develop new forms of energy and to expand the use of this nation's abundant reserves of coal.

At the same time, however, we pointed out that the economy of the United States was built upon adequate supplies of oil and natural gas. While endorsing the development of new forms of energy, we pointed out that they are not likely to make really significant contributions within the next several years. That means that oil and gas must continue to be our principal energy sources for a considerable time to come.

Two years ago we noted that this country has become dependent on imported oil to a dangerous degree and that this high level of dependency is weakening the U.S. economy and endangering its security. We called attention to the fact that significant amounts of oil and natural gas can still be found and produced in the United States. We urged the federal government to remove price controls from crude oil and natural gas so that their prices could reflect the full cost of replacing those resources. We urged that federal onshore and offshore areas be made available for exploration by the private sector on a timely and adequate schedule. We also urged the government to act to assure the creation of a stable economic climate that would attract investment in petroleum and other energy sources.

We pointed out that large increases in capital expenditures will be necessary in the years ahead and that the imposition of

heavy new taxes on domestic petroleum production would make it much more difficult to meet the nation's energy needs.

The events of the past two years have not altered the validity of what was said here in September of 1977. On the contrary, they have made it abundantly clear that this nation must move rapidly to develop its own oil and gas resources more intensively. Oil and natural gas are supplying three-fourths of all the energy used in this country, and nearly half of our oil supplies are imported.

As you know, the revolution in Iran resulted in a total cutoff of oil exports from that country in December 1978. Iran resumed oil exports in March at a lower level. The current government of that country has set a production ceiling more than 2 million barrels a day below the pre-revolutionary level. The worldwide crude oil shortfall resulting from those events amounted to between 1.5 and 2 million barrels a day during the first half of 1979. Here in the United States, we imported 600,000 to 700,000 barrels a day less than had been anticipated.

The Iranian experience demonstrates the fact that it does not require a multi-nation embargo to affect energy supplies in the United States and in other parts of the world. Internal disturbances in one or more of the major oil-exporting nations can directly affect our daily lives.

In recent days we have received news that Saudi Arabia is increasing its production to make up part -- but not all -- of

the shortfall from Iran. It remains to be seen how much imported oil will be available to the U.S. in the months ahead.

Meanwhile, the Organization of Petroleum Exporting Countries (OPEC) has continued to increase its oil prices. OPEC's benchmark prices have gone up by about 60 percent since last December. The Administration estimates the current average OPEC price to be $20 to $21, up from about $13 late in 1978. That $7 to $8 increase is the same order of magnitude as the large OPEC increases in 1973-74. Before the most recent OPEC price increase, oil on the spot market was selling at prices ranging up to around $40 per barrel, compared to the official OPEC benchmark price of $14.55.

While the United States was paying high prices for foreign oil, government price controls were holding domestic producers to about $6 a barrel for lower-tier oil, about $13 a barrel for upper-tier oil, and an average of around $10 a barrel for all domestic oil.

The President has pointed out that the United States cannot control what other nations charge for their oil. It is equally true that our country cannot tell other nations how much oil to produce or dictate where they may sell it.

What we can do and must do, however, is to find and develop more oil and natural gas within our own country, so that we become less dependent on imported oil. The U.S. is the leading importer of oil in the world. If we can trim the amount we buy

on the world market, that will strengthen our own economy and will have a moderating influence on world oil prices.

My purpose in appearing before this Committee today is to present some up-to-date information on what the petroleum industry has been trying to do to increase domestic oil and gas supplies, what the industry will be able to do under phased decontrol that it could not do under price controls and what the results of these new efforts are likely to yield.

In the course of this statement, answers will be provided to several questions which are frequently asked. Among them are these:

o What is the real value of domestic oil in relation to foreign oil?

o Is there more oil and gas to be found and produced in the U.S. and beneath its Outer Continental Shelf?

o What are the oil companies doing about finding it?

o How much more production do the companies expect to achieve as a result of crude oil price decontrol?

o Where will the additional oil and gas be found?

o Can and will tne oil companies use the additional revenues from decontrol to increase domestic energy supplies?

To begin with the first question:

I. REAL VALUE OF DOMESTIC OIL IN COMPARISON WITH IMPORTS

The discovery of a new oil or gas field or, more importantly, a new producing province, can have a very positive effect on the nation's economy over a long period of time. Development

of such discoveries requires a variety of goods and services and creates employment not only within the petroleum industry but throughout the economy. Production of domestic oil and gas also supports all types of employment by assuring that supplies will not be interrupted by events outside this country. Increasing domestic production will make it possible to reduce oil imports and therefore reduce the U.S. trade deficit. This will help to stabilize the value of the dollar and combat inflation.

The Administration has recently contended before this Committee that "there is no economic reason for allowing producers of domestic oil to receive the world price of oil on their production." The stated rationale for this astounding proposition is that the world price is "set by a cartel well above the cost of production." (Emphasis added.)

There is no such thing as "the" cost of production. There is a spectrum of costs depending on the area, thickness, permeability, porosity, depth, and location of the petroleum reservoir -- or the richness of the coal, shale or tar sand deposits from which "synthetic" petroleum can be made. OPEC prices may be well above the cost of producing oil from existing reservoirs in the Middle East, but that does not mean they are above the high costs of U.S. frontier oil or syntnetics. The important fact is that there is oil that can be produced in this country at the world price which cannot be produced at a lesser price.

There is every economic -- and political -- reason for the United States to pay the world price for domestic oil, regardless of how or by whom that price is set. Domestic oil is economically and politically more valuable than imported oil at the same world price. Domestic supplies cannot be interrupted by foreign wars and revolutions.

Gasoline lines in 1974 and 1979 are object lessons in what can happen to a modern industrial economy which turns up short of petroleum by only a few percent. The economy would be crippled by a really severe reduction in imported petroleum, such as would occur if there were a repeat during the 1980's of the embargoes imposed in the Middle East wars of 1967 and 1973. In 1967, we had some spare capacity. In 1973, we were 36 percent dependent on imports. Today, we are almost 50 percent dependent on imported oil, with relatively less from the Western Hemisphere. Mitigation of economic crises resulting from petroleum supply interruptions gives added value to domestic oil which sells at a price equal to import prices. Similarly, domestic oil carries extra value because the independence of American foreign policy could not be impaired if we were only moderately dependent on oil imports.

Substitution of additional domestic oil for imports at the world price would also diminish the U.S. trade deficit and relieve a constant source of pressure on our total balance of payments position and the strength of the dollar. Many of the dollars spent for U.S. oil imports return either as payments for

exports to the developing oil producing countries or as investments by those countries in the United States. However, since we can never be certain of a 100 percent recycle, $65 billion a year of oil imports is a source of continuous potential danger to the U.S. balance of payments.

Finally, domestic oil priced at the world level actually costs the U.S. economy less in terms of the real resources required to obtain it than does a barrel of imports purchased at the same price. Virtually the entire wellhead price of imports represents a potential call on U.S. resources by foreign governments. In contrast, about one fourth of the price of domestic oil is accounted for by royalties and state and local severance taxes -- plus lease acquisition bonuses. These and other amounts are transfer payments which move funds and buying power within the U.S. economy. On the other hand, amounts paid to foreign governments represent the export of American wealth. To the extent that increased domestic energy output leads to a gain in domestic employment, there is a further economic credit to the value of domestic oil.

Some critics look at the anticipated revenues from decontrol and compare these numbers with the anticipated production that will result during the period. They then erroneously conclude that we are paying a very high price per barrel for domestic oil relative to imported oil. The reason for this misconception is that there is a long lead time between initiation of a new domestic energy venture and the time when it

reaches capacity operation. When all the barrels resulting from an investment are counted, it is ultimately cheaper to produce a barrel domestically than to import it at the same price.

This conclusion is supported by the testimony on June 11th presented by Mr. Charles L. Blackburn before the Subcommittee on Energy and Foundations of this Committee on behalf of API.

II. SUBSTANTIAL AMOUNTS OF OIL AND NATURAL GAS CAN STILL BE FOUND AND PRODUCED IN THE UNITED STATES

Once production has been established in an area, the beneficial effects last for many decades. Oil was first discovered in Pennsylvania in 1859, and the Appalachian Basin is still the site of new discoveries and continued energy production. The Permian Basin of Texas and New Mexico and the Gulf of Mexico Basin (Louisiana, Mississippi, Alabama and Florida), discovered early in the 20th century, are still vital, dynamic sources of new oil and gas.

Significant discoveries have been made in recent years in the Gulf of Mexico, the Overthrust Belt in the Rocky Mountains, the Williston Basin in North Dakota and the Tuscaloosa trend in Louisiana, to mention a few examples. Although this country has not exhausted any of its historic producing areas, the petroleum industry is constantly searching for new supplies to replace those being used up. Accelerated exploration in the known producing provinces, as well as the earliest possible exploration of the numerous frontier areas, is essential.

Fortunately, our country does have substantial amounts of oil and gas that can still be found and produced if the prices, the incentives for investment, and the overall political and economic climate are favorable -- and if we can obtain access to search for petroleum in the places where it is most likely to be found.

The gap between the amount of energy the U.S. produces and the amount it consumes has grown much wider in recent years. Several factors have prevented our country from reversing that trend by making better use of its energy potential. The principal factors can be summarized in three categories:

1. Price controls have discouraged investment in domestic oil and gas production while encouraging consumption by holding energy prices artificially low.

2. Other laws and regulations, intended to protect the environment, have had the unintended effect of further reducing energy production and raising energy consumption in this country.

3. The federal government has made it either impossible or extremely difficult to search for oil and gas in many high-potential areas onshore and offshore. On the Outer Continental Shelf, many promising areas have not been offered for lease in the past. The new five-year leasing schedule proposed by the Department of the Interior for 1980-85 is an improvement over previous timetables. Timely implementation of that new schedule may increase the chances of finding important new oil and gas

supplies in offshore areas. Even if the lease sales are held on schedule and commercially producible amounts of oil and gas are found, it may take from five to 10 years to bring a new offshore field into full production under ideal conditions. In deeper waters of the Atlantic and off the Alaskan coast, it may take even longer. Onshore, vast areas of publicly owned land in the Western states and Alaska have been made unavailable for mineral exploration, either through outright withdrawals or other restrictions.

The phased removal of federal price controls from domestic crude oil production, as announced by President Carter on April 5, is an important step in the right direction. Decontrol will stimulate the search for domestic oil supplies, will make it possible to extend the life of older oil fields, will make it feasible to produce oil which is not now economically producible, and will encourage energy conservation.

The combination of these factors will ease our dependence on imported oil, will strengthen the dollar in international trade, and will permit new forms of energy to compete more readily in the marketplace.

No computer and no crystal ball can give a definitive answer to the question, "How much more oil and gas can be produced from the U.S. and its offshore waters?" The U.S. Geological Survey (USGS), the National Academy of Sciences, various geologists and scholars and a number of oil companies have attempted to estimate the oil and gas potential of this nation. The methods and the

assumptions used varied considerably, so naturally these studies came up with different answers. But all of these analyses indicate that substantial additional production can be expected if economic and governmental disincentives are removed and an adequate climate for increased activity is created.

Dr. Charles D. Masters, chief of the USGS Office of Energy Resources, reviewed several such studies in a speech on January 5, 1979. He said that although the studies differ in details, they all point toward the conclusion that for at least the next 30 to 50 years, resource potential will not be a limiting factor in sustaining U.S. oil and gas production. The limiting factor, he added, will be the rate at which this country can find those supplies and convert them from potential to proved reserves.

I agree with Dr. Masters' conclusion that all the really knowledgeable studies indicate that much more oil and gas can be found and produced in this country, both onshore and offshore. How much -- and how soon -- will depend on many factors, including pricing, incentives for investment, technological progress, the availability of new areas to explore, and the overall political and economic climate.

Some persons have given up hope of finding any significant amounts of oil and gas in the United States. Historically we have always underestimated our reserves. In 1885 a federal bureau said there was little or no chance of finding oil in California. The same agency said the same thing about Kansas and Texas in 1891. A 1920 government report said the U.S., which was then

producing 443 million barrels of oil a year, had almost reached its peak. Annual production climbed to more than 3.5 billion barrels by 1970 and is still close to 3 billion barrels despite recent declines.

In 1939 a government department said oil supplies would last only 13 years, and in 1949 a federal official announced that the end of the U.S. oil supply was almost in sight.

Each of these gloomy predictions proved to be false. In all honesty, we in the petroleum industry have made a lot of wrong guesses, too. But the point is that if we had accepted the word of supposedly knowledgeable people in the late 1880s, we would have stopped looking for oil in unlikely places like Texas and California and the 30 other states which today produce either oil or gas or both.

Although some parts of the United States have been drilled intensively, many prospective areas have not been tested. A large part of current production comes from relatively shallow zones, but geologists and producers are proving that more oil and gas can be found at greater depths.

When I testified before the Senate Finance Committee two years ago, I said that in my opinion, a reasonable estimate of the remaining economically recoverable petroleum in this country would be 150 billion barrels of crude oil and natural gas liquids and 800 trillion cubic feet of natural gas. I am willing to stand by that estimate today.

Those figures include today's proved reserves, plus the amounts of oil and gas I believe can be found and produced in the future, assuming continued normal technological progress and adequate economic incentives. That amount of oil and gas would be the equivalent of more than 40 years of U.S. production at 1978 levels. But, we should remember that in 1978 we produced only a little more than half of our country's oil needs; the rest was imported. That additional oil and gas production will come from continuing operation of old reservoirs, from the anticipated growth of known fields, from the development of deposits previously considered marginal, and from the discovery of new reservoirs. Whatever the source, the cost of recovery will be high. The amounts recovered will be related directly to the prices at which the oil or gas can be sold.

It is a fact of economic life that price is a principal factor in determining whether supplies of any commodity will be scarce or plentiful. Given what they regard as adequate prices and the chance to earn a satisfactory return on investment, farmers will raise more corn and wheat, cattlemen will produce more beef, factories will make more shoes, and builders will create more housing. It is the same in the petroleum industry. In all likelihood, every one of the thousands of producers in this country knows of oil or gas prospects which cannot be produced economically under existing price controls, but which could become feasible after decontrol.

Every barrel of oil and every cubic foot of gas we can produce in our own country helps to reduce our dependence on foreign oil.

In addition to the oil and gas deposits which we believe will be economically recoverable within the next few decades, the experts agree that there is a large remaining "resource base," particularly of natural gas. A recent report published by the Potential Gas Committee -- an industry group -- estimated this country's potential natural gas resources at more than 1 quadrillion cubic feet, in addition to current proved reserves. (A quadrillion is the number 1 followed by 15 zeroes.) One quadrillion cubic feet of gas is more than 50 times the amount of gas used in this country last year. The Committee's estimate was not based on any assumed price, but it did anticipate that there will be sufficient economic incentive to continue drilling for natural gas.

Proved reserves are the nation's most reliable source of oil and gas production. These are deposits which have already been found through drilling and which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years under the economic and operating conditions existing when the estimates are made.

The American Petroleum Institute estimates proved oil reserves once a year. The American Gas Association does the same for natural gas and for natural gas liquids such as ethane, propane, butanes, etc.

The Department of Energy has begun gathering information on which to base its own estimates of proved oil and gas reserves. Although the federal government has never done studies of this kind on a regular basis, preliminary surveys of producers by the government have produced results closely paralleling those published by the two industry associations.

Brand-new proved reserves estimates were published by the API and the AGA on April 30 of this year, reflecting the status as of December 31, 1978. The total estimate for liquid hydrocarbons was 33.7 billion barrels, including 27.8 billion barrels of crude oil and 5.9 billion barrels of natural gas liquids. The API also estimated that 3.9 billion barrels of additional oil, already identified by drilling, may become recoverable if enhanced recovery techniques are applied. The AGA reported natural gas proved reserves as 200.3 trillion cubic feet.

The new reserves reports reveal the continuation of a decline which began in the late 1960s. Today's proved reserves include 10 billion barrels of crude oil and 26 trillion cubic feet of natural gas discovered in 1968 in the Prudhoe Bay field on Alaska's North Slope. Even with those figures included, U.S. proved reserves are continuing to drop. In 1978 alone, oil reserves declined by 1.7 billion barrels and gas reserves by 8.6 trillion cubic feet. The North Slope oil is now flowing to U.S. markets, but the Prudhoe Bay gas cannot reach consumers in the Lower 48 states until a gas pipeline can be built.

The following table summarizes our reserves situation at a glance:

TABLE 1

	CRUDE OIL AND NATURAL GAS LIQUIDS (Billion barrels)	NATURAL GAS (Trillion cubic feet)
U.S. production in 1978	3.7	19.6
Proved reserves as of 12/31/78	33.7	200.3
Cumulative U.S. production through 12/31/78	140.2	557.8
Estimate of remaining economically recoverable oil and gas as of 12/31/78	150.0	800.0

Please bear in mind that the last line represents an estimate of economically recoverable oil and gas. It includes current proved reserves as well as those supplies yet to be discovered and produced. If this estimate is approximately correct, the U.S. can expect to produce more oil and gas in future years than it has in all the years of the past. However, this is no cause for complacency, because continuing production of oil at today's levels will not come anywhere close to meeting our needs. These figures do, however, indicate that we can do a great deal to improve our national energy situation if we try hard enough.

There is a constant process of adding to and subtracting from the nation's inventory of proved oil and gas reserves. The process can be compared to a family bank account. Every year, petroleum producers add billions of barrels of oil and trillions of cubic feet of natural gas to the inventory. But the supplies are being used up faster than new ones are found. Since the North Slope discoveries, on average, the U.S. has been using up about two barrels of proved oil reserves for every barrel added to reserves. As in a bank account, this can only lead to bankruptcy unless the trend is reversed.

The North Slope oil and gas discoveries were first included in the API and AGA proved reserves reports in 1970. At the end of that year, the U.S. had proved oil reserves of more than 39 billion barrels. By the end of 1978, the total was down to 27.8 billion barrels -- a drop of more than 11 billion barrels.

Gas reserves stood at an all-time high of 290.7 trillion cubic feet at the end of 1970. By the end of 1978 the figure was down to just over 200 trillion cubic feet, a decline of more than 90 trillion cubic feet.

In announcing the new gas reserves figures, however, the American Gas Association noted that non-oil-associated additions to gas reserves in 1978 were the highest in 10 years. AGA officials called this fact "a clear indication that price incentives of the past few years are paying off."

The continuing decline in proved reserves should be a matter of grave concern for all Americans. However, these figures do not mean that there is no more oil and gas to be produced in this country. If we as a nation are willing to allow the free market system to operate and make the effort, we can do a great deal to improve our situation.

III. THERE ARE MANY PLACES TO SEARCH FOR OIL AND GAS

Since the first U.S. oil well was drilled at Titusville, Pennsylvania, in 1859, the domestic petroleum industry has drilled nearly 2.5 million wells in search of oil and gas. More than 23,300 of those wells were drilled offshore. In the course of that activity, drillers, geologists, engineers and others have learned a great deal about where oil may be found -- and where it may not. Still, there is a great deal they do not know. Many of the most promising areas for oil and gas potential lie in Alaska, the Western states and the Outer Continental Shelf. Until more drilling is done, there is no way to measure the petroleum potential of those areas with any degree of certainty.

The shaded areas in the map in Figure 1, attached to this statement, indicate the major onshore and offshore basins of the United States where oil and gas either have been found or may be found in the future.

One of the major barriers to important new discoveries is the problem of gaining access to the vast areas of publicly owned lands in Alaska, the Western states and offshore areas. The

federal government owns about one-third of all the land in the United States. That is 760 million acres out of a total of 2-1/4 billion acres. The government also retains mineral rights to 63 million additional acres, and it has jurisdiction over the entire Outer Continental Shelf beyond the limits of state ownership.

Until a few years ago, the public lands were managed under a broad multiple-use philosophy which permitted fairly open but controlled access to the mineral resources of those lands. Management policies allowed the use of public lands for more than one purpose, if those purposes were compatible.

But during the past 10 to 15 years, there has been a rapidly growing trend toward closing publicly owned lands to resource development and imposing severe restraints on the use of those lands. About two-thirds of the publicly owned lands -- more than 500 million acres -- are no longer open to mineral resource exploration and development, and the amount unavailable is still growing. Even some areas which theoretically are open to exploration have been taken out of the picture because federal agencies have refused to issue oil and gas leases for those lands or have imposed restrictions and stipulations which make exploration impossible.

This country urgently needs to develop its energy resources, but only about 6 percent of domestic oil and gas production comes from the public lands. Some oil companies have estimated that more than two-thirds of the potential new oil and gas discoveries

may lie on public lands onshore and offshore. If the nation is to benefit from those potential resources within the next decade, exploration and development of the most promising areas must be expedited now.

Lead times for starting new production in frontier offshore areas can be as long as 10 years, and it can take as long as 15 years to reach peak production from such areas, depending on location, costs, technical problems involved and existing regulations. This means that if leases were sold tomorrow on new frontier offshore areas, it might be 1990 before production could start and 1995 before production could reach its peak.

Any national energy policy should have as one of its primary objectives the encouragement of accelerated exploration and drilling activity by the private sector on publicly owned lands, so that the nation can know what oil and gas supplies will be producible in the years ahead.

There is no need for Americans to think they must choose between having adequate energy supplies and protecting the environment. Both goals can and must be pursued simultaneously and in harmony.

Offshore Oil and Gas

The Outer Continental Shelf (OCS) is one of the nation's most promising sources of oil and gas. Although only a small percentage of the total OCS has been tested by the drill bit, in 1978, offshore wells produced about 409 million barrels of crude

oil and 4.8 trillion cubic feet of natural gas. That represented about 13 percent of the oil and nearly 25 percent of the natural gas produced in the U.S. in that year.

The most recent USGS estimate, published in 1975, said that with the production technology and economic conditions prevailing at that time, as much as 49 billion barrels of oil and 181 trillion cubic feet of natural gas might be discovered and produced from waters out to a depth of 200 meters (660 feet). The Survey indicated that higher prices and the extension of OCS operations into deeper waters might result in even more discoveries and production.

The rate of future OCS oil and gas production, however, will depend to a large extent on leasing schedules and the way the OCS Lands Act Amendments of 1978 are implemented. The new law required about 40 new sets of regulations. Analyses of the new rules indicate that they are more restrictive than those applied in the past and will thus delay exploration and increase operating costs.

Oil companies have suffered some serious disappointments and setbacks in their efforts to develop offshore oil and gas. They paid the federal government nearly $1.5 billion in cash bonuses for leases in the Eastern Gulf of Mexico in 1973. They spent several million dollars drilling 18 consecutive dry holes in what the companies and the government had believed to be an extremely promising area. No producible oil or gas was found. More

recently, they have had a similar experience in the Gulf of Alaska, where about 10 dry holes have been drilled.

Oil companies paid the government more than $1.1 billion for leases in the Baltimore Canyon area of the Atlantic in August 1976, but lawsuits prevented drilling for more than a year and a half. Drilling finally began in the spring of 1978. A second lease sale in the Canyon area was held in February 1979. Two stratigraphic tests were drilled, and 18 wells have been started in the Baltimore Canyon area in search of oil and gas. Of the 18 wells, 14 have been reported as dry holes. Two have discovered some amounts of oil and gas, and two are still being drilled. Total expenditures in the Baltimore Canyon area to date, including the purchase of leases, drilling costs and geological and geophysical work, are estimated at around $1.6 billion.

A lawsuit forced cancellation of the Interior Department's plan to hold a lease sale for the Georges Bank area of the North Atlantic in January 1978. In February 1979 the courts cleared the way for a Georges Bank sale to be held. An environmental impact hearing was held on June 20, 1979, and the sale is currently scheduled for sometime late this fall. However, the Conservation Law Foundation of New England has requested that the entire Georges Bank area be declared a marine sanctuary. We understand that government officials are studying that request, but no action has been announced.

The Interior Department held a lease sale for the South Atlantic offshore area in March 1978 and one dry hole has been reported to date. Additional drilling is scheduled.

Offshore costs run much higher than those connected with onshore drilling and production. In 1977, the average offshore well in U.S. waters cost nearly $1.7 million to drill. This was about nine times the cost of the average well on land. Many offshore wells, of course, cost much more than that. And the drilling costs represent only part of the expenditures required on the OCS. Production platforms and related equipment can cost hundreds of millions of dollars. In deep water and hostile environments, such platforms can cost $500 million or more. Pipelines to move oil and gas to shore are enormously expensive.

Despite disappointments, delays and high costs, oil companies are continuing to test offshore areas with the expectation of finding major new reserves.

National Petroleum Reserve in Alaska

Another area with potential for significant petroleum discoveries is the National Petroleum Reserve in Alaska (NPRA), formerly known as Naval Petroleum Reserve No. 4. This 24-million-acre area, about the size of the state of Indiana, is west of the Prudhoe Bay Field on the North Slope. It was set aside as a petroleum reserve in 1923 and placed under jurisdiction of the U.S. Navy. In 1977, the name was changed and the area was transferred to the Department of the Interior.

The Navy began an exploration program in 1944. Over a period of nine years, 81 core tests and wells were drilled. Only a few of these wells went very deep and only part of them could be considered significant tests of hydrocarbon potential. However, during those years the Barrow gas field and the Umiat oil field were discovered.

The Umiat field has never been thoroughly explored to determine the extent of its oil reserves. Further study will be needed to determine whether those reserves are large enough to justify the expense of building a 50-mile pipeline to connect with the Trans-Alaska Pipeline.

Since 1976, the federal government, employing the services of an oil company, has been drilling a new series of exploratory wells in the NPRA. By the end of Fiscal Year 1979, it is expected that 20 wells will have been drilled. No commercial discoveries have yet been made, but the contractor has reported finding shows of oil or gas in every well -- an encouraging sign.

The Interior Department has recommended discontinuing government-sponsored drilling in the NPRA at the end of Fiscal 1979. The White House announced on April 5 of this year that it plans to ask Congress to open the NPRA for exploration and development by private companies under carefully controlled conditions. Experience in many areas has shown that the best results are obtained when several companies compete in the use of

their best knowledge and their best technology, and I believe that would be true in the NPRA.

In the most heavily drilled northeast coastal region of the NPRA, the current well density is only one well for eacn half-million acres. In other parts of the NPRA there are millions of acres without a single well, but geophysical studies have indicated prospects that should be tested. Experience in Prudhoe Bay and elsewhere suggests that the prospects for successful drilling in the NPRA have by no means been exhausted. Fifteen dry holes were drilled in northern Alaska over a 10-year period at a total cost of $500 million before the first commercial discovery was made at Prudhoe Bay in 1968.

Alaska as a whole is believed to contain enormous potential for the discovery of oil, natural gas and other vital resources. The coastal plain of the Arctic Wildlife Range has high potential and should be explored. But Congress is currently considering legislation which would close about 100 million acres of Alaskan land to mineral development, in addition to many areas already off limits.

The Overthrust Belt

The Overthrust Belt of the Rocky Mountain states is another area where many failures led ultimately to success. Over a period of many years, more than 300 dry holes were drilled before the first commercial discovery was made in 1975. Other discoveries followed, and by now at least a dozen oil and gas fields

have been found in that area, which is one of the most active exploration areas in the U.S. today.

The Rocky Mountain Oil and Gas Association has estimated that as much as 14 billion barrels of oil and 52 trillion cubic feet of natural gas could be recovered from the Overthrust Belt. To put this into perspective, 14 billion barrels of oil is more than four times the amount of oil the U.S. imports in a year's time. Fifty-two trillion cubic feet of gas could heat 10 million homes for 25 years.

Unfortunately for American consumers, government land-withdrawal policies seriously impinge on the Overthrust Belt and many other potentially productive areas of the West. Even where land is not officially withdrawn from mineral development, regulatory restraints are making it difficult for oil companies to carry on the kind of accelerated exploratory effort the nation needs.

Other Places To Search For Oil And Gas

Every driller dreams of finding another Prudhoe Bay field or East Texas field, but most of the oil and gas found in this country comes from smaller discoveries, from re-examination of mature areas, from deeper drilling and the use of more sophisticated technology.

It is an old saying -- but a true one -- that the best place to look for petroleum is in areas where it has been found in the past. With that knowledge, producers are taking another look at

many areas that were productive in the past and at areas which did not seem promising with the technology that was available several decades ago.

Among the areas being re-examined are some of the pioneer producing states where the U.S. petroleum industry was born more than a century ago -- Pennsylvania, New York, Ohio and West Virginia. During 1978, the industry drilled 2,604 wells in Ohio, 1,727 in Pennsylvania, 1,393 in West Virginia and 411 in New York. Most of these were development wells, drilled to facilitate and increase production of reserves discovered earlier. But there were also 348 exploratory wells in the four-state area. Of them, 76 were new-field wildcat wells -- drilled on a structural feature or other trap which had never before produced oil or gas. Among the new-field wildcats were 31 gas discoveries and one oil discovery, along with 44 dry holes. Although none of these discoveries was a major one, the record proves that there is still petroleum to be found even in historic producing areas. And every producing well helps to meet the nation's energy needs.

It is interesting to note that in this four-state area, the discovery rate among new-field wildcats was better than for the nation as a whole. In the four-state area, 58 percent of the new-field wildcats were dry holes, while for the U.S. as a whole, 85 percent of the new-field wildcats were dry.

Throughout the nation, oilmen are looking harder for oil and gas deposits, even the small ones. For example, they are drilling deeper in the Williston Basin of North Dakota and the Anadarko Basin of Texas and Oklahoma, hoping to find new and separate reservoirs beneath those which were found years ago.

The Williston Basin was discovered in the 1940s and has been an important oil-producing area ever since. As is always the case in a mature or aging province, production has been declining. Recent drilling to depths of 12,000 feet or below has resulted in a number of oil discoveries in deeper deposits in older rocks.

The Anadarko Basin was discovered in the 1920s. It is gaining a new lease on life with the current wave of deep drilling for natural gas. Under the Natural Gas Policy Act of 1978, wells drilled to 15,000 feet or more since February 1977 qualify for the "new gas" price of $2.09 per thousand cubic feet, and will be eligible for free market prices after the Federal Energy Regulatory Commission issues incremental pricing rules in November 1979. As of mid-April, The Oil and Gas Journal reported that about 80 wildcats and development wells were being drilled to 15,000 feet or deeper in the Anadarko Basin, and another 40 wells were being tested or completed.

Drilling costs are extremely high at such great depths. On the average, it can cost about $1 million to drill the first 12,000 feet; another $1 million to reach 15,000 feet; and $2 million more to reach 18,000 feet.

Louisiana has been the site of a great deal of deep drilling for gas within the past five years. At least four important fields have been found. New types of seismic equipment have helped producers map these deep areas more accurately.

Another potential source of gas is being studied. This is the methane associated with geopressured brine along the coast of the Gulf of Mexico. Many environmental and economic problems remain to be worked out, but this source offers a possibility for the future.

Throughout the nation, producers are drilling around the edges of older oil fields, looking for hard-to-find traps that may have been missed the first time around. New and improved seismic techniques are helping to identify previously untested traps on the flanks of existing oil fields.

They are also looking at resources which have long been identified but which were not economic to produce. Examples are the natural gas in tight sands in the Rocky Mountain states and in the Devonian Black Shales of the Appalachian region. The thickness and extent of these deposits are enormous. The federal government has estimated that they may contain as much as 600 trillion cubic feet of gas -- three times as much as today's total U.S. proved gas reserves.

These are several -- but by no means all -- of the areas where our industry believes substantial amounts of oil and gas can be found and produced. The graphs on Figure 2, attached

to this statement, show at a glance the beneficial effects that can be expected if this country carries out aggressive exploration programs in frontier and all other potentially productive areas. Without such an aggressive program, the graphs make it clear that the United States would slide deeper into dependence on imported oil between now and 1990.

With oil and gas waiting to be found, it is a fair question to ask what the oil companies have been doing about finding them.

IV. THE OIL COMPANIES HAVE BEEN AGGRESSIVELY SEARCHING FOR OIL AND GAS, BUT AN EVEN GREATER EFFORT WILL BE NEEDED

The record shows that since the oil embargo of 1973-74, the oil companies have sharply accelerated the search for domestic oil and natural gas supplies. Here are a few figures to support that statement:

Wells drilled - A total of 47,057 wells were drilled in search of oil and gas in the U.S. during 1978 -- an increase of 77 percent over the 26,592 drilled in 1973. During the five-year period 1974-78, U.S. producers drilled a total of 200,057 wells in this country. This was an increase of 43 percent over the number completed in the previous five years. But even the current high level of drilling activity is still far below the level of the mid-1950s. In the peak year of 1956, a total of 57,077 wells were drilled in the U.S., including 16,173 exploratory wells. The trend in exploratory drilling is illustrated on Figure 3, attached.

Rotary rigs in operation - The Hughes Tool Company reported a monthly average of 2,259 rotary rigs at work in 1978. This was an increase of 89 percent over the average of 1,195 rigs working in 1973. Trends in rotary drilling activity are illustrated on Figure 4. Although today's level of activity is encouraging, there were more than 2,600 rigs in operation in 1952, 1953, 1955 and 1956, with a peak of 2,686 in 1955.

Seismic crews at work - A monthly average of 352 seismic crews were at work during 1978, according to the Society of Exploration Geophysicists. This was an increase of nearly 41 percent over the monthly average of 250 crews working during 1973.

Testimony being presented today by my panel colleagues deals in detail with the fact that the oil companies have sharply increased their capital spending for exploration and development in the past few years. So I will not dwell on that point except to note that such increases, and the increasing debts of the companies, provide the best evidence that the companies are serious about improving this country's energy situation. I should also like to endorse their statements regarding the need for much higher levels of capital spending in the years just ahead.

The facts and figures I have just presented demonstrate clearly that the oil companies of this country are already making great strides toward trying to increase this country's oil and gas

supplies. Even under the heavy impediment of federal price controls on both oil and gas, the nation's producers have stepped up exploration and drilling, with the anticipation that realistic pricing would be restored.

We can do a great deal more, if the government will provide the necessary incentives for risk-taking and investment and will make available to us the onshore and offshore public lands that should be evaluated by drilling. If the government takes any actions to reduce incentives or to restrict exploration, tne nation's consumers will be the losers.

V. THE OIL COMPANIES WILL REINVEST THEIR EARNINGS TO PRODUCE MORE ENERGY

The history of the petroleum industry provides overwnelming evidence that when incentives and earnings improve, oil companies reinvest their added revenues in finding more petroleum. Higher prices generate greater exploration activity. When the economic and political climate is favorable, the companies also increase their borrowing in order to expand production and development programs.

There is every reason to believe that this same pattern will continue as federal price controls on crude oil are phased out and the nation moves toward realistic pricing of energy.

The following examples illustrate the close relationship between crude oil prices and exploratory drilling. All monetary amounts are expressed in inflation-adjusted 1978 dollars, for ready comparability:

Upward trend - After World War II price controls were lifted, the (1978 constant dollar) price of U.S. crude oil at the wellhead rose from $5.27 in 1947 to $6.93 in 1957. This increase in revenues helped spark an increase in exploratory drilling from 6,775 wells in 1947 to nearly 15,000 in 1955 and 1957 and a peak of 16,173 in 1956.

Downward trend - In the late 1950s, inflation began to rise faster than the wellhead price of domestic crude oil. By 1968, the inflation-adjusted price of oil was down to $6 a barrel. Exploratory drilling dropped to less than 8,900 wells a year.

Up again - Inflation-adjusted oil prices, under federal controls, were allowed to rise from $6.04 in 1973 to $9.30 in 1976. In those same years, the number of exploratory wells increased from 7,466 to 9,234.

These facts clearly demonstrate that higher prices help to bring about more drilling. But will more drilling result in more production?

VI. REALISTIC PRICING WILL HELP THE U.S. FIND NEW OIL WHILE MAINTAINING PRODUCTION FROM EXISTING FIELDS

As we have stated, and as history has shown, the rate of exploration and production activity is price-sensitive and higher prices will elicit more exploration and production.

Let me distinguish between the kinds of activity that higher crude oil prices will generate.

First, because exploration activity is in large part funded from retained cash flow which is directly related to price, higher prices will stimulate the search for new basins in new geological provinces, both onshore and offshore. A surge will develop in "rank wildcatting," defined as looking for large untapped basins, fields and reservoirs in areas which heretofore have been uneconomic to explore.

Secondly, it is imperative that higher prices be made available to sustain production from older fields. The current price for crude oil determines the ultimate amount of production from older fields. When costs of production meet and exceed the prices allowed, those fields will be abandoned, leaving oil in the ground.

In addition, once the controlled or static price set by controls precludes further recovery and all production from the field ceases and wells are abandoned, the resumption of production under higher prices, even decontrolled prices, is unlikely. This is true because even substantially higher prices will generally not provide a sufficient rate of return to justify the cost of drilling new wells and establishing new facilities at the production rates to be reasonably anticipated.

Few people understand that keeping existing fields operating requires a great deal of work and the expenditure of a lot of capital. From the day production begins, every oil well is on a

downhill path. Eventually it will reach the point where production is too small to justify the costs involved. But that day can often be postponed by working over the wells, replacing worn equipment and doing other remedial work, all of which costs money.

Certain operating conditions are particularly expensive. For example, recent gas discoveries in southern Louisiana are producing from depths of 19,000 to 21,000 feet -- nearly four miles into the earth. The water produced with the gas from those great depths is extremely hot. It causes rapid corrosion of piping and other steel equipment, which must be replaced much more frequently than would be the case with shallow wells. This increases the operating costs of such deep wells on the order of $1 million a year per well. These deep fields would not have been discovered without the incentive of higher gas prices.

When we speak of proved oil reserves, no one should assume that these supplies can be brought to market by simply turning a couple of valves. Nor should anyone assume that petroleum reservoirs are like large storage tanks whose dimensions are known precisely and whose contents can easily be siphoned out.

Nature did not create oil in large underground pools or lakes. Oil is found in rock formations, almost always accompanied by water and natural ch are useful in forcing the oil to move after a well h illed into the area. The petroleum, however, is tra: ny pores and cracks and is

often extremely difficult to dislodge. Scientists and engineers are constantly trying to develop new techniques that will increase the amount of oil that can be recovered from the rocks.

As natural underground pressures diminish, the flow of oil from a well slows down and eventually stops unless something is done to replace those pressures. Pumps and a technique called waterflooding are the principal methods used to keep aging wells alive. In waterflooding -- which has been in use for about 40 years -- separate wells are drilled into oil-bearing rocks near producing wells. Water is then injected under pressure to force oil to move toward the producing wells. Waterflooding is responsible for about half of the oil production in the U.S. today. It is regarded as a conventional method of recovery because it essentially duplicates what a natural water-drive would do if it were present.

Unfortunately, conventional methods recover only part of the oil in a reservoir. The cost of producing a barrel of oil using enhanced recovery methods is much higher than the cost of production from conventional primary methods. A controlled price which precludes recovering this higher per-barrel cost will also preclude recovering those barrels.

Individual rates of recovery may vary widely from one reservoir to another, depending on the nature of the rocks and fluids present. But for the U.S. as a whole, conventional methods have resulted in recovering only about one-third of the

oil that has been discovered. This has left an estimated 300 billion barrels of oil in known fields which have been unproducible under the prevailing economic and technical conditions.

More of this remaining oil could be recovered with newer, so-called "enhanced recovery" production methods, but they are more complex and much more costly to use. In general, they involve using heat or carbon dioxide or chemicals to thin out the oil, loosen it, or otherwise cause it to flow toward a producing well.

Not only are the newer recovery methods expensive, but some of them are largely experimental. Techniques that work in a laboratory situation do not always succeed in an actual reservoir. Even so, the newer enhanced recovery methods currently account for about 3 to 5 percent of U.S. oil production. These techniques are not applicable to gas reservoirs.

Most estimates indicate that the newer recovery methods could increase U.S. proved reserves by a range of from 10 to 30 billion barrels at current world oil prices. Let me point out that a 30-billion-barrel increase would represent a doubling of today's proved oil reserves.

Thermal, or heat methods involving the use of steam work well on heavy gravity crudes. For example, Kern County, California, alone, contains approximately 5 billion barrels of heavy crudes which could be recoverable by steam if the price were high enough to justify investment in steam generating facilities and to overcome the cost of installing air emission control equipment

required by environmental laws. However, under federal price controls, the price has not been sufficient to justify the above investment.

In addition, California producers have had about 60,000 barrels a day of heavy gravity crude oil shut in (not producing) because the government-controlled prices would not cover the cost of the emission control equipment that would be required to continue operating under new environmental edicts.

The costs of working over wells and installing enhanced recovery equipment have been accelerating faster than the general level of prices. Obviously, a producer cannot afford to invest in costly new recovery equipment if the revenues he expects to receive are not enough to cover his costs and earn an adequate return after taxes.

Government price controls on crude oil since 1971 have discouraged investment in enhanced recovery projects and emission control equipment by holding prices artificially low. Improved pricing through decontrol, as outlined by the President, will make it possible for producers to invest more in recovering oil that has already been found, while they continue to search for new fields.

VII. INCREASED EARNINGS AND IMPROVED INCENTIVES FOR OIL COMPANIES WILL RESULT IN SUBSTANTIAL PRODUCTION INCREASES

No one can promise that a certain amount of money invested in exploration will result in the production of a certain amount

of oil or gas. But history shows conclusively that increased revenues for the companies, resulting in improved incentives, leads to more drilling. More drilling is the only way to find new domestic oil and gas supplies. It is equally certain that any reduction in available revenues or other incentives will slow down the search for energy.

Naturally, major increases in production could not be expected to occur overnight. But several years of accelerated effort, with opportunity to explore areas where the greatest potential lies, could substantially improve this country's petroleum supply situation.

Some of the leading oil companies, in separate analyses, have estimated that the U.S. could be producing the oil and gas equivalent of 1.5 million barrels a day more by the mid-1980's than would be the case under continued federal price controls. This assumes that at the higher crude oil prices, incremental revenues resulting from decontrol will be reinvested and additional funds from outside the industry may be attracted.

The estimates of the companies regarding increased production are in general agreement with the domestic production response estimates by the Federal Energy Administration (now incorporated into the Department of Energy) the Treasury Department, and by the Chase Manhattan Bank. The estimates vary in detail, but they point in the same direction.

If the revenues resulting from decontrol are not available for reinvestment in finding more oil and gas, but are taxed away, obviously less petroleum will be found and produced. According to some estimates, the so-called "windfall profit" tax bill passed by the House of Representatives would reduce the production increase by 1985 from the 1.5 million barrels a day estimated by industry sources to only 800,000 barrels a day.

More revenues and improved incentives would make it possible to do the things that are necessary to extend the economic life of existing oil fields and to slow their natural decline in production. Meanwhile, increased investment in exploration and production would bring about the discovery and development of new oil and gas reserves.

In addition to increasing production, decontrol is expected to have an important conservation effect. Movement to realistic market pricing will cause Americans to use about 500,000 barrels a day less of oil products than they would under continued controls, according to some estimates. The combination of more domestic production and reduced consumption could make a difference of about 2 million barrels a day in the amount of oil the U.S. will be importing by the mid-1980's, as compared to the situation under continued federal price controls.

As important as crude oil price decontrol is, that is not the only action the government needs to take to stimulate the development of domestic oil and gas.

VIII. THE NATION MUST RE-EXAMINE ITS ENVIRONMENTAL LAWS AND REGULATIONS IN THE LIGHT OF ITS ENERGY NEEDS

Earlier in this statement I referred to the delays and other adverse effects which environmental laws and regulations are having on offshore operations and access to publicly owned lands onshore. I want to make it absolutely clear that I am not opposed to protecting our environment. On the contrary, I am firmly committed to the principle that all of us deserve a decent environment in which to live, and that each of us shares a responsibility to protect the world around us. I think every person in the oil industry shares the same commitment.

But having adequate energy supplies is, in itself, a crucial part of creating a decent environment. It is foolish for anyone to suggest that Americans must choose between energy and the environment. No such choice is possible. We as a nation must re-examine our priorities and find ways to balance our desire for a clean environment and our need for energy.

Our country has adopted a number of major environmental laws during the past 10 years or so. Many Americans now are convinced that many of these laws should be re-examined in the light of today's changed circumstances. Some of the laws, and the regulations issued to implement them, need to be revised to give more consideration to such vital national needs as energy and a strong economy.

Revision of these environmental laws and regulations is essential because use of every major energy source that is now available and needed is being restricted; and the development of new energy sources for the future is being slowed or halted.

Let me cite a few examples:

o In the second phase of its Roadless Area Review and Evaluation (RARE II) study, the U.S. Forest Service recommended that 15 million acres of its public lands be preserved as wilderness and that another 11 million acres be set aside for further study. Meaningful exploration is prohibited in these areas. This means that important decisions on locking up these lands will be made without anyone knowing what the effects will be on our nation's energy problems.

o The Bureau of Land Management controls some 470 million acres of publicly owned land -- a total area more than two-and-a-half times the size of Texas. After reviewing all of these lands, BLM will close tens of millions of acres for a wilderness study that is scheduled by law to be completed in 1991. Until the wilderness decisions are made, there will be only extremely limited exploration in leased areas.

o Even a small wilderness area can have a big effect. All existing and some future wilderness areas are subject to the most stringent clean air requirements, which automatically create "buffer zones" around the wilderness. In these buffer zones, oil

and gas development can be prohibited. For example, a 5,000 acre wilderness area -- equivalent to a square about 3 miles per side -- could affect a total area many times larger.

o Even in areas where access is granted, the BLM is imposing serious delays. Companies must obtain permits for temporary use and drilling or for rights-of-way across federal land to reach leased private property. In most cases, these permits are routinely granted, but the process takes from 2 to 6 months, during which time expensive equipment and highly skilled personnel must be utilized elsewhere or -- if that is not possible -- must stand idle until the permits come through. The costs of such delays must ultimately be reflected in tne prices paid by consumers.

o On federal lands, an environmental impact statement can be required for any proposed well, even though the field may have been producing for 30 years. Overall, for non-wilderness federal lands, obtaining the necessary permits can take up to a year. These and other costly delays can discourage producers from beginning some projects or cause other projects to be scrapped.

o In southwestern Wyoming a potential gas reserve of substantial size has been found. But under the Clean Air Act it will take at least 12 to 18 months to obtain construction permits for production facilities. Then, if the facilities can be built, the strict pollution limits will likely force the companies into one of two undesirable choices. They must either hold production

to about one-third the maximum efficient rate, or use an energy-wasting process to meet the anti-pollution requirement while producing at the maximum efficient rate. Under the second choice, the energy wasted would be enough to heat more than 6,500 homes.

o Salt water produced with oil and gas must be disposed of, usually by returning it underground through an "injection" well, sometimes for the purpose of helping to maintain production. All producing states have regulated this kind of activity for years, with exemplary results from an environmental standpoint. In writing the Safe Drinking Water Act in 1974, Congress recognized the effectiveness of state regulations and prohibited federal interference unless such action was "essential" to protect drinking water supplies. However, despite the historical record and the language of the law, the Environmental Protection Agency is in the process of issuing cumbersome, costly and unnecessary regulations on underground injection. If they are put into effect, these EPA regulations could result in a significant reduction in oil production from existing fields and could prevent many new injection projects from being started. In some instances, the costs of complying with the EPA rules would be so high that some marginal wells would become uneconomic to operate and would have to be closed down, thus denying consumers the use of the oil that might have been produced.

o Under several of the environmental laws, private citizens may bring lawsuits seeking to halt or delay major energy facilities even if those persons are not directly affected by the proposed facility. Provisions of this kind are resulting in numerous lawsuits which achieve nothing for the good of society and which hold back the development of this country's energy potential.

I think you will agree that examples such as these make it plain that our country cannot afford to continue using "tunnel vision" on environmental matters. We must consider the broad implications of public policy decisions affecting energy. Where mistakes have been made in the past in writing environmental laws and regulations, we as a nation must be willing to do what is necessary to work out a balanced approach to our problems.

In conclusion, I should like to thank the Finance Committee for allowing this opportunity to present our industry's views on this vital subject. Let me reiterate that our country has large amounts of oil and gas that can still be discovered and produced.

We are going to need that energy to protect the security and economic strength of our nation. We will need it to permit an orderly transition to the fuels of the future. We will need it as insurance against any failure to meet the targets for development of new forms of energy.

The cost of developing our oil, gas and other energy resources will be high. But even greater penalties could be involved if we fail to do all we can to develop our own supplies. For a free people, there can be only one choice.

U.S.A. ONSHORE AND OFFSHORE BASINS

FIGURE 1

U.S.A. - CONVENTIONAL HYDROCARBON SUPPLY

MILLION BARRELS / DAILY (COE)

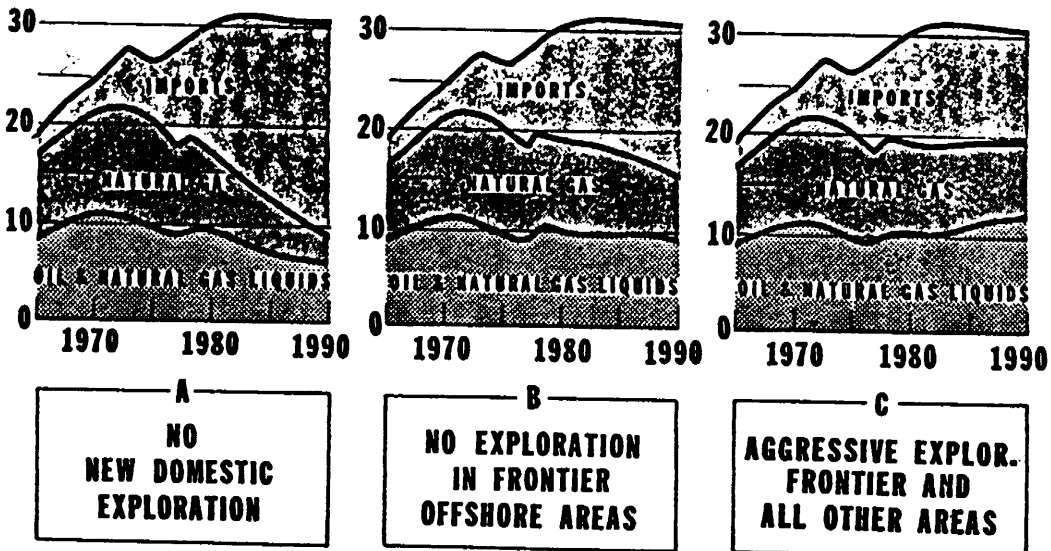


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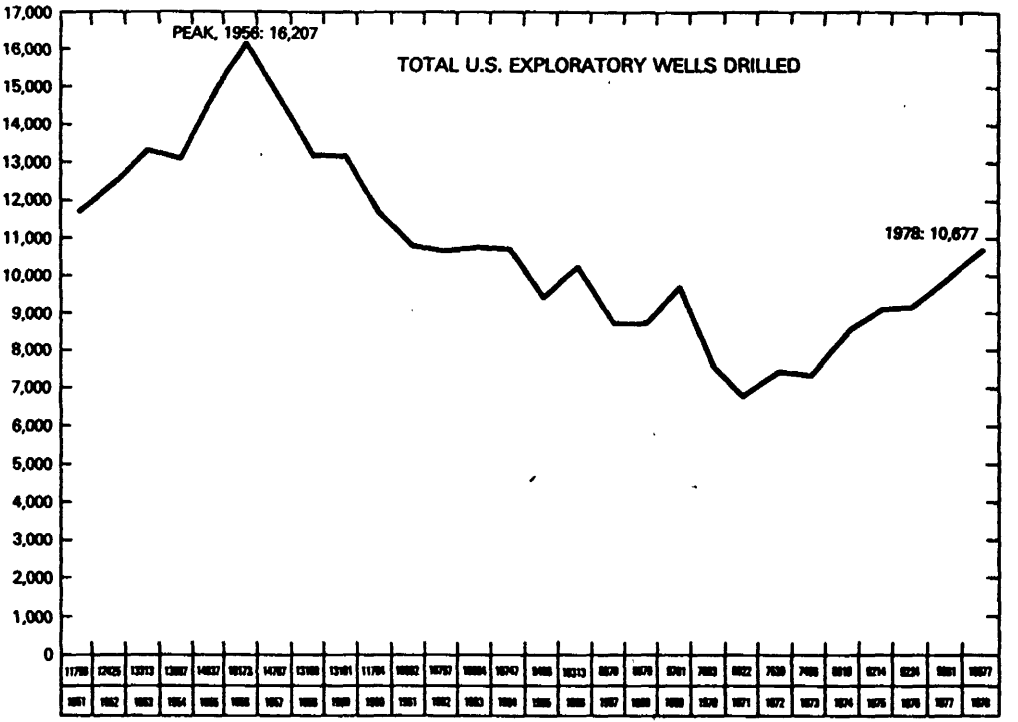
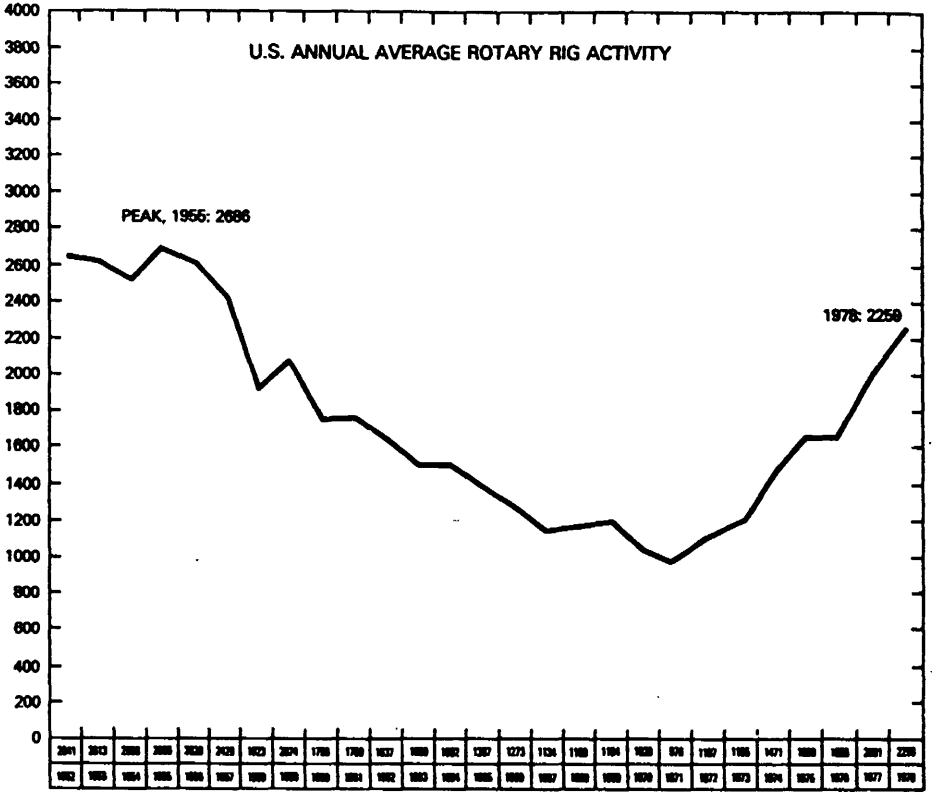
FIGURE 2



SOURCES: 1951–1965 AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS and OIL & GAS JOURNAL.
1966–1976 AMERICAN PETROLEUM INSTITUTE and the AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS.

FIGURE 3



SOURCE: HUGHES TOOL CO.

FIGURE 4

STATEMENT OF HAROLD D. HOOPMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, MARATHON OIL CO., IN BEHALF OF AMERICAN PETROLEUM INSTITUTE, MID-CONTINENT OIL & GAS ASSOCIATION, ROCKY MOUNTAIN OIL & GAS ASSOCIATION, AND WESTERN OIL & GAS ASSOCIATION

Executive Summary

STATEMENT OF HAROLD D. HOOPMAN

This statement reviews the benefits flowing from the President's decision to phase out, gradually, price controls on U.S. crude oil; discusses the inappropriateness of the so-called "windfall profit tax"; and points out the most serious flaws in the "windfall profit tax" proposal.

Phase-out of crude oil price controls - an essential action: The elimination of price controls on domestic crude oil is a significant and necessary step toward solving the nation's energy problems. It will provide important benefits to American consumers and the American economy. In brief, these benefits include:

1. furnishing incentives for oil producers to find new reserves, increase production from existing reservoirs, and encourage development of alternative energy sources;

2. permitting the generation of capital to replace existing energy supplies;

3. encouraging energy conservation;

4. eliminating the entitlements program, which the President himself has called an "administrative nightmare"; and

5. helping fulfill the President's international commitments to raise domestic crude oil prices to world levels and restrain petroleum imports.

Windfall profit tax - unwarranted and inappropriate: Petroleum producers already bear a substantial tax burden. Any additional taxes on the revenues needed to finance an expansion of domestic oil and natural gas supplies would be counterproductive and would represent an unwarranted, inappropriate and inequitable treatment of the petroleum industry. Even without the so-called "windfall profit tax," governments (federal, state, local) would receive from 50 to 60 percent of any increase in the wellhead price of crude oil.

Moreover, there is no "windfall". Current replacement costs must be recognized. The real concern should be whether government takes too much under existing law because capital recovery allowances fail to recognize current replacement costs. In fact, current tax laws impose an inflation tax on capital by failing to recognize the sharply increasing replacement cost incurred in finding, developing, and producing new reserves.

Windfall profit tax proposal - serious flaws: The "windfall profit tax," if adopted, will hinder an aggressive domestic exploration, development and production program. Serious flaws in the proposal include the following:

1. The Administration has recognized the importance of old oil by permitting its price to increase for volumes in excess of average decline rates under the Tier 1 tax provisions. Complete elimination of the tax would provide an even greater incentive for increasing and maintaining production from properties producing old oil. These properties offer the best opportunities for relatively early supply responses to higher real prices.

2. The delay in the phaseout of the tax on Tier 2 oil would continue to withhold the market prices promised for "new" oil developed during 1974-75 and would deny producers the maximum incentive to invest now in projects that could begin to yield additional supply response by the mid 1980's.

3. The tax on Tier 3 oil is inconsistent with the supply objectives of the Administration's program; licenses OPEC to increase oil prices by more than it might do otherwise; and substitutes a permanent tax "cap" for the present regulatory "cap" on future domestic crude oil prices.

4. The inclusion of stripper, newly discovered, Sadlerocnit, and incremental tertiary production in the Tier 3 tax base would dilute the incentive intended by Congressional decisions to allow market prices for such production, and would result in an effective price rollback on January 1, 1980. Inclusion of these categories of domestic oil in the tax base could discourage exploration, preclude development or force producers to abandon some production efforts.

5. To avoid complications and inequities the windfall profit tax should have a single rate and should not be more than 50%. Further, the adjustment for severance taxes under the House Bill should be extended to all categories of crude oil irrespective of tax rate.

6. The inflation adjustments in the House Bill do not reflect the steeper cost increases experienced by the petroleum industry, and should be revised upward.

7. In the case of production payments, the bill shifts the tax burden to the holder of the residual interest. This provision could present serious problems of property rights between oil and gas mineral interest owners.

8. The proposal to reduce depletable income for the smaller independent producers should be eliminated. Such a proposal, if adopted, will deny an important incentive to potential new entrants into the petroleum industry.

Unless domestic crude oil prices are allowed to rise to market levels without a permanent tax, literally billions of barrels of U.S. oil will be left in the ground.

Mr. Chairman and Members of the Senate Committee on Finance, I am Harold D. Hoopman. I am president and chief executive officer of Maratnon Oil Company in Findlay, Ohio. I will discuss with you the considerations directly relating to tne energy tax proposals pending before this Committee.

A. PHASE-OUT OF CRUDE OIL PRICE CONTROLS

We believe the Administration's decontrol program constitutes a significant and necessary step to move the Nation toward sound solutions of its most serious energy problems. The gradual removal of government controls on crude oil prices will provide many benefits to American consumers and the American economy:

First, it will provide incentives for oil producers to increase production from existing reservoirs, find new reserves, and encourage development of alternative energy sources;

Second, it will permit the generation of capital to replace existing energy supplies;

Third, it will encourage conservation;

Fourth, it will eliminate the entitlements program; and

Fifth, it will help fulfill the President's international commitments to raise domestic crude oil prices to world levels and restrain petroleum imports.

1. Decontrol Will Provide Incentives For Oil Producers To Find New Reserves, Increase Production From Existing Fields, And Encourage Development Of Alternate Energy Sources

The phased decontrol program initiated by the President will provide the incentives and the capital to stimulate more drilling and production. The historical record shows that every time there has been an increase in oil prices, there has been a major increase in drilling activity. The removal of government controls, bureaucracy and red tape will help to guarantee the development of this country's petroleum potential. Past actions demonstrate that oil companies will not only reinvest the added revenues in energy production, but will supplement their cash flow with borrowed funds to increase production even further. There has been a direct relationship between price movements -- which resulted in making more or less incentives and money available for exploratory and development drilling -- and the amount of drilling actually done.

This is evidenced over the entire period since the end of World War II when price controls expired. Expressed in constant 1978 dollars, U.S. crude oil was then selling for $5.27 a barrel. A decade later, the price was $6.93 (in 1978 dollars). In that same period, exploratory wells increased almost threefold -- from 6,775 to a high of 16,173 in 1956. And development wells went from 24,067 in 1947 to nearly 41,000 in 1955 and 1956. Oil company expenditures for exploration and production increased (in 1978 constant dollars) from about $4 billion in 1946 to almost $10.7 billion in 1956.

In 1954, federal price controls were imposed on natural gas sold across state lines. This action not only restrained natural gas prices; it soon began to depress crude oil prices indirectly as well. Expressed in 1978 constant dollars, the average wellhead price of domestic crude oil declined from a high of $6.44 per barrel in 1956 to $6.00 in 1968 and had recovered to only $6.23 by 1971.

Another factor having a restraining effect on crude oil drilling was the mandatory import control program that was imposed in 1959. Provisions of the program resulted in government warnings against increases in the price of crude oil and investigations when prices were raised.

When prices failed to provide the stimulus during the period 1957-71, annual domestic exploration and production expenditures declined from about $10.7 billion to $7.5 billion (in 1978

constant dollars), and the number of wells dropped sharply. The U.S. oil industry drilled a record high of 57,077 exploratory and development wells in 1956. By 1971 the total was down to a post-World War II low of 25,851 wells.

On the other hand, when oil prices, adjusted for inflation, increased between 1973 and 1976, the number of exploratory and development wells rose from 26,592 to 39,765. Since 1976, the real prices of domestic oil have declined -- that is, they have not kept pace with inflation because of government controls, and the rate of increase in drilling has slowed accordingly.

While it is impossible to calculate how many additional dollars will generate how many new barrels of oil, one thing is certain -- the supply of crude oil is positively related to the price per barrel. There is no doubt that additional petroleum supplies can be produced in the U.S. The constraints on developing domestic energy resources have been largely economic and political, not physical.

Under existing tax laws, federal and state governments will receive between 50 and 60 cents of each additional dollar collected by the oil companies as a result of decontrol. The oil companies would be left with about one-third or less of the extra dollar, after paying dividends to shareholders and royalty fees to landowners. With that added revenue remaining out of the incremental dollar -- and barring the application of a "windfall profit" tax -- various oil companies estimated before the recent

OPEC price increases that the industry could increase U.S. oil and natural gas production by the equivalent of about 1.5 million barrels a day by the mid-1980s over what it otherwise would have been. This production increase will not happen overnight, but will require a consistent and an intensive effort.

This additional oil will come primarily from two sources:

Older fields - More extensive and more costly efforts will be made to increase production of so-called "old" oil. This includes reworking existing wells, drilling additional wells in existing reservoirs, installing conventional waterflood and pressure maintenance programs, and other projects for additional production stimulation. Several oil companies estimated that as much as 600-700 thousand barrels a day of additional "old" oil can be recovered from existing fields with such projects. This source offers the opportunity for the earliest supply response to higher crude oil prices.

New field exploration - Exploration efforts on new fields will lead to the discovery of additional reserves to support future production. Oil companies estimate that new discoveries could add some 700,000 barrels a day by 1985. These new discoveries would come from reservoirs previously too small to be considered economic under price controls, from frontier areas (both offshore and onshore), and from deeper drilling in known oil provinces.

The estimates are based on the assumption that government regulations will allow oil producers to search for new supplies on federal lands and on the outer continental shelf. (At present, hundreds of millions of acres of land onshore and the major portion of the outer continental shelf have not even been made available for leasing for petroleum exploration.) The estimates also assume substantial progress in balancing environmental concerns with energy needs.

Finally, since natural gas is often found in the search for oil, some of the additional petroleum production could be in the form of new natural gas supplies.

2. Decontrol Will Permit Generation Of Capital To Replace Existing Energy Supplies

Oil companies have increased their U.S. drilling activities and their capital spending since the 1973-74 oil embargo. But a still greater effort is needed. The President's phased decontrol program will help oil companies generate internal funds required for this effort and attract outside investment.

Independent bank studies have concluded that the industry will have to expand its capital investments greatly in coming years just to maintain present oil and gas reserves. In order to achieve that result, both Bankers Trust Company and Chase Manhattan Bank estimate that industry expenditures on exploration and production will have to average some $40 billion annually over the next [illegible] years, in comparison with about $20 billion

annually in recent years (both figures in constant 1978 dollars). That is, expenditures would have to double in real terms.

The additional $20 billion annually is almost twice the $12 billion increase in the industry's annual gross revenue (in 1978 dollars) expected as the result of decontrol -- before all taxes. After payment of existing taxes and government royalties with no windfall profit tax, decontrol would net companies less than $6 billion annually (in 1978 dollars) -- 30 percent of the increase in capital requirements. With H.R. 3919 as passed by the House, producers would be left with only about $2.5 billion annually (that is, less than 20 cents on the incremental dollar).

To meet these sharply higher exploration and production expenditures, petroleum companies must be able to generate large amounts of capital internally -- through improved earnings and through such capital recovery provisions as amortization and depreciation. They must also borrow money and issue new stock to obtain part of the funds they need.

When the companies go into the capital market, they must compete with many others seeking investment dollars, including the federal government and other businesses of all kinds. Investors will naturally put their money where they believe they have the best chance of earning a good return.

The best way to measure one company's performance against that of others is profitability -- the ratio of profits to investment. Return on stockholders' equity is the most commonly used measurement of profitability. This measures profit as a percent of the stockholders' investment.

Data compiled by Citibank indicate that the oil industry's return on equity over the ten years 1969 through 1978 has been about the same on average as that for all manufacturing industries. Based on preliminary Citibank figures, oil company return on equity was 14.3 percent in 1978 compared to 16.5 percent for all other manufacturing. The oil companies' average rate of return on equity was below that for all manufacturing in five of the last 10 years.

It is obvious, then, that although petroleum company profits are large in dollar amounts, they are not out of line with those of other industries when measured as a rate of return on investment. In the industry and the financial community there is grave concern over whether oil company profits are strong enough to support the kind of expansion in exploration, drilling and production which this country needs.

After paying all operating costs, expenses and taxes, oil companies' net petroleum profits have amounted to about three cents for each gallon of oil and refined products sold.

A Chase Manhattan Bank study of 27 leading oil companies shows that in the decade 1968-77, an average of 90 to 95 cents of every dollar earned went to cover operating costs, expenses and taxes.

The Chase study also shows that the capital and exploration expenditures of the 27 companies in 1977 were twice as large as their net profits. Their taxes were more than 2-1/2 times higher than their net profits.

As one way of meeting their capital needs, oil companies are increasing their debt. By 1977 the 27 companies studied by the Chase Bank owed more than three times as much money as they owed 10 years earlier. The study shows that between 1973 and 1977 (in current dollars) the capital expenditures of the major oil companies grew by $10 billion, their total borrowings rose by about $13 billion, and their earnings increased by only $2.5 billion.

Smaller producers wishing to borrow capital for new exploration frequently find they must use existing producing properties as collateral since lenders obviously cannot accept the risk of exploratory drilling. Decontrol would increase future revenues from existing properties and would support higher levels of borrowing to finance current exploration and development for these small producers.

Here are a few examples of the higher costs encountered by oil companies:

o Oil companies drilled nearly 44,000 wells in the U.S. in 1961, for a total cost (in 1978 constant dollars) of just under $5.3 billion. After a decline to about 25,000 wells, drilling rose again to almost 44,000 wells in 1977. But the price tag for those wells in 1977 was nearly $10.8 billion (1978 constant dollars) -- a real cost increase of 104 percent since 1961.

o Measured in 1978 constant dollars, the cost of the average offshore well increased by 100 percent between 1967 and 1977. The average offshore well in 1977 cost nearly $1.8 million

(in 1978 constant dollars) to drill, and wells in some frontier areas cost much more.

o The Bureau of Labor Statistics reports that the cost of oil field machinery and tools increased by nearly 132 percent in the decade 1969-78. That compares with an increase of 96.5 percent in the wholesale price index for all commodities during the same period -- or a 75.4 percent increase in the GNP implicit price deflator over the same period. Similar increases were recorded for steel pipe and many other items used in drilling. Thus, producers are having to contend with higher-than-average increases in their operating costs.

Faced with such costs, oil producers must generate increased capital if they are to produce more energy and meet national needs. The President's phased decontrol program will help the producers accomplish this task.

3. Decontrol Will Encourage Conservation

Government price controls have misled the average consumer regarding the true value of oil and natural gas. Since the prices of oil and gas were low, the consumer naturally assumed that there was no supply problem.

But, by holding prices artificially low, the government encouraged consumption and depressed production at the same time. Low prices encouraged the consumer to buy and use gasoline, heating oil and natural gas in large quantities, with little thought to efficiency and energy conservation. At the same time, controls have deprived the consumer of domestic fuel production

that could have shielded him against foreign political decisions and events, and have slowed down the production of the unleaded gasoline which federal law requires in most late-model automobiles.

Increasing domestic consumption and inhibiting domestic production naturally led to increased imports. And by making the use of oil and gas so economically attractive, the government discouraged consumers and investors from turning to new forms of energy.

By allowing prices to reflect the true value of oil, decontrol will bring about a significant reduction in oil consumption in the U.S. Industry estimates have indicated that by 1985 decontrolled prices will lead consumers to reduce consumption by some 500,000 barrels of oil a day.

4. Elimination Of The Entitlements Program

One result of the President's phased decontrol program will be the elimination of the Department of Energy's entitlements program. The President's National Energy Plan, published in 1977, called the entitlements program "an administrative nightmare."

Under the entitlements program, refiners who use lower-priced domestic crude oil must pay amounts -- specified by the government -- to refiners who use more expensive foreign and domestic crude. This tends to even out costs for refiners, but the continued control of domestic crude prices camouflages the actual costs to the economy of subsidizing the purchase of large amounts of foreign oil and penalizing production from older fields in the

U.S. This leads many consumers to use oil less efficiently than they would if they paid the real replacement cost of oil.

The entitlements program has been changed in various ways to help small refiners, Puerto Rican petrochemical plants, home heating oil marketers, East Coast importers of heavy fuel oil, and other groups. Thus, the price control, allocation and entitlements programs have grown incredibly complex. After years of rule-making and revisions, some of the regulations are so complicated that no one is entirely sure what they mean. District Judge John Manos, while hearing a pricing case in Cleveland, Ohio, involving several oil companies, said in January 1978 that the companies could not be held responsible for misunderstanding regulations which he described as "remarkably inept and self-contradictory."

Elimination of the entitlements program will significantly reduce government bureaucracy and red tape and will encourage more efficient use of energy.

5. Decontrol Will Help The United States Meet The President's Bonn and Tokyo Commitments

In July 1978, President Carter met at Bonn, Germany, with other world leaders in an economic Summit conference. In the final communique was his commitment that "the United States remains determined that the prices paid for oil in the United States shall be raised to the world level by the end of 1980."

The President and his advisors have said many times since that they stand by that pledge. They have frequently restated it and they have specifically addressed the relationship of such pricing to such major U.S. problems as energy imports, conservation, the value of the dollar and inflation.

In deciding to decontrol crude oil prices gradually, the President has chosen the most effective approach for substantially meeting the Bonn commitment.

This step will help solve the Nation's energy problems. It will hold down future imports consistent with the President's Tokyo commitment, and will convince the world we are serious about confronting our energy problems. It will help strengthen the dollar and will have no significant impact on inflation.

It is economically unsound that oil produced in this country is required to be sold for only half as much as (or less than half as much as) the prices we have to pay foreign producers for their oil.

Replacement-cost pricing will encourage consumers to make the most efficient consumption decisions. It will help provide producers with funds to invest in finding and producing new petroleum supplies and developing additional energy sources. And it will signal when supplemental forms of energy become economic and should be brought to market.

B. ANY ADDITIONAL TAXES ARE UNWARRANTED AND INAPPROPRIATE

The President's plan to decontrol gradually the price of domestic crude oil will provide the incentive and the capital to finance an expansion of domestic oil and gas supplies. Any additional taxes on this revenue beyond the substantial tax burden already borne by producers would be counter-productive toward this expansion of supply. Additional taxes would also represent an unwarranted, inappropriate and inequitable treatment of the petroleum industry compared with other industries in this country.

1. Government Takes Largest Share

Viewed from any perspective, the largest share of any increase in the wellhead price of crude oil would flow to government. The precise share of revenue which would be received by government depends on whether the analysis views the situation with or without reinvestment of the available cash flow. However, regardless of approach or assumptions as to the nature of any reinvestment expenditures, the federal, state and local government share of any crude oil price increment would range from 50 to 60 percent, even without new taxes.

If one assumes none of the incremental revenue is reinvested, federal, state and local governments would capture an estimated 58 percent of that revenue after normal dividend distribution and producers would have only about 28 percent

available for reinvestment. If one assumes that any incremental crude oil price increase is used by producers in their ongoing operations, including reinvestment in finding and developing new crude oil reserves and none is distributed to sharenolders, government would still receive the largest share of this revenue. Set out below is a table showing the distribution of any crude oil revenue under these two assumptions. Further details are set forth in Attachment I.

	Without Reinvestment	With Full Reinvestment
State and Local Governments		
Royalties	.01	.01
Taxes on Private Royalty	.01	.01
Taxes on Producers	.09	.12
	.11	.14
Federal Government		
Royalties, Bonuses, Rentals	.02	.08
Taxes on Private Royalty	.05	.06
Producer Income Tax	.35	.21
Income Tax on Dividends	.05	--
	.47	.35
Total Government	.58	.49 1/
Total Private Royalty Owner	.06	.07
Total Sharenolder	.08	.00
Total Available for Reinvestment by Producer	.28	.44

1/ Plus taxes on suppliers of goods and services.

Accordingly, viewed from any perspective, the government, not the petroleum industry, would capture the bulk of any so-called

"windfall" attributable to the increase in domestic crude oil prices. No additional tax is required to insure a dominant government participation in the flow of additional revenue from decontrol. Those participating in the national energy policy debate should not be concerned with whether the government will take too little of this incremental revenue from oil producers, but whether under existing law the government will take too much because existing capital recovery allowances fail to recognize current replacement costs.

2. There Is No Windfall

In his April 26, 1979, Message to Congress, President Carter recognized that a benefit of the gradual deregulation of crude oil was that "through replacement cost pricing, new sources of energy will come into commercial use, further reducing U.S. dependence on foreign oil." We applaud the President's understanding that oil producers must receive the replacement cost or true value of oil. We question the wisdom of recommending a tax that would take a substantial portion of this revenue away from new exploration and development.

Based on past performance, any increment in the receipts by oil producers from the sales of domestic crude oil will be consumed in attempts to replace that crude oil with new reserves. In order to reflect accurately the economic benefit of the sale of a barrel of crude oil from existing reserves, it is important to relate the current revenue received to the current replacement

cost of that barrel. To classify as "windfall" the difference between the current artificially controlled price and current market prices without recognizing the replacement cost of those crude oil reserves is short-sighted and self-defeating.

The rationale of matching revenues with replacement costs is certainly not new and has had long acceptance in the financial world for determining the real net income of businesses in which inventories play a substantial role. Since the 1930s, the last-in, first-out (LIFO), or replacement cost, method of costing inventory has been approved by accounting authorities as a method which is appropriate for net income determination for both financial and tax purposes. The LIFO method of dealing with inventory was developed to mitigate the distortion of a company's earnings that otherwise might have resulted. If relatively constant inventory levels were valued higher solely because of inflation, phantom or paper profits would be produced. Price increments during periods of inflation are not treated as "profit" under LIFO when such increments are used merely to replace inventory. In a continuing business, inventory profits cannot be used to pay taxes, operating expenses, or dividends but must be retained in the business to replace goods sold in order for a business to continue to operate in periods of rising prices.

While conventional financial and tax accounting concepts do not classify a producer's crude oil and gas reserves in the

ground as "inventory," the analogy is clear. A producer must find and develop a certain level of oil and gas reserves in order to maintain a given level of production. These reserves are the producer's "inventory" which must be replaced, as produced, by newly-discovered reserves if the producer is to remain in business and the Nation is to have future domestic petroleum supplies. In a period of rising costs of finding and developing new reserves, the producer's profit must be sufficient to provide for replacing each barrel sold with a new barrel of reserves in the ground. Short of that, the petroleum reserves and consequently our business will be liquidated.

Current replacement costs for finding, developing, and producing new reserves are accelerating at an even faster rate than that of other goods and services. It is, therefore, clear that allowing the market value of domestic crude to rise to world market levels will not offer opportunity for "windfall" profits.

Unfortunately, the present tax structure ignores inflation and imposes a substantial tax on phantom profits, which in essence is a tax on capital. While this problem is shared with all business, it is particularly acute in the petroleum industry because of the long lead times necessary to develop new reserves and the relatively long producing lives of many properties. Obviously the historical costs of finding and developing present reserves ten, twenty or thirty years ago bear little resemblance to the cost of replacing those reserves today. Thus, instead of

seeking new and additional taxes on crude oil production, the government should be developing ways of eliminating the present inflation tax on capital for all businesses including the petroleum industry.

C. THE "WINDFALL PROFIT TAX" (WPT) H.R. 3919

Any new or additional tax on domestic crude oil operations, such as the so-called "Windfall Profit Tax" passed by the House on June 28, 1979, would hinder an aggressive domestic exploration, development and production program, and interfere with natural market incentives to increase domestic energy supplies. With this thought in mind, let us examine some of the basic flaws in H.R. 3919.

The Windfall Profit Tax In Brief

The bill before the Committee would divide U.S. crude oil into the following categories for purposes of levying the tax:

Tier 1: Released "lower-tier" (old) oil brought into production through 1972 -- to the extent that production volumes do not exceed a 1-1/2% tax decline line.

Tier 2: "Upper-tier" oil brought into production after 1972, marginal oil, released lower-tier volumes in excess of the specified decline, and lower tier volumes released to finance tertiary projects (so-called "front-end" tertiary).

Tier 3: Newly discovered oil, incremental certiary production, stripper production, Alaska North Slope (Sadlerocnit) production, and any Tier 1 or Tier 2 oil remaining after 1990.

The WPT for each tier would become effective January 1, 1980, and in general would be 60 percent of the difference between the selling price and the tier base price, adjusted for inflation and state severance taxes. Sadlerochit and that portion of the price increment on newly discovered and incremental tertiary between $17 and $26 per barrel (adjusted for inflation but not for state severance taxes) would be taxed at a 50 percent rate.

The base prices for Tier 1 and Tier 2 would be the May 31, 1979, controlled price plus inflation after June 1, 1979. The base price for Tier 3 generally would be structured using an assumed import price averaging $16 per barrel plus inflation after January 1, 1980. Newly discovered and tertiary would use $17 instead of $16 in structuring the base price, and Sadlerochit would use $7.50 as the base price.

The tax on Tier 1 oil would be phased out by July 1984. The tax on Tier 2 oil would be phased out by the end of 1990. The tax on Tier 3 oil would never be phased out, except that it would terminate on newly discovered and incremental tertiary at the end of 1990.

The Tax on Tier 1 Oil

It must be recognized that there is a need to provide incentives for increasing or maintaining production from properties producing old oil, because this offers the best opportunity for relatively quick supply response to higher real prices. Any tax on this oil will reduce incentives to invest in projects to increase its production.

The Administration and the House have recognized the importance of this category of crude oil by permitting its price to increase for volumes in excess of specified amounts. Unfortunately, the House made it more difficult to meet the volume requirements by reducing the specified decline rate from the Administration-proposed 2% to 1-1/2%, thus eliminating some production which would have been economically viable with the 2% decline rate. The House Bill also compounds the complexity of the Tier 1 tax by deviating from DOE policy decisions on the procedure for computing base production control levels (BPCL), which provide the starting point of the decline line. Certainly, both energy policy and administrative convenience would be best served if the WPT utilized the same BPCL computations as the DOE prescribes.

In the final analysis, complete elimination of the tax would provide the maximum incentive to invest in drilling additional wells, waterflood and pressure maintenance programs, and other production stimulation projects to increase production of old oil, both from a standpoint of near-term production levels and

ultimate recovery of crude oil from such properties. This would materially aid in providing incentives and funds needed for such investments to stem or retard the natural decline in old fields. But, I must tell you that unless domestic crude oil prices are allowed to reach market levels, undiluted by imposition of a special tax, billions of barrels of oil will be left in the ground.

The Tax on Tier 2 Oil

Delaying completion of the phaseout of the tax on Tier 2 oil until January 1, 1991, dilutes the market-based incentive to invest in projects to increase production from upper tier properties. The sooner producers are allowed to receive market prices for crude oil, the sooner they will have maximum incentive to invest in projects which could begin yielding additional supply response in the early and mid-1980s. Such action would also tend to restore producer confidence in the federal government which: (1) in 1976, reneged on the promise of market prices for "new" oil developed during the period 1974-75 and rolled back prices $1.32 per barrel below September 1975 levels, and (2) has even denied the full adjustment permitted by law for inflation since February 1, 1976.

The Tax on Tier 3 Oil

The tax on Tier 3 oil is inconsistent with the supply objectives of the Administration's program. It fails to offer

the essential incentive that will maximize the production of energy in the United States and instead provides the specter of continued reduction of producer revenues below world levels -- the ultimate disincentive. It says to the world that the U.S. will continue a policy of paying more for imported crude oil than it is willing to allow its own producers to receive for domestic production from new discoveries or existing fields. It would substitute a permanent tax "cap" on producer realization for the existing regulatory cap on all presently flowing crude oil other than newly discovered or incremental tertiary.

The Tier 3 tax licenses OPEC to increase oil prices by more than it might do otherwise. OPEC has repeatedly said that its prices are set with reference to what non-OPEC producers would have to spend to bring forth alternative supplies. What non-OPEC producers can afford to spend depends somewhat on government taxes. Higher taxes mean less potential competition and invite OPEC to set higher prices. Indeed, with a 50 percent excise tax, OPEC could raise its price twice as much as real costs increase in the U.S. and still remain competitive with U.S. oil and gas producers. The WPT would continue to encourage future OPEC price increases until such time as alternative U.S. energy supplies begin to supplant OPEC production.

EXAMPLE: If U.S. real costs of producing oil and gas rise by $4 per barrel with no incremental excise tax, the OPEC price could also rise $4. However, with

a 50 percent excise tax on the incremental revenue received by U.S. producers, OPEC could raise its price by $8 -- since that action would automatically trigger another $4 of U.S. tax costs applicable to the new domestic oil production. With a 60% excise tax, OPEC could raise its price by $10 for every $4 of increase in U.S. real costs -- with an 80% rate, $20.

The House mitigated one of the most objectionable features of the Administration's tax by terminating its application to newly discovered oil and incremental tertiary at the end of 1990. However, the existence of such a tax during the decade of the '80s will have a chilling effect on many high risk prospects. Not only does the tax reduce the near-term attractiveness of such projects, but it raises the specter of possible extension when 1990 rolls around. At the very least, it should start phasing out well before 1991.

By departing from the DOE's workable definition of newly discovered reservoirs, the House bill unduly complicates the measure and discourages production from the excluded properties.

Application of the tax to newly discovered oil also ignores the fact that the real costs of developing additional domestic supplies may be much higher than the $16 or $17 base price for Tier 3 and the fact that consumers may be paying far more for foreign oil -- the price is already $22, according to Administra-

tion estimates. Such a short-sighted policy is difficult to square with a goal of decreasing dependence on foreign energy supplies and diminishing OPEC's ability to raise prices unilaterally.

If we are to reduce this dependence on foreign supplies, we must begin today looking at prospects which may require real prices in excess of $16 or $17 in order to bring them into production in the mid and late 1980's. The most immediate response could come from exploration and development of small, high-risk geologic prospects near areas of known production. Most of the high potential domestic geologic structures lie in deep offshore waters, in the far flung reaches of Alaska, or in the very deep basins onshore. All of these areas are extremely expensive to explore, develop and produce. Without the assurance of market prices unencumbered by additional taxes, many of these high cost prospects will fail to meet investment criteria and may not even be tested to determine if hydrocarbons are present. At any given price level, a given number of projects may be undertaken; and fewer projects meet the investment criteria as the anticipated price becomes lower. Thus, with the WPT reducing net realization, some projects will have been eliminated at a certain price level even though we may be paying that same price to a foreign supplier. To avoid this absurd result, the proposed tax should not apply to newly discovered crude oil.

The inclusion of incremental tertiary production in the Tier 3 tax base dilutes the incentive intended by the decision to allow market prices. The restrictive tax requirements that tertiary status does not necessarily begin with first injection, but does cease immediately at the end of the injection phase are punitive and counterproductive. Similarly harmful are the requirements that there be increased recovery, not merely accelerated recovery and that the project be economical only with preferred tax status. Rather than diminishing the incentive for tertiary projects, it would seem far more logical to improve it by eliminating the arbitrary distinction between "incremental" production and that which otherwise would have been produced. Even more oil would be recoverable with an accelerated cost recovery mechanism applied to the heavy front end costs of such projects. If all production from tertiary projects were exempt from all WPT and cost recovery improved, these high-cost, high-risk projects would have a far better chance of becoming economically viable.

The inclusion of stripper production in the Tier 3 tax base flies in the face of the carefully weighed Congressional policy decision to allow market prices for such production. It could result in an effective price rollback for such crude on January 1, 1980, since average stripper prices are already above the arbitrary $16.00 foreign parity specified in the bill. Such price rollbacks could force producers to abandon some high cost properties prematurely.

Similarly, the extension of the Tier 3 tax by the House to production from the Alaska Sadlerochit reservoir, our largest known field, will result in price rollbacks which will jeopardize maximum development and recovery of crude oil from that formation. A more detailed discussion of the adverse impact of the tax on future development of this most important field is contained in testimony presented on behalf of the principal operators by Messrs. Whitehouse, Slick and Kieschnick before the Senate Finance Committee on June 12, 1979. Clearly, the nation's energy needs would be best served by exempting Sadlerochit along with newly discovered, tertiary and stripper production.

The establishment of a general Tier 3 tax reference base of $16 is inequitable and recalls the kind of price rollbacks forced on the industry in February 1976 when ceiling prices were imposed on then "new" and stripper oil. The $16 base price is derived from the December 1978 announced OPEC market price for December 1979 and is far below the existing uncontrolled price, which is in the range of $22. It will result in a Tier 3 tax even with no future OPEC real price increases. Moreover, it fails to adjust fully for inflation for the remainder of 1979. Certainly, any such artificial tax reference price should coincide with actual uncontrolled wellhead prices on the date the tax becomes effective. At the very most, only real price increases occurring after that date should be taxed.

It should be noted that even a Tier 3 base price established with reference to prevailing stripper prices would become insen-

sitive to future changes in the relationship of uncontrolled prices among various crudes resulting from future changes in market conditions. Consideration should be given to providing periodic adjustments in the Tier 3 base price to reflect changing uncontrolled market price relationships.

Comments Applicable To All Three Tiers

o Tax Rates

The use of multiple tax rates adds unnecessary complexity. All rates should be the same and should not exceed 50%, as originally recommended by the Administration. In view of the high taxes already imposed on the incremental dollar from decontrol, the action of the House in raising the rates on some categories of oil to 60% is unwarranted and counterproductive.

o State and Local Taxes

The House recognized the need to take into account the additional state and local taxes incurred by producers on the increased wellhead revenues for those categories of crude oil taxed at 60%. The severance tax adjustment should be extended to all categories of crude oil irrespective of WPT rate. Existing state and local severance taxes range from about 5 percent to 12-1/2 percent of the value of crude oil at the wellhead. Thus the federal WPT effective rate on producers' net realization after severance taxes would vary from state to state. To avoid this disparity, as well as a "tax on a tax," it is essential that the WPT base be reduced by the additional state and local severance and other taxes resulting from increased wellhead prices.

Furthermore, the WPT should be clearly recognized as an exise tax for all purposes, as it is not a tax on or measured by income or profits.

o Inflation Adjustment

The inflation adjustments envisioned for the various tier base prices would perpetuate the inequity that has existed under the pricing regulations which use the GNP deflator. The more general inflation indices such as the GNP deflator and the Consumer Price Index do not reflect the steeper rate of inflation experienced in costs of finding, developing and producing oil and gas. In order to measure more accurately the impact of inflation on the petroleum industry for purposes of adjusting the base prices, we would urge that the Producer Price Index for Oil Field Machinery and Tools as published by the Bureau of Labor Statistics be used. Alternatively, as the staff of the Joint Committee on Taxation has suggested in the pamphlet, "The Design of a Windfall Profit Tax" (page 31) a "kicker" could be added to the GNP deflator. Based on past industry experience, this kicker should be in the range of three to four percent annually.

o Production Payments

Where a carved-out or reserved production payment, or similar interest, has been created out of a larger interest prior to the enactment of a tax such as the one under consideration here, the question of which interest should initially bear the burden of the tax presents serious property right problems. The bill shifts the tax burden to the holder of the residual interest even

though he may never receive the production or the proceeds from sale of production. It is our belief that the tax burden should follow the proceeds from production in order to avoid the changing of property rights and creating tax liabilities that could be in excess of the value of the residual property interest involved. For example, if a well blows out, or a property is otherwise destroyed or becomes worthless after several years of having accrued tax liability, the residual interest owner could have huge tax liability, without having property values to meet that tax obligation.

o Reduction of Depletable Income

We fail to see any justification for reducing depletable income for the smaller independent producers or royalty owners by the amount of the WPT base. In 1975, percentage depletion on crude oil was completely eliminated for integrated producers and sharply curtailed for independents on the premise that market prices provided all the incentive that was necessary. The industry is still waiting for those market price incentives to materialize. Further erosion of the depletion deduction is clearly unwarranted, and will deny an important incentive to potential new entrants into the petroleum industry.

Attachment I

Removal of Federal Crude Oil Price Controls; Where Will the Added Revenue Go?

If price controls are removed from domestic crude oil and prices rise to world market levels, there will be additional revenues from oil that is produced and sold in the United States. This raises the question of where these additional funds will go.

The answer to the question is: Of each dollar generated by increased domestic crude oil prices, a large part -- probably the largest part -- will go to the federal government and various state and local governments as taxes and other payments to government; part of the added dollar will go to the producers of the oil -- most of which in turn will be reinvested in energy development projects and part paid out in dividends to the shareholders who risked their capital in the companies' ventures.

When examining the distribution of additional crude oil revenues, two questions arise:

First, how much of each additional dollar will go to private entities and how much will go to government?

Second, what is the effect on the distribution, under existing laws, when producers reinvest their share of the added revenues?

Ultimate division of the added revenues depends on, 1) the application of the tax laws to specific situations, 2) the royalty agreements with property owners, and 3) the amount of the added revenue which is reinvested. The last two factors could vary widely from producer to producer.

It is possible, however, to show the range of possible answers to the "who gets what" question by working out two examples which assume circumstances covering the range of investment possibilities.

Example #1 in the table below shows the distribution of an incremental dollar before any reinvestment. This example represents the maximum amount of each added dollar that could be expected to go to governments.

Example #2 in the table shows what the final distribution of the incremental dollar would be assuming all the company's additional revenues were reinvested (and, therefore, some taxes

postponed and no dividends paid). This example represents the maximum that would go to the private sector.

The real answer is somewhere in between the two cases. Governments, therefore, will get somewhere between 49 cents and 58 cents of each added dollar; and the private sector will get the rest.

The following table is a breakdown of how the incremental dollar will be distributed in two cases:

	Example #1 Without Reinvestment	Example #2 With Full Reinvestment
State and Local Governments		
Royalties	.01	.01
Taxes on Private Royalty	.01	.01
Taxes on Producers	.09	.12
	.11	.14
Federal Government		
Royalties, Bonuses, Rentals	.02	.08
Taxes on Private Royalty	.05	.06
Producer Income Tax	.35	.21
Income Tax on Dividends	.05	--
	.47	.35
Total Government	.58	.49*
Total Private Royalty Owner	.06	.07
Total Shareholder	.08	.00
Total Available for Reinvestment by Producer	.28	.44

Example #1 represents the situation which would obtain if a company made normal dividend distribution from the added revenues but not reinvest any of the remaining funds. In this case, maximum current taxes would be paid to the governments -- 45 cents of each incremental dollar in the form of federal income taxes and another 10 cents to states as severance taxes, property taxes on crude oil reserves and state income taxes.

* This amount is actually understated to the extent of governmental revenues from taxes paid by suppliers of goods and services.

Federal, state and local royalties would add another three cents to the governments' share -- a total of 58 cents.

The 42 cents left over for the private sector likely would be distributed roughly in this way: about six cents to private royalty owners, about eight cents to shareholders and about 28 cents to producers.

Example #2 illustrates the distribution of the incremental dollar assuming all of the added revenue is reinvested; none is distributed to shareholders; and taxes are then paid under existing laws. This situation is the opposite of the case in which no reinvestment occurs, and it would maximize the initial company share of each added dollar. The major reason for the difference is that reinvestment of revenues postpones, or defers, the payment of some taxes. Case #2 takes into account, for example, current tax deductions allowed to oil companies for expenditures related to development investments, such as "intangible drilling costs" -- labor, fuel, repairs, hauling and the like, whch have no salvage value. It is to be noted that these current tax deductions are merely timing differences -- not tax forgiveness.

Assuming the company has reinvested its added revenues in development projects and that such deductions have been taken, the federal government would get 27 cents in taxes from producers and royalty owners plus some 8 cents in bonuses, rents and royalties on federal properties for a total federal share of 35 cents. Added to the state and local governments' take of 14 cents, 49 cents in all would go to governments. In formulating the investment pattern in Example #2, historical industry investment experience was used.

In this case of total reinvestment by producers, shareholders would of course get no additional immediate dividends. On the other hand, private royalty owners would get seven cents and the producer would receive 44 cents which would be used for reinvestment. Total tax payments would be increased beyond the numbers given here because some of the reinvested funds would go to petroleum industry suppliers of goods and services who would pay taxes. So, although the example here of total reinvestment shows 49 percent of the added revenues going to government in the first instance, the actual tax share would be larger.

Real world results would lie in between the two examples pre[illegible]d in this paper. There would be some reinvestment of the [illegible]enues, because these are funds which the producers must [illegible]intain and increase production from existing fields and [illegible]d produce from new fields. At the same time, of

course, some of the added revenues would almost certainly be distributed to shareholders who risked their capital in the company's investment ventures -- a move which would help attract new equity capital.

Under any circumstance and with current tax laws in effect, the government's share of any added revenues from increased crude oil prices would be greater than half of the incremental dollar. In fact, the average government share -- taxes and royalties, state and federal -- should be in the neighborhood of 55 cents of each added dollar.

BACKGROUND STATEMENT OF JACK F. BENNETT, SENIOR VICE PRESIDENT AND DIRECTOR, EXXON CORP., IN BEHALF OF AMERICAN PETROLEUM INSTITUTE, MID-CONTINENT OIL & GAS ASSOCIATION, ROCKY MOUNTAIN OIL & GAS ASSOCIATION, AND WESTERN OIL & GAS ASSOCIATION

SUMMARY OF POINTS

I. PRINCIPLES AND HISTORY OF THE FOREIGN TAX CREDIT (Page 1)

(1) The United States uses the foreign tax credit to prevent double taxation of foreign income earned by its citizens; other countries either use the credit or exempt foreign source income from tax. Thus, the credit is essential to the international competitive viability of all American companies.

(2) The tax credit has been used in this country since 1918. Since 1921, any foreign taxes in excess of the U.S. tax on foreign source income cannot be used as credits to reduce taxes on domestic source income.

(3) Since 1942, foreign taxes imposed in lieu of qualifying income taxes are creditable. For petroleum operations, however, questions continue to be raised about what is a creditable tax and what is a royalty.

(4) The IRS has been interpreting creditability narrowly, even though: (a) all sovereign governments may impose income taxes; (b) all landowners may negotiate contractual royalties; and (c) the tax-royalty issue is now moot in some countries.

(5) In 1975-76, Congress imposed severe limitations on creditability of petroleum taxes and deductibility of petroleum losses: (a) unused credits from extraction operations may not be used against U.S. tax on any other form of income; (b) a net exploration loss in a country can be deducted only from oil-related income; and (c) the per country method of limiting the credit was repealed.

(6) Despite the 1975-76 restrictions, the Administration now proposes to restrict deductibility of exploration losses even more and to limit the credit on extraction income by the higher-tax method, with a retroactive loss recapture provision.

II. THE NATIONAL INTEREST IN U.S. OIL COMPANIES ABROAD (Page 11)

(1) The United States will continue to need large volumes of oil imports even with a concerted effort to conserve and develop new domestic supplies. We must, therefore: (a) increase worldwide oil supplies; (b) diversify sources of supply; and (c) strengthen the participation of U.S. suppliers in world markets, lest the nation become dependent on foreign companies -- especially government-owned foreign companies -- for its oil imports.

(2) Three-fourths of the non-communist world's undiscovered reserves are probably outside the Middle East. U.S. policies must not discourage diversification of supplies into these areas.

(3) A number of the world's major oil concessions have been nationalized, and foreign consuming countries are giving preferential tax and non-tax treatment to their own countries. Even so, a vital place remains for American companies if U.S. policies permit them to continue to exercise their managerial and technological skills.

(4) American companies have participated in discovering a majority of the non-communist world's oil reserves and continue to do so in areas where they are permitted to operate.

(5) In 1977, 70% of the footage drilled overseas by 14 large American companies was outside of OPEC (30% in LDC's, 40% in developed countries). From 1972 to 1977, these companies increased their overseas exploratory drilling by 38% outside of OPEC and held about even within OPEC. In the non-OPEC less developed countries, the increase was 37%. No area is being neglected.

(6) During 1975-77, American petroleum companies made an annual average net contribution of about $2.3 billion to the U.S. balance of payments -- not including exports of goods attributable to their presence abroad.

III. THE ADMINISTRATION PROPOSAL ON THE FOREIGN TAX CREDIT FOR PETROLEUM (Page 19)

(1) Under present law, foreign exploration losses in new countries are deductible from total oil-related income, as is appropriate for an integrated operation. Better would be deductibility from any income, as in the United States.

(2) The Administration's proposal for deducting such losses only from income from profitable extraction countries would result in a burden on exploration in new areas abroad. This result would occur where aggregate refining, transport, and marketing income is taxed at less than the U.S. rate -- and (contrary to the Administration's assertion) would occur whether or not there are unused extraction credits.

(3) There is no valid reason for limiting the petroleum extraction income credit by using the geographical method (over-all or per country) which gives the higher tax on a year-to-year basis. This would be a purely punitive revenue-raising measure.

(4) The Administration's stated objectives in its "recapture" proposal are to permit deduction of foreign exploration losses but "recapture" them if they result in a reduction in U.S. tax and later lead to profitable discoveries. In fact, the language of the proposal would so limit loss deductibility as to make it virtually impossible to realize a reduction in U.S. tax. Worse yet, "recapture" could occur when there has been no reduction in U.S. tax.

(5) Retroactivity of recapture is a wholly unjustifiable addendum to the proposal because investment decisions have been made for four years on the basis of present law.

(6) In general, the proposal would discourage U.S. exploration abroad despite the Administration's professed view of the importance of foreign oil supplies:

> "Nor would it help our energy situation to make it prohibitively expensive for U.S. companies to search for and produce foreign oil."

I

PRINCIPLES AND HISTORY OF THE FOREIGN TAX CREDIT

The foreign tax credit is a simple and normal rule adopted by every industrial country in the Western world as one of the two methods (the other being exemption of foreign income) to relieve domestic taxpayers from double taxation of their foreign income. It is the tax rule that permits United States industry to compete in international business. It is a rule of general application within our Internal Revenue Code that is available to every United States business and individual United States taxpayer receiving foreign income upon which a creditable tax has been levied by a foreign country. The application of the principle and the competitive significance of the credit are well illustrated in the case of the oil industry.

As participants in a competitive worldwide search for new sources of oil and gas, Exxon and other U.S. petroleum companies are subject to the same foreign tax regimes in the producing countries as is our foreign-based international competition. The one major potential difference between taxation of American and foreign-based companies is how the United States, itself, will treat the taxes imposed by the foreign producing countries compared to their treatment by the headquarters countries of our foreign competition as the home countries try to relieve double taxation. To remain a competitive force in finding and developing foreign oil, U.S. companies must continue to receive the foreign tax credit available to all U.S. businesses operating abroad, since the same or more liberal treatment is accorded by the headquarters countries of all other major consuming nations. If the United States did not provide a foreign tax credit for petroleum operations, this country would become dependent not merely upon foreign supplies, but upon foreign suppliers.

General Concept of the Foreign Tax Credit

The United States taxes the worldwide income of its citizens, residents, and domestic corporations. The United States has chosen the foreign tax credit as the method of preventing double taxation to accommodate its tax system with the laws of other countries. "As our system stands, it is this foreign tax credit device which makes United States ... investment abroad possible in the Twentieth Century tax world -- a world in which income taxes at high rates are the central theme."* A concise as well as authoritative explanation of the principle of this tax provision was given by the then Secretary of the Treasury, George P. Shultz, in testimony before the House Ways and Means Committee on February 4, 1974:

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* Stanley Surrey, Preface to Elisabeth Owens, The Foreign Tax Credit (Harvard Law School, 1961), p.vii.

"The basic concept of a tax credit system is that the country in which the business activity is carried on has the first right to tax the income from it even though the activity is carried on by a foreigner. The foreigner's home country also taxes the income, but only to the extent the home tax does not duplicate the tax of the country where the income is earned. The duplication is eliminated by a foreign tax credit. For example, if a U.S. corporation were taxed at a 30 percent rate in country X on its income from operations in country X, the U.S. would not duplicate country X's 30 percent tax on that income. But since the U.S. corporation income tax rate is at 48 percent, the U.S. would collect — i.e., "pick-up" the 18 percent which remained over and above the 30 percent collected by country X. Technically the result is achieved by imposing a hypothetical 48 percent U.S. tax on the income earned in country X, with the first 30 percentage points rebated by a credit. However, if the foreign rate were 48 percent or more, there would be nothing left for the U.S. to pick up and thus no tax payable to the U.S. on that foreign income.

Note that the foreign tax credit only affects income earned in some foreign country through activities conducted in that country. Income arising out of operations conducted in the U.S. and the taxes on that income are totally unaffected by the credit."

In short, a United States taxpayer, including a United States oil company, pays the higher of the tax imposed by the United States or the tax imposed by the foreign country. The credit mechanism is an alternative to the exemption method employed by a number of other countries for relieving double taxation of their residents by exempting foreign source income. The credit, while more complex, is preferred by some since it insures that taxpayers will pay a tax either at home or in a foreign country. However, both credit and exemption methods are employed and both have been recommended as equally acceptable alternatives by the Organization for Economic Cooperation and Development and a U.N. Tax Committee.

Selected Countries Providing Residents With Foreign Credits	Selected Countries Providing for Exemption Of Foreign Income of Residents
Canada	Australia
Italy	Belgium
Japan	France
United Kingdom	The Netherlands
United States	
West Germany	

Both tax credit and exemption systems grant the primary taxation right to the country where the business activity occurs. An exemption country may do this without regard to the rate of foreign tax or even the existence of any foreign tax. The credit country, on the other hand, says, in effect, to the foreign country: "If you have or adopt an income tax, then we will give our taxpayers a credit for that tax." This recognizes the inherent right of any sovereign country to adopt an income tax and the international acceptance of that practice.

History of the Foreign Tax Credit

The competitive importance of the credit was recognized from the early days of the present United States income tax. When the United States adopted its present income tax in 1913, there was no credit or other relief for double taxation of foreign income; and all foreign income taxes were taken as a deduction in computing United States tax. The adverse competitive effect of double taxation was soon recognized, and the foreign tax credit was enacted in 1918. The credit has remained in the United States tax law since that date and has been accepted (along with the alternative of residence country exemption of foreign source income) as a basic principle in the Model Income Tax Treaty of the Organization for Economic Cooperation and Development (OECD), in the UN Guidelines for Tax Treaties with Developing Countries, in hundreds of bilateral income tax treaties, and in the statutory rules of most developed countries.

As with any tax provision, there have been differing notions embodied in various U.S. revenue acts as to the mechanics for calculating the foreign tax credit -- always with acceptance of the principle that the United States taxpayer incurring foreign income tax on his foreign source income should not again be taxed on that same income by the United States, provided that the foreign rate equals or exceeds the U.S. rate.

Since 1921, it has been provided that foreign taxes in excess of the United States tax on foreign source income could not reduce United States tax on United States source income.

Creditable Foreign Taxes

The definition of what foreign taxes are qualifying income taxes for U.S. purposes has received Congressional attention on several occasions.

In 1942, the Congress in its concern about the competitive impact on United States companies faced with double taxation of their foreign income moved to expand the concept of creditable income taxes with the enactment of Section 903 of the Internal Revenue Code. This Section provides that where a levy that does not qualify under United States rules as an income tax is imposed in lieu of a qualifying income tax, credit shall be given for such substituted tax.

Starting in 1974, as oil producing countries began to impose extremely high tax rates, the Congress again turned to the examination of the creditable taxes. The decision reached in the 1975 Tax Reduction Act and reaffirmed in the 1976 Tax Act was to eliminate the use of "excess" credits arising from oil and gas production to offset United States tax on other foreign source income:

> "These special extraction tax limitations are designed to deal with both the problem of determining what portion of a payment to a foreign government constitutes a creditable income tax and what portion is serving the function of a royalty, and also the problem of excess extraction taxes being used against other income." — The Staff of the Joint Committee on Taxation, "Explanation of Foreign Tax Credit Rules Applicable to Petroleum Income," June 18, 1979.

An important additional factor relevant to current consideration of creditable foreign taxes has been the recent ruling policy of the Internal Revenue Service and the issuance of proposed regulations on this subject. Within the past 18 months, the Internal Revenue Service has ruled that levies are non-creditable in some dozen rulings. Six rulings involved taxes on petroleum and gas operations. The Service has determined that in certain cases the payments constituted royalties, while in other cases the determination of the Service has been that the tax paid is not a creditable income tax. The countries involved in these petroleum rulings include Bahrain, Indonesia, Libya, Saudi Arabia, and the United Kingdom (Petroleum Revenue Tax).

It is sometimes alleged that increases in taxes are contrived to produce creditable income taxes in lieu of royalties. However, royalties are contractual arrangements and in principle cannot be altered unilaterally, while the sovereign generally has the right to modify its income taxes. The system of royalty and taxes is used in Australia, Canada, Germany, the United Kingdom and many other countries. It parallels payments to the United States government on its own lands: the United States government collects a royalty as the landowner and levies an income tax on the profits as the taxing sovereign. There is no reason to deny these distinctions merely because a foreign government is involved. Three considerations are relevant to the question of creditability of foreign income taxes on petroleum producing operations:

(1) All sovereign governments may impose income taxes.

There is no reason to consider that all payments to a particular government should be considered all income tax or all something else, such as an excise tax or royalty. Like the United States government, foreign governments can collect income taxes, excise taxes, and royalties simultaneously from the same project. The United States imposes a 46% tax on the income of United States corporations. It would be a culturally arrogant position for the United States to say that foreign oil producing countries are not entitled to have an income tax rate as high as 46%. The royalty definition issue has been blown out of all proportion when it is suggested that all income taxes paid by oil companies to foreign governments are really royalties. Moreover, it would be an absurd proposition to assert, in effect, that oil companies, among all industries, do not pay income taxes to foreign governments, i.e. that they are exempt from income taxation in most countries.

(2) All landowners may negotiate royalties.

Foreign governments, as in the United States, are entitled to negotiate royalties. In the United States, royalties generally range from 12 1/2 to 16 2/3% on offshore areas. This compares with typical royalties paid in other countries, such as 12% in Australia, 10% in Germany, 20% in Nigeria, 20% in Saudi Arabia, and 12.5% in the United Kingdom. A royalty is a common feature of any foreign government dealing with the oil producer in its jurisdiction in two capacities: (a) as the owner of natural resources in place and (b) as a sovereign taxing power. Each payment is separate, and each is made for different reasons. In recognition of this distinction, a United States tax deduction is allowed for the royalty and a United States tax credit is allowed for the income tax to the extent that the United States would tax the same foreign source income. A tax credit is not allowed for oil royalties paid to foreign governments.

Actually, there can be no legal question as to how much of the total payment to government is a royalty. This is a reserved right in the landowner established by contract or law in effect at the time the lease comes into existence and before the size of the reserves — if any -- is determined by drilling. There is no legal or economic basis for asserting, as is sometimes done, that oil royalties in, say, Saudi Arabia should be higher than in Texas because Saudi fields are larger. The royalty is contractually set in advance when neither party knows how much oil will be found. The royalty thus represents an arms-length sharing of risks of the venture. The landowner has the option of financing the whole venture himself if he is willing to take the whole risk, but he freely elects to share the risk with the operator via the royalty. The royalty is a fixed figure resulting from a market transaction, and it is independent of the size of any subsequent discovery and the total payment to government that results therefrom.* There

* On occasion, the royalty escalates with the size of the discovery (if any), but the escalation provisions are set before exploration begins.

would, therefore, be no valid basis on which governments could deem a higher royalty than that stipulated in the contract. Moreover, if the royalty were somehow deemed to be understated relative to some appropriate standard, increasing the royalty and decreasing the income tax would only lead to a decrease in unused credits (see Exhibit I-A).

(3) The tax-royalty issue is now moot in some countries.

Many of the OPEC countries in which production is now occurring have nationalized the assets of the foreign investors. Such countries currently receive all the revenue from the sale of the oil. Where American companies are mere purchasers of oil, no income tax is imposed. However, in some cases, a government will place responsibility for its oil operations in the hands of a national oil company which, in many instances, continues to pay royalties and taxes to the appropriate governmental authorities. The technical expertise of United States companies often continues to be required by the foreign government and, in such cases, an income tax is levied under the generally applicable income tax law on the profits earned by the United States companies under their contractual arrangements with the foreign governments. The question, therefore, whether payments are creditable income taxes or are non-creditable taxes will be of greatest importance in the future in those foreign countries in which U.S. investors are attempting to obtain or retain an interest greater than merely purchasing crude oil.

Specific Petroleum Limitations Imposed in 1975 and 1976

The very questions about the credit that are being considered today were in fact the subject of lengthy Congressional consideration only three years ago. While the legislation adopted in 1975 and 1976 affected the computation of the foreign tax credit for all United States companies, severe limitations were enacted which were applicable solely to oil and gas operations. These changes enacted so recently include the following rules:

(1) A special limitation on the foreign tax credit requires the separate computation of foreign income taxes on foreign oil and gas extraction income, i.e., the income taxes imposed by foreign countries upon the profitable production of oil and gas. Under this limitation, no excess credits from foreign taxes imposed upon oil and gas extraction income can be utilized either as a credit or a deduction against any United States tax on any other foreign income of a United States company.

(2) Foreign source income was placed in categories providing that a net exploration loss in a country could only be deducted from total foreign oil related income, not from non-petroleum income.

(3) The per country method of applying the foreign tax credit was eliminated for oil companies in 1975 and for all other companies in 1976.

(4) A rule was enacted in 1975 for oil companies, and extended to other companies in 1976, providing that where there is an over-all loss on foreign source income (which means that the loss is being deducted against the only income the taxpayer has -- its United States source income) foreign tax credits are reduced in future years until that loss is, in effect, recaptured.

1979 Treasury Recommendations

The Administration has now presented this committee with a proposal for further changes in the mechanics of the credit with respect to the taxation of foreign oil and gas activities. Indeed, certain changes are proposed to be retroactive. The key features of these proposals are:

(1) Forcing the taxpayer to deduct exploration and development losses in new producing countries from extraction income in existing producing countries; and

(2) Computing the credit limitation on the basis of the over-all or per country method, whichever gives the U.S. higher tax -- with a recapture provision having retroactive effects.

In light of the recent and extensive changes we had only three years ago which already discriminate against petroleum income and in view of the very sound and accepted reasons for the United States providing a foreign tax credit, what national interest is served by this exercise?

EXHIBIT I-A

Petroleum Royalties and Income Taxes

A primary concern of some critics of the foreign tax credit for petroleum producing operations is that too much of the total payment to government under a traditional petroleum extraction concession agreement is ascribed to income tax and too little to royalty. (Many of these agreements are no longer in effect, e.g., after nationalization in Venezuela.) The perceived problem arises from differences in tax treatment: royalties are deductible for United States tax purposes while income taxes are creditable. Consequently, a credited dollar of foreign income tax supposedly offsets about twice as much United States tax as a deducted dollar of foreign royalty. Thus, United States government action to deem an increase in royalty over the level stipulated in the concession agreement would supposedly increase United States tax revenues.

However, since producing country tax rates are almost universally higher than the United States rate, the result is unused — and unusable — credits. Therefore, if the royalty were somehow deemed to be understated, increasing the royalty and decreasing the income tax would only lead to a decrease in unused credits.

Perhaps this can be made clear by using an example reflecting 1978 prices and tax rates. Assume: a tax reference price of $13.66 per barrel; a market price of $12.70 per barrel; a contracted royalty equal to 20% of the reference price; a special payment equal to 85% of the difference between reference and market price; and a foreign income tax equal to 85% of the difference between market price and the sum of cost plus royalty. (This parallels the former Venezuelan system and the present Saudi Arabian system.) Under present law, the creditable tax is greater than the United States tax up to an 88 percent royalty:

	Present Law	Effect of Possible Deemed Royalties on U.S. Tax					
Royalty:							
% of Market Price	21%	15%	30%	50%	75%	90%	95%
% of Government Take	23	17	35	52	87	97	100
Reference Price	$13.66						
Market Price	$12.70						
- Cost	.26						
- Royalty	2.73[a]	1.91[e]	3.81	6.35	9.52	11.43	11.80
Foreign Taxable Income	$ 9.71						
- Special Payment	.81[b]						
U.S. Taxable Income	$ 8.90	10.53	8.63	6.09	2.92	1.01	0.64
Foreign Income Tax @ 85%	$ 8.26						
Foreign Government Take	$11.80[c]						
Tentative U.S. Tax @ 48%	$ 4.27[d]	5.05[f]	4.14	2.92	1.40	0.48	0.31
Creditable Tax	$ 8.26	9.89[f]	7.99	5.45	2.28	0.37	0.00
Actual U.S. Tax	$ 0	0	0	0	0	0.11	0.31

NOTES:
a = 20% of reference price.
b = 85% of difference between reference and market prices.
c = royalty + special payment + income tax.
d = government take less royalty and special payment.
e = 15% of market price (following data in this row similarly computed -- except $11.80, which is maximum possible royalty at 100% of government take).
f = government take of $11.80 less royalty of $1.91 (following data in this row similarly computed).

If the United States Treasury were to deem, on some basis, that the appropriate royalty should be 50% of market price rather than 20% of reference price, the table shows that the creditable tax would still exceed the tentative United States tax. (The creditable tax is the difference between total government take and the deemed royalty.) The "breakeven" deemed royalty at which the tentative United States tax equals the creditable tax is 88% of market price, or 95% of government take — a wholly unreasonable figure by any standard. As one commentator has put it, "it takes a lot of deeming to make any difference."* Deeming 95% of government take to be royalty is virtually equivalent to denying a sovereign government the right to levy an income tax on the difference between market price and the sum of cost plus royalty (note that the foreign income tax in the table is not computed on the basis of reference price).

Moreover, if the United States were to deem a 90% royalty, would the host government be far behind? Why should the host government permit the United States to tax producing operations within host-country borders? The following table shows what would happen if the foreign government were to deem the same royalty (including special payment) chosen by the United States:

	Present Law	Effect of Possible Deemed Royalties on U.S. Tax					
Royalty:							
% of Market Price	21%	15%	30%	50%	75%	90%	95%
% of Government Take	23	17	35	52	87	97	100
Reference Price	$13.66						
Market Price	$12.70						
- Cost	.26						
- Royalty	2.73[a]	1.91[e]	3.81	6.35	9.52	11.43	11.80
Foreign Taxable Income	$ 9.71[b]	10.53	8.63	6.09	2.92	1.01	0.64
- Special Payment	.81						
U.S. Taxable Income	$ 8.90	10.53	8.63	6.09	2.92	1.01	0.64
Foreign Income Tax @ 85%	$ 8.26	8.95	7.34	5.18	2.48	0.86	0.54
Foreign Government Take	$11.80[c]	10.86	11.15	11.53	12.00	12.29	12.34
Tentative U.S. Tax @ 48%	$ 4.27[d]	5.05[f]	4.14	2.92	1.40	0.48	0.31
Creditable Tax	$ 8.26	8.95	7.34	5.18	2.48	0.86	0.50
Actual U.S. Tax	$ 0	0	0	0	0	0	0

NOTES:
a = 20% of reference price.
b = 85% of difference between reference and market prices.
c = royalty + special payment + income tax.
d = government take less royalty and special payment.
e = 15% of market price (following data in this row similarly computed -- except $11.80 which is maximum possible royalty at 100% of original government take).
f = government take of $10.86 less royalty of $1.91 (following data in this row similarly computed).

* Gerard M. Brannon, Statement before the Committee on Ways and Means Hearings on The Administration Emergency Windfall Profits Tax, February, 1974, p. 643.

Since the creditable tax always exceeds the United States tax, no United States tax is due. What happens is that government take rises at the expense of American company profits. With the royalty at 95% of market price, government take would be up to $12.34 from $11.80, with company profits correspondingly down. (If the United States were to deem a royalty equal to 100% of market price -- not shown in the table because it is patently absurd -- government take would be at the maximum possible level of $12.44, corporate profits would be zero, and the United States tax would be zero.) In short, deeming higher royalties is a no-win game for the United States.

II

THE NATIONAL INTEREST IN U.S. OIL COMPANIES ABROAD

Outlook for Continued U.S. Dependence on Oil Imports

Over the past several years, but particularly in the recent months since the disruption in oil imports from Iran, there has been growing awareness that the United States faces an oil import problem of major proportions. Representatives from the business community, from government, from private research institutions, and from academia have alerted the public to recent rapid growth in the volume and cost of imported crude oil and emphasized the serious consequences of allowing that growth to persist. And witnesses before this committee have repeatedly stressed that unless immediate action is taken to develop new sources of oil and alternative forms of energy, and to use all forms of energy more efficiently, the economic expansion necessary for full employment and rising living standards will be jeopardized.

Decontrol of domestic oil prices will clearly help. It will promote energy conservation, and end the subsidization of U.S. imports through the entitlements program, and will also provide stimulus to the search for new domestic energy reserves and to enhanced production in existing fields. That stimulus will be maximized if there is no extra tax on domestic production.

Yet, even with decontrol, the United States will have to rely on some oil imports for some time into the future. Higher prices will accelerate domestic oil exploration and speed the necessary transformation of consumer behavior and industrial technology toward energy efficiency, but overnight results should not be expected. According to virtually all current projections, the U.S. will still need around 10 million barrels of imported petroleum per day -- or about 50 percent of total oil demand during the middle 1980's, even with a concerted national effort to conserve energy and develop new domestic sources. And if domestic oil prices are not fully decontrolled, the level of import dependence is certain to climb even higher.

Recognition of this outlook has important implications for U.S. energy policy. Most important, it demonstrates that programs to reduce imports by influencing domestic supply and demand are not enough. In addition, measures should be taken to improve the cost, availability, and reliability of those imports which we must have:

(1) Increase worldwide oil supplies.

The United States should work to create more oil producing capacity throughout the world. This effort should not be limited to countries outside of OPEC, as is frequently argued. An extra barrel of oil output anywhere in the world improves the international crude oil supply/demand balance and diminishes the upward pressures on prices. Moreover, the belief that additional non-OPEC production will sell for less than the cartel's price is not borne out by past experience, since all crude oil which is not price controlled sells at parity with comparable OPEC crudes.

(2) Diversify sources of supply.

The United States should diminisn its susceptibility to foreign supply interruptions by seeking greater diversity in its import sources. This is one of the key provisions in the energy program recently suggested by 20 members of the United States Senate. Presently, the U.S. relies upon six countries in the Middle East and Africa for more than two thirds of its total crude oil imports. In addition, a part of our refined product imports is made from Middle Eastern and African crudes. Unless actions are taken now to diversify foreign sources of supply, the United States will find itself increasingly dependent on oil imports from these areas. That would increase the vulnerability of the United States to oil embargoes and other kinds of supply interruptions. Moreover, the more oil we must import from the Middle East and Africa, the more seriously constrained will be the independence of American foreign policy.

(3) Strengthen the participation of U.S. suppliers in world markets.

The United States should seek both to protect the security of its existing sources of supply and to hasten the development of new supplies through the continued presence of U.S. oil companies in the international oil industry. It is a commonplace in world affairs that not to be represented in international councils is a severe handicap in obtaining appropriate recognition of a nation's interests. This is true in the marketplace as well as in the political arena. If U.S.-owned companies participate in the exploration, production, and distribution of international oil supplies, it is much more likely that an allocation of oil supply equitable to the United States, as well as to others, will be achieved in the event of an international oil crisis. This lesson was emphasized in the Arab oil embargo of 1973-74 and re-emphasized during the recent Iranian crisis. In the words of the Senate Subcommittee on Multinational Corporations:

> "...U.S. companies [during the Arab oil embargo] decided that "the pain should be evenly spread" ...and helped to blunt the edge of the Arab oil weapon by redistributing global supplies so that the constriction of supplies was fairly evenly allocated rather than targeted specifically against the United States and the Netherlands."

In the absence of an American presence in the international oil industry, there would be less assurance of such even-handed action. Without U.S. companies continuing in their key position as producer-distributors of international oil supplies, the United States would be dependent upon foreign companies -- many of which are owned by governments -- for its essential supplies.

There is another reason for wanting U.S. companies to have an active role in world energy markets. U.S. companies are private companies while foreign companies generally have a major element of government participation. It is our belief that private companies are superior to government companies in many respects, but particularly in their ability to adapt to changing times and changing needs. The profit goal and the market test make adaptability imperative for the private company. Government companies often are not held to these disciplines.

Professor Thomas C. Schelling, an economist at Harvard University, has just authored a study for the Committee for Economic Development, Thinking Through the Energy Problem, in which he declares:

> "A special principle underlies any approach to energy policy -- the principle of uncertainty. No one really knows how much undiscovered fuel there is, how quickly it will be discovered, how much it will cost to produce and what the environmental effects of consumption will be."

Professor Schelling concludes that reliance upon the free market is the appropriate vehicle for the energy problem. Only the free market can cope with ". . . the possibility of surprise and . . . weigh the relative risks of being caught sometime in the future with unanticipated good news or unanticipated bad news." And private companies offer the greatest flexibility and adaptability in responding to the flux of the international energy markets.

Foreign Supply Outlook

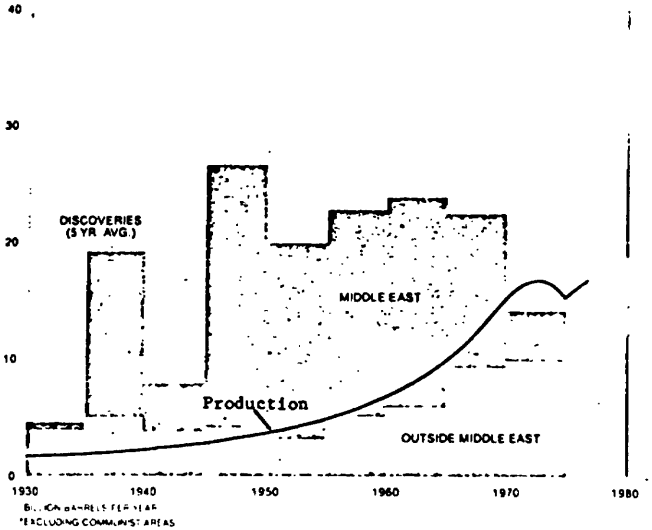
The President's Energy Message of April 5 recognized that "There are several potentially abundant, relatively secure and reasonably proximate sources of foreign oil and gas that have not yet been fully explored or developed," and that it is in the national interest to intensify the search for oil and gas throughout the world.

Over the last several decades, worldwide discoveries of new oil and gas reserves (excluding the communist areas) have been made at annual rates ranging from 10 to 25 billion barrels, in comparison with recent annual production of about 19 billion barrels. Chart 1 shows average discovery rates over 5-year periods, including not only estimates of reserves at the times discoveries were made and recorded, but also subsequent additions to reserves credited back to the year of discovery. Much of what was found in the past was in the prolific areas of the Middle East, and the biggest fields there have very likely been found. During the last 15 years or so, the discovery rate outside the Middle East has increased markedly, reflecting an increasing rate of exploratory activity in other areas. For example, the industry explored in 93 countries during 1967-76, drilling 6,501 exploratory wells in 71 of them. This activity continues today.

Very few totally unexplored areas remain in the world, and none of these appears to have the geologic characteristics or potential of another Middle East. Exxon estimates that more than three fourths of the non-Communist world's undiscovered potential is outside the Middle East. Thus, the recent trend in discoveries is likely to continue, and a very large proportion of the future discoveries would be expected to be in places like Mexico, other Latin American countries, Africa, and the Far East. It is essential that U.S. policy do nothing to discourage this exploratory effort, which is resulting in diversification of supply sources.

CHART I

RATE OF DISCOVERY OF WORLD* CRUDE OIL RESERVES



Changing Circumstances in the International Petroleum Industry

In the last several years, the structure and organization of the international petroleum industry has undergone vast change. With the rise of the OPEC cartel, and with the nationalization of crude oil production in country after country, the multinational oil companies have lost much of their traditional position in the international market. While host governments have always had the sovereign right to control the production of their domestic crude oil reserves, they formerly exercised this control almost exclusively through concession agreements with foreign, multinational oil companies. This is no longer the case with the recent creation and growth of national oil companies such as Saudi Arabia's Petromin and Venezuela's Petroven. During the last several years, such government-owned oil companies in OPEC (and other oil exporting regions)have been exploring for, producing, and marketing a far greater share of their domestic petroleum either entirely on their own, or through service arrangements with foreign firms. Foreign-owned oil companies are seldom being invited to undertake all of these activities alone.

Even within the non-OPEC industrialized world, the growth of national oil companies has been accelerating at the expense of private companies, both U.S. and foreign. In the UK (BNOC), Germany (Veba-Gelsenberg), France (Elf-Erap), Canada (Petrocan), Italy (ENI), Norway (Statoil), and Japan (JNOC), governments have actively supported the development and growth of their own oil companies which, whether state-owned or not, have been seen as a way of protecting national interests in international oil markets. These companies have frequently been granted preferential tax treatment, subsidies, lease arrangements, and low-cost government financing so as to improve their ability to compete with the private multinational oil companies. In addition, a mounting body of government regulations has further eroded the competitive

position of private multinational oil companies. In addition, a mounting body of government regulations has further eroded the competitive position of private multinational oil companies.

Does this mean that privately-owned U.S. oil companies can no longer operate successfully in an increasingly nationalized and politicized world petroleum market? No, it does not. Already, U.S. companies have adapted to the changing circumstances by assuming new roles for themselves. In most cases, they have managed to remain in the countries where they formerly had oil concessions by entering into joint ventures and management, technical services, or marketing contracts which, while not leaving them with the freedom or potential profitability of their old concessions, still leave them with direct access to at least part of the crude that was formerly theirs and with commitments to continue many of the activities, such as exploration, which they had always carried out.

Moreover, the new contractual arrangements seem to be free of many of the foreign political objections that were directed against the old concession system. The companies are rewarded in proportion to their contribution to the development of a host country's oil industry or, increasingly, in proportion to their contribution to the over-all industrial development of the country. A typical service agreement between a host government and an American company will involve a per barrel payment by the government for production which is managed or assisted with technical advice by the private company, either alone or in conjunction with a local company. Foreign oil companies are also granted incentives for continued exploration and for non-petroleum development projects.

Industrial development projects undertaken by American companies in Saudi Arabia, Kuwait, Indonesia, and several other critical oil producing areas are of multiple benefit to the United States. In addition to enhancing the availability of foreign oil reserves to the U.S. market, the involvement of U.S. companies in the expansion of the local economies also helps to increase the volumes of oil that foreign countries are willing to export. For a variety of reasons, oil exporting nations are displaying increasing reluctance to expand oil exports. In some cases, this reluctance is due to a fear that reserves will be depleted before new industries are developed to replace earnings from oil production. In other cases, oil exporting nations seek to hold down oil revenues to that level which can be efficiently absorbed by the local economy. However, to the extent that their economic and social infrastructure is expanded, the "absorbtive capacity" of oil exporters is increased.

Efforts by U.S. companies to expand the economic and social infrastructure and to build new industries have the effect of increasing the efficient "absorptive capacity" of oil exporters and, thereby, their incentive to supply more oil to the international market. A related benefit is the strengthening of commercial and personal ties between Americans and key decision makers in oil exporting nations. Such business relations can provide the basis for trust and understanding not always found through formal diplomatic channels.

American oil companies recognize that only the exercise of superior managerial skills, technology, and depth of market experience will assure

them important future status in oil producing countries -- if U.S. policies permit them to continue. In the last few years, U.S. oil companies with special talents and technologies not found locally have been invited to explore for oil in countries like Brazil, where traditional hostility to foreign companies had previously barred entry. Likewise, Norway has reversed its original decision not to allow non-Norwegian companies to participate north of the 62nd parallel. And China is the latest example, as it has invited U.S. companies to perform seismic exploration services. Participation by U.S. companies has become particularly sought after in high technology areas such as offshore exploration and production, secondary and tertiary recovery in old fields, petro-chemicals, and natural gas processing. In exchange, host governments are offering special access to crude oil which is available for export.

Exploration and Development

The record of American oil companies in foreign oil exploration and development has been impressive. In the years prior to 1970, American oil companies made or participated in the first key discovery in such major oil exporting areas as: Indonesia (1922), Kuwait (1938), Saudi Arabia (1947), Western Canada (1947), Libya (1951), and the North Sea (1970). These areas now account for more than 50% of non-communist crude oil reserves outside the United States. Since 1970, American companies have aided in the discovery of an additional 40 billion barrels of crude reserves in OPEC countries and an additional 19 billion barrels of reserves in non-OPEC foreign nations where private firms are permitted to function. American firms participated in over half of the discoveries in each category. Both amounts are significantly above the almost 5 billion barrels of crude reserves that were found with considerably more effort in the United States during the same period.

The years since the OPEC embargo have also brought notable progress in the development of oil producing capacity in a number of non-OPEC less developed countries. Before 1973, only about 10 non-OPEC LDC's were producing oil in commercial quantities; but since that time, 10 new producers have been added to the list. What's more, there are at least 14 non-OPEC developing countries that are now net exporters of oil.*

American oil companies have contributed significantly to this result. From 1972 to 1977, the total footage in exploratory wells drilled by major U.S. companies in non-OPEC LDC's grew by 37%. As the data below indicate, by 1977, non-OPEC LDC's were the site for 30% of the footage in exploratory wells drilled by major U.S. companies outside of North America (the latest year for which data are available):**

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* They are Angola, Bahrain, Bolivia, Brunei, Congo, Egypt, Malaysia, Mexico, Oman, Peru, Syria, Trinidad and Tobago, Tunisia, and Zaire.

**Data for 14 U.S. oil companies (Atlantic Richfield, Cities Service, Continental, Exxon, Gulf, Mobil, Occidental, Phillips, Shell, Socal, Standard (Ind.), Sun, Texaco, and Union) are from Company Acreage and Activity Statistics, published by Petroconsultants Ltd., Dublin.

	1972		1977		Percentage Change 1972 to 1977
	Exploratory Footage ----000----	Percent of Total ---%---	Exploratory Footage ----000----	Percent of Total ---%---	------%-----
Non-OPEC					
LDC's	946	27%	1,299	30%	+37%
Other	1,230	35	1,711	40	+39
Subtotal	2,176	62	3,010	70	+38%
OPEC	1,306	38	1,280	30	- 2
Total	3,482	100%	4,290	100%	+23%

In 1977, the same group of U.S. companies devoted 70% of their exploratory drilling effort (outside of North America) to all non-OPEC areas. From 1972 to 1977, the table shows that they increased their exploratory drilling effort by 38% in non-OPEC areas, while approximately maintaining footage drilled in OPEC countries.

Clearly, these companies are actively pursuing new sources of supply which diversify their sources of supply and, at the same time, enhance the security of U.S. oil imports. Nonetheless, they are not ignoring the promising prospects within OPEC. As Secretary Blumenthal has correctly stated: More oil anywhere is a plus to the consuming countries.

Balance of payments.

Beyond these accomplishments, the operations of American petroleum companies abroad have resulted in substantial positive benefits to the United States balance of payments. For many years, the income remitted to the United States from American petroleum investments abroad has greatly exceeded the net outflows of capital from the United States to finance such investments. In the last three years for which data are available (1975-1977), the average net annual gain to the U.S. balance of payments was $2.3 billion including about $0.4 billion of fees and royalties ($4.2 billion of repatriated earnings less about $1.9 billion of capital outflows, on average, each year). Thus, annual repatriated earnings from American oil interests abroad have not only been sufficient to finance diversification of oil-producing operations into new areas, but have also been a source of funds for domestic energy development. And earnings reinvested abroad create new American-owned facilities which will lead to further remittances in the future.

The foreign investments of U.S. petroleum companies also promote substantial exports of oil-related equipment, supplies, and services for use in American-owned facilities abroad. While exact statistics are not available on the magnitude of such exports, data on U.S. exports of oil field equipment and tools show almost a quadrupling of payments made to U.S. manufacturers between the pre- and post-embargo periods. Total U.S. exports of oil and gas field equipment rose from about $450 million in 1972 to an annual average of $1.6 billion in the 1975-1977 period.

It is also relevant to note in this context that U.S. merchandise exports to OPEC, exclusive of military goods, amounted to $16.7 billion dollars in 1978, while service receipts from OPEC added another $1.2 billion to the U.S. current account balance. This is not to say that all of these exports are attributable to the American operation of foreign oil facilities. Nor is it meant to suggest that many of these exports would not have occurred without the help of U.S. oil companies. Rather, the point is simply that when U.S. business invests abroad, exports of U.S. goods typically follow if only because those making the purchase decisions tend to prefer goods with which they are already familiar through past use.

III

THE ADMINISTRATION PROPOSAL ON THE FOREIGN TAX CREDIT FOR PETROLEUM

Oil industry activities may be said to occur in seven stages:

1. Exploration for new sources.

2. Development of new discoveries.

3. Production ("extraction") of crude oil -- including enhancement of producibility of fields as time passes.

4. Transportation of crude oil to refineries.

5. Refining into consumer products (gasoline, jet fuel, heating oil, heavy fuel oil, etc.).

6. Distribution of refined products.

7. Marketing.

Under present law, losses in any of these stages are generally deductible from total oil-related taxable income, as is appropriate for an integrated industry where the basic purpose of exploration and all successive steps is marketing of products. Even more appropriate would be deductibility from any source of income -- the treatment afforded other industries.

The only exception to deductibility from total oil-related income is a loss on an exploration or development project in an existing profitable producing country. Such a loss must be deducted from producing income in those countries. The Administration proposal would force American companies also to deduct exploration and development losses in new countries from income in existing profitable producing countries. That would intensify the discriminatory treatment of such petroleum losses by further narrowing the income base from which they may be deducted. Then, the Administration would go even farther and impose a penalty form of geographical limitation of foreign tax credits for oil extraction income. Finally, they would "recapture" losses which are deducted from income otherwise subject to U.S. tax.

Loss Deduction

The Administration's proposal to prevent deduction of exploration losses from "downstream" refining, transport, and marketing income which is taxed below the U.S. rate would result in an inappropriate burden on exploration and development outside of existing oil producing countries. It would eliminate a normal tax provision which, in fact, is already more restrictive than loss treatment for other industries. This can be seen by considering a series of examples:

(1) Present Law Without Exploration

Assume that a company operates at a profit in two foreign oil producing countries, A and B, where the tax rate is 80%. Its aggregate downstream business in other foreign countries is taxed by foreign governments at less than the U.S. rate, say, at 30%. The company's tax position is:

	Extraction			+ Exploration	+ Downstream	= Total Oil Related
	A	+ B	= Total			
Taxable Income	$100	$100	$200	$0	$200	$400
Foreign Tax	80	80	160(80%)	0	60(30%)	220
Tentative U.S. Tax @ 46%			92(46%)			184
Creditable Foreign Tax			92(46%)		60(30%)	152
Actual U.S. Tax						32

The computational procedure for the table involves, first, aggregating the "extraction" income from Countries A and B ($200) and then computing the $92 tentative U.S. extraction tax (before foreign tax credit) by multiplying aggregate extraction income of $200 by 46% [.46 x 200 = 92]. Since the total $160 foreign tax paid to A and B exceeds the U.S. tax, the allowable extraction credit is $92. Next, extraction and downstream income are added to obtain total oil-related income of $400 [200 + 200 = 400]. The total tentative U.S. tax is 46% of $400, or $184. The total allowable foreign tax credit is $152 — $92 upsteam plus the $60 downstream foreign tax. Thus, there is a residual U.S. tax liability of $32 [184 - 152 = 32].

Observe that U.S. tax is due even though the total $220 foreign tax is $36 greater than the tentative $184 U.S. tax liability. The reason for this loss of foreign tax credit is legislation passed in 1975-76 which prohibits "transfer" of these unused extraction credits downstream.

(2) Present Law With Exploration in New Countries

Now assume that the company initiates an exploration program outside of A and B in order to diversify its sources of supply. Even if the company finds oil, revenues will be earned only after some years of development of producing facilities. The exploration activity, in itself, incurs costs but produces no revenue.

The exploration losses, say $50, are deductible from total oil-related income. We have seen that to be appropriate because the purpose of exploration is to find oil for the ultimate consumer market. The $50 exploration loss reduces total oil-related taxable income from $400 to $350 and, consequently, reduces the U.S. tax:

	Extraction A	+ B	= Total	+ Exploration	+ Downstream	= Total Oil Related
Taxable Income	$100	$100	$200	$-50	$200	$350
Foreign Tax	80	80	160(80%)	0	60(30%)	220
Tentative U.S. Tax @ 46%			92(46%)			161
Creditable Foreign Tax			92(46%)		60(30%)	152
Actual U.S. Tax						9

The $32 U.S. tax is reduced by $23 to $9 because of the $50 loss deduction [.46 x 50 = 23].

Note that the Administration, curiously, describes this exploration loss deduction as using "excess" credits from extraction to shelter the lower-taxed downstream income -- even though the total creditable tax from A and B is unchanged (at 46% of taxable income in those countries). In fact, the same U.S. tax result would have occurred if the actual foreign tax in A and B had been the same as the 46% U.S. tax:

	Extraction A	+ B	= Total	+ Exploration	+ Downstream	= Total Oil Related
Taxable Income	$100	$100	$200	$-50	$200	$350
Foreign Tax	46	46	92(46%)	0	60(30%)	152
Tentative U.S. Tax @ 46%			92(46%)			161
Creditable Foreign Tax			92(46%)		60(30%)	152
Actual U.S. Tax						9

Reduction in U.S. tax occurs because the foreign downstream tax is less than the U.S. tax, not because the foreign extraction tax is higher than the U.S. tax.

(3) Administration Proposal with Exploration

The Administration would require that the exploration loss in the second example be taken against extraction income rather than against total oil-related income. This change -- charging the loss against extraction income -- would leave the lower-taxed downstream income subject to U.S. tax. If the company did not react to such a tax increase, the U.S. tax would return to the $32 paid without exploration:

	Extraction				+ Downstream	= Total Oil Related
	A +	B +	Exploration =	Total		
Taxable Income	$100	$100	$-50	$150	$200	$350
Foreign Tax	80	80	0	160(107%)	60(30%)	220
Tentative U.S. Tax @ 46%				69(46%)		161
Creditable Foreign Tax				69(46%)	60(30%)	129
Actual U.S. Tax						32

In effect, the Administration would levy a $23 tax on the exploration outlay [.46 x 50 = 23] and raise the net after-tax exploration cost of diversifying foreign supplies by 85% -- from $27 to $50 [50 - (.46 x 50) = 50 - 23 = 27]. Thus, the Administration proposal is a burden on the company's exploration activities in new countries. Note the anomalies which can arise when one arbitrarily fragments income: The foreign tax is greater than taxable income in the "extraction" category as the Administration would define it.

How would the company react to the changed treatment of losses? Since its exploration costs are almost doubled, its ability to compete with European and Japanese companies in bidding for new properties would be seriously impaired. None of these companies would be so taxed by their home governments -- indeed, some would even be subsidized (see Exhibit III-A). Thus, the American company could well be forced to return to the conditions of Example (1), with the $32 tax still incurred but with no exploration outlay. The company would realize more net income in the near term but less in the long term as its reserves became depleted without replacement.

In short, the Administration proposal would diminish American exploratory efforts "in countries where the companies do not presently have significant production (countries which generally are not OPEC members)." [Staff of the Joint Committee on Taxation, June 18, 1979.] Decreased exploration by American companies and the resultant depletion of their foreign petroleum reserves cannot be in the national interest. Secretary Blumenthal testified before the Committee on Ways and Means that "we gain as a nation from the development of oil resources anywhere in the world." [Testimony, June 19, 1979.] This tax proposal runs directly counter to that essential objective, and it is particularly perverse in that it burdens foreign exploration outside of OPEC.

Geographical Limitation of the Extraction Credit

The Administration proposes to reopen the question of geographical limitation of the foreign tax credit. Should the computation be made country-by-country? Or should it be made for all foreign operations aggregated together -- as is the situation under present law? There is much to be said for each method. During the period 1960-75, the sensible solution was

in effect: Each taxpayer could make a permanent election between methods. In 1975, however, the per country method was repealed for petroleum income; and in the following year, this action was extended to all categories of income.

Despite the clear case for stability of business tax policy, the Administration now raises the issue once again by proposing to force the taxpayer to compute the petroleum extraction credit by both methods every year. The method giving the higher tax (because it gives a lower credit) would apply. Presumably -- as in the 1975-76 sequence of events -- this year's petroleum proposal would be a prelude to a proposal to impose the higher-tax method on all categories of income.

Congress abandoned this punitive higher-tax limitation system a quarter century ago in 1954. Why does the Administration now suggest exhuming it? The only rationale for the higher-tax method is that it penalizes the taxpayer and enhances the tax collector's receipts. That is an indefensible basis for tax policy. Moreover, rational long-term planning becomes impossible because of the chance of future year-to-year changes in method depending on circumstances as they may develop in each individual year. This proposal is without logic or merit.

For the higher-tax method to give a different result from present law, the tax in at least one producing country would have to be lower than the U.S. tax. Consider a case (under present law) like Example (2) above except that Country B has a foreign tax of $30 rather than $80:

	Extraction			+ Exploration	+ Downstream	= Total Oil Related
	A	+ B	= Total			
Taxable Income	$100	$100	$200	$-50	$200	$350
Foreign Tax	80	30	110(55%)	0	60(30%)	170
Tentative U.S. Tax @ 46%			92(46%)			161
Creditable Foreign Tax			92(46%)		60(30%)	152
Actual U. S. Tax						9

The U.S. tax would still be $9 because there would still be unused extraction credits even with only a $30 tax in B [80 in A + 30 in B = 110, still higher than the U.S. tax of 92].

Under the Administration proposal, exploration losses would be shifted to the extraction category; and the higher-tax method would be used. The per country method would limit the credit for A and B individually by applying a 46% limit in each country:

	Extraction				+ Downstream	= Total Oil Related
	A +	B +	Exploration =	Total		
Taxable Income	$100	$100	$-50	$150	$200	$350
Foreign Tax	80	30	0	110(73%)	60(30%)	170
Tentative U.S. Tax @ 46%	46	46	-23	69(46%)		161
Creditable Foreign Tax	46	30	0	76(51%)	60(30%)	136
Actual U.S. Tax						25

The U.S. tax would be increased to $25.

However, the U.S. tax on the over-all basis would be $32:

	Extraction				+ Downstream	= Total Oil Related
	A +	B +	Exploration =	Total		
Taxable Income	$100	$100	$-50	$150	$200	$350
Foreign Tax	80	30	0	110(73%)	60(30%)	170
Tentative U.S. Tax @ 46%				69(46%)		161
Creditable Foreign Tax				69(46%)	60(30%)	129
Actual U.S. Tax						32

Thus, the U.S. tax would be $32 -- as was also the case in Example (3).

With different data -- such that the total creditable foreign tax is less than the U.S. tax -- the per country method might apply. For example, if the tax in B were $20, the per country tax would be $35, with the over-all tax unchanged at $32. In any event, exploration would be burdened and would be discouraged in comparison with present law.

Recapture

In addition to its discriminatory suggestions for (a) limiting the deductibility of petroleum exploration losses to one particular category of income and (b) imposing a punitive geographical limitation on the extraction category, the Administration has also proposed a special recapture provision for petroleum losses. In discussing "treatment of expenses in drilling for oil in country Y" before oil is produced, the Treasury has stated:

> "It is appropriate to allow the loss to be deducted and therefore reduce U.S. tax in the year it is incurred. But when income is subsequently earned in country Y it should not be considered foreign income (which carries a credit) to the extent that the prior loss generated a tax benefit." [Statement of Secretary Blumenthal to the Committee on Ways and Means, June 19, 1979; all quotations in this section are from this Statement.]

Disallowing the foreign tax credit until sufficient income has been earned in country Y to cover the losses incurred before production would, in Treasury terminology, "recapture" the U.S. tax deduction. Income equal to the loss would be subjected to U. S. tax.

Two aspects of this Treasury statement must be emphasized:

(1) It is "appropriate to allow the loss to be deducted;" and

(2) The "recapture" is to be pursued only "to the extent that the prior loss generated a tax benefit."

If there is a problem (and, as we shall see, it is by no means clear that there is), great care must be taken to limit any remedy to losses which have actually reduced U.S. taxes.

The Administration, in fact, goes far beyond the stated objectives by arguing elsewhere in its statement that it is a "defect" to use such losses "to reduce low-taxed extraction income" or "shelter non-extraction income from U.S. tax." The clear implication of this assertion is that losses incurred in drilling for oil and gas in new countries abroad should only be deductible from extraction income in high-taxed producing countries where taxes are well above U.S. rates. That, in fact, is a clear case of legislative overkill equivalent to permitting no useful deduction at all -- as was shown in Example (3), where the U.S. tax was the same as without exploration. There, the foreign tax rate for extraction was as high or higher than the U.S. rate; consequently, there was no reduction in U.S. tax. Thus, the Administration denies the first of its own two principles set out above.

This proposed legislative overkill is extended when the Administration explains its reason for proposing the higher-tax method of limiting the credit on extraction income. Using the per country method, alone, for extraction income would achieve the Administration's dual objectives: (1) permit the exploration loss deduction in a new country; but (2) "recapture" it if a discovery is made as the result of the deducted outlays, and operations become profitable. However, the Administration asks for retention of the over-all method as a higher-tax alternative to the per country method because (and only because) it "will produce a lower credit when there have been substantial losses in one or more countries." Thus, as if loss deduction were unacceptable tax policy, it argues that:

> "The resulting reduction in U.S. tax would amount, in effect, to allowing a portion of the losses to reduce U.S. income and therefore U.S. tax on U.S. income."

Again, having first correctly said that the loss deduction is proper, the Administration would prohibit deductions which reduce U.S. tax. Yet it would "recapture" all such deductions!

Contrary to its clearly stated objectives, the proposal actually could "recapture" tax losses which do not result in reduction of U.S. tax. The

proposal would impose the credit limitation year-by-year on the basis of whichever method gives the higher tax, but it would always impose "recapture" on the per country basis. A company which finds itself limited on the overall method in a particular year would realize no reduction in U.S. tax as the result of an exploration loss it may have incurred. However, that loss might subsequently be "recaptured" and taxed on the per country method as if the loss had, in fact, given rise to a U.S. tax reduction. The numerical examples used by the staff of the Joint Committee on Taxation to describe their interpretation of the "recapture" provision are actually an illustration of this wholly indefensible case. ["Explanation of Foreign Tax Credit Rules Applicable to Petroleum Income," June 18, 1979.]

In short, the Administration has gone far beyond anything conceivably necessary to achieve its objectives of permitting exploration loss deductions in new countries but recapturing any U.S. tax reductions resulting therefrom. To that end, it is surely not necessary either to limit the loss deduction to extraction income or to use the higher-tax limitation method for extraction income.

Furthermore, it is by no means clear that the Administration's reason for "recapture" is economically sound. It does not want to "penalize foreign exploration vis-a-vis domestic exploration" by eliminating the foreign tax credit for petroleum operations:

> "If U.S. taxpayers had to pay first foreign income tax and then U.S. tax on the balance when they derive income from outside the United States, the cumulative tax burden would be a serious impediment to international capital flows."

Indeed, the Administration specifically recognizes the adverse impact which double taxation would have on the U.S. energy situation:

> "Nor would it help our energy situation to make it prohibitively expensive for U.S. companies to search for and produce foreign oil."

Why, then, their complex, costly proposal?

The Administration's purpose is to "remove an artificial incentive to explore abroad rather than at home" and make sure that "U.S. tax law does not discriminate in favor or foreign investment." However, exploration loss deductions at home are not restricted to high-taxed extraction income, as the Administration proposes for exploration losses; there, the discrimination would go against foreign investment. Moreover, other countries permit their companies to take these loss deductions against income subject to home tax, some without "recapture" (see Exhibit A). And they often provide other non-tax exploration incentives to aid their companies in their global search for needed energy supplies.

By pursuing some vague neutrality goal of equating treatment of domestic and foreign exploration, the Administration might well backhandedly achieve what it actually wants to avoid, namely, creating a competitive cost barrier

which would make it "prohibitively expensive for U.S. companies to search for and produce foreign oil." Driving American expertise from the international search for more oil and gas is not a sound reason for "recapture," much less for the whole proposal. Neutrality vis a vis competitive foreign tax treatment is at least as important a goal of tax policy as neutrality vis a vis domestic treatment -- especially where the national interest is so directly involved.

Finally, the Administration proposal would inexplicably make the "recapture" provision apply retroactively to the beginning of 1975. Investments have been made for four years based on existing rules. There can be no justification for now reducing profits legitimately anticipated when those investments were originally made. Only losses incurred after the effective date of any new legislation should be covered by that legislation.

EXHIBIT III-A

Summary Statement of Tax Treatment and Other Incentives For Foreign Petroleum Operations by Companies Domiciled In:

(1) France	Does not tax (conversely, no deduction for losses). Worldwide tax consolidation, granted at discretion of government, may provide French tax relief for foreign losses and subject foreign profit to French tax with per country tax credit.
Other Incentives:	Government finances government-owned company and owns substantial interest in private company. Foreign exploration can be financed by depletion allowance moneys -- by law in former French colonies; elsewhere with prior French government approval.
(2) Japan	Taxes worldwide income with foreign tax credit.
Other Incentives:	Tax deductible reserve allowed for 100 percent of stock investment or loan made during exploration stage to subsidiary subject to a yearly flat recapture after five years over 6th thru 10th years. Similar reserve allowed for forty percent of stock investment or loan during development stage. Mine prospect reserve limited to lesser of 13 percent of sales proceeds or 50 percent of net income subject to a lump sum recapture after three years and with requirement for reinvestment in exploring for mineral deposits. Such exploration expenditures are currently deductible, thus offsetting the reserve. The above two tax reserves will expire on March 31, 1980, under the present law. Expensing of dry holes. Government loan for exploration and development and government guarantees of bank loans for exploration and development.
(3) Netherlands	Does not tax, if taxable by host country.
Other Incentives:	Allows deduction of foreign losses from domestic income.
(4) United Kingdom	Taxes worldwide income with per country foreign tax credit.
Other Incentives:	Expensing of all pre-discovery costs and dry holes; expensing of plant and machinery expenditures; rapid depreciation of fixed structures.
(5) West Germany	In the absence of tax treaty, taxes worldwide income with per country foreign tax credit and recognizes foreign losses. Tax treaties generally exempt foreign source income (conversely, no loss recognition).
Other Incentives:	Exploration interest free loans up to 75% not repayable in case of failure. In case of discovery, interest charged at 5%, plus repayment at DM 3 per ton of crude oil produced. Non-repayable grants up to 30% of farm-in cost

	into foreign producing ventures. Above incentives available only to companies unable to finance operations otherwise. All companies are allowed to expense exploration costs with accelerated depreciation on tangibles and intangibles (8 years oil, 15 years gas).
(6) United States	Taxes worldwide income with foreign tax credit; special discriminatory restrictions apply to calculation and use of foreign tax credit on income from oil/gas operations.
Other Incentives:	Expensing of dry holes and intangibles on producing wells (but no deduction of leasehold costs, until properties are abandoned or become productive). Allows deduction of a net foreign loss, subject to recapture against future oil-related income by limiting the foreign tax credits available with respect to the future years.

STATEMENT

OF

E. L. WILLIAMSON

Mr. Chairman and committee members, I am E. L. Williamson, President of the Louisiana Land and Exploration Company, with headquarters in New Orleans. I have been directly involved in petroleum exploration and production for 29 years.

When my colleagues and I appeared before the Senate Finance Committee two years ago, we emphasized that we shared the concern of the President and the Congress over this country's dangerously high level of dependence on foreign oil. We agree that this situation was weakening the U.S. economy and endangering its security. We stressed the need for energy conservation and the development of new sources of energy. But at the same time we pointed out that the economy of this country was built upon adequate supplies of oil and natural gas. We said the quickest and most reliable road to strengthening the energy position of the United States is to find and develop more of our country's oil and gas resources.

Although much has happened in the past two years, nothing has weakened the validity of those observations. On the contrary, it is now more obvious than ever that we must do all we can to develop our own energy resources -- and we must do it as fast as we can.

Today we want to emphasize that this country has substantial amounts of oil and gas that can still be found and produced:

-- if the incentives for investment are adequate,
-- if the overall political and economic climates are favorable, and
-- if we can obtain access to places where it is most likely to be found.

Many of those potentially productive areas are on publicly owned lands in the western states and Alaska, or on the Outer Continental Shelf. Exploration has been banned or severely restricted in many of the areas that appear to have the greatest potential.

At this point I would like to depart from the prepared remarks which had earlier been submitted to the Committee. I do so because I believe the events of the past couple of days require it.

This country is fortunate in having an efficient oil and gas industry. It is efficient because it is healthy and prosperous. American oil companies are the best oil finders in the world. It is an industry with the desire and the capability of finding oil and gas.

It will find and produce whatever amounts of oil and gas the rules of the game permit. Back during the debates on the natural gas bill we were repeatedly asked the question, "How much

should new gas sell for at the wellhead to elicit new supplies?" That is like the question,"How far is up?" There is no precise answer to the question as asked. The answer we gave and the only answer is -- the economics of gas exploration will permit a certain quality of prospects to be drilled looking for gas that will sell for $1.00 a thousand. At $1.50 there are additional prospects that can be tested; at $2.00 a thousand, yet more prospects. The new supplies discovered are obviously a function of the amount of drilling done.

Let us stay with the gas experience for a minute. During the 70's, we saw the growth of the interstate market and then the action of the FPC to raise wellhead prices and then the adoption of the NGPA. The economics of gas exploration changed and many areas became drillable that had not been drillable earlier. Activity is still high, and a lot more gas is being found.

Let me cite three examples. The Fort Worth Basin area is an area of shallow, low deliverability gas reserves. This is a producing area, which has been known and drilled for a long time. A strong intrastate market developed, the price went from about $.50 to over $1.00, and a lot of companies, large and small, went in and started drilling wells, resulting in additional reserves.

The overthurst belt in Wyoming, Utah, and Nevada has long been recognized as a potential oil and gas province. This is

an extremely complex area geologically and difficult to operate in because of terrain and very high cost drilling. The first discovery was made in 1975 and since then there have been a number of major discoveries. Total recoverable reserves may ultimately run as high as five billion barrels of oil and twenty trillion cubic feet of gas. That is the oil equivalent of some eight billion barrels of oil. Assuming twenty years producing life, that is equivalent to about one million barrels per day should the ultimate potential be realized and everything is placed in production.

In Louisiana, one of the most mature oil producing states in the country, we have seen the same phenomenon. The deep lower Tuscaloosa trend has been recognized for a long time as having the potential for oil and gas accumulation. With geologic risks and extremely high costs to drill wells to twenty thousand feet and deeper along with fifty cent gas, the play just couldn't get started. Economics changed, drilling started, and in May of 1975 the first discovery was made by Chevron in their #1 Alma Plantation well just west of Baton Rouge. That well flowed some ten million cubic feet of gas a day from below twenty-one thousand feet. Several discoveries have been made since then and many more will follow. Total ultimate reserves could be as high as fiften to twenty trillion cubic feet of gas. This is some three billion barrels of oil equivalent. Should this potential be realized when all the production

is placed on stream, it will equal the equivalent of some four hundred thousand to five hundred thousand barrels per day.

Incidentally, let's not lose sight of the fact that it is the cash flow from all projects that will fuel our search for the next one. If you put a permanent cap on realization by the imposition of a heavy tax on this cash flow, we aren't going to be able to find all of the overthrust belts or lower Tuscaloosa trends in this country.

The point -- there is a supply response to price.

Now back to oil. The new oil in this country will come from many sources:

1. enhanced recovery from existing reservoirs,
2. expansion of existing reservoirs,
3. heretofore marginal and sub-marginal reservoirs, and most importantly,
4. new reservoirs.

The new oil from these sources will be expensive. We are looking for subtle traps, small reservoirs, deep accumulations, tight rocks, and prospects in remote inhospitable areas, etc. Back to my original point, this industry will do whatever of these things the rules of the game permit. Those rules are sometimes restrictive, such as restricting accessibility to potentially productive lands, restricting permits, etc. -- but the critical parameter is the value of the product found.

We can't make the rules. However, we have to play by them. If the Congress and the American people in their infinite wisdom adopt a pricing scheme that places a cap on the value of a barrel of domestic oil, then they can expect a level of activity which is determined by fundamental economics. If, on the other hand, it is determined that this oil, and I'm emphasizing the new barrel of oil, is worth what it would cost to replace it with a similar unit from other sources, then economics will support a higher level of activity.

A decision must be made as to how important it is to the consumer, to the economy, and to the country to add additionally now and over the next decade to our domestic production.

I use the word now. I think that is important. We all agree with the necessity to develop alternative sources of supply, alternative to the conventional produced oil and gas. This takes time, but we have a serious problem during the next ten years or so, and I'm frightened that we are not addressing this short-term problem.

This industry represents the largest contributor to the solution of this problem. It has the desire and the technical capability to make a significant contribution.

The President's decontrol plan is a major step towards an increase in domestic production and a corresponding reduction in dependence on foreign oil. The kind and extent of a tax imposed is an obvious impediment to that effort. You gentlemen must make the judgment call as to the degree of that impediment.

Thank you for your time and attention.

The CHAIRMAN. Let me ask this panel to move over. We are going to ask that the first panel come join you.

I am going to proceed by the usual early bird rule. Since I was the first person here, I will ask the first question.

I will ask that each Senator have 7 minutes to interrogate the witnesses.

Let me address this first question to Mr. McAfee, Mr. Bennett, Mr. Hoopman, and Mr. Williamson. All four of you can respond to it however you want to.

When I went to the meeting with the President in Camp David—I think I am privileged to say what I said; I am not going to quote what the President said; I would not do that—my advice was that the first thing we need to do in this country if we are going to unite together to solve this energy crisis is to get together on what the facts are. That is point No. 1.

Approximately 50 percent of the people do not even know that we have a crisis. In other words, the latest polls on that point indicate that at the end of June, 49 percent of the American people did not even know that we were importing oil. They did not know that we were importing oil—which, it is my impression, is what the problem is all about.

I thought we ought to convince the American people first that we are importing energy. Half our oil is coming from abroad. That is what has created the whole energy fiasco. The people do not know that. We should try to educate them on that.

I am pleased to say that apparently, based on the President's statement Sunday night, we are now beginning to get the word across. Now a substantial majority are aware of the fact that we are importing energy. So we have made some headway.

The second point, the majority of the people have the impression that this whole thing is a conspiracy by the oil companies to raise their prices, that there really is not any energy crisis, there is a conspiracy by the companies, the big companies in particular. Most of the American people do not even know who the small people are, but they know who Gulf is; they know who Exxon is.

They might have heard of Marathon Oil, Mr. Hoopman. As far as Louisiana Land is concerned, they do not know who you are. You do not have any filling stations, Mr. Williamson. I see you shaking your head in agreement.

They see signs out there advertising somebody's product and they think whoever these people are, Exxon, Gulf, Texaco, Tennaco, Hess, Phillips, whoever, that all of those people are in a conspiracy to rob the public.

I regret to say that the President's speech on Monday would give credence to that when he proposed to get another 400 auditors.

I would like to know if you people who are in the oil and gas business and who represent substantial companies—Exxon is the biggest; Gulf is one of the biggest—if you know, if you are aware, and if you would be prepared to swear under oath, if need be, that as far as you know, there is no conspiracy by you or your companies to withhold oil or withhold gas in order to raise the price to the public?

Mr. MCAFEE. Mr. Chairman, to the best of my knowledge and belief, that is absolutely true.

The CHAIRMAN. It is true, or untrue? I want to get that straight.

Mr. MCAFEE. To the best of my knowledge and belief, there is no conspiracy to withhold oil or gas for the purpose of raising price.

The CHAIRMAN. Mr. Williamson?

Mr. WILLIAMSON. On the contrary----

The CHAIRMAN. Will you be prepared to swear under oath, if need be?

Mr. MCAFEE. Certainly.

Mr. WILLIAMSON. I would agree. There is no withholding by my company. Quite to the contrary, we are pushing our people to produce all we can.

The CHAIRMAN. Mr. Hoopman?

Mr. HOOPMAN. We have been able to maintain production at an even level for 10 years. We have worked very hard at it; we are not withholding anything.

The CHAIRMAN. Do you know of anybody else who is?

Mr. HOOPMAN. Producing at the same level that they were 10 years ago?

The CHAIRMAN. Withholding oil.

Mr. HOOPMAN. No, sir.

The CHAIRMAN. Withholding gas?

Mr. HOOPMAN. Nobody.

The CHAIRMAN. Are you prepared to swear under oath?

Mr. HOOPMAN. Yes.

The CHAIRMAN. Mr. Bennett?

Mr. BENNETT. Mr. Chairman, we are producing and pumping oil just as fast as we can. I would be happy to testify to that anywhere.

The CHAIRMAN. I might ask you to do it in due course, to give sworn statements to that effect.

It seems to me if that were the case, you would all be subject to being prosecuted under the antitrust act and the whole bunch of you would be subject to go into the penitentiary. Is that right or not?

Mr. MCAFEE. That is the law of the land.

The CHAIRMAN. We would not need to put you in jail for life; we could put you in jail for violating the Sherman Antitrust Act, section 1, or the Clayton Act. You would be breaking some law, if not the Federal Trade Commission Act. If we could not get you under one, there are plenty of other laws around to catch you with.

As far as you know, nothing of that sort is going on, and my understanding is that there have been auditors around to check your books and look over your operation. You have plenty of Federal auditors around in your operation now—is that correct, or not?

Mr. MCAFEE. That is correct, yes, sir. It has been correct for a long time.

The CHAIRMAN. A lot of auditors, Government auditors, are looking at your books and checking up on what you are doing.

Mr. MCAFEE. For quite a long time.

The CHAIRMAN. If anybody can find that conspiracy, they ought to come up with it.

Now, to what extent was the American petroleum industry, as represented by you people, offered the opportunity to contribute to the wisdom that was generated up at Camp David?

Mr. MCAFEE. I was not invited.

The CHAIRMAN. Was anybody? Did anybody who was invited contact you people in the industry and say, look, we would like to know what the industry can advise us about the problem of production, as to how we can get more?

Mr. MCAFEE. No, sir.

Mr. Chairman, seriously, to me one of the tragedies of the situation we face, is that the expertise, the knowledge, the background of the industry has not been brought to bear in dealing with this crucial question before our Nation.

I think that is a serious deficiency in the way we are approaching this problem at the present time. I hope, in due course, that somehow that deficiency can be corrected.

The CHAIRMAN. There was a cartoon sometime back by Mr. Herblock. He showed the President of the United States and the Secretary of Energy pictured as two blind men with white canes out tapping along, leading each other down the street, indicating what we are trying to do here is a matter of the blind leading the blind.

I just think unless we want to play to the misinformed and the uninformed that we really need to have the best advice of the industry to see what it thinks it can do with a given amount of money. If we hope to solve the problem, it seems to me that that is one of the messages you would necessarily have to have.

Is it correct to say, so far as you gentlemen are concerned, speaking for the American Petroleum Institute, which represents the large and the small, that that pretty well summarizes the situation?

Mr. MCAFEE. Yes, sir. We could not agree more heartily with what you have said, Senator, about the importance of getting industry involved in this process.

The CHAIRMAN. Do I understand, as far as your people are concerned, you would welcome an opportunity to be involved in helping to find a solution to the problem?

Mr. MCAFEE. Very much so.

The CHAIRMAN. Thank you very much. My time has expired. Senator Dole?

Senator DOLE. In 7 minutes with 8 witnesses, I do not know quite how to proceed.

First of all, the Chairman has made it clear—at least I think he has made it clear—that the thing that has not been addressed is production. It seems to me that the one thing that President Carter failed to fully assess was what can we do in the short term. If you look at all the programs he suggested—I do not fault the programs necessarily—there is not any focus on what we can do in the short term.

Some of you have addresed that this morning. Some of you talked about the windfall profits tax being counterproductive. Many of us would share that view.

But let us face reality. You are the easiest target in town. I think the oil industry's ratings are as high as those of Congress, which is not too high.

So when you look at the realities, as Mr. Bennett says, the politics of it, it is easy to understand why in Kansas City, President Carter got his loudest applause when he attacked the oil compa-

nies. I noticed that, since I live in that area. I may want to make a speech there myself.

You were not asked to get into how this windfall profits tax should be allocated. I assume that there will be $140-some billion available through windfall profits taxes, if we take all or most all of it. I think in the early years, I think we have to dip into some of the other revenues because there is not enough windfall profits taxes.

I went back to the 1975 hearings where at that time many of the witnesses here, at least representatives of your companies, suggested that we have a plowback provision. Now I understand it is the official position of this group that we should not have a plowback provision.

Is there some reason for the change since 1975?

Mr. McAFEE. Yes, Senator Dole.

The concept of a plowback of course, the words mean different things to different people. That is a part of the problem that is attractive.

Superficially and theoretically there is a great deal of attraction to the concept of somehow giving credit against the tax if it is properly invested. There is no problem with the concept and because of the attraction of it, we have given a great deal of study as to how it might be applied.

Very frankly, as far as we have gone—and we have gone into it pretty deeply—we have been unable to find an equitable and workable way to apply such a concept which would be workable and fair and equitable to all concerned.

If there were just one company, just one individual, one homogeneous circumstance that we were dealing with, it would be a lot easier, but the great diversity of interests and circumstances make it almost impossible to deal with such things as what qualifies for the credit, what is the base, what about past actions, how do you equitably take care of the interest of the royalty owners, and so on and so on.

It really boils down to be a practical matter of application that leads us to the conclusion that it would be better to avoid those problems by avoiding the tax in the first place, rather than trying to work out a complicated method of paying it back.

Senator DOLE. I understand that. I assume we are going to have a windfall profits tax. I do not know of anyone who has been realistically suggesting that Congress would not pass any windfall profits tax. In fact, there is a great deal of pressure to do it between now and August, the 2d or 3d.

So the pressure is on and the cooker is starting to cook, and it just seems to me that there must be some alternatives. If we do not have any alternatives, I guess we will pass what the President suggests.

It will be very helpful to us if some of those who understand that issue better than anybody on this committee would give us some constructive suggestions, not just that you do not want a tax. There is going to be a tax.

I think some of us would like to diminish the harm that that tax might do. Maybe another approach would be exempting certain production. Some have suggested that there should be 1,000 bar-

rels, 3,000 barrels, 3,500 in one of the statements. I think that was in your statement, was it not, Mr. Talley?

Mr. TALLEY. Yes, sir.

Senator DOLE. That would exempt most of the independents in Oklahoma, probably all but one in Kansas.

My point is that some of us who believe that the private sector must not only be consulted, but must have some input if we are going to solve our problem through production, not by trying to nationalize or destroy your industry to create some public corporation.

Mr. MCAFEE. In response, Senator Dole, may I offer two points?

As Mr. Williamson's testimony brought out, the responsibility for deciding to what extent the Nation's interests must be compromised for political considerations is a responsibilty that rests on you gentlemen. You have to make the judgment call.

If there does have to be such a compromise, I would offer two suggestions by way of specific amelioration of the damage that it would cause.

One, to minimize the percentage, the rate, the amount of the tax; and equally important, perhaps even more important, is to set in place at the very beginning machinery procedures and schedules for phasing out those taxes, which would start from the beginning.

Senator DOLE. The President is suggesting a permanent tax.

Mr. MCAFEE. Instead of a permanent tax, let there be a definite phaseout so we know what we can count on, so that there is not a gap between where we are and where we ought to be.

Senator DOLE. My time has expired.

I hope I have a chance to come back in another hour. It will be my turn again.

The CHAIRMAN. Would you like to ask one more question?

Senator DOLE. I think Mr. Williamson wanted to comment on the same question.

Mr. WILLIAMSON. Some of us, Senator, have very strong views on some of the things that can be done to make a tax more workable and the very important thing, the point I was trying to make earlier, is that there is no point in taxing oil that we are going out to find. That is our salvation. We have to do everything we can—we can exempt stripper oil. There has been testimony to that.

The other point that was made earlier, get on a timetable to phase out. Those are key. Those are terribly important.

Senator DOLE. A nonpermanent tax and lift the lid on new oil? I would agree on those two things.

Mr. WILLIAMSON. Stripper and marginal. There are a number of other things.

Senator DOLE. Enhanced recovery?

Mr. WILLIAMSON. Yes.

The CHAIRMAN. All right. Mr. Gravel?

Senator GRAVEL. Thank you, Mr. Chairman.

Let me say that the tax such as that before us today is a cosmetic accommodation to a very high threshold of ignorance that we have in this country.

I think it is unfortunate when the President of the United States or any Member of Congress or any other responsible person goes out and says there is an energy crisis and, in the same breath,

demeans the major segment of industry whose job is to supply energy to this country. What he is telling the American people in code is that there is no crisis. He is saying that all we have to do is to get those oil companies straightened out and we will solve the problem.

So obviously, the American people do not respond to the statement that there is a crisis. You have TV repeatedly telling them that there is a crisis; but then you take a poll and the people still do not believe there is a crisis. They do believe, however, that the problem is caused because the oil companies want to raise prices and rip off the people, so if we can just take care of the oil companies, punish them, put them in jail, do whatever we want, we solve the energy crisis in this country.

So that I think that the pain that results of speaking out of both sides of one's mouth brings us to the situation we have today.

I would like to ask the gentlemen from Salomon Brothers about some computations they have done. Can you tell me what the profits are going to be if there is no severance tax? If there is no severance tax, what are going to be the profits of these energy companies?

Have you done any projections in that regard?

Mr. COPP. No, Senator, we have not.

Senator GRAVEL. Could you do some projections and supply them for the record so this committee will know what we are faced with? All we have at this point is empirical and historical information that when the world prices are quadrupled, the energy companies, the international companies, had a rate of return on equity of 19.9, domestic companies, 18.3. That is within a reasonable range, as I see it. Maybe others will not, but I think evidence will show that that is a reasonable range.

I would like to know for the record, because people are going to be talking about raising taxes, and we want to know what the profits are going to be.

Can you do those computations?

Mr. COPP. Senator, the difficulty of performing that function, of course, what happens if you do not have a tax? Do you assume that you have a continuation of domestic phased decontrol of oil prices?

Senator GRAVEL. Make that assumption. I do not think the President can back down on that. I think he has made too many commitments to the rest of the world over our profligacy. If he changes his mind now he is going to lose face in the world, and this country will lose face.

Let us assume that the deregulation is going forward. Tell us how much they are going to "rip off."

Mr. FREEMAN. We found, during several rounds with this committee and others, that the absolute numbers do not push back the frontiers of ignorance, that the most effective statement, the most effective analysis that we have been able to carry out is the relationship between the net profits of the industry and its tendency to spend far more than those net profits in new capital expenditure and exploration programs.

If the net profits rise—and they rose very sharply in 1974 as a result of the first OPEC embargo; the capital expenditures rose even more sharply and the one relationship we have seen consist-

ent through a lot of vicissitudes in the industry, political, domestic and foreign, as fast as the industry receives extra cash flow, it reinvests it in new exploration, new production, and new downstream production.

Senator GRAVEL. I know that. I can prove that from prior testimony in other hearings and these hearings. I do not know what the projected profits would be. I need some expert testimony on that so that we can see what that possible holocaust is, if it is a holocaust.

If it is anything like what happened in 1974, then it is no big deal.

I have done some computations. One-fourth of the Fortune 500 companies in 1978 made more than a 20 percent return on equity in the United States. So if one-fourth of all of the major U.S. firms operating in this country have already experienced that, and this industry has not experienced it, and even with deregulation will not experience it, then it helps me in my argumentation to say we do not really need this severance tax.

Mr. MCAFEE. In response to your question, if I might, I would like to offer some specific numbers with respect to one company, Gulf Oil. I have to go back to 1977. The basic range of figures will be about the same.

We computed at one phase of the game, that if we had complete decontrol of crude oil prices, our return on investment—shareholders equity—would have increased from 10.5 percent to 14.4 percent, keeping everything else completely the same; 14.4 percent is still below the average of all American industry today.

Senator GRAVEL. Could you supply those figures for the record so we can prove exactly what happens in your company, and any other companies that want to do likewise? Give us those figures so we can make the documentation?

Otherwise, we are chasing some ephemeral statement that we cannot get a handle on.

[The material to be furnished follows.]

GULF OIL CORP.—RETURN ON INVESTMENT FROM OIL DECONTROL REVENUES

Gulf Oil Corporation was asked to submit for the record its estimate of the effect on its return on investment if U.S. crude oil is decontrolled and no "windfall profits" (excise) tax is enacted. The change for 1979 and 1980 on both return on employed capital and shareholders' equity over the 1978 results is shown below.

The following assumptions were used:

1. Decontrol is based upon President Carter's program which began on June 1, 1979;
2. The market prices used in determining the incremental revenues for oil are based on Gulf's current estimates for the period;
3. No change in corporate income or investments except for the addition of revenues from decontrol;
4. The revenues are after royalties and federal and state severance and income taxes; and
5. No dividends are paid from these revenues as Gulf plans to reinvest all decontrol revenues in energy development.

[In percent]

Year	Return on employed capital	Return on shareholders' equity
1978 actual without decontrol	8.7	10.5
1979–78 data adjusted to reflect only 1979 decontrol effect	9.0	10.8
1980–78 data adjusted to reflect only 1979 and 1980 decontrol effect	10.4	12.8

As stated in the testimony, Gulf previously estimated the impact on return of full decontrol, had it occurred in 1977. On this basis, the return on shareholders' equity for 1977 would have increased from 10.5 percent to 14.4 percent.

Senator GRAVEL. I appreciate your volunteering that. The next point I would like to ask Salomon Brothers is whether oil companies can hide money? They are public corporations. The comparison is made to the small businessman that has a store and dips into the cash register every day, puts it into a cigar box, and runs down to the basement and buries the money so nobody sees him do it. IRS cannot get him; there is no way of knowing.

Can oil companies do the same thing? Can a major public corporation under the investigation of the investment people of this country whose job it is to tell people like me and others where to invest their money, where to make the best return, can they hide a substantial 1 percent of their profit, or 2 percent, or 5 percent of their profit, where no one can see it?

They distribute it. I do not know. Can they do that?

Mr. FREEMAN. Senator Long referred earlier to people going to the penitentiary for certain things. If these companies can hide their assets, then Salomon Brothers would go to the penitentiary.

I will tell you why. We underwrite the securities of all these companies and we are subject, as underwriters, to SEC disclosure requirements.

If we have disclosed inaccurately any material facts about these companies, if we have not done it diligently, we are subject to severe criminal liabilities.

We put a far higher percentage of our resources on the line when we underwrite—there is a case and any other industrial corporation puts out a project, if they are doing something illegal, if they are doing something underhanded, we would not underwrite their securities, because we cannot afford to.

Senator GRAVEL. What you are saying, if there is one part of U.S. industry that is really ripping off and stealing and not promptly reporting income, they would be subject to go to jail. All of Wall Street who is involved in the marketing of their securities would also go to jail. Is that what you are saying?

Mr. FREEMAN. After our insolvency were incurred, we would go to prison. That is not an occurrence that we take lightly. Due diligence is very thorough.

Senator GRAVEL. I hope the answer to that question dispells the view that the companies can rathole money and hide it, stealing from the American people.

Mr. FREEMAN. There is a lot of pressure, a lot of scrutiny, on these companies from many sources.

Senator GRAVEL. My time is up.

The CHAIRMAN. Senator Nelson?

Senator NELSON. Mr. Talley, in your testimony you listed five exemptions that you would propose. If, in fact, there were to be a tax, do you have any figures on what percentage of current oil production comes from each one of these categories, the five categories that you list?

Mr. TALLEY. Yes, sir, on some of them, and first I will have to say that the production of stripper wells nationwide is 14 percent—excuse me, the production from stripper wells, which is released from price controls at the present time, is 14 percent of the total U.S. production, about 30-plus percent of Oklahoma's production, lower tier production in the United States, I do not remember the exact number, but more than 40 percent; in Oklahoma, it is about 30 percent.

Of course, there is very little of new, new oil since that was only released since January of this year. That cannot be mentioned. Upper tier oil is approximately 30 percent in Oklahoma and about 20-plus percent nationwide.

Marginal oil, we have estimated in the past, is somewhere around 5 percent of the total U.S. production.

Enhanced recovery oil is less than 3 percent of total production.

Senator NELSON. You proposed an exemption on the first 3,500 net barrels per day of domestic crude oil. What does that cover?

Mr. TALLEY. That covers—we estimate that the first 3,500 net barrels per day would pick up 90 percent of the stripper production and that is an informed opinion, sir. We know of no factual information on that. That is our best feel at this point in time.

So that would be, say, 13 percent of the total U.S. production and independents produce something on the order of—I am trying to back this up in my mind—probably 40 percent of our total U.S. production—so we are talking on the order of 20 percent, so that gives us a total of 33 percent under that one exemption.

Senator NELSON. If you exempted what you proposed, what percentage of total current production would be involved?

Mr. TALLEY. About one-third of total current production.

Senator NELSON. When you refer to production from properties that no crude oil production occurred in 1978, are you simply talking about new discoveries?

Mr. TALLEY. New, new oil.

Senator NELSON. I have been a little bit puzzled about the administration's proposal of a tax on new, new oil. What kind of a measuring stick could anybody use to decide at what point a new well, an owner of a new well, was benefiting from an excess profit?

The administration used a $17 figure, did they——

Mr. TALLEY. The administration used $16. The House upped it to $17.

We know this, that if it costs $7.50 per barrel to find, discover, and develop, you need to have in price only a 15-percent return on your investment of $22.50.

If the cost of finding oil is $10 a barrel, the price required to give that same 15-percent return on your investment rises to $30 a barrel.

Most people do not understand those economics, but those are our numbers, sir.

Senator NELSON. Is there any rational way to decide in advance before discovery is made what an excess profit is, using some absolute base dollar value that is the same for every property? Is there any rational way to decide what that base should be?

In other words, might it not cost twice as much to get oil in one place as it does in another?

Mr. TALLEY. Yes, sir. This one well in southern Oklahoma in the Arbuckle Mountains, that well is only going to adapt to 10,000 feet. That well, in the circumstances—it has been drilling for 94 days as of yesterday. It has cost $5,600,000 yesterday.

The original estimate was $1.4 million. We spent $3 million at that particular well. It had better be successful. There are going to be a lot of people that want to go down to the bank and borrow more money to have increased cash flow is to have the world price to rise to the world market prices.

Senator NELSON. Mr. Chairman, as everyone here knows, all of these things are enormously complicated. I would like to suggest that the staff compile on their own motion, and at the suggestion of the members, a series of questions based on the testimony here in which witnesses have criticized the administration's proposal; that the issues they have raised be submitted to the administration; and that the administration respond to them in writing.

I find it very difficult to understand how we are going to levy an excess profits tax on an oil well that has not yet been drilled and at an arbitrary dollar price, when obviously it may cost twice as much to drill one as the other.

What happens if the price is $17, as the House set it, and in fact it cost more than that to drill the well? Are we then going to tax the producer's actual investment?

I think that it would be helpful if we could have the professional staff as well as the members design a series of questions based on the testimony and ask the administration to submit their answers in writing so we can juxtapose them and make some judgments.

I hope that we are not trying to mark this up very fast. I would like to get those responses and I would imagine that would take some time.

The CHAIRMAN. I will try to do that, Senator. I take it what you mean is, you want questions to go to the witnesses?

Senator NELSON. To the administration. We may want to submit some questions subsequently to the witnesses as well, or they may want to respond to the administration. I think, in a situation in which the necessary knowledge or expertise is confined to a limited number of people, we should seek that advice. I am not worried about truckdrivers and the administration.

I want something that I can understand, which is a little more difficult. But I would ask if you would have the staff request of the members to look at the testimony and suggest questions that we can ask, and then ask the administration to respond so we have a chance to read the responses.

The CHAIRMAN. We will try to do that. Senator Boren.

[The following was subsequently supplied for the record:]

United States Senate
COMMITTEE ON FINANCE
WASHINGTON, D.C. 20510

July 19, 1979

The Honorable
W. Michael Blumenthal
Secretary of the Treasury
Washington, D. C.

Dear Mr. Secretary:

In testimony before the Senate Finance Committee on H.R. 3919, the Crude Oil Windfall Profit Tax Act of 1979, a number of witnesses who are experts in the energy field have challenged some of the features of the Administration's National Energy Plan, as well as some of its underlying assumptions. At Senator Nelson's request, Chairman Long has directed the Committee staff to obtain for the record written comments on certain issues raised in the testimony of the witnesses that have come before the Committee on Finance.

The first issue raised involves the question of petroleum industry profitability. First quarter profits in 1979 compared to comparable previous quarters have been said to be misleading because during previous periods the oil industry suffered from depressed earnings. It has been suggested that oil companies have a lower rate of return on shareholder equity than a very substantial number of non-oil companies, and that their rate of return has been lower than the rate of return for all manufacturing companies for the last three years.

Another matter raised was the investment capital needs of the energy industry. Independent studies by financial analysts have concluded that the petroleum industry will have to spend $40 billion annually on exploration and production just to maintain our present level of oil and gas reserves. Currently, the oil industry is spending about $20 billion a year in expanding its production capacity. The estimated

increase in gross annual revenues from decontrol of oil prices will be only about $12 billion--representing a shortfall of approximately $8 billion. After payment of existing taxes and royalties, without the tax in H.R. 3919, producers would net only $6 billion in additional revenues. The tax proposed in H.R. 3919 would leave producers with only about $2.5 billion in additional revenues. Given the industry's capital needs and projected shortfall in earnings, is there serious economic justification for shifting these resources away from those producers upon whom we are dependent for domestic oil production?

Finally, information supplied shows that between 1971 and 1978, 33 energy companies included in a representative sample of the industry made capital expenditures equal to at least 131 percent of their net income annually and their average investment annually was about 175 percent of their net income. Given the high rate of investment by such companies in the energy business and this nation's critical need for greater domestic energy production, is it appropriate to enact a tax which will further reduce revenues available for energy exploration and development?

Enclosed for your information are the written statements of a number of witnesses who have appeared before the Committee and who have made the arguments generating the above questions. Pursuant to the Chairman's directive, I am forwarding these statements to you for your analysis and response to the issues raised. Because the Committee will be beginning its markup session on H.R. 3919 on Tuesday, July 24, it would be appreciated if your written responses could be provided to the Committee by the close of business Monday, July 23.

Sincerely,

Michael Stern

Michael Stern
Staff Director

Enclosures

DEPARTMENT OF THE TREASURY
WASHINGTON DC 20220

ASSISTANT SECRETARY

JUL 23 1979

Dear Mr. Chairman:

This is in response to the letter of July 19 from Mr. Michael Stern requesting comment on four questions raised in the testimony of witnesses before the Finance Committee. The questions, and my comments, are as follows:

1. Were the first quarter 1979 earnings reported by oil companies misleadingly high as compared with the same 1978 period because the latter year was relatively depressed?

Our own analysis of 1977, 1978 and 1979 first quarter earnings reports available last spring concludes that generally this was true. A table prepared at that time, a copy of which is enclosed, shows that, whereas four companies primarily engaged in extraction reported a 1978-79 first quarter earnings gain of 79 percent, the average annual rate of gain for first quarter earnings, 1977-79 was only 32.9 percent. Similarly, for 19 integrated oil companies, the 1978-79 earnings gain appeared to be 84.7 percent, but the 1977-79 gain was only 35.8 percent.

2. Do oil companies report a lower-rate of return on shareholder equity than manufacturing companies not engaged in the oil business?

Generally, the evidence we reviewed in testimony before the Subcommittee on Energy and Foundations on May 7, 1979, indicates that, for the 9 years 1969 through 1977 (see Appendix Table X):

--Oil companies engaged primarily in extraction reported rates of return on book value of stockholder equity higher than nonoil companies 5 times, in 1969, 1970, 1974, 1975, and 1976.

--Integrated petroleum and refining companies reported higher rates of return to book value of stockholder equity only 4 times, in 1970, 1973, 1974, and 1975.

On the whole, as I noted in my testimony, the profitability of oil companies, whether measured by rates of return to stockholder equity or to total assets employed, do not markedly differ from nonoil companies except in periods like 1973-75 when crude oil prices are rising.

3. With regard to the capital needs of the energy industry, since studies by financial analysts have concluded that the petroleum industry will have to spend $40 billion annually on exploration and production just to maintain our present level of oil and gas reserves while they are currently spending only $20 billion, is there economic justification for imposing a windfall profits tax on these companies on whom we depend for domestic oil production?

Based on information available to us, $20 billion is a reasonable estimate of current total domestic expenditure on exploration and development of oil and gas productive capacity. I would emphasize this is total expenditure on exploration and development, by all investors and not simply those who will be subject to windfall profits tax. However, we know of no reliable basis on which to estimate annual investment "needs", whether to simply maintain existing capacity or to increase it. The amounts oil companies will invest, their manifest "needs", depend on expected future price of oil and the currently available inventory of geological prospects to be explored and developed, if found to be productive. The windfall profits tax only affects future price expectations to the extent it does not permit OPEC to enrich both its own members and domestic (U.S.) producers of oil by cartelized restriction of world oil supplies; the windfall profits tax does not expand or contract existing geological prospects. More important, future rates of investment in additional oil and gas reserves by U.S. companies will be determined by the path taken by future prices and by the additions to the inventory of geological prospects that will be made as new mineral provinces are opened for exploration and as discovery-development technology evolves.

As for the way future rates of investment will be financed, there is nothing in the logic of investment theory nor the operations of capital markets to ordain that only those dollars once invested in oil and gas reserves, plus any additional dollars of "profits" generated by previous investment in oil and gas, and no others will be available for future investment in oil and gas reserves. The very evolution of existing oil companies, some of which integrated backward into oil discovery and production from refining and marketing, others from pipeline operations, and some of which integrated forward into refining and marketing from discovery

and production, denies this simplistic view that only dollars "earmarked" as from oil and gas reserves can and will be used to drill for new oil. As in any competitive sector of the private economy, financial capital flows to oil and gas discovery and development through capital markets whenever prospective rates of return in oil and gas investment appear more attractive than alternative investments.

Thus, the question is whether the windfall profits tax, by itself, degrades the expected profitability of new investment projects for the discovery and development of oil and gas reserves. It is clear to us that the proposed tax does not do this; but on this matter, the financial analysts are strangely silent.

4. In view of the fact that oil companies typically make capital outlays that substantially exceed their net incomes, is it appropriate to enact a tax which will further reduce revenues available for energy exploration and development?

As I noted in my testimony, over the period 1969-1977, oil companies typically expended in capital outlays a higher fraction of their total cash flow than did nonoil companies. Since the fraction of cash flow that is "income", after the financial accounting for capital consumption, is smaller among oil than nonoil companies, it also follows that oil companies expend in capital outlays a larger fraction of their net incomes than do nonoil companies. While this is an interesting fact, it mainly reflects differences in asset structure: oil companies generally employ more fixed assets subject to replacement by capital outlays; nonoil companies employ more inventories and "working capital" not subject to replacement.

However, this structural fact has no bearing on the windfall profits tax. The windfall profits tax will not decrease net income from, nor rates of return on, existing oil company assets. Indeed, with decontrol and the windfall profits tax, owners of existing properties will report significant increases in profits on these properties! The tax therefore cannot, on this account, reduce the capacity of present owners of producing properties to make investments in new productive capacity, if the opportunities for such

investments present themselves. To permit present owners of productive capacity to retain all the OPEC-induced windfalls that would accrue to them absent a windfall profits tax would merely provide present producers an unearned capacity to keep-out others anxious to venture capital in the areas yet to be opened for exploration.

Sincerely yours,

Emil M. Sunley
Deputy Assistant Secretary

The Honorable
Russell B. Long
Chairman
Committee on Finance
Washington, D.C. 20510

Enclosure

First Quarter Earnings
Oil Companies with Sales of $100 Million or More; 1977, 1978, 1979

Company	Net income, first quarter (millions of dollars) 1977	1978	1979	Percentage change (annual rate) 1978-1979	1977-1979
Oil and gas extraction					
Totals	128.32	126.53	226.55	79.0	32.9
All reporting companies:					
American Petrofina (1)	8.15	1.10	11.36	932.7	18.1
Getty Oil (2)	82.30	76.15	108.21	42.1	14.7
Natomas (3)	21.78	17.18	19.08	11.1	-6.4
Occidental (4)	16.09	32.10	87.90	173.8	133.7
Integrated petroleum and refining					
All reporting companies:	2,456.07	2,453.56	4,530.74	84.7	35.8
Amerada Hess (1)	70.90	32.52	115.63	255.6	27.7
Belco (2)	11.77	20.64	14.41	-30.2	10.6
Clark (3)	0.67	-0.01	5.93	-	197.5
Continental (4)	100.85	36.49	161.80	343.4	26.7
Exxon (5)	645.00	695.00	955.00	37.4	21.7
Gulf (6)	166.00	155.00	249.00	60.6	22.5
Imperial (7)	67.50	63.60	77.00	21.1	6.8
Marathon (8)	40.66	50.26	104.47	107.9	60.3
Mobil (9)	219.48	241.00	437.00	81.3	41.1
Phillips (10)	121.58	164.97	177.00	7.3	20.7
Shell (11)	183.66	193.00	223.89	16.0	10.4
Standard (Cal) (12)	224.00	228.56	346.00	51.4	24.3
Standard (Ind) (13)	244.19	273.54	349.10	27.6	19.6
Standard (Ohio) (14)	18.70	41.60	167.50	302.6	199.3
Sun (15)	81.48	76.50	120.30	57.3	21.5
Tesoro (16)	9.10	7.97	5.64		
Texaco (17)	242.58	169.70	306.97	80.9	12.5
Tosco (18)	3.39	-3.26	11.76	-3.8	86.3
Witco (19)	4.56	6.48	9.34	44.1	43.1

Source: Compustat

Senator BOREN. First I want to thank all of those who have testified and I want to say a special word of welcome to Dr. Talley, who was my energy advisor in the time I served as Governor. He also served as head of our State department of energy and also the head of our energy advisory council.

I appreciate all of you being here. After all, that has been said here by the chairman and others, I think it is a tragedy that in the writing and making of decisions on energy policy in this country that those who produce 80 or 90 percent of the energy have not been adequately consulted.

It would be as if during World War II we needed airplanes and President Roosevelt said, "We want more airplanes but I cannot afford, for political reasons, to talk to anybody that has ever operated a machine or knows how to build an airplane."

I would wonder if we would have met those targets and won the war. I submit that we are not going to win the war on energy unless we draw to a partnership, as we did in World War II, the private sector that has the ability to cope with it.

I think it is a tragedy that this has not happened. Speaking as one, I am sick and tired of having the patriotism of anyone who has ever had any association with the energy industry and energy production denigrated. I know from personal experience with many of these individuals that they are doing all they can to help this country.

I think we ought to get off that attack and get down to the business of mobilizing the people and really solving the problem.

Mr. MCAFEE. Thank you, Senator.

Senator BOREN. In listening to the President's proposal on this Domestic Energy Corporation or Government energy bureauracy he wants to create, I get the impression that we are talking about creating a vast government agency to take billions and billions of dollars and use them to subsidize synthetics, synfuels, that we might produce at $30 or $35 a barrel or $40 a barrel, we are not quite sure, with the additional overhead cost of 30 or 40 percent that we get from government programs, on which projects will qualify and so on with the mixed-up front in capital investment.

On the other hand, we are doing everything we can, it seems to me, to discourage the production of oil, maybe at $20 to $25 a barrel from enhanced recovery projects and other things that could be more readily available.

It seems to me that the administration is not advocating or urging companies to produce what they can produce now or in the next few months at maybe $20 a barrel, but what they could go out and produce something at $30 or $40 a barrel and not be able to get it for 4 or 5 or 6 or 10 years in any kind of volume.

I have difficulty understanding how that is a bargain for the American consumer who ultimately foots the bill for anything that we do.

Does it make any sense to you for us to have vast reserves and stripper wells here that we need to prolong and not develop them? We need to go into enhanced recovery and we have had estimates already from IPA and others that at a price of $25 a barrel, with some additional tax on it, there are anywhere from 50 to 150

billion barrels of oil potentially recoverable through all sorts of enhanced recovery projects.

First of all I will ask you, and any of you to respond to this. Does it make any sense for us to be taxing that and discouraging that so we can give subsidies something that we might get 5 or 10 years from now for $40 a barrel? That is question No. 1. And question No. 2, how much do you think really is there and what kind of estimate would you give as to the potential of enhanced recovery projects of all kinds within the United States?

Mr. MCAFEE. Let me start by responding this way, Senator, to your two questions. First of all, I think it is important that we make a start toward the development of all alternate energy.

Senator BOREN. I understand that.

Mr. MCAFEE. I am sure that what you were addressing is this crash program of putting our eggs in those baskets. I would certainly share your view as to whether that is in the national interest.

With respect to the amount of extra oil available by enhanced recovery, I am not an expert personally in that area. The numbers are substantial and certainly we need to get on with that part of the job, lacking new discoveries. In many cases we are not going to know how much we can get out by enhanced recovery methods until we try, because this is a developing technology.

Mr. Williamson may have more information.

Mr. WILLIAMSON. I cannot respond intelligently on a nationwide basis. I am not qualified to answer, but there is an awful lot. Every old field in this country, virtually every one of them has some possibilities for enhanced recovery. The kinds of fields and opportunities are going to vary as to how many barrels and what it is going to cost, but it is virtually every field.

I would recall that 2 years ago part of our testimony had to do with the amount of oil that is going to be left in place in reservoirs around this country. It is like two to three times that which we have produced to date.

Senator BOREN. Sixty-seven percent of the oil is still there, and there is an environmental cost?

Mr. WILLIAMSON. Everything about it will be expensive. We are going to have to get some of it anyway. I think Mr. Hoopman would know something about that.

Mr. HOOPMAN. I would be happy to address that. I cannot do it on a nationwide basis but I can give you some reasons for that. The recovery of the last part of the oil in the reservoir is a complex thing and it is well hooked into the particular circumstances in that particular reservoir.

If I might use the technique of using an example, there is a field, the old Robinson field which was the first field west of the Ohio discoveries back in 1909 that came on production. It was producing with techniques known at that time to recover about 30 percent of the oil in place from that field, which was considered excellent recovery from that type of a field shortly before the start of World War I.

The field became almost uneconomic at that time but because we did have a national emergency, every well that would produce anything was producing regardless of whether it was profitable or

whether it was a losing operation throughout World War II. At the end of the war we took that field as our first opportunity to try our wings on the new techniques at that time which were water flooding.

Fortunately, the field was shallow, with clean sand and it was very amenable to water flooding and we were able to recover from that time until now about what we think is another 22 percent. So we have recovered by primary production and secondary production in that field, as we term secondary production, 52 percent of the oil from the field.

Now, our company for 13 or 14 years has been working on a process that we proudly call mara-flood and it amounts to a situation where we make soap out of the crude oil and SO-3. It is a sufonating process and we built a little pilot plant at Robinson, Ill., which is right next to the field, and it happens to be near our refinery.

This is a small plant for this particular experiment, which is also the largest plant in the world, but you can see the scale up from where we are to what we need and where we are going.

Now we have run three different experiments on that in the last 4 years, one of them on 40 acres, and one is 120 acres and another one is 320 acres and we are ready to go forward with that department. We can lose about $5 a barrel at the prices we could charge at that plant.

We think, though, that given the opportunity to deliver that oil to the refinery, which is only 6 miles from the field, at the same price we are delivering oil from the center of Libya, the oil is very comparable. We would go forward with the recovery of perhaps as much as 15 to 20 percent in selecting areas, we could get up to 85 percent of the gross oil in place.

Now, that is one technique that is going to work in that kind of field. But that same technique is being made on an experimental basis in Pennsylvania, and Long Beach, Calif.

The Department of Energy, bless their souls, are very difficult to work with on an experimental basis but we do have a grant going to some of those people. Unfortunately when you cycle the funds out of the process by taxes and back into the project by taxes, really we were delayed 3½ years on a particular project we were going on with, and there is the writing of the reports and the fulfilling of the requirements of the $14 million that we have drawn from the one and only experimental project we have under the office of the Department of Energy.

We estimate that $6 million of that $14 million will go into paperwork which is unnecessary. Unfortunately, that particular $56 million project is now going along and it will run over the budget probably $6 million because we did not plan on it. We do have the technology available to handle many of the situations in reservoirs now, if we had the same price at the wellhead and were willing to pay what we pay an Arab country.

Senator BOREN. We are not asking for synthetics, and we would have a decontrol price without a tax, and without going through all of this additional cost of going to the Government for subsidies and grants and all of the rest.

Mr. HOOPMAN. This is a very important part to this overall. When you get to tertiary projects, all tertiary projects are heavily loaded with investment at the front end. It is a long time cycle then until production starts, and then it comes up this way.

We in the oil industry are accustomed to making a big investment to drill a well, and have the initial income, beehive, and taper off over time. The rate of return on tertiary projects could be very, very severely helped by some sort of an early appreciation on that front end of expenditure or categorize that as an investment and allow an investment tax credit.

There are many things that you can do short of taking the money away and running it through the wringer of Government and passing it out through a bureaucratic organization to those people who will put on the best presentation for what they are going to do with it.

We would like to have the opportunity to be at risk ourselves on the projects we take on and not do it on a cost-plus basis through the offices of the Government.

Senator BOREN. I would like to ask the staff to develop some figures and perhaps they could take the stripper course and enhanced recovery and tertiary, and take the pictures that are probably examples of the suggestion of Dr. Talley's testimony, and very likely can offer an amendment on what it costs per barrel and the revenue loss gains the proposed tax would be.

Then I think it would be interesting to look at the comparative figures of what the subsidized total cost of the synthetic fuels would be. We could see what would give us the best bargain here in the next 5 years for the American consumer and taxpayer.

The CHAIRMAN. Senator Roth.

Senator ROTH. Thank you, Mr. Chairman. I really do not have so much a question as a request. One of my concerns is that I really do not see any leadership in this energy field. I do not see that the President is providing the strong leadership we need. In addition, a recent article that appeared in Fortune magazine said the oil industry is pretty much retreating behind moats and refusing to answer questions. Now that is my concern.

Let me make a proposal. I happen to agree with Senator Boren when he says there is something wrong with this country when you do not at least listen, and we do not. We do not listen to the experts in the area.

I happen to think this country has to develop a program which makes us relatively energy independent, and I also think that we have to have an increased supply of energy if this country is going to grow and develop as I think it must. But I do not see the leadership coming either from the private sector or the public sector.

When the President was elected, as a member of the Government Operations Committee, I worked with him on creating a Department of Energy. Three years ago the whole idea was to consolidate so we had all of the decisionmaking in one place and we would get the facts.

The fact of the matter is we know less now than we did 3 years ago. And what is the President proposing today? A new agency and new appropriations. Maybe that makes sense.

He proposes a commitment now of $80 to $140 billion to create new synthetic fuels. A Member of the House, Dave Stockton, has written an excellent article on this stampede to synthetic fuel. I do not know what you gentlemen are saying about this issue, but fundamentally we get a little bit from you the same thing we get from the President—"Trust me."

You say deregulate and let us have the profits and trust you as to what is going to happen in the future.

Gentlemen, I think the problem is too important and too serious to trust anyone. What I would like to have from you gentlemen, speaking as experts, and I make this same invitation to anybody else in this industry, is for you to remove your hats as presidents and vice presidents or whatever you are, and to tell me, if you were President of the United States, what would be your six-point program to solve this problem. Be realistic about it.

You are a group of experts, people who know probably as much about energy as anyone in this country. What are the steps we should take short range, one, two, and three, to increase the affluency of energy? What should we do with respect to the organization of Government? Maybe this board is a good idea. Should we do away with the Department of Energy? Does it make sense to commit $140 billion worth of capital?

What does that mean to our capital markets? What I want you to do is address this problem in a manner that I can understand it, and that means it has to be pretty simple. But tell me as if you were President of the United States representing all of the people and not just your board of directors.

We are going to have to vote on these commitments in the very near future and it would be most helpful if you could give us this advice.

Mr. McAFEE. I wish I had a good deal more than your entire 7 minutes, Senator Roth, to respond to that. Believe me there is nothing we would like better than to be able to have the opportunity to put in that kind of an input.

Let me be very brief and then Mr. Freeman has asked for an opportunity to respond as well.

The first thing, I believe, is to get away from this business of finger pointing and name calling and begin to work together.

Senator ROTH. I could not agree with you more. People in business and people in energy are good Americans and interested in this country as well as anybody else. Let me point out to you that when we created the Department of Energy, we said no one who had any stock in any energy company could serve that Department.

That was the aftermath of Watergate. I think we are a little more intelligent now.

Mr. McAFEE. I hope we can see how correct that deficiency is because it is a major one.

Second, I would urge that we get away from the concept of thinking that there is any quick, simple, easy panacea to this problem because there is not. There just has got to be one heck of a lot of individual hard work on the part of all sorts of people all across the country on all of the fronts. That is the important thing.

This problem is so big we have got to attack it at every possible point of contact. No single solution is going to do it, neither conventional oil and gas, syn fuels nor solar, coal conversion or nuclear or any of it. We have to have them all.

Third, we have to have ways which will best mitigate and ameliorate the dislocations involved. That means doing it gradually and intelligently. Fourth, we simply must unhobble and unshackle our industrial forces to get moving. The thrust of our entire testimony this morning and that which preceded it is as I read it, nothing but that. That there is tremendous muscle waiting to be used in this country if we simply will turn it loose. I could elaborate on all of those specifically and I would be glad to, but in the interest of time, Mr. Freeman has a comment, I believe.

Mr. FREEMAN. Senator, there are three proposals that I would strongly support and that we would support at Salomon Bros., that energy products should be allowed to go forward on the principle of freedom of contract. If there is a willing seller and willing buyer at a price they can agree upon, then the hand of price regulation should be stayed and the project allowed to proceed.

There are many examples of products which have been stymied because of regulatory pressure on the price that a willing buyer would like to contract for.

Second, I would strongly suggest that Government assistance be limited to what we call, in the financial world, "safety nets."

Senator ROTH. What is that?

Mr. FREEMAN. Safety nets. I will explain. It was mentioned earlier by Mr. Hoopman. In tertiary projects, all of the money goes in up front before you see a dollar back. So the risk, the greatest risk, to large scale energy projects is the risk of completion and cost overruns.

President Ford promulgated a bill called the Nuclear Fuel Assurance Act at a time when it was the belief in the Government that enrichment should become a private sector activity. That provided just such a Government safety net. This bill passed the Senate and lost in the House by a handful of votes on the last day of the Ford administration.

I would strongly suggest the committee look at that bill. It is a matter of record.

Third, the most powerful financial mechanism in this country is the tax mechanism in terms of relationships between Government and the private sector. The private sector, not just the oil industry but every aspect of the private sector, has shown its ability to respond to proper tax stimulus.

Indeed what we are talking about here is a form of tax stimulus. I can assure you the private sector will respond to it.

Senator ROTH. My time is up and I would like to hear from the other gentlemen, but I would like to repeat my basic question. I would appreciate it if you or your colleagues in the energy field would take off their business hats and be President for a day and come forth with your specific recommendations.

We are going to have to make our decisions. The pressure is on from the White House. They want us to act on this before August. We need to know what you people in the industry think are the key steps, short and long range, to accomplish this job.

[The following was subsequently supplied for the record:]

GULF OIL CORP.—AN ENERGY PROGRAM FOR THE UNITED STATES

At a hearing before the Senate Committee on Finance on July 18, 1979, the Honorable William Roth requested that each of those testifying present a six-point energy program for the United States. The following is the program suggested by Jerry McAfee:

(1) *Stimulate conservation.*—Although conservation, or more accurately increased energy efficiency, is not usually thought of as an energy resource—and although it will by no means do the whole energy job—the fact is that conservation can effectively stretch our energy supplies. Therefore, just as we need to offer incentives for the production of additional energy in this country, we need to provide incentives for the most efficient use of our existing energy inventory. These of course should include incentives to consumers for making investments in energy-efficient equipment. But the most important way to encourage conservation—and without which any conservation program will be fruitless—is for the government to convey a consistent message, both by word and deed, that the energy problem is real. Government leaders must cease giving credence, by implication or innuendo, to the myth that the energy shortage is contrived by some villain. The shortage is not contrived. It is real and unfortunately will be with us for a long time. There is little incentive to conserve—to change thermostat settings, to reduce driving speeds, to improve home insulation—when consumers are led to conclude that conservation would not be necessary if the government would simply root out the villain and thereby return us to an era of cheap, abundant energy. So let there be an end to scapegoatism. Only by consistently hearing the hard truth will people accept another essential key to conservation—higher fuel prices. As long as the government maintains energy-price controls, consumers will see this as an official government policy encouraging excessive energy use, and they will continue to use it inefficiently. For this reason, and also as a means of convincing consumers that the energy problem is real, the government must phase out all oil price controls by 1981. That phaseout program must be announced and continually reiterated so consumers will indeed make plans both to use less energy and to use it more efficiently.

(2) *Stimulate U.S. oil and gas production.*—We must keep in mind that the U.S. will have to continue to depend on petroleum and natural gas for most of its energy for at least the next two decades. It will be at least that long before alternate energy sources can make a significant contribution. During this transition period, therefore, domestic oil and gas production must be encouraged, which means that enormous additional investments are required. Thus phased price decontrol must proceed, and incremental revenues from decontrol should not be taxed away. Those revenues should remain available to the industry for the needed increased investments in exploration and production. There is absolutely no doubt in my mind that the industry will increase its investments in energy exploration and production in proportion to its increased cash flow if oil and gas prices are decontrolled. Funds that cannot be used effectively for oil and gas production will go into the devcelopment of increasingly competitive alternate energy sources. The government should provide greater incentives for high-cost tertiary and heavy oil production, and for the production of nonconventional natural gas. In addition, areas of potential reserves should be leased more rapidly, and certainly should be evaluated before any decisions are made to remove them from access. Moreover, since some of our crude oil production, as from Alaska, will be of a quality not well-suited to our refineries, the ability to exchange this output for more desirable crude should not be curtailed.

(3) *Balance energy and environmental priorities.*—In addition to redoubling our efforts to produce oil and gas, we must expand the use of coal and nuclear power. And, if the production and use of coal and nuclear energy are to make their needed contribution throughout the next two decades—and if alternate fuel production is to be brought on stream expeditiously—a more realistic balance must be struck between energy production and environmental protection. Modifications in environmental laws and regulations are essential to permit a significant increase in the output and utilization of coal. For example, my company is completely in favor of requirements to reclaim surface-mined land to acceptable standards—and has been doing just that for a long time. What we do ask is flexibility in meeting these goals—the elimination of some of the unnecessarily specific requirements of how we should go about reclaiming the land. In other words, the law should require that the land be reclaimed but leave it to individual companies to carry out the reclamation process. Furthermore, the necessary balance between environment and energy needs requires only nominal adjustments—not an environmental doomsday.

(4) *Stimulate the production of synthetic fuels and solar.*—If we increase our efforts to produce more oil and gas and expand the use of coal and nuclear power, we can maintain a healthy economic climate in the U.S. to support the development of synthetic fuels and solar energy, and perhaps gain some additional time in which to develop them. But even with some additional time and a healthy economy, we must begin now to accelerate the development of alternate energy sources. The hour is growing late, there is no time to spare. And that acceleration will not come about without some stimulation from government—especially since government has not, in general, acted to stimulate business investments in recent years. The incentives needed should be generic—that is, they should include a broad range of legislative incentives applicable to any interested company. There is no one incentive which would be useful for all processes and all companies. The range of incentives should include production tax credits, guaranteed government purchases, increased investment tax credits, accelerated depreciation, and investment guarantees, for example. In addition, a mechanism must be provided that would make capital available for synthetic fuel projects in order to expedite the building of demonstration and/or first generation commercial plants for new technologies. and finally, once such new energy industries have been seeded and become technically and economically viable on their own, the government should bow out of their direction.

(5) *Streamline the regulatory process.*—Delays in securing licenses and permits for energy facilities have caused many companies to abandon worthwhile projects even though construction might finally have been approved. Although some government body may be necessary to help cut through the red tape, it would seem more logical to revise existing laws and regulations in order to simplify them and to permit many licenses and permits to be applied for simultaneously. Time frames for action should be established. Furthermore, without violating any citizen's constitutional right to legal redress, there ought to be ways to reduce the redundant litigation that has endlessly blocked many energy projects. For instance, all litigation that might delay a project might be grouped and handled through a single adjudicatory proceeding within a specified time period—akin to the "speedy trial" concept for individual defendants.

(6) *Establish and maintain a constructive relationship between government and industry.*—Finally, and most important of all, since government will continue to be involved with the issue of energy production, a constructive relationship between government and the private energy industry must be established and maintained. The government must encourage the broadest participation by industry in energy production, and industry must be constructive in its interaction with government. As I said in my verbal remarks to the Committee, there must be an end to finger-pointing and name-calling. The adversary relationship between the U.S. government and the U.S. oil industry stands in dubious contrast with the constructive relationship between government and industry in some other countries. Regulations should not be interpreted retroactively. Industry input into legislation and regulations under development must be sought more assiduously. Criticism of and by both government and industry should be muted in favor of working out differences constructively.

Senator DURENBERGER. I was asked Monday morning if I could say something good about America. And, I said, "Sure, we always survive our Presidents."

Mr. Talley did something earlier that a number of witnesses have done before in this committee and that is go around the room and identify all of the oil State Senators. My problem is nobody ever mentions my name or the name of my State because we do not have any oil except in pipelines. We do have somebody from Minnesota who used to be on the committee who was probably the first one to campaign and the last one to come down. I think he was probably in part responsible for suggesting to the President some of the policies that the President has been following or not following.

So recognizing that Fritz can give bad political advice, but also recognizing the realities of the State I come from, I have quite a fight in being for a combination of both decontrol and no windfall profits tax.

Now I will deal with just one of those issues here this morning. I think all of you have said in some way or another that the industry has demonstrated that it is prepared to or does devote the bulk of its energies to energy development. You have made that statement in a variety of ways, and bankers have also testified on that very point. I wonder if I could address a couple of questions to Mr. Bennett on this subject?

First, could you describe for me the investment opportunities that are available to a company like Exxon in the field of energy resource development? In other words, if you had adequate money to invest, where would you be investing?

Mr. BENNETT. We are investing this year worldwide about $6 billion and most of that, is in exploration for oil and gas. Some of you know so far this year we have found the most energy in a new invention we have come up with that would make electric motors throughout the country and the world more efficient. But that is a special case.

We expect in the future, as in the past, to make most of our investment in conventional oil and gas exploration, such as in Georgia, Alaska, Louisiana, and so forth.

One problem is the slow pace at which the Government makes acreage available for oil exploration. We think that conventional oil is where our major investment will be in the future. We have, however, also invested in coal. Unfortunately, we cannot sell the stuff. We produce it just as fast as we can but we cannot find the markets because of the environmental rules. But while we will continue investing in various places, most of the money will go into conventional oil and gas exploration.

Senator DURENBERGER. That is you will be investing in more oil and gas production, and this year, you are also investing in electric motors?

Mr. BENNETT. Yes.

Senator DURENBERGER. Do you have sufficient capital to support these investments at the present time?

Mr. BENNETT. At the present time we do. You may have read in the paper that recently some of the major producing companies have dropped $1 billion of cash and are on shortened credit. At the moment we are still in a strong financial position but in the future if there are good opportunities, and we run short of funds then these gentlemen from the investment banks will, I am sure, help us raise the extra money.

Senator DURENBERGER. How about synthetic fuels and alternative fuels, do you have enough money to invest in the activities?

Mr. BENNETT. We have a large investment in synthetic fuels in Canada in developing the Athabasca tar sands. We are also promoting, at the moment, a large investment trying to make use of the heavy oil in Canada, those projects are going ahead.

Here in the United States, we have massive research underway and we would like to invest in shale and coal gasification. The principal deterrents are the environmental procedures and the lack of confidence that when we produce this stuff, it will not be held down in price by some continuation of the present regulations.

Senator DURENBERGER. What was the amount of investment in Reliance?

Mr. BENNETT. That is $1.2 billion.

Senator DURENBERGER. That is out of a total of $6 billion this year?

Mr. BENNETT. That would be in addition. That investment of $1.2 billion would be in addition to the $6 billion. Literally the investment in Reliance has not been made. We are waiting for the time for any possible FTC objection to expire.

Senator DURENBERGER. I suppose anybody can answer this question. If we go back to a definition, then, of either energy development or energy resources, and having in mind the definition that has been given by Mr. Bennett to include oil, gas, and electric motors and synthetic fuels, does 5 percent of fixed assets outside petroleum and petrochemical industry still represent an industry standard? And, is the Exxon situation this year just one of those things that rarely ever happens when you have something like 15 percent invested in electric motors, or is it more relative to energy development?

Mr. MCAFEE. I think that is generally correct, Senator, and certainly in the case of my company that would be the case. May I add just a word in response to the question you put to Mr. Bennett? Our situation is similar in some respects and different in others. We, too, as one of the companies, and there are many other companies in the same boat, are also interested in energy development and projects.

Our company does not happen to be quite as affluent as Mr. Bennett's company, and our limitations are in addition to those he mentioned of environmental and legal and all of the rest. We actually are up against a cash shortage. Let me give you a specific number.

Our capital exploratory budget this year in 1979 is about $2¼ billion, which for us is a heck of a lot of money. It's not nearly as large as Mr. Bennett's, but it is a big program for us. In our budgetary process in preparation for putting together this year's program, in round numbers, I would guess we had to turn down something in the order of another $500 million worth of projects which we would have liked to have undertaken had we had the cash to do it.

We did not have the cash and we had to cut, choose and prioritize. Maybe this is good discipline, but the fact of the matter is we did not have all of the money to do the things we had the opportunities to do which would have been, in our judgment, in the national interest.

Senator DURENBERGER. Mr. Chairman, if I may ask, I would like to request of each of the representatives of the oil companies here, and anybody else, to submit for the record some definition of the words "energy development," and "energy resource development." I think it is important that we understand what the industry and their advisers mean by this.

[The following was subsequently supplied for the record:]

GULF OIL CORP.—ENERGY RESOURCE DEVELOPMENT INVESTMENTS

At the Senate Finance Committee Hearing on July 18, 1979, the Honorable David Durenberger, Senator from Minnesota, requested that each of those testifying define what each of them meant by investing in "energy resource development."

There is no quick, simple easy panacea to solve this nation's energy problems. The problem has to be attacked at every possible point of contact. We need to develop all of the potential energy resources that are available to us. Gulf, in its judgment, and in light of its expertise is developing, or attempting to develop, many of these, but not all. Other companies see potential or can apply their skills in areas where we cannot. As for Gulf, here are the things we are doing now.

We are currently investing the largest part of our funds in exploring for and developing conventional oil and gas supplies in the U.S. and abroad; 60 percent of our total capital expenditures in 1978 went for this purpose alone. That is because this is the area in which we have the most expertise and the greatest expectations of success for the immediate future. However, for some time now Gulf has realized that the world's conventional oil and gas supplies are limited and the economy will need to convert to other sources of energy. Gulf is, therefore, actively engaged in the search for additional forms of energy.

Gulf's coal subsidiary, the Pittsburg and Midway Coal Mining Co. produced 9 million tons of coal last year, and mines are currently being expanded to increase production.

Gulf is investing money to develop the Mount Taylor Mine in New Mexico, whose ore body is estimated to contain more than 100 million pounds of uranium. We are also producing uranium from mines in the U.S. and Canada.

We are currently under contract with the DOE to design a demonstration scale coal liquefaction facility (Solvent Refined Coal) with the expectation of eventually building it.

We are engaged in the development of a combination surface and in-situ shale oil retorting process on our Rio Blanco Oil Shale joint venture project.

Gulf's Canadian subsidiary, Gulf Canada Limited, is a stockholder in Syncrude, Canada Limited, which is now operating a 100,000 B/D tar sands extraction plant.

Gulf Science and Technology, Gulf's principal research and development arm, is engaged in research on enhanced and heavy oil recovery to discover how to extract the most oil possible from already discovered reservoirs, as well as new ways to find it. GS&T also holds a contract with DOE to investigate the potential to recover gas from deeply dipping coal beds.

General Atomic, which Gulf owns equally with another firm, is engaging in research and development programs for a High Temperature Gas-Cooled Reactor, a Gas Cooled Fast Breeder Reactor, fusion, solar and other advanced energy concepts.

Gulf has spent money modernizing its refineries as well as its chemicals and other processing plants to improve efficiency and minimize fuel consumption. A barrel of oil saved is as valuable as a barrel of oil produced.

These are the areas in which Gulf is currently engaged. Other areas, which are not currently being explored, but which Gulf feels have promise are: deep offshore oil and gas, gas from geopressurized zones, gas from tight sands, gas from Devonian shale and biomass. All of these are included in Gulf's definition of "energy resource development." No doubt others will also be added to the list as we search for new energy forms and opportunities arise to develop them.

Senator DURENBERGER. I would also like to introduce in the record an exchange of correspondence I have had with the management of Exxon relative to the Reliance Electric Co. acquisition. I think that acquisition is portrayed primarily as a conservation measure, and it is obviously energy related. It is important that the public understand just as I understand what the industry means when it says it is going to use additional earnings from decontrolled prices and windfall profits taxes or limited windfall profits taxes to invest in energy development or energy resource development and research. I would appreciate it.

Senator BYRD. If the witnesses would be agreeable, would you comply with that request?

Mr. MCAFEE. We would be glad to.

Senator BYRD. Without objection, the letters referred to by Mr. Durenberger will be included in the record.

[They are as follows:]

U.S. SENATE,
COMMITTEE ON FINANCE, COMMITTEE ON GOVERNMENTAL AFFAIRS,
SELECT COMMITTEE ON INTELLIGENCE,
Washington, D.C., June 19, 1979.

Mr. C. C. GARVIN, JR.,
Chairman of the Board,
Exxon Corp., New York, N.Y.

DEAR MR. GARVIN: I am always interested in the development of new energy-saving technologies and was encouraged when Exxon announced a new adaptation for the electric motor which promises to save one million barrels of oil per day by 1990.

However, I am concerned by Exxon's intention to acquire Reliance Electric Company through a cash transaction as the next step in developing this new device. At a time when the financial and production decisions of the major oil companies are being closely questioned, this proposed acquisition seems out of step with the energy needs of the United States. The following questions deserve a forthright and detailed response from your corporation.

1. Was it not possible to lease the patent rights for the new device to Reliance, rather than transfer a large amount of cash to its stockholders?

2. The cash offer was almost twice the market value of Reliance stock at the time of the proposal, What is the justification for the size of the offer?

3. What evidence supports your claim that commercialization of the device will save one million barrels of oil per day by 1990?

4. How much additional production could be generated by an investment of this magnitude? How much additional domestic refining capacity could be put in place for this amount of money?

5. If, as published reports indicate, Exxon has a cash reserve of $5 billion additional oil reserves?

6. Oil industry arguments against President Carter's windfall profits tax are inconsistent with hugh cash reserves and your $1.165 billion offer for Reliance. How do you explain the inconsistency?

The American public is currently asking whether the production and investment decisions of the major oil companies are furthering our national interest. And, well they might. It now appears that one significant factor contributing to the current shortage of petroleum products was the decision of your industry to draw down crude oil and product stocks during 1978.

I hope you will provide detailed and thoughtful answers to my questions. I look forward to sharing your response with the people of Minnesota and the members of Congress.

Sincerely yours,

DAVE DURENBERGER,
U.S. Senator.

JULY 13, 1979.

HON. DAVE DURENBERGER,
United States Senate,
Washington, D.C.

DEAR SENATOR DURENBERGER: I am replying to your letter of June 19, 1979 to Mr. C. C. Garvin, Jr. which raised several questions about Exxon's intention to acquire Reliance Electric Company in order to develop our new energy-saving technology. Alternating Current Synthesis (ACS). I appreciate the opportunity to respond to them.

Question 1. Was it not possible to lease the patent rights for the new device to Reliance, rather than transfer a large amount of cash to its stockholders?

Answers. Our decision to acquire Reliance was occasioned by a significant new energy saving technology which we have in an advanced state of development. Our studies indicate that application of this type of technology to electric motors could result in significant energy savings. For these energy savings to be realized, rapid development and marketing of the technology will be required. Exxon lacks the manufacturing and marketing expertise which is necessary for this to occur and for that reason we decided to acquire Reliance.

For the nation to realize the potential energy savings at the earliest possible time and on the broadest scale, further work on improving ACS concepts and equipment needs to benefit from experience in the design, manufacturing and marketplace introduction of the equipment. The feedback from the marketplace that will flow to the technical developers will accelerate and broaden the continuing innovative

development of ACS technology. We anticipate that an aggressive commercialization program on our part will produce a competitive reaction which will stimulate the whole electrical equipment industry, We do not think licensing would achieve the same result.

We want to participate in the futhure development of the technology which will be intimately bound up with future development in the equipment employing the technology. Simply licensing the technology would not result in sufficient incentive to continue to do Research and Development.

Question 2. The cash offer was almost twice the market value of Reliance stock at the time of the proposal. What is the justification for the size of the offer?

Answer. The price of stock established by the small amount traded each day does not necessarily reflect the value of the entire company. The price we have offered is comparable—as measured by price/earnings ratio—with the acquisition prices paid for companies of similar quality to Reliance Electric Company. We anticipate that we will make a reasonable return on the investment.

Question 3. What evidence supports your claim that commercialization of the device will save one million barrels of oil per day by 1990?

Answer. Our energy savings analysis was based on estimates of U.S. demand for electric power developed by Exxon Company, U.S.A. and a report prepared for the Federal Energy Administration by Arthur D. Little. The report to the FEA noted that 64% of U.S. electric energy consumption is for electric motor drives. Within the 64% there are subcategories for Industrial Motors; Heating, Ventilating and Air Conditioning motors; and Miscellaneous Other Motors (commercial motors; electric utility motors; municipal water pump motors; residential motors).

For these three subcategories of motors, we developed the electric power requirements in 1990, estimated the percentage of those motors to which ACS-type technology could be applied by 1990, through our own devices and similar ones that will be developed by others, and calculated the savings which would result from such application. Our resultant estimates are that 15% of the electricity consumed by Industrial motors, 7.5% of the electricity consumed by Miscellaneous Other Motors, and 6% of the electricity consumed by Heating, Ventilating and Air Conditioning Motors could be saved in 1990 through the use of ACS-type technology. A detailed presentation of the calculation, which we made publicly available on May 18, 1979, is attached.

We support our estimate of the applicability of ACS-type technology with the fact that 85% of all integral horsepower electric motors in the U.S. are used in pumping, gas compression or in air moving applications where variable speed is attractive in a great many instances and with the fact that the major industries involved are process industries similar in their use of electric motors to petroleum and chemicals where we have broad experience.

Question 4. How much additional production could be generated by an investment of this magnitude? How much additional domestic refining capacity could be put in place for this amount of money?

Answer. We are now pursuing all attractive energy investment opportunities available to us. Therefore, we do not believe any additional economical production could be generated by our investing the Reliance acquisition funds in energy resource development. Exxon's expenditures for energy resource development will not be reduced by the acquisition of Reliance and the related expenditures for the continued development of the ACS technology. Incidentally, our expenditures for petroleum and natural gas exploration and development have averaged more than $4 billion per year over the past five years. This compared with earnings that averaged $2.7 billion per year over that period.

Additional domestic refining capacity that could be installed for $1.2 billion would depend on a number of factors such as the refinery type and location. To give you an idea of the order of magnitude, the expansion of our Baytown refinery capacity by 250 thousand barrels per day which was completed in 1977 cost about $500 million. Costs today would be higher. However, the problem the U.S. currently faces is not a shortage of domestic refinery capacity, but rather the lack of sufficient crude oil to meet the apparent demand.

Question 5. If, as published reports indicate, Exxon has a cash reserve of $5 billion, why isn't that money being used to explore and develop additional oil reserves?

Answer. Exxon's consolidated cash and liquid assets amounted to $4.6 billion at the end of 1978. This is not a "cash reserve" but is the total cash and liquid assets held by Exxon and is affiliates around the world. As such it is only somewhat above the necessary amount to sustain normal operations, particularly considering seasonal fluctuations in the cash required. Funds required to pay for our supplies, operat-

ing costs, capital expenditures, etc. amount to $70 billion per year, which means $1.35 billion per week on the average. The demands are not uniform and peak requirements can be much higher. Nevertheless, our cash and liquid assets represent less than four weeks average cash requirements.

As noted in the answer to question 4, we are not foregoing any attractive energy resource development projecs. The company expects to spend $4 billion—over three times the Reliance acquisition cash cost—for capital and exploration expenditures for energy resource development in 1979 alone.

Question 6. Oil industry arguments against President Carter's windfall profits are inconcsistent with huge cash reserves and your $1.165 billion offer for Reliance. How do you explain this inconsistency?

Answer. Exxon does not hold "huge cash reserves". We are, however, in a position to acquire Reliance with financial resources currently available and are no deferring any electric producting investments in orde to buy Reliance.

Traditionally, we have not been financially constrained in pursuing attractive oil and gas investments, although some other firms in the industry may be in a different position in this regard. We would expect crude oil price decontrol to result in additional production. Crude oil production is ultimately related to the level of exploratory and developmental activity increasing the reworking of oil wells and second and tertiary recovery. Historically there has been a direct relationship between price movements which results in making more (or less) money available for exploratory and developmental drilling. It should be remembered that even without a "windfall profits" tax, governments get about 58% of incremental revenues off the top and royalty owners get another 8% after taxes. The "windfall profits" tax would substantially decrease any amounts left for the oil industry and its shareholders.

You also raised a question about factors contributing to the current shortage of petroleum products. The major reasons are a decline in crude oil production primarily because Iran is producing less oil than before the revolution coupled with an increase in demand by consumers. The drawing down of stocks by the industry during 1978 must be looked at in the context of events that occurred during 1977 and 1978.

In the early months of last year, the U.S. had large stocks of crude oil and petroleum products on hand. These large stockpiles were built by the oil companies in 1977 in anticipation of early 1978 OPEC price hikes and in anticipation of a winter coal strike. In the first half of 1978, the industry drew down these stocks to normal inventory levels, in lieu of importing these amounts.

Over the winter of 1978/79 the industry further drew down stocks to cover the loss of imports from Iran. One can, of course, argue with 20/20 hindsight that inventories should have been increased or maintained at a high level during 1978 in anticipation of the Iranian problem. However, neither the industry nor the government was blessed with the foresight to predict that problem.

I hope that I have been able to shed some light on the reasoning behind our decision to acquire Reliance. I am enclosing a copy of my testimony before the Antitrust and Monopoly Subcommittee of the Senate Committee on the Judiciary. It discusses the issues in greater detail than I have here.

If there is further information that would be helpful to you, please contact Don Smiley in our Washington Office and I will be happy to visit with you.

Sincerely,

GEORGE T. PIERCY,

Director and Senior Vice President.

Senator BRADLEY. I was interested to hear Mr. Bennett give an assessment of the synthetic investments that Exxon has made. I think Gulf has a different view about the future of synthetics. Are you in the synthetic business now?

Mr. MCAFEE. I do not think our view is different. We are partners with Exxon's Imperial Oil Co. in Canada, in the syn crude project in the tar sands of Alberta which he mentioned. We are enthusiastic and encouraged by the fact that that project has been put together as a joint venture between the three companies, now four companies, and formerly three governments—two Provincial and one Federal, and now one Provincial and the Federal Government. It was brought on stream and it is operating on a commercial level.

I am afraid the Canadians have outdistanced the United States with this umbrella over OPEC price increases. We are engaged as you know in partnership with another company in a shale oil development in Colorado. And, we are also involved in a significant effort to develop a coal liquefication process.

Senator BRADLEY. Yes; that is the process in which I think there is a difference. Under the contract with DOE, you operate a 50-ton coal project in Tacoma, Wash., is that correct?

Mr. MCAFEE. That is correct.

Senator BRADLEY. And in the rush of the last year, Gulf has been instrumental in pushing us to raise that production level and has agreed, according to my information, to a 10,000-ton plant, is that correct?

Mr. MCAFEE. The demonstration plant we have been engaged by the Department of Energy to engineer, or to undertake the preliminary engineering for, is a 6,000-ton-a-day plant which will produce the equivalent of about 20,000 barrels a day of crude oil in the form of liquids and gas.

Senator BRADLEY. And you think you now have the technology to make that work?

Mr. MCAFEE. We have the technology at the 50-ton-a-day level, Senator. It is going to be a tremendous scale-up to go from 50 to 6,000. Whether that is going to be a feasible technical risk to take is one of the objectives of the present engineering phase of that project.

Senator BRADLEY. Now, even with the 50-ton project, you estimated one set of results and got quite a different set in the components of distillates and heavy fuels, light fuels and gas, is that correct?

Mr. MCAFEE. I am sorry, I missed the point of your question.

Senator BRADLEY. You projected a certain percent of distillates out of the process and got a different level?

Mr. MCAFEE. We may have done it. That is what experimentation is all about, to find out whether your guesses are correct or not.

Senator BRADLEY. Therefore, my question is if you are missing guesses on 50 tons, if you go to 6,000 tons, the potential error is significant. My question is, what are the economic costs to that error? Then, related to Mr. Bennett, why has Exxon refused to move to a much higher level and insisted that they could not go beyond a 200-ton limit?

Mr. MCAFEE. Well, let me explain it and I will leave that part to Mr. Bennett. You are exactly right. There are tremendous risks involved. There is a great area of unknowns out there and it is a matter of judgment, and severe critical judgment, as to how big a next step you are justified in taking.

If we guess wrong the cost can be enormous. We are doing the very best we can and we will continue to do the best we can. And it does boil down to a matter of judgment as to whether it is better to take longer to make the transition and take smaller steps or take one big leap forward. That is what makes a horse race. Whether we will be successful in making this big a jump or not, when the final chips are down and when the final decision has to be made, is still a matter not yet decided.

Senator BRADLEY. I would like to follow up one more question before Mr. Bennett comes in. Are all the funds in this scale-up of funds Gulf's funds?

Mr. MCAFEE. No; a relatively small amount. We will have some considerable money for us at risk under the present concept of the project. But it will be mostly funded by Government funds.

Senator BRADLEY. It will be mostly public funds?

Mr. MCAFEE. Yes.

Senator BRADLEY. All right, Mr. Bennett.

Mr. BENNETT. Our general impression at the moment is that tar sands and heavy oil are commercial now that shale and low gasification Btu coal may be near that level. But that coal liquification is somewhere further off. We are proceeding now with this pilot project that you refer to. It is not a pioneer plant but a pilot plant for a coal liquification project. We have partners in this project, not only the U.S. Government but also Japanese partners and European partners. We do not think there will be enough information out of this pilot project until 1982 to really make an intelligent decision whether it is time to make a scale up.

At this time, we think we ought to go ahead vigorously on this research but it is not time to make a decision at this point to build a big plant.

Senator BRADLEY. So your decision to build no bigger than a 200-ton plant versus a 6,000-ton plant is a significant difference?

Mr. BENNETT. Well, we are talking about different techniques.

Senator BRADLEY. Is Exxon financing your project?

Mr. BENNETT. This project is half financed by private firms of which we are the largest.

Senator BRADLEY. But it has no public funding?

Mr. BENNETT. This project does have a DOE contribution.

Senator BRADLEY. How significant is that?

Mr. BENNETT. It is half.

Senator BRADLEY. As a pilot project, but I am talking about the scale up beyond 200 tons.

Mr. BENNETT. At the moment, we have no project of that size.

Senator BRADLEY. My point in trying to explore this point, is simply to say that we are rushing for a synthetic fuel future without, I think, careful calculation of the economic costs, particularly in relation to the other potentials for enhancing recovery in the oil industry. I have grave reservations that the only thing we are going to demonstrate in this process is our inability to develop a synfuels industry in the short term. Instead of the synfuel development having a retarding effect on OPEC price increases, it will only open the door to more. That is why your embracing of this timetable is somewhat questionable.

Mr. MCAFEE. Understand, Senator, that a decision to proceed on the 6,000-ton plant has not been made either by us or by the DOE. We have been engaged to engineer the thing and see whether it is feasible. And I personally have some serious reservations as to what the outcome of that final decision is going to be. In any event, we have been endeavoring to respond to the pressure and the requests and urgings of the Department of Energy and the Government of the United States in trying to do our part to further the program that the Government has embarked on.

Senator BRADLEY. You say the Government has initiated this project. I know Secretary O'Leary was one of the people trying to initiate this, but he succeeded in initiating it with Gulf and he failed with Exxon.

Now, if a guy comes around and he has public dollars to give out, that is a little easier to take than if you have to spend your own money.

Mr. MCAFEE. Well, Senator, those public dollars are partly our dollars, too, and as far as any public dollars that are expended through our company are concerned, we are just as careful with them as we are with our own dollars.

Senator BRADLEY. I think Mr. Bennett wanted to make a final comment.

Mr. BENNETT. I wanted to agree that it is very dangerous for one man, whether sitting down here in the valley or up on a hill, to make a decision as to how much synthetics we ought to produce at a certain time. What we need is a framework that can allow Americans all over the country to look at the detailed economics and techniques they are aware of and make the decision.

I think it is very dangerous to set a single target and say that on a certain day we are going to produce a certain amount of synthetics, rather than set up a system that allows the centralized decision to be made that it is more economical to do it this way or to do it another way. So I think the drift of your question is something I would hardily support.

Senator BYRD. Mr. Bennett, would you lead the committee step-by-step through how you understand the so-called windfall profits tax will work? Let the committee take this time and let us state this premise: Let us assume that the additional profit obtained as a result of decontrol would be $10 million. Am I correct in assuming that possibly $6 million of that would go for income taxes?

Mr. BENNETT. And royalties to the Government; yes.

Senator BYRD. Income taxes and royalties?

Mr. BENNETT. Yes.

Senator BYRD. And that would leave $4 million. Of the $4 million, under the President's proposal, the original proposal, $2 million of that $4 million would go in taxes. Is that your understanding of it?

Mr. BENNETT. It has gotten more complicated since but that was the case.

Senator BYRD. That was originally?

Mr. BENNETT. Yes.

Senator BYRD. What is it now? You say it is more complicated?

Mr. BENNETT. Some of the proposed is now at 60 percent and some is at 50 percent so the proposal is a bit more complicated.

Senator BYRD. So of the additional $10 million in profit, we are assuming that this would be $6-plus million, plus $2 or over $8 million of that $10 million that is in additional taxes?

Mr. BENNETT. Additional payments to the Government; yes.

Senator BYRD. I do not understand that.

Mr. BENNETT. I said additional payments to the Government, including the royalties payments.

Senator BYRD. Well, now, let me ask you this. First, I assume that you do not favor the so-called windfall profits tax?

Mr. BENNETT. To me it is ridiculous to call something windfall profits when a fellow has not even gone out and bought the property or decided to make the investment.

Senator BYRD. Is it an excise tax?

Mr. BENNETT. It is an excise tax but you can't call it a windfall excise tax when no one has decided to make the investment, no matter what he finds.

Senator BYRD. But in any case, you do not favor it?

Mr. BENNETT. No, sir.

Senator BYRD. Let me ask you this. What tax, if any, other than the royalties and the income taxes should be paid on that additional $10 million of profit?

Mr. BENNETT. Let me say first, that to that extent there is a higher revenue and this 60 percent goes to the Government, that receipt by the Government is going to provide more than enough funds for the Government to provide appropriate relief to those who are poor and hard hit. It is going to supply ample funds for an appropriate mass transit assistance if that is necessary.

Beyond that, what is being proposed is to give the Government the money to invest in the energy business and take it away from the people who are experts in investing in the energy business. And, it seems to me, that that is questionable. There is no need for a windfall tax to provide the funds for the assistance of the poor or for other Government activities.

If you want a windfall tax, it is because you think the Government can make these investments better than the private sector and I do not.

Senator BYRD. Do you have an estimate as to the amount of additional funds that will be received in the way of royalties and income taxes?

Mr. FREEMAN. Senator, the Treasury Department has published its recent analysis of the House bill 3919. They estimate, just to pick a year when this tax would apply full force, 1984, the increased income taxes are expected to be $11.5 billion from anticipated price rises and the net excise tax, the net of the offset against income taxes, is an additional $8.1 billion. So the total additional revenues to the Government would be $20 billion in round numbers.

Senator BYRD. That is assuming the excise tax or windfall profits tax is passed.

Mr. FREEMAN. That is in 1984 alone, just 1 year.

Senator Byrd. But if you leave out the so-called windfall profits tax, what would the additional revenues be from income taxes and royalties?

Mr. FREEMAN. That is not included in the Treasury study, Senator.

Senator BYRD. I did not think it was, or at least I had not seen it, but do any of you have any figures on that?

Mr. BENNETT. I would roughly estimate over the decade, $150 billion.

Senator BYRD. That is exclusive, or does that include a windfall profits tax?

Mr. BENNETT. That is exclusive.

Senator BYRD. That is $150 billion over a decade?

Mr. BENNETT. Yes.

Senator BYRD. Well, if the Congress did not want to approve a windfall profits tax, is there any other form of taxation that might more appropriately, from your point of view, be used in regard to that $10 million of additional profit?

Mr. BENNETT. I think the oil companies should pay the same tax rate as other people, 46 percent. If you politically decide you have to impose another tax, then it seems to be important to set a schedule to phase the tax out and not make it too big to begin with.

I do not see a need for an additional tax but at least you should not put a tax on that prevents investment from being made in the first place.

Senator BYRD. Mr. Hoopman, you mentioned opposition to the energy security trust fund. Would you give the committee additional views as to why you oppose the security trust fund?

Mr. HOOPMAN. Well, the security trust fund tends to move the decisionmaking process from the private sector to the Federal sector as to what projects will be worked. It also puts it in the framework of Government funds being there and available and those who are working those kinds of projects normally will be looking at, in most instances, reimbursable types of operations, that is cost-plus sort of situations, or contract arrangements.

Seldom are those who are spending the funds from the Government going at risk with their funds. I think the most intelligent investor is one who has the opportunity to go broke. I do not see a Government-supported contractor going broke. Now, it is specifically excluding the opportunity of joint ventures, and I believe yours is a joint venture that we spoke of here a bit ago. In any joint venture, you do have a significant amount at risk.

I personally, and my company and I, would like very much to get into synthetics, and we put together a lab 26 years ago. The first lab we put in was on shale oil. We constantly worked that since then. However, the environment has not been such that we, as an investor, want to take a crack at a project. But I think that that could be set up in a situation that my company and I and my stockholders would put funds at risk if we were able to go broke or show a reasonable profit if we were right. But I do not think they would particularly be interested in proceeding as a contractor for the Government or to work along on a subsidized research program.

One of the major problems with the smaller items in that particular fund will be that the Federal Government will take over virtually all research because private industry certainly cannot compete on a research basis with the Federal Government.

Then you have the bureaucracy determining who the innovative person or the innovative organization is going to be and you will tend to exclude the funding for the innovator that might be off in the bushes here, there, and everywhere, who has the idea that is right.

If you will turn the thing loose on a competitive basis, he will come to the top. One of the finest things in our industry is the opportunity for the chapter 11. Those who do not know how to run their business and do not know how to make a proper risk apprais-

al, and those who have guessed wrong can be weeded out. It is sort of like the gardener. If you do not pull the weeds, you have a sick little patch out there.

Senator BYRD. In a free enterprise system, an individual or company has the opportunity to succeed but he or it also has the opportunity to fail. And you want to keep it that way.

Mr. HOOPMAN. That is right.

Senator BYRD. So, of the witnesses, are there any who favor the energy security trust fund?

I assume not.

Senator DURENBERGER. Could I ask one last question.

In all of the talk about the free enterprise system I really haven't seen much discussion of a relatively simple issue called competition, that is, business competition. I think Dr. Talley said we should pay domestic oil producers as much for fuel as we pay to others, and foreign governments.

Now, it seems to me the best of all worlds would be to decontrol prices charged by domestic oil producers and to leave the determinations of the oil price to foreigners and foreign governments. Is that likely to happen?

Mr. TALLEY. That corollary isn't necessarily true. By removing price controls on domestic crude oil, one does two things. First he insures that a maximum effort is made inside the United States in our own domestic resources to develop those. Second, we send signals to the other countries that that is in fact what we intend to do. If we want to go into a synthetic fuel program with a $140 billion investment, I suggest we sell revenue bonds to the OPEC countries and they are going to get $140 billion in probably the next 2½ years if we continue at this rate, even with President Carter's 1977 oil limitation, and we use the money that would have been generated by a windfall profits tax to increase our domestic production in the short term.

My concern is how do we get to 1995 when the first of these grand programs can possibly be onstream. We are talking of Exxon, who has a very small plant, and it is 15 years, assuming you get all of the environmental and capital needs and all that at the appropriate time before they can have a significant impact and a significant impact is to build one large plant.

So I think that to move forward positively by removing price controls on crude oil, we have already stated and I documented that in one of my exhibits, that the Federal Government stands to make a windfall profit of 50 cents on every dollar. If the industry does not reinvest, somebody else is going to gobble up another 22 cents.

So we already have the existing mechanism. We can send signals to the world and if we want to build synthetic plants, I am not saying to let the OPEC countries in on it, but we can sell them bonds to build those plants in this country.

Senator DURENBERGER. Can someone explain to me what signals are sent and how they affect prices?

Mr. TALLEY. Our signals so far is that the United States has been willing to pay the lowest price and unwilling to pay the price that every other country in the world pays for its energy resources; that we have been unwilling to develop our coal resources by environ-

mental and other constraints, economic as well as environmental, we have been unwilling to commit to thermal and solar, coal gasification, and coal liquification and oil shale and tar sands by adding bureaucracies and by adding regulations which since 1969 have prevented the opening of any Federal lands for development.

Senator DURENBERGER. How can we reverse the signals and what can we do about it, and how is it going to be read?

Mr. TALLEY. I think the rate of price increase would be less than what it would be if we again gave the reverse signal that we are willing to pay foreign governments more than we were willing to pay our own people.

Senator DURENBERGER. Wouldn't we accomplish the same thing if we passed a law, which is what the President is recommending to do now, and that is curb our imports at 8.1 million barrels per day? Would we create some competition among foreign producers that would have the same effect?

Mr. FREEMAN. If you accompanied that measure with consistent pressure on pricing, you cannot at one and the same time cut off supply by import quotas and still hold down prices for new sources and expect the competitive forces to move in and fill in the gap. If you can't sell the new supply at profit, then you cannot raise capital and you cannot pay back your loans to make the project run.

Senator DURENBERGER. So then the combination of the curb, or a limit, and the higher prices which encourage additional production at higher prices in this country has an impact. Can any of you predict what impact it is going to have? Is the world price political or is it a function of the impact of demand on all the OPEC nations?

Mr. LICHTBLAU. I don't think we have any choice what we pay because the marginal oil comes from OPEC and OPEC is a cartel which is extremely efficient and extremely effective. The best we can do is pay these prices but at the same time use oil prices in order to improve our own domestic production. We have no other choice. We can't lower the OPEC prices. We are not powerful enough to do so. The second best choice, even the best choice is to use these prices as a stimulant to additional domestic production, because obviously more energy is available at $23 a barrel than at $5 a barrel. We don't know quite how much, but it is substantially more, and we have already decided that on the consumer side it will do that. We will let American consumers pay the full OPEC price for every barrel of oil, whether it is old oil produced in Texas or imported oil coming from Saudi Arabia.

It is the same thing on the supply side. We are still considering this windfall profits tax because it is assumed while the consumer must pay the full price in order to curtail consumption, the producer doesn't need the full price in order to stimulate additional production. This is very questionable. Up to a point on a temporary limited basis I can see that this makes sense. But it has to be for a limited time and temporarily and modest. Otherwise, you end up creating new disincentives. If you have a $6 price for 3 million barrels of domestic oil, you are not going to let that go to $22 overnight in 1 year without creaming some of it out. But if you phase that out over 3 or 4 years that is not too serious. But the

serious thing is if you tax new oil and if you tax tertiary oil, which is a gigantic potential, after all we only recovered 32 percent of the oil in the ground, and if you increase that to 42 percent you are talking about a couple of million barrels a day of additional production, which is one-quarter of the imports.

These possibilities exist and in a way OPEC is providing us with possibilities and opportunities that would not have existed at much lower prices, and we have tried to use that. The windfall profits in some way would work in the opposite direction, but as I said, within limits I understand the need for windfall profits tax but try to raise $146 billion from an industry in order to build an industry that doesn't even exist, that is a very questionable expenditure of money.

Mr. COPP. What we have now is a sellers market in oil, and it got very tight this year because of the European problem.

One of the direct consequences of that is a very sharp increase in price of OPEC oil. The country that has been consistently helpful is the Government of Saudi Arabia, to soften that impact. One of the hoped for consequences of import quotas, somewhat different from the use of import quotas in the history of this country, is that we can improve a long-term moderating power of Saudi Arabia within the oil cartel. They have been limited in their ability to do this simply because of the fact of the sellers market. Now, if we can get the market back to a point where it is relatively more in balance, then the powers of OPEC, and powers of Saudi Arabia to moderate the rest of the cartel is improved. It is not guaranteed but improved.

The fact is they are increasing production in this third-quarter by 1 million barrels a day and it is possible they will continue that for the rest of the year. We don't know. But those are positive signs as far as we should be concerned.

I would back up a bit and say at the same time, simultaneously while we have that interim period and breathing space and even a recession next year, we should use that to deregulate domestic prices and have a maximum effort looking for local oil and gas right here. The companies are prepared to do so, as their statistics have shown, and the companies have demonstrated that they do this every year when their income comes in, I think that would continue to be true the same in the future.

Senator DURENBERGER. Do you know anybody who is willing to submit for the record a 5- or 10-year projection of the impact on gasoline prices, and middle distillate prices, and other refined products in this country, assuming that we achieve maximum production, and assuming no windfall profits tax, but assume the best of all worlds? I would really like to see somebody knowledgeable about the economics of this industry predict for me that competition will be a range of impacts on the price of refined petroleum products.

Mr. COPP. We have the experts here at this table and they can give you those answers, but let's face it. You are not looking for a reduction in the price, you are looking for more supply available for this country at rising prices over time.

The issue is whether we will have more supply from this country or more supply from outside sources at perhaps even higher prices.

Senator DURENBERGER. The only issue to me is whether we will ever get to price competition and what its impact will be.

Senator BYRD. I have just one final question.

Does the panel favor the President's target of reducing imports by 50 percent over a period of time?

Mr. MCAFEE. I will respond to that, Mr. Chairman, by saying that certainly the objective is very much in the national interest. Whether it is a good target or not, whether it is a desirable goal or not, depends on how we achieve that reduction. If we achieve that reduction by building up our own domestic supplies of both conventional and alternative fuels in such a way that they can compete with world oil, then it will have been a very, very desirable thing. If you do it by fiat, by quotas, by cutting back on the economy of the country, then we must expect some very serious economic consequences. Others may have different views and that is just me speaking personally.

Senator BYRD. Does anyone else care to comment?

Mr. LICHTBLAU. I would say categorically that export limits cannot be reduced by 50 percent between now and 1990. I think it is an unrealistic figure. We might be able to decrease our import levels somewhat. If assumptions before were higher, and we can keep our import levels at 8.5 million barrels over the next 10 years we will do well. The only way we could reduce our import levels by 50 percent by 1990 is if we have virtually no economic growth during this period. We are not going to find enough synthetics and other energy sources to supplant 4 million barrels a day of foreign oil over the next 10 years. That is a figure which is about in line with the kind of "project independence" thinking that we got in in 1973, and it as decided by 1980 our imports would be zero. Realistically, these are not achievable targets, in my view.

Senator BYRD. Thank you.

It is now 12:15 and the committee will stand in recess until 2 o'clock. I don't think it is necessary for the entire panel to return but it has been requested if it is convenient that Mr. Bennett return at 2 o'clock.

Is that agreeable to you, Mr. Bennett?

Mr. BENNETT. All right.

Senator BYRD. We will recess until 2 p.m.

[Whereupon, at 12:20 p.m. the committee was recessed, to be reconvened at 2 p.m. the same day.]

AFTER RECESS

Senator GRAVEL. The committee will be in order.

As you know, there is a rollcall on over on the Senate floor. That is why the members are missing now.

Our next witness will be Mr. Rudolph Oswald, director of research for the AFL-CIO.

STATEMENT OF RUDOLPH OSWALD, DIRECTOR OF THE DEPARTMENT OF RESEARCH OF THE AMERICAN FEDERATION OF LABOR (AFL) AND CONGRESS OF INDUSTRIAL ORGANIZATIONS (CIO), ACCOMPANIED BY STEPHEN KOPLAN, LEGISLATIVE REPRESENTATIVE, AND ARNOLD CANTOR, ASSISTANT DIRECTOR OF THE DEPARTMENT OF RESEARCH

Mr. OSWALD. I thank you for the opportunity to present the AFL-CIO views. With me this afternoon are Arnold Cantor, who is assistant director of research for the AFL-CIO, and Stephen Koplan, legislative representative for the AFL-CIO.

Earlier you spoke of clear language of terms in where we are, and I would like to go back to your simile about trucking.

I think that is an apt description of what is happening with the energy issue. Each time OPEC uses its cartel power to jack up American prices, American producers want to piggyback on those increases and exact those same prices from the American consumer. That link should be broken by continued price control. If price control is not continued, then the windfall in the past or in the future should be taxed heavily.

As to the Korean war, the excess profits tax provided for an 85-percent tax rate. New investment will clearly be encouraged by the fivefold price increase for new oil that has already taken place over the last 5-year period.

The issues before you in terms of the specifics of the windfall profits tax indicate that the increase in domestic oil producer revenues as a result of decontrol on OPEC's latest actions will amount to $153.2 billion in the 5 years 1979 to 1984. That is according to the figures of the Joint Tax Committee staff.

That is roughly double the windfalls that were estimated before OPEC's June 28 decision.

Moreover, these increased costs are those that U.S. consumers will be called upon to pay to U.S. producers. They do not take into account the amounts transferred to OPEC nations or the impact of driving up prices of other energy sources. Of that $153 billion, even after applying the House windfall tax, U.S. oil companies will still receive windfall gains of $42.2 billion over the next 5 years. Put another way, current U.S. oil producers after-tax income is approximately $15 billion per year. This will increase 87 percent by 1984 as a result of decontrol and OPEC's actions even after taking into account the House-passed tax.

Such figures, Mr. Chairman, do not add up to equality of sacrifice. Rather, in our view they point conclusively to a need to strengthen the measure—by increasing the windfall profits tax rate, broadening its coverage and extending its life.

The major changes we recommend are:

One, adoption of a windfall tax rate of 85 percent on the increase in the price of oil resulting from deregulation and/or the increase in world prices.

Two, a "decline curve" which would reflect actual experience approximately 1 percent per month and reduce the amount of oil subject to tier 1 tax base at a slower rate than the 1.5 percent per month called for in the House bill.

Three, oil from "marginal" properties should be taxed in tier 1, particularly since oil from such properties has been given special,

speeded up treatment under the President's price decontrol program.

Four, the tier 1 tax and the tier 2 tax should be permanent. The House measure already contains extremely liberal formulas for base adjustments and we see no reason to exempt such oil from the tax after December 31, 1990.

These changes would increase net revenue from the windfall tax above the House passed bill by 20 to 25—$8 to $10 billion—over the 1980-84 period.

H.R. 3919 creates an energy trust fund managed by the Secretary of the Treasury for the receipts of the windfall profits tax. The bill, however, contains no specifics concerning the use of the fund. Section 3 states only that "amounts in the trust fund shall be available, as provided by appropriation acts, for making expenditures for such purposes as may hereafter be specified by law."

We do agree in principle with the administration's intention of using windfall profit tax receipts for advancing energy technology, developing energy-efficient mass transit and providing assistance to lower income individuals and families. We will be pleased to comment in detail as expenditure programs are developed in the appropriate legislative committees. We do, however, question the need to establish a separate trust fund. In view of the enormity of the task facing the Nation, and the uncertainties involved, general revenues should be available as needed and progress toward achievement of energy goals should not be arbitrarily limited by the financial condition of a separate funding device.

We are pleased that the committee is also considering measures to place stricter limits on multinational oil companies use of foreign tax credits to avoid U.S. income taxes.

The AFL-CIO has repeatedly urged elimination of the foreign tax credit generally and we have been particularly concerned with the ways in which the credit is used and manipulated by multinational energy companies and oil rich nations.

The administration's proposal unfortunately does not get at the fundamental question of dollar-for-dollar tax credits nor does it come to grips with the key issue of whether or not royalty payments are in fact "income taxes."

The administration's bill merely addresses the practice of offsetting credits and losses between foreign countries and against non-oil-related income in a manner which allows oil companies to circumvent the modest limitations on the credit that are currently part of the Nation's tax laws.

The amount of foreign tax credit a company can claim is supposed to be limited to what its U.S. tax would be on such income under U.S. rules and the credit is not to be used to offset U.S. tax on U.S. income. But for the larger multinational companies with operations in many countries, these limitations are circumvented by offsetting tax payments in high-tax countries against low-tax countries, carrying back and forward "excess" credits to wash out past and future years tax liabilities and deducting foreign "startup" losses against U.S. tax liability but not paying U.S. taxes when the operation becomes profitable.

Although we are pleased the administration has proposed to tighten the limitations and curb some abuses, the administration's

proposal would not end the tax-privileged status of firms operating overseas. The revenue estimates make this point rather conclusively. According to recent Treasury estimates—for 1976—the total foreign tax credits claimed by all U.S.-based multinational corporations was $23 billion, and the resultant revenue loss was about $8 billion. Of these amounts, oil companies claimed $17 billion in credits, causing the Treasury to forego $1.2 billion in revenue.

The administration's proposal would raise only some $500 million in calendar 1979. And that estimate does not take into account the possibility of companies reorganizing to take advantage of the foreign tax "deferral" loophole.

In our view, the credit amounts to a form of backdoor or no-strings-attached "revenue sharing" between the U.S. Treasury and foreign government. The United States, in effect, turns its taxing authority over to a foreign government, saying, in effect, "if you tax the company, we won't, and if you raise your taxes on the company, we will reduce ours accordingly."

As one example of that point, Mr. Chairman, I would like to place in the record an April 19, 1979 newspaper report concerning China's interest in developing an oil industry tax "* * * to accommodate the U.S. oil corporations wishes to reduce their American tax liabilities * * *"

We are pleased that since 1979 the IRS has in a few instances, on a country-by-country, tax-by-tax basis, denied credit treatment on the grounds that royalties based on posted prices were not "income taxes" consistent with U.S. definitions. And we are also mindful that the IRS and Treasury are involved in a regulatory project to clarify the requirements which must be met to qualify a foreign tax for the dollar-for-dollar credit.

We feel, however, that under the best of circumstances, the rulemaking process cannot preclude countries from readjusting their tax systems to conform to whatever definition Treasury and IRS decide upon in order to permit enough "creditable" taxes to offset tax liability.

And the rulemaking process is not likely to prevent companies from circumventing such determinations through reorganizing their overseas operations to take advantage of the "deferral" privilege. Thus, by reorganizing and operating as a foreign operation rather than a foreign "branch," firms would be be able to postpone payment of any added taxes that might result from denial of the credit simply by keeping their profits overseas and not "repatriating" them to the U.S. parent corporation.

We believe congressional action is needed and we therefore urge enactment of legislation which would.

One, disallow credits against U.S. tax liability for payments to foreign governments with respect to foreign oil-related income. Such payments should be considered only as costs of doing business and allowed as a deduction in determining U.S. taxable income.

Two, terminate the "deferral" privilege on oil-related income. Thus, the income of U.S. controlled foreign corporations would be taxed in the year earned—the same rules that apply to domestic subsidiaries.

Such action would be consistent with the amendment to the first concurrent budget resolution for fiscal year 1980 passed over-

whelmingly by the House—355 to 66 on May 8, 1979—would represent a significant step toward tax justice and help put an end to the tax incentive that encourages oil companies to operate overseas and import foreign oil rather than develop domestic resources.

We also hope that enactment of those reforms would establish the basis for the elimination of all the tax subsidies that have contributed to outflow of U.S. jobs, the power of multinational corporations and the Nation's severe problems in world trade and investment.

Finally, Mr. Chairman, and without in any way diminishing our support for strong and effective tax measures such actions would, at best, help blunt some of the adverse effects of the President's decontrol decision and OPEC's actions. We still maintain that price controls are necessary. We would also like to include for the record a statement of AFL-CIO President George Meany outlining additional actions which we feel are needed to remedy this Nation's energy problems.

Thank you.

[Attachments to Mr. Oswald's statement follow:]

NEWS FROM THE AFL-CIO, DEPARTMENT OF PUBLIC RELATIONS, TUESDAY, JULY 3, 1979

Following is a statement by AFL-CIO President George Meany on the oil price increases put into effect by OPEC in 1979:

The more than 50 percent increase in oil prices instituted in 1979 by OPEC and its continuing control of oil production underscore the need for immediate and bold action by the United States to achieve a measure of energy security. The nation must begin now the process of liberating itself from its dependence on oil imports at monopoly prices from insecure foreign sources.

Energy is the most important single factor in the nation's inflationary spiral. It is also a major factor in the country's economic health. The 1979 OPEC price increases will undoubtedly fuel the inflationary fires and increase the likelihood of a recession, enlarge its depth and result in mounting unemployment.

We urge that the United States take the following steps:

1. Take over the importation of oil and deal with oil producing and exporting countries on a nation-to-nation basis. The government should determine the amount of oil to be imported, negotiate its price and provide for its domestic allocation. Clearly, the oil monopolies have no incentive to deal effectively with OPEC. Obviously they are concerned mainly with their own well-being rather than with the national interest.

2. Establish a multi-billion dollar National Energy Authority that would provide direct loans, loan guarantees and other financial assistance to private industry and public bodies that are unable to secure capital for the development of new and additional energy sources and for the development of conservation measures. Among the more promising of the alternative energy sources are solar, nuclear, coal and the synthetic fuels produced from agricultural products, waste matter, coal, shale, etc. The Authority also should be empowered to develop and launch projects of its own, patterned after the TVA concept, as well as approving the kind of investments that are in the national interest. It is our belief that the oil monopoly should not be entrusted with decision making on energy investments affecting the public welfare.

3. Institute a fair and equitable system of gasoline rationing with special consideration for work-related use. Only rationing, unpleasant as it may be, can bring a semblance of order to the chaotic situation that now exists.

4. Prohibit the export of Alaskan oil and increase the production of Alaskan oil as a part of the nation's effort to achieve energy security.

These are the kind of steps that the United States can and must take. At the same time it is incumbent upon the consuming industrial democracies of the world to band together to meet the challenge posed by OPEC and adopt a unified approach to remove the economic threat of the monopoly control of oil production and price.

[From the Washington Star, Apr. 19, 1979]

China Acts To Cut Oil Firms' U.S. Tax, Lawyer Says

(By Leonard Curry)

China appears to be serious about adopting a tax on U.S. petroleum companies to accommodate the corporations' wishes to reduce their American tax liabilities, according to a member of a prominent international law firm.

Benjamin P. Fishburne III also said China is considering a joint venture law which would make it the first communist nation to allow foreign capitalist ownership of the "people's" property.

Fishburne said the Chinese approached him for informal consultation about U.S. tax structure on his recent trip to China.

China has no income tax. The tax would be written to allow oil companies operating in China to claim credits against their U.S. taxes instead of deductions, which are less valuable.

"It appears that China is making a serious effort to develop an oil tax," Fishburne said. "There is a committee assigned to it."

The Chinese believe the tax is necessary to induce American-based multinationals to develop China's petroleum resources, Fishburne said in an interview yesterday in his 11th-floor suite. China envisions exporting petroleum to earn the foreign exchange that is vital for the nation's economic development, Fishburne said.

Fishburne's law firm, Surrey, Karasik & Morse, has been involved in U.S.-Chinese relations since 1973, when the two countries opened their first public dialogue in 24 years. Fishburne made the recent trip to China in place of his firm's senior partner, Walter Sterling Surrey.

Surrey is also vice chairman of the National Council for U.S.-China Trade, an organization of Americans interested in improved economic relations with China.

A House Government Operations subcommittee reported last month that Treasury Department tax officials advised a Chinese delegation on the type of tax that must be imposed to allow the oil companies to qualify for a credit. Last year, petroleum corporations saved some $7 billion in U.S. taxes through the use of credits.

Fishburne's experience is further confirmation that China is prepared to take a unique action to attract the investment and technological skills of the multinational petroleum companies.

Fishburne also said China is working on a joint venture law, which would permit foreign capital to invest in China in exchange for an ownership position.

Although "joint ventures" have been undertaken in other communist countries, Fishburne said the central governments have never allowed the foreign partner to have an ownership role. These ventures have allowed the foreign partner to extract a portion of the product as a return on investment.

China now is using the traditional communist approach, Fishburne said. But he said China is apparently prepared to take the major advance into an ownership arrangement in which China and the foreign partner share profits.

Any risks entailed in joint ventures would be more than offset by the lure of a chance at some future time to sell directly to a Chinese consumer market. A company that was a joint venture partner of the Chinese government most likely would be looked upon as "an old friend," Fishburne said.

China currently is interested in foreign investment as a means of increasing its exports and earning additional foreign currency to finance further internal economic development.

The joint venture law will take several years to put in place, if it develops at all, the lawyer said. In the meantime, China will continue to try to increase investment via the two classical communist methods.

In most cases, China will use its foreign exchange to pay for plant and equipment that it deems desirable for economic development. In other circumstances, China will try to persuade foreign companies to pay for plant construction in exchange for the completed plant's finished products, which will be sold on the world market.

News From the AFL-CIO Department of Public Relations, July 16, 1979

AFL-CIO President George Meany today made the following comment on President Carter's energy message Sunday night:

In his speech, the President accurately stated the depth of the energy crisis confronting the nation and properly pointed out that failure to deal with this crisis had shaken the confidence of the American people in their government and its

leaders. We agree with the President's somber description of the problem and the need for action.

He sounded a call for all Americans to rally in the spirit of sacrifice to convincingly assert the nation's independence in energy and, thus, free its economic system from domination by foreign cartels, which threatens the nation's political, as well as economic, stability.

The President's six-point energy program is good, long overdue and warrants the support of the American people. If his program is forcefully executed, America will be on the road to energy independence, free from coercive pressures.

Obviously, the twin economic evils of inflation and unemployment—which are greatly affected by both the supply and price of energy—likewise require the same resolve and commitment the President has displayed on energy. Eliminating these problems will also necessitate clear goals and specific programs.

The President's speech was forceful; the goals it set are both necessary and attainable. We can assure the President that American workers will do their part, as they have always done when the nation was in trouble. They will accept their fair share of the sacrifice that must be forthcoming from everyone.

We have long been urging action of the type the President is now spelling out, and we will strongly support the thrust of his program.

Senator NELSON. Could I ask a question.

Mr. Bennett, senior vice president of Exxon, discussed the foreign tax this morning. Did you hear his testimony?

Mr. OSWALD. I was here for his testimony and I don't recall precisely what it is that you are referring to, Senator.

Senator NELSON. That is the question of the foreign tax credit and the tax you are talking about. Did you hear his testimony on that?

Mr. OSWALD. I don't recall what his testimony was.

Senator NELSON. Well, I would like to submit to you and have you respond to that so that we could have your viewpoint in response to Mr. Bennett's testimony.

On the windfall tax situation I raised the question this morning and I raise it with you and other witnesses, how do you decide what is the point or how do you decide what a windfall is for a well or what windfall tax should be on a well that hasn't yet been drilled and you don't know yet what the cost is?

Mr. OSWALD. Senator, the attempt is not on taxing an unknown windfall except to the extent that if the cost is higher than the proposed $17 that is in the House-passed version, or the $16 a barrel that is in the Senate-passed version, which is five times higher than the price at which oil was selling for in this country prior to 1973 OPEC price increases, there would be a surcharge on the profits that would accrue over and above such a price level.

Senator NELSON. Well, I don't think that that responds to the question. Suppose it costs more to get it out than the $17 that the House put in the bill.

Mr. OSWALD. There is a limitation in the House bill in terms of the total amount of tax. It cannot be more than the profit of that particular well.

Senator NELSON. It can't be more, but is there a minimum in it?

Mr. CANTOR. In the House bill, Senator, the amount of the windfall profit subject to tax cannot exceed the net taxable income of the company.

Senator NELSON. I would hope so.

Mr. CANTOR. Well, therefore this applies to the other income of the company, and therefore it cannot in any way be confiscatory on any of the other income of the company.

Senator NELSON. I am trying to distinguish. It can't be confiscatory but what happens if the costs to them is $16.50 for the oil?

Mr. CANTOR. My understanding of the House bill is if the actual economic cost exceeds that amount, there wouldn't be any windfall profits tax applying to that amount.

Senator NELSON. As I understand it the amount is $17, that is set in the House bill, and that is a flat $17 no matter whether your foot slips through the ground and there is a pool of oil, or whether you drill 20,000 feet. Do I have the correct understanding?

Mr. OSWALD. Any loss would be a normal loss deductible in doing business.

Senator NELSON. I understand that. And I assume nobody is proposing to refuse to let people write off their losses. There is a flat $17, as I understand it. Is that correct?

Mr. CANTOR. In the House bill there is specific language. I just have the summary in front of me but the bill provides specific language to prevent tax from burdening high-cost properties, which are the properties that you are concerned with. The bill also limits the windfall profits subject to tax to 100 percent of the net income from the property, and given the fact that the windfall profits tax is deductible as a cost, the most it could be under the House bill then would be the 60 percent rate, and the most it could be under our proposal would be 85 percent. So in no way could it be confiscatory or more than confiscatory.

Senator NELSON. I would hope not. Suppose you have one person who hits oil at 5,000 feet and his costs are one-half of another's cost. So it costs him one-half as much to produce the oil as it costs the other fellow. The one who has the highest cost oil is not allowed as much profit?

Mr. OSWALD. If there is an interpretation of the House-passed bill that would not allow such higher cost, we would have no objection to such an exception for wells which came in at cost higher than $17.

Senator NELSON. How about the high-risk money? Why risk the money? The point is, two people may tackle a separate drilling site and one of them strikes it at 5,000 feet and one at 20,000 feet. One of them spends $10 million and the other spends $1 million. One of them is going to make $10 a barrel and the other is going to make $1. Is there any sense in not allowing that person to make the $9 on top of the $1 he made, so he could have his $10 profit too, or don't you want him to risk it?

Mr. CANTOR. As I understand the issue as it would work under the tax provisions in the bill, in line with the example you cited, the issue at most would be one entrepreneur would get somewhat less of a windfall. We are talking about a windfall.

Senator NELSON. It can't be much of a windfall or else your definition is wrong. If it costs him $16 to get the oil out of there, he is going to make $1 a barrel. Is that a windfall to you? I just want to finish the question. Is that what you understand a windfall to be?

Mr. CANTOR. The windfall in the bills we are talking about is the difference between OPEC prices which are artificial prices, and prices that result from decontrol. It is my understanding that the figures are sufficiently high to prevent any kind of situation that

you are describing and, truthfully, as Dr. Oswald just said, if there are some circumstances where something like that which slipped between the cracks, we would be happy to support such a provision.

Senator NELSON. I will have to leave for that rollcall.

We will recess momentarily.

[Brief recess.]

Senator GRAVEL. We will come to order.

Dr. Oswald is testifying.

Senator NELSON. I had a few questions of Dr. Oswald.

Could we pursue them now?

What is the rationale of arbitrarily deciding that anything that falls above a certain price is by definition an excess profit?

Dr. OSWALD. The definition is to say that there are prices that at one point could be described as having been set in the market. They have increased almost five times in the past 7 years. It is that future increases are not set by the market but are OPEC determined prices and that price increases above the level that existed last year. The $16 or $17 level are to be considered windfalls because that is above what would normally be a market price for the product.

In essence, it says that Americans aren't to be jacked up by the OPEC price increases for domestic oil.

Senator NELSON. But what about replacement costs?

Mr. OSWALD. If the replacement cost is higher there is no windfall profits tax.

Senator NELSON. There is no profit either.

Mr. OSWALD. There is no windfall profits tax.

Senator NELSON. But that is what I am trying to get straight. If that is your position, I must say to you that as one of the liberals on the committee, I would have to say all out I couldn't defend that anyplace. Even your working people wouldn't buy the proposition that you expect somebody to speculate with millions of dollars, when there is a ceiling on profits they receive and if it costs them more than they can get, they just write it off?

Mr. OSWALD. That is not what we are saying.

Senator NELSON. Then I misunderstand you. What happens if the cost of production is above $17.

Mr. OSWALD. And it is below the world price?

Senator NELSON. I don't care.

Mr. OSWALD. If the world price is $20, you mean?

Senator NELSON. Yes.

Mr. OSWALD. There is no windfall profits on it.

Senator NELSON. They can sell it and at the spot market and there is no windfall on that at all?

Mr. OSWALD. That is correct.

Senator NELSON. If he produces it at $16 there is a windfall profits tax on the dollar, is that correct?

Mr. OSWALD. Under the present bill, you mean?

Senator NELSON. $17 is the price. Is that the determining factor?

Mr. OSWALD. Let's assume the world price currently is $20, which it is approximately.

Senator NELSON. All right. Just give me an example.

Mr. OSWALD. If he produces at $16, then, taking the House version there would be no windfall profits tax on the first dollar

between $16 and $17. Under the House version between $17 and $20 there would be a 50-percent tax on that $3.

Senator NELSON. You mean above the corporate tax?

Mr. OSWALD. That is correct.

Senator NELSON. So they pay ordinary tax on the $1, profit they make between $16 and $17 and a 50-percent tax on what they receive between $17 and $20.

Mr. OSWALD. That is after the deduction for their other taxes. There is a credit so it is not a double taxation.

Senator NELSON. Does that make any sense to you?

Mr. OSWALD. Yes, Senator, because they would not have the $20 price if OPEC hadn't set that price.

Senator NELSON. Well, no, I don't think so. If their cost of production was $16, what would their price be?

Mr. OSWALD. Their price without OPEC would have been in the $16 or $17 range.

Senator Nelson I know it is complicated, but I am trying to find out what the proposal does. My interest is increasing production.

Mr. OSWALD. What you are saying is that in the last 6 years we have had an increase in the price, the domestic price, from $2.80 a barrel to $16 a barrel for newly discovered oil, more than a fivefold increase, which is a very large inducement for any new exploration which was not profitable at $3 a barrel or $4 a barrel or $5 a barrel or $6 a barrel. That fivefold increase—rather than giving encouragement to corporations to have a windfall on every future price increase that OPEC makes and that the price of oil for all consumers is not determined merely by what OPEC does—should at least in part, benefit the rest of the Nation in terms of making us independent from OPEC.

Senator NELSON. Shouldn't the cost of any product, even in this circumstance, simply depend upon what the replacement cost is?

Mr. OSWALD. Senator, the replacement cost is involved and was provided for in the rapid depreciation, the benefits that are granted energy companies. They are allowed to make writeoffs. The corporations have continued to show substantial profits and even with the windfall profits tax their profits over the next 5 years would increase by 87 percent even with the windfall profits tax.

Senator NELSON. What I am trying to get at here is that there are all sorts of energy sources: alcohol, solar, shale oil, et cetera. All of these processes, I am assuming, cost more than the OPEC price for oil. There is no question about that. So I assume that OPEC is going to do what you or I would do if we had Saudi Arabia's oil. If the cost of the product in this country goes to $30, then even though the cost in Saudi Arabia is only 50 cents we would charge $30. And if there was a shortage we would charge $35. That is what the system is all about. There is nothing we can do about that except develop our own resources and conserve what we have got.

Mr. OSWALD. But the question is, can you transfer some of the elements from the energy that costs even domestically less than $3 a barrel, and that is basically where much of the windfall profit comes from, from the tier I oil, oil being produced prior to 1973, and oil that was being produced profitably at that point which has very little additional net cost. It is allowed gradually to move

through various factors in the bill toward the higher price and the money used to help in other areas.

That is what the whole trust fund discussion I assume will be about in terms of the alternatives and in terms of heavy oil and tar sands and in terms of solar and in terms of biomass and other approaches.

Senator GRAVEL. I think you were going through some things yourself which are fundamental to the long-term tax. Suppose the lid is $16 and suppose further that, with inflation, a year from now that the price you can get is $18 under the law. Now, suppose actual replacement cost is $20 and the world OPEC price is $24. Taking the difference between the $18 and the $24, you end up with $6. If the company pays a 50-percent severance, tax on the $6 you are down to $3. You pay another 50-percent corporate profits tax and you are down to $1.50. Add $1.50 to the $16 and that gives you $17.50. Now, if it costs $20 to replace that barrel of oil, in point of fact you can't even do that under the proposed tax. The conclusions you are coming to are very accurate. We have a situation where we have natural gas. If the price is at 50 cents and the cost is 60 cents to find the gas, you don't go find the gas, you just do without. That is similar to the North Slope.

Mr. OSWALD. But the indications are that we have been able, when North Slope oil was first being produced profitably in a range between $9 and $12 a barrel. The House bill has all sorts of inflation adjustments that you describe and the projections that I have seen for the other alternatives farther north in the Alaska area, north of the Arctic Circle, would be able to be competitive with the sorts of restrictions that are in this bill.

Senator GRAVEL. I am sorry, you are very, very wrong. I will tell you why. You measure the cost of a chicken the day that it starts to lay the egg and then say, "Well, it is a profit." He is making a profit off of that chicken because it costs them $1 a day to feed the chicken and you can sell the four eggs that the chicken lays at 30 cents apiece. So you can sell the eggs for $1.20 and have 20 cents profit.

Senator NELSON. We farmers can only get one egg a day.

Senator GRAVEL. But in terms of economics, suppose he can sell the egg for that price. The point I am making is that to get the chicken to lay that egg costs a lot of money. He had to be born and fed and housed. So when you cavalierly say that the cost of oil in Alaska was sold at a profit, the only reason it was sold at a profit was because the world price of oil was rising. Had it not risen, the Alaska Pipeline would have been the biggest colossal error in the history of this world because they would have had to shut it down.

Now, I don't know how you can reconcile that with rapidly increasing costs facing the energy industry. If you put a lid on the industry of $16 per barrel and just deal with inflation, what is going to cover the cost of the additional $12 billion to $18 billion that now has to be spent to feed the pipeline? That cost is not figured into your computation or anybody else's computation. How is that going to be covered?

Mr. OSWALD. Every cost is completely allowable under this proposal.

Senator GRAVEL. Well, I have had the experience where I have had major producers in Cook Inlet come to my office with a major paper saying they were going to shut down the rigs out there if they couldn't get an increase. And the DOE, those bureaucrats who make those judgments, wouldn't allow them the cost involved. So when they were going to shut down the rigs, I had to intervene with DOE and say, "Look, this study indicates they are going to have to shut down the operation unless you give them their cost." So at the highest level they made the decision to give them the increased cost. But that is what happens when you have a bureaucrat who sits there and makes the judgments as to what the costs are.

Nobody truly knows the cost. It is a moving target and that is the reason you can only judge. You made the statement a minute ago saying one company had an 87-percent increase in profits. If you are making no profits and you have an 87-percent increase, what are you making?

It is very arbitrary and the figure means nothing. The Washington Post in one quarter made 278 percent increase in profits. What does that increase mean? It means nothing.

Mr. OSWALD. The 87 percent is about the current $15 billion that the major oil companies are currently receiving which is a return on equity of approximately 19 percent at that particular point.

Senator GRAVEL. You are telling me that the energy companies are making 19 percent return today?

Mr. OSWALD. During the most recent figures available.

Senator GRAVEL. Well, I would like you to submit those for the record and you have as much time as you want to do it.

Mr. OSWALD. I am referring to figures.

Senator GRAVEL. 1974 was the only year?

Mr. OSWALD. For the first quarter of 1979.

Senator GRAVEL. No; I would appreciate if you would take the whole year. If you want to use 12-month figures wait until the year is done so you know what was made in the profit. But don't give me a quarter. If they are going to price gouge this quarter we will know it. But take the figures for 1977 and 1976 and 1974 and 1973.

Mr. OSWALD. And they did make very big profits with the price gouging, as you indicated, in 1974 and 1975.

Senator GRAVEL. What was the return in 1974?

Mr. OSWALD. The return in 1974 for the 20 major companies, I can give you that figure in just a second, Senator.

In 1974, there was an average of 16.5 percent.

Senator GRAVEL. The figure that I am using is 19.9 percent for 1974, so I am giving them more profit than you are.

Mr. OSWALD. 1975 was a return on equity of 21.5 percent, and in the first quarter of this year the average was 19 percent.

Senator GRAVEL. We had from Gulf this morning 17.9 percent for the first quarter of this year, compared to 19.3. What was your source?

Senator NELSON. May I interrupt for a minute? Dr. Oswald, I have an appointment waiting for me in the office and I did not realize we were going to 3 o'clock, and I have to reschedule.

Thank you very much.

Senator GRAVEL. I have completed my questioning, except for the source of your data. Is there something that you submitted to the committee so I will be able to read it over?

Mr. OSWALD. I will be happy to submit it.

Senator GRAVEL. What was your source?

Mr. OSWALD. It was company financial reports, Standard & Poor's industrial survey.

Senator GRAVEL. And you will submit it for the record?

Mr. OSWALD. Yes.

[The information to be supplied follows:]

TABLE 2

Net Income After Tax and the Rate of Return on Equity of Selected Oil Companies
($ Millions)

Company	1978		1977		1976	
	Net Income	% Return	Net Income	% Return	Net Income	% Return
Totals	$12,930.8	13.8%	$11,754.4	14.4%	$11,257.3	15.5%
Amerada Hess Corp.	142.4	10.2	179.0	25.5	153.0	30.4
Ashland Oil Corp.	245.0	27.0	245.0	21.1	164.0	21.8
Atlantic-Richfield Co.	804.3	14.6	702.0	17.9	575.0	18.3
Cities Service Co.	118.0	6.0	210.0	11.2	217.0	12.6
Clark Oil & Refining Corp.	16.0	13.1	14.3	12.8	9.4	9.1
Continental Oil Co.	451.3	14.3	381.0	13.9	460.0	19.0
Exxon Corp.	2,763.0	13.7	2,423.0	12.8	2,641.0	14.9
Getty Oil Co.	327.6	11.1	328.0	12.9	258.0	12.8
Gulf Oil Corp.	791.0	10.2	752.0	10.5	816.0	12.2
Kerr-McGee Corp.	118.0	11.3	119.0	12.4	134.0	15.6
Marathon Oil Co.	225.2	15.6	197.0	16.1	196.0	18.1
Mobil Oil Corp.	1,125.6	12.6	1,005.0	12.6	943.0	12.8
Murphy Oil Corp.	46.6	10.3	47.1	11.9	48.9	13.6
Phillips Petroleum Co.	710.5	19.5	517.0	17.8	412.0	16.0
Shell Oil Co.	813.6	13.3	735.0	14.7	706.0	16.4
Standard Oil of Calif.	1,105.9	13.4	1,016.0	13.9	880.0	13.0
Standard Oil Co. (Ind.)	1,076.4	15.1	1,076.0	15.5	1,012.0	15.7
Standard Oil Co. (Ohio)	450.2	22.1	181.0	10.1	137.0	9.1
Sun Oil Co.	365.4	12.4	362.0	14.8	356.0	19.4
Texaco Incorporated	852.5	9.0	931.0	10.1	870.0	9.8
Union Oil of Calif.	382.3	14.4	334.0	14.6	269.0	14.3

TABLE 2
(Continued)

Company	1975 Net Income	1975 % Return	1974 Net Income	1974 % Return	1973 Net Income	1973 % Return	1972 Net Income	1972 % Return
Totals	$9,467.8	21.1%	$12,585.4	16.5%	$9,209.3	14.2%	$5,914.1	9.1%
Amerada Hess Corp.	128.4	12.3	201.9	21.4	245.8	31.8	46.2	8.3
Ashland Oil Corp.	119.4	16.5	113.0	17.1	85.2	15.5	68.0	13.5
Atlantic-Richfield Co.	350.4	9.6	474.6	13.7	270.2	8.7	192.5	6.5
Cities Service Co.	137.7	8.4	203.8	12.2	135.7	3.4	99.1	6.9
Clark Oil & Refining Corp.	5.2	5.3	7.1	7.2	30.5	27.9	8.3	9.8
Continental Oil Co.	330.9	15.5	327.6	15.9	242.7	13.4	170.2	10.4
Exxon Corp.	2,503.0	14.7	3,142.2	20.0	2,443.3	18.5	1,531.8	12.5
Getty Oil Co.	256.7	13.5	281.0	15.3	135.0	8.8	76.1	5.2
Gulf Oil Corp.	700.0	10.9	1,065.0	17.9	800.0	14.4	447.0	8.3
Kerr-McGee Corp.	131.0	17.7	116.0	19.2	62.8	11.2	50.6	10.1
Marathon Oil Co.	128.1	12.7	170.5	17.1	129.4	14.6	79.8	10.2
Mobil Oil Corp.	809.9	11.8	1,047.5	16.3	849.3	14.9	574.2	10.9
Murphy Oil Corp.	40.1	12.4	66.6	23.5	48.5	20.2	14.3	7.6
Phillips Petroleum Co.	342.6	14.1	429.8	18.9	230.4	11.7	148.4	8.1
Shell Oil Co.	514.8	13.2	620.5	17.4	332.7	10.7	260.5	8.9
Standard Oil of Calif.	772.5	11.9	970.0	15.0	843.6	14.5	547.1	10.5
Standard Oil of Indiana	787.0	14.1	970.3	18.9	511.2	12.4	374.7	10.0
Standard Oil of Ohio	126.6	8.7	125.9	10.1	74.1	6.5	59.7	5.6
Sun Oil Co.	220.1	9.2	377.7	16.3	229.7	12.4	154.7	8.8
Texaco Incorporated	830.6	9.6	1,586.4	17.6	1,292.4	16.2	889.0	12.4
Union Oil of Calif.	232.8	12.1	288.0	15.0	180.2	10.5	121.9	7.6

Source: Standard and Poors' Industrial Survey

TABLE 3

AFTER TAX PROFITS AND RATES OF RETURN
ON STOCKHOLDERS' EQUITY
MAJOR OIL COMPANIES
FIRST QUARTER 1979

	Increase in Net Income After Tax 1st Q 1979 Compared To 1st Q 1978	Annualized Rate of Return on Equity
Exxon	37%	18.0%
Standard Oil of Ohio	303	33.0
Standard Oil of California	43	17.0
Standard Oil of Indiana	28	19.5
Phillips	4	20.0
Marathon	108	29.0
Mobil	81	19.6
Continental	343	20.0
Amerada Hess	279	33.0
Sun Oil	43	16.0
Cities Service	42	16.0
Getty	42	14.6
Gulf	61	13.0
Shell	16	14.7
Texaco	81	13.0
Atlantic Richfield	61	N.A.
Occidental	174	N.A.

Source: Available Company Quarterly Reports.

Senator GRAVEL. All right, you may proceed.

Mr. OSWALD. I would like to request for the record, Senator, that we incorporate in my formal testimony the statements of President Meany in regard to President Carter's speech on energy. The statement was on July 16, and he had a general statement on July 3 on energy; and that these be submitted for the record.

Senator GRAVEL. They will be received.

[The information follows:]

NEWS FROM THE AFL-CIO, DEPARTMENT OF PUBLIC RELATIONS

TUESDAY, JULY 3, 1979

Following is a statement by AFL-CIO President George Meany on the oil price increases put into effect by OPEC in 1979:

The more than 50 percent increase in oil prices instituted in 1979 by OPEC and its continuing control of oil production underscore the need for immediate and bold action by the United States to achieve a measure of energy security. The nation must begin now the process of liberating itself from its dependence on oil imports at monopoly prices from insecure foreign sources.

Energy is the most important single factor in the nation's inflationary spiral. It is also a major factor in the country's economic health. The 1979 OPEC price increase will undoubtedly fuel the inflationary fires and increase the likelihood of a recession, enlarge its depth and result in mounting unemployment.

We urge that the United States take the following steps:

1. Take over the importation of oil and deal with oil producing and exporting countries on a nation-to-nation basis. The government should determine the amount of oil to be imported, negotiate its price and provide for its domestic allocation. Clearly, the oil monopolies have no incentive to deal effectively with OPEC. Obviously they are concerned mainly with their own well-being rather than with the national interest.

2. Establish a multi-billion dollar National Energy Authority that would provide direct loans, loan guarantees and other financial assistance to private industry and public bodies that are unable to secure capital for the development of new and additional energy sources and for the development of conservation measures. Among the more promising of the alternative energy sources are solar, nuclear, coal and the synthetic fuels produced from agricultural products, waste matter, coal, shale, etc. The Authority also should be empowered to develop and launch projects of its own, patterned after the TVA concept, as well as approving the kind of investments that are in the national interest. It is our belief that the oil monopoly should not be entrusted with decision making on energy investments affecting the public welfare.

3. Institute a fair and equitable system of gasoline rationing with special consideration for work-related use. Only rationing, unpleasant as it may be, can bring a semblance of order to the chaotic situation that now exists.

4. Prohibit the export of Alaskan oil and increase the production of Alaskan oil as a part of the nation's effort to achieve energy security.

These are the kind of steps that the United States can and must take. At the same time it is incumbent upon the consuming industrial democracies of the world to band together to meet the challenge posed by OPEC and adopt a unified approach to remove the economic threat of the monopoly control of oil production and price.

MONDAY, JULY 16, 1979

AFL-CIO President George Meany today made the following comment on President Carter's energy message Sunday night:

In his speech, the President accurately stated the depth of the energy crisis confronting the nation and properly pointed out that failure to deal with this crisis had shaken the confidence of the American people in their government and its leaders. We agree with the President's somber description of the problem and the need for action.

He sounded a call for all Americans to rally in the spirit of sacrifice to convincingly assert the nation's independence in energy and, thus, free its economic system from domination by foreign cartels, which threatens the nation's political, as well as economic, stability.

The President's six-point energy program is good, long overdue and warrants the support of the American people. If his program is forcefully executed, America will be on the road to energy independence, free from coercive pressures.

Obviously, the twin economic evils of inflation and unemployment—which are greatly affected by both the supply and price of energy—likewise require the same resolve and commitment the President has displayed on energy. Eliminating these problems will also necessitate clear goals and specific programs.

The President's speech was forceful; the goals it set are both necessary and attainable. We can assure the President that American workers will do their part, as they have always done when the nation was in trouble. They will accept their fair share of the sacrifice that must be forthcoming from everyone.

We have long been urging action of the type the President is now spelling out, and we will strongly support the thrust of his program.

Senator GRAVEL. Are there any other points that you would like to make? I don't want to harangue you people, and I look upon you as friends. On this particular issue it may not sound that way, but I think the labor movement has made an unusual and useful contribution to our society. On this issue we do differ.

Mr. OSWALD. I think one other thing we would like to bring to your attention, the thing that has concerned us greatly, and part of our testimony deals with it, is that you have the foreign tax credit and we were very concerned with our country's Treasury Department helping China develop a tax that would allow oil companies engaging in activities in China to develop a royalty tax system that

meant reduced taxes for the United States and income to China. It is different than would be required under the existing Chinese law, and to that extent allows for the United States, as we see many of the problems with the foreign tax deferred.

Senator GRAVEL. Thank you very much.

We would appreciate it if you could have someone drop a copy off at my office, so I can read it, because if I am using bad figures, the sooner I find out about it the better off I will be.

Our next witness is Mr. Robert S. McIntyre, director, Public Citizen's Tax Reform Research Group.

STATEMENT OF ROBERT S. McINTYRE, DIRECTOR, PUBLIC CITIZEN'S TAX REFORM RESEARCH GROUP

Mr. MCINTYRE. This is the second time within a month that you and I have been alone together.

Senator GRAVEL. I know that.

Mr. MCINTYRE. The last time I agreed to summarize my testimony very briefly; this time I would like to spend a little longer explaining my group's position.

Senator, the reason why the committee has convened on the oil issue today and for the last several weeks is quite clearly not to provide incentives to the oil industry. Those incentives are provided in the decontrol program that has already gone into effect. Similarly, the committee is not here to improve the cash flow of the oil industry. That is also provided by decontrol, and to a large extent it does not appear to be a problem for the industry in any case.

As Mr. Bennett said 3 weeks ago before Ways and Means, and as he said again today, his company, at least, is not having a cash problem; they are looking for places to invest money.

Senator GRAVEL. Who said that today?

Mr. MCINTYRE. Mr. Bennett of Exxon. They have a $6 billion capital budget this year, and he told Ways and Means 3 weeks ago that "We do not have a cash flow problem and we do not have a capital shortage."

Senator GRAVEL. I may not have been in the room.

Mr. MCINTYRE. He did say that today. That is not to say there are no problems in the oil business, but——

Senator GRAVEL. You are making a statement, and I only absented myself slightly at the beginning of his statement. All of the time I was here——

Mr. MCINTYRE. It was during the questioning period.

Senator GRAVEL. Who asked the question, and he said he had more than enough cash flow?

Mr. MCINTYRE. I believe it was Mr. Durenberger.

Senator GRAVEL. We will research the record, because you apparently have a more acute memory than the staff.

Mr. MCINTYRE. I can provide you the information from Ways and Means Committee also.

At any rate, the reason the committee has convened here is to raise some money. That is why we are talking about a tax. The reason we want to raise the money is because we are worried about the effects of decontrol on consumers, number one; we want to

raise some money so that we can give it back to people who are going to have to pay a lot more for energy.

Second, we are interested in raising some money to finance alternative energy sources; that is, solar, some of the synfuel projects which are becoming very popular in Congress, different kinds of conservation techniques, and so forth.

Now, I think we can all agree that we want to find a method of raising this rather enormous sum of money that we are going to need to do these things in a way that does not defeat the purposes of decontrol; because if those purposes are defeated, it would make the whole process a sham.

Therefore, we have to look at the reasons why we are decontrolling oil prices.

The first reason, obviously, is that it makes no sense for American consumers to continue, paying low rates for energy when that means we have to import more foreign oil; so we are interested in encouraging conservation.

Second, we are interested in incentives, and as long as oil is priced below its cost from Saudi Arabia then we will be providing a disincentive to alternate fuels.

Third, we would like to eliminate the subsidies for foreign oils.

All of these goals can be achieved no matter what we do in the tax. If the tax is 90 percent or 2 percent, it won't affect our conservation, our alternative energy, or our subsidies for foreign oil. But we obviously have another goal. to increase the production of oil and gas in the United States.

Obviously, a tax which discourages new discoveries of oil or inhibits the use of tertiary recovery techniques is something we want to be very careful about because we don't want to discourage these things.

It seems to me that when we start analyzing the tax we should first of all say that in those areas where increased production is unlikely a high tax rate is appropriate. For example, take an existing field in Texas, that is producing at a standard rate that is controlled by the Texas Railroad Commission, and nothing additional is done to it, and it continues to produce, with a normal decline. That kind of production which is already being produced profitably, we don't have to worry very much about with regard to our tax rate on it.

On the other hand, when we are looking at some new drilling on the Outer Continental Shelf, we then should start to worry.

Those are the parameters. I think we ought to have them in mind in making decisions in this area.

One side point, before I get to the House bill, is that we had a lot of talk this morning about how the oil companies will be paying 60 cents on the dollar even without a windfall tax. This is just not true, and we really cannot rely on the income tax to collect that kind of money.

The four panelists from the API who were here earlier paid the range of tax rates that the oil industry paid in 1978. Exxon was at the top and paid a 20 percent rate last year. At the bottom was Louisiana Land & Exploration Co., which paid nothing; and in between was Gulf, at 5 percent, and Marathon, at 15 percent.

That is pretty much the range for the oil companies. There are a few that pay a little higher, than Exxon—none can pay lower, obviously, than Louisiana Land—but their overall effective rate, based on SEC data, runs in the ballpark of 15 to 20 percent.

The Congressional Budget Office has made a study and gotten the same result. To say we can rely on the income tax, as was suggested this morning, would seem to me to be just a mistaken statement.

Now, as far as the House bill goes, in general it takes the kind of approach I have suggested. That is, it is concentrated on already discovered oil and it has a larger tax on newly discovered oil and oil from tertiary recovery.

But I think the House bill is far too generous to the oil companies in a way which will not increase production to any significant extent. And although it won't help production very much, it does mean we are going to have less revenues available to rebate to consumers or to use to finance alternative energy research.

A list of the things that I think are wrong with the House bill is included in my testimony. The list includes the rate, which is too low; it includes the way the tax on old oil is phased out, including the marginal wells exception; it includes the definition used for "newly discovered oil," which I think is far too broad; and it includes the phaseout of most of the tax in 1990.

There are several other points, but what I want to make clear here is that I believe that this committee has a responsibility to try to do something about these defects in the House bill. I think the House went too far in the direction of providing extra cash for the oil industry—and I distinguish that from extra incentives, because the incentives are going to be there with the exemption from the tax up to rather high levels for newly discovered oil and for tertiary oil.

Because this committee is considering several issues, I want to mention the foreign tax credit also. I would like to submit for the record my testimony before Ways and Means several weeks ago on the foreign tax credit.

Mr. GRAVEL. We will excerpt it in the record. Your statement today will be placed in the record.

[The information follows:]

STATEMENT OF ROBERT S. MCINTYRE, DIRECTOR, PUBLIC CITIZEN'S TAX REFORM RESEARCH GROUP

Recently, the House of Representatives, as part of the budget process, issued a charge to the Ways and Means Committee to crack down on abuses of the foreign tax credit system by multinational oil corporations. With these hearings, the Committee is now preparing to respond to that mandate.

To assist the Committee, the Treasury Department has submitted legislative proposals designed to curb the excess use of extraction credits against other oil-related income. At the same time, the IRS has issued proposed regulations clarifying what kinds of payments to foreign governments will qualify as creditable foreign income taxes.

The IRS regulations relate to the key issue underlying the problems with the foreign tax credit and extraction income—the definition of a foreign income tax.

The Committee's evaluation of the efficacy of these regulations will be crucial to its decisions on legislative action on the credit. If the Committee is convinced that the regulations will be effective in curbing the mischaracterization of royalty payments as income taxes, it can then focus on eliminating remaining abuses through reforms such as those proposed by the Treasury. If, on the other hand, the Commit-

tee believes that the regulations can be avoided, its mandate from the House requires it to consider legislative restrictions on the amount of payments to foreign governments in connection with oil extraction which can be treated as income taxes. Representatives Vanik and Stark have suggested such a solution, by proposing to eliminate the creditability of all such payments. Alternatively, the Committee could limit creditability to a percentage—say, 40 percent—of the taxable extraction income, or it could subject the income sheltered by the credit to the 15 percent minimum tax.

Finally, whatever the Committee decides on limiting the scope of the credit and its application against non-extraction income, the mandate of the House to raise substantial revenues cannot be met unless something is done about deferral. We recommend that the Committee act to treat all oil-related income as Subpart F Income.

I. EVALUATING THE PROPOSED IRS REGULATIONS

The most obvious and well-known abuse of the foreign tax credit by oil companies involves the definition of foreign income taxes. Starting in the mid-1950's, it was intentional U.S. foreign policy to allow the credit for what were essentially royalty payments to oil-rich foreign countries, as a way to channel foreign aid to mid-east nations. Even after 1973 oil embargo, when the foreign policy justification had disappeared, the creditability of royalty payments continued.

In 1975, Congress directed the IRS to crack down on one of the worst abuses in this area, involving a sham arrangement (used particularly by Mobil) in Indonesia under which creditable "taxes" were generated under production sharing arrangements. ("Taxes" were allegedly paid by allowing the Indonesians to keep part of their oil.) A ruling was issued in 1976. And last year, the Service rules that the Saudi Arabian tax system, which involved fixed "tax" payments based upon posted prices rather than realized income, would henceforth be ineligible for the credit.

In both these countries, attempts have been made to restructure the tax systems to fit the recent IRS rulings. In the Indonesian situation, it appears that the new arrangement does in fact involve genuine foreign income taxes, although at much lower (and more realistic) levels than had been the case previously. As Getty explains in its 1978 SEC 10-K:

"In July, 1976, Getty Sumatra was notified by the Indonesian government that the profit sharing split under the production contract would be . . . 85 percent for Pertamina [the Indonesian State Oil Company] and 15 percent for the participants [i.e., the multinational oil companies] . . . Under this arrangement taxes due by the participants were to be included in Pertamina's share. Subsequently, it was agreed with Pertamina that the profit sharing split would be 65.9091 percent to Pertamina and 34.0909 percent to the participants and that the participants would pay their own Indonesian taxes based on realized sale prices."

In contrast, the attempts by the oil companies to restructure their Saudi Arabian "taxes" have been specious. Again quoting Getty:

"The Internal Revenue Service ('IRS') has ruled that taxes paid to a foreign government which are determined on a basis other than realized revenue will not be creditable for U.S. income tax purposes for tax years beginning after June 30, 1978. Taxes paid to the Saudi Arabian government by Getty are calculated on the basis of a posted price set by the government. Approval has been received from the Saudi Arabian government to calculate taxes based on realized sales prices with provision for an additional payment to the Saudi government which will maintain the government revenue at the same level as it would have been on a posted price basis. A ruling request will be made to the IRS to determine if the revised method of computing taxes will make the taxes creditable for U.S. income tax purposes."

It is clear from the quoted passage that the Saudis have not changed the substance of their charges to the oil companies in the slightest by the lastest maneuver, and that the newly defined "taxes" are no more income taxes than was previously the case.

The recently proposed IRS regulations—which are the first ever to define what is meant by "income taxes"—would distinguish between the Indonesian and Saudi situations. The Saudi "taxes" would not be creditable because the total payments to the Saudis do not depend upon a particular company's net income. The income tax portion of the Indonesian payments apparently would qualify because it is based upon actual realized income.

Although the proposed regulations do no more than state uniformly principles, they have important effects, at least in the short term. As far as we know, the Indonesian taxes are the only "taxes" imposed by foreign oil-producing countries which would qualify as creditable (in the absence of treaty). This does not mean, of course, that arrangements cannot be rapidly altered. But it is possible that the total

amount of credits generated would drop substantially, since the oil countries may be reluctant to have a major portion of their revenues dependent upon the changing net incomes of the oil companies.

II. POSSIBLE LEGISLATIVE SUPPLEMENTS TO IRS'S DEFINITIONAL REGULATIONS

Although the proposed IRS regulations are an admirable statement of the principles which should be applied in determining whether payments to a foreign government are in fact income taxes, history suggests that the Committee should be cautious in concluding that even properly stated technical rules will be successful in their objectives. Previous IRS attempts to crack down on abuses in this area have been rather easily evaded by the oil companies. Although the prior IRS steps have been on a fragmented basis through rulings and although the regulations are clearly more difficult to avoid (Getty's Saudi Arabian attempt, for example, would not succeed), the stakes are high enough that it would be foolish not to expect the oil companies to enlist the best legal help available to try to get around the regulations. And when such forces are marshalled, loopholes which have never been considered frequently tend to appear.

Therefore, we believe the Committee should give serious consideration to legislative elimination of the credit on extraction income, a lower than 46 percent limit on the credit, or a minimum tax on the income sheltered by the credit.

Complete elimination of the credit, as proposed by Representatives Vanik and Stark is obviously the most far-reaching step. But it is not so radical as might first appear, when one notes that apparently only one country (Indonesia) has a "tax" system which currently qualified under the proposed regulations.

Alternatively, the Committee might wish to reduce the limit on the credit to, say, 40 percent of extraction income rather than 46 percent. Under some of the conceivable ways the oil companies might restructure their foreign operations to deal with the IRS regulation this would appear to garner at least a small amount of U.S. tax on the extraction income.

Finally, the Committee should seriously consider subjecting the extraction income sheltered by foreign tax credits to the 15 percent minimum tax (with no reduction for other U.S. taxes paid). This approach has the advantage that, no matter what schemes are conjured up to generate foreign tax credits, the companies would still pay at least a minimum U.S. rate on their foreign extraction income.

The Committee can be assured that the oil companies will be challenging the IRS regulations both in court and by changing their practices if necessary, and for this reason we believe the Committee would be remiss if it did not establish legislative backups to the regulations. Of the approaches we have suggested here, we believe the minimum tax has the highest potential for effectiveness. This change would be in addition to the Treasury proposals discussed in the next section.

III. THE TREASURY PROPOSALS

The Treasury's legislative proposals are designed to eliminate the use of excess extraction credits against either non-extraction income or extraction income earned in low-tax countries. The need for these new restrictions is dependent, of course, on the efficacy of the IRS proposed regulations and the extent to which the Committee takes legislative steps to limit extraction credits. In the context in which they apply, however, we believe the Treasury proposals are well-advised and necessary.

Currently, oil companies are allowed both to use high extraction taxes in one country to offset low extraction taxes in another and, at the same time, to ignore start up losses in a particular country in computing the overall extraction tax credit limit. This means that start-up losses are available to offset income from traditionally low tax activities such as refining and shipping; or, put another way, that "excess" extraction credits are available to offset U.S. taxes on refining and shipping operations. In addition, there are no provisions for recapture of the tax benefit from these "excess" credits, so that, when the operation in the loss-country begins to generate income, additional foreign tax credits are generated. The result of these special breaks is to encourage off-shore refining and shipping under foreign flags.

The Treasury proposals would eliminate these loopholes. Recapture of the tax benefits from foreign losses would be provided by denying foreign tax credits on subsequent income from loss-countries (up to the level necessary for fair treatment). By generally requiring use of the per-country method, high extraction taxes in one country would not be permitted to be averaged with low taxes in another, so as to wipe out U.S. tax liability on the income in the low-tax country. And where losses in some countries would provide too large an offset against non-extraction income, the overall method would be required.

IV. SUBPART F: DEFERRAL

Whatever steps the Committee decides to take in restricting the foreign tax credit and whatever the efficacy of the proposed IRS regulations, the final result could be close to a sham unless the Committee is also willing to confront the issue of deferral. We strongly recommend that the Committee include all oil-related income within Subpart F, so that it will be subject to U.S. tax where unsheltered by credits, with or without repatriation.

That the oil companies could take advantage of deferral to avoid most or all of the U.S. taxes which might result from reform of the foreign tax credit is conceded by most analysts. The oil companies' annual reports and 10-K's tell much of the story. Mobil, for example, notes:

"Mobil's share of the undistributed earnings of [foreign] subsidiaries . . ., which could be subject to additional income taxes if remitted, was approximately $1,800,000[,000] at December 31, 1979. No provision has been made for taxes that could result from the remittance of such undistributed earnings since it is the corporation's intent to reinvest these earnings indefinitely. If such reinvested earnings of foreign companies were to be remitted, under present law, foreign tax credits would be available to reduce the amount of U.S. taxes that otherwise would be payable."

Gulf's 10-K states:

"No deferred taxes have been recognized for the company's share of the undistributed earnings of certain [foreign] subsidiaries and joint ventures, which were $613 million at December 31, 1978, since these earnings are considered to be indefinitely reinvested."

Texaco notes that it has $2.3 billion in undistributed foreign earnings for which no provision for taxes has been made "because of reinvestment of earnings by the companies involved and the availability of foreign tax credits." Continental has $368 million in foreign earnings which "have been or are intended to be permanently reinvested" abroad. Phillips has "reinvestment plans for . . . $146,282,000." And so on.

As the Committee knows, our group—like the Treasury—has supported elimination of deferral for all multinational corporations. But the Committee need not accept our arguments on deferral in general in order to find compelling reasons to include oil-related income within Subpart F.

Subpart F was designed to eliminate the advantages of deferral in cases where the tax break provided excessive advantages because of incorporation in low-tax foreign jurisdictions. Subpart F already applies to shipping income, of which the oil companies control some 90 percent, although various exceptions sharply reduce the effectiveness of the provision. In general, however, deferral has been of little importance to the oil companies because of the enormous foreign tax credits which they generate. Assuming that the Committee acts to reduce sharply the ability of the oil companies to mischaracterize royalties as income taxes, however, deferral will become very important to them. At the same time, the reasons for applying Subpart F to oil income will be very strong.

If a large portion of the extraction taxes paid by oil companies are re-categorized as royalties, it becomes apparent that most of the oil-rich countries are actually low-tax countries. In fact, prior to their establishing special "income taxes" on oil as a favor to the multinationals, most of these countries had no income taxes, and could be accurately categorized as "tax havens."

Such "tax haven" income is the intended target of the Subpart F provisions.

In addition, Subpart F has been expanded over the years when Congress has found that deferral interfered with important policy goals. Most recently, for example, boycott income and the amount of illegal bribes and kickbacks was added as Subpart F income. Given the announced policy of the House to raise substantial revenues from foreign tax credit reform, we believe it is incumbent upon this Committee to include foreign oil-related income within the scope of Subpart F.

Mr. McINTYRE. The foreign tax credit issue, as it came up in the House, involved a House resolution to raise $1.2 million in revenues from reform of the foreign tax credit.

The only way that the House is going to be able to achieve that result—and I think it is a reasonable target—is to do, first of all, one of two options as step No. 1. Option 1 is to repeal the foreign tax credit for oil companies. The second option is to try to reform it so that basically two things happen: No. 1, royalties paid to foreign

governments are not treated as income taxes; and No. 2, what taxes are paid are limited to extraction income.

Now, both of those issues in option 2 are dealt with in proposals made by the Treasury Department and the IRS.

The Internal Revenue Service has issued regulations which would more carefully define what a foreign income tax is, and those regulations are good and ought to be endorsed by the Congress.

On the second issue, the Treasury has made some legislative proposals which are very technical and, actually, rather narrow compared to the regulations, but which would insure essentially that, for example, taxes are not used to shelter refining income in the Bahamas.

We think those are good proposals and that they ought to be adopted, if the committee decides not to simply repeal the foreign tax credit on oil income.

Even if those important reforms are adopted, however, it won't mean very much unless the Congress takes the hard step—which the Senate voted to do before in 1975—of including oil-related income within subpart F, the same as we have done for tax haven income and income relating to bribes and kickbacks.

If the Congress really wants to raise some tax money on the foreign income of multinational oil companies, it has to confront the subpart F deferral issue.

Senator GRAVEL. You can go on in a monologue and I will put your statement in the record. I think it might be a worthwhile exchange, because I am not being persuaded by a lot of things you are saying. So, unless we engage in a discussion, there is no gain to either one of us, and I do have an amendment to offer in another committee.

I certainly respect your efforts and the way you are approaching it. I may disagree, but I come at it from a different direction, and maybe you can enlighten me as to where my error is. You are concerned about the extra cash the industry is going to get, or the lack of taxes they are paying, and you want to get some money. In fact, your approach to this whole problem is to raise some money to do some things.

I would hope that we are not first motivated to raise money, because it did not start out that way. The tax started out because of these excess profits or windfall profits; that is the motivation for it. If it is to raise money, why don't we just go to a Btu tax and tax all forms of energy? In that way we reward the most efficient forms of energy, and we get the money we want to give to the poor or do what we want? But when you take money from the industry that is charged to go perform the function our society needs—finding and delivering what is the conventional form of energy today—then you do them violence; you take money away from your ability to solve your problem.

If I might finish the point I want to make, why is it that you don't just take the total profits of the company? I asked the question earlier today, can they hide money? I don't think that they can. The statement was made by some people on Wall Street that they can't hide money, and a public company can't hide money. When a company tried to hide money used to pay bribes, it was

found out because of the filings the company had to make under the Security and Exchange Commission regulations.

So a public company can't hide money. So if you have as a final discipline that that company is not making any more money than is the balance of economic enterprise in our society, then why is it that you feel compelled to take money away from them?

Now, I realize you can do computations, but a lot of the computations, if not all of them, are judgmental. For example, the statement you made that increased production is unlikely from existing fields that have a certain history of decline is judgmental because you don't know that production cannot be increased. Nobody knows that. You can take an existing field that is producing at a certain level and then take some money and make an investment and increase the production of that field. You will say that is already covered in the way the law is designed.

Why do we have the expression, "If it is not broken, why fit it"? Why do we have to do that? Our concern, the concern of the American people in all of this, is not that we have to throw a bunch of bureaucrats out into the countryside to watch 10,000 people trying to perform a task. The concern of the American people is, are they being ripped off by this sector of American industry. When I look at it, I can only come to one conclusion. There is only one way to test it, because I get you telling me one story and the oil companies telling another story. I have to look at something that is arbitrary, above both of you, and that arbiter is their annual performance compared to the marketplace.

So if average return on profits or return on equity in this country is 14 percent and that industry makes 15 percent, then I don't care what people are telling me, there is no excess profit. They are not even making enough to match what they are making in automobiles or on Avon products or Coca-Cola or the Washington Post or Pepsi Cola or the New York Times or NBC or CBS. They make more money than the oil companies. Why don't we go and tax them?

So I come to the very simple conclusion that the test has to be, what is the total return on equity, or a total return on capital. If they are not above the national average of what everybody else is doing, why tax them?

Could you answer why we should tax them if their profits are not above what everybody else is making?

Mr. McINTYRE. Well, Senator, it is a long question and I will try to answer.

Senator GRAVEL. The last part is very simple. If oil companies are not making more profit than anybody else, why do we have to take money away from them and impede their ability to perform a task?

Mr. McINTYRE. With the new profits from decontrol, the oil industry will be making, at least in the short run, a substantially higher return on equity than other American industry. For the first quarter of this year their return on equity was already very high, largely due to the Iranian situation.

Senator GRAVEL. What was their return on equity in the first quarter?

Mr. McINTYRE. For the 20 major companies that I analyzed, it was about 19 percent.

Senator GRAVEL. You think that that is excess profits?

Mr. McINTYRE. I think it is a high rate of return on equity.

Senator GRAVEL. Is it excess profits?

Mr. McINTYRE. I am not prepared to impose an excess profits tax on it, if that is what you mean.

Senator GRAVEL. I am asking you a simple question. You are a tax reform expert and you have looked at all parts of the American economic society. Do you think that 19 percent is excess profits meriting Government action?

Mr. McINTYRE. Senator, I understand your question but I do not think the issue should be analyzed that way.

Senator GRAVEL. But that is what I am trying to do, to get you to analyze it that way.

Mr. McINTYRE. I understand what you want, and I will try to. I think that that profit level is very high, and profit levels above that that are due to a government action, or here two government actions—the foreign governments that control the cartel and our Government's action decontrolling the price of oil—do seem excessively high, especially when compared to other monopoly price industries, such as public utilities, which get only 8 percent.

Senator GRAVEL. So the 19 percent, since they have been regulated in the first quarter, is all because of Government?

Mr. McINTYRE. No, I said that the increased profits that are above the 19 percent will be due to Government action.

Senator GRAVEL. The first quarter all of the oil companies were regulated and the price was regulated and if they got 19 percent profit, it had to be with the benign agreement of the Government?

Mr. McINTYRE. The profit that they made, the very high profit they made in the first quarter, was due to foreign oil sales primarily.

Senator GRAVEL. Did I share with you my recent investigation? I took the May issue of Fortune magazine which took the largest 500 American companies and rated these companies on the basis of profitability and assets and sales and everything like that. This Fortune 500 represents essentially the economic guts of this nation. I counted the number of companies that had a profit return on total capital or equity in excess of 20 percent. I counted those companies and, excluding the 10 majors, I counted 140 companies that make over 20 percent. A lot of them are defense contractors, I might add. So you get more than a fourth of American industry making more than 20 percent return on equity or total capital.

Now, how can you turn around and tell me that 19 percent is an anomaly in the performance?

Mr. McINTYRE. No, it is going to go much higher.

Senator GRAVEL. What did they make last year?

Mr. McINTYRE. It is the beginning of a trend, and it is not an anomaly.

Senator GRAVEL. What about 1974 when the integrated companies were up to 19.9 percent, and the domestic companies had 18.3 percent? And what happened in 1975?

Mr. McINTYRE. Over that period when OPEC did not increase its prices very much, their profits flattened out.

Senator GRAVEL. And the price had been increasing steadily?

Mr. MCINTYRE. No.

Senator GRAVEL. Do you have some records you want to submit——

Mr. MCINTYRE. Certainly.

Senator GRAVEL [continuing]. Of the performance of OPEC?

Mr. MCINTYRE. OPEC has hardly been staying even with inflation since 1975, until this year.

[The following was subsequently supplied for the record:]

WORLD OIL PRICES, 1974-78

Calendar year	Average price during year	Percent change from previous year	Inflation rate (CPI) (percent)
1974	$12.52	.....	11
1975	13.93	+11.3	9.2
1976	13.48	−3.2	5.7
1977	14.53	+7.8	6.5
1978	14.57	+0.3	9.0
Total increases 1974 to 1978	2.05	+16.4	48.7

Source DOE Annual Report to Congress, 1979

Senator GRAVEL. I think they were a little behind inflation until this year, but that does not mean that they haven't been rising.

Mr. MCINTYRE. It means that they have been raising no more than the rate of inflation, that is, not at all in real terms.

Senator GRAVEL. Well, the rate of inflation is 8 or 10 percent depending upon what country you are in.

Mr. MCINTYRE. That is right.

Senator GRAVEL. So it has been rising around 10 or more percent a year since 1973.

Mr. MCINTYRE. It is not that high.

Senator GRAVEL. But the point I am making is, what happened in 1975 to the American oil companies? They had 19 percent the year before and then the year after, 1975. I am sure, with your research capability, you are aware of what happened in 1975?

Mr. MCINTYRE. Well, since 1974 the oil industry's earnings have flattened out to be closer to American industry in general.

Senator GRAVEL. Well, you call going from 19 percent to 13 percent a flattening out?

Mr. MCINTYRE. Flattening out in terms of what other industry was doing.

Senator GRAVEL. But it is a decline for the industry.

Mr. MCINTYRE. They had a bubble and they then went back to being even with the rest of American industry.

Senator GRAVEL. But they had a decline, didn't they?

Mr. MCINTYRE. Yes.

Senator GRAVEL. You say it is flattening out, but it is a decline. So the rate of return curve went like this [indicating], where they were steady until in 1973 when the country had a crippling oil embargo. At that time it came down to 13, and then trickled around there for the next few years. Now they are coming up again because of a rapid increase in petroleum prices.

You are saying now that that is just the beginning of a continued rise?

Mr. McINTYRE. That is correct.

Senator GRAVEL. Wouldn't empirical, historic data indicate to you, as an economist, that maybe this performance is what we are going to see again, and maybe the second quarter and the third quarter will witness a decline?

Mr. McINTYRE. I expect probably in 5 or 6 years it will decline again.

Senator GRAVEL. Well, then, if it declined in the second quarter and the third quarter of this year, then your statement is not going to be very valid.

Mr. McINTYRE. If they flattened out this year, my statement would not be valid.

Senator GRAVEL. I used the word "decline." It will flatten out if it stayed at 19 percent, but if it comes down to 15 or 16, that is a decline.

Now, the words "flatten out" means it stays right there. Maybe I am misunderstanding the rhetoric.

Mr. McINTYRE. It does not matter. We understand each other.

Senator GRAVEL. So their profits are not beyond what is reasonable in the economy; so now my question is, again: Why do you want to take money away?

Mr. McINTYRE. The profits under decontrol will be beyond what is reasonable. That is the whole point. If we did not have a foreign cartel, we wouldn't be here talking about a windfall profits tax.

Senator GRAVEL. I will buy that. Do you have any data you can submit to the committee showing what those profits would be, and do you have any calculations or mathematical computations to back up your thesis?

Mr. McINTYRE. Of what the profits would be in the absence of the cartel?

Senator GRAVEL. No, what the profits will be. The President has deregulated, and I thought I had asked Salomon Bros. to produce these figures. If you are making statements that the profits are going to continue to rise, I assume that you can back up those statements with some computations?

Mr. McINTYRE. Yes.

Senator GRAVEL. Are they available for me to read?

Mr. McINTYRE. Yes. The data that the AFL-CIO submitted is the same data that I have from the joint committee and the Treasury.

Senator GRAVEL. In that data, could you then signal for me the page where it says that? I have gone over a lot of data on this subject and if you could show me where they project that there is going to be x profit 1 year from now, or 2 years from now, or 3 years from now, as a result of deregulation, I think that would be very helpful.

Mr. McINTYRE. I will be glad to supply it.

[The following was subsequently supplied for the record:]

INCREASE IN OIL COMPANY DOMESTIC PROFITS FROM DECONTROL OF DOMESTIC CRUDE OIL PRICES AND OPEC PRICE INCREASES

[Dollar amounts in billions]

Calendar year	1980	1981	1982	1983	1984
A. No windfall tax:					
Gross increase[1]	$14.0	$27.1	$34.9	$37.2	$40.0
Income taxes (at 20 percent[2])	$2.8	$5.4	$7.0	$7.4	$8.0
Net increase	$11.2	$21.7	$27.9	$29.8	$32.0
Percent increase from current profits of $20,000,000,000	+56	+108	+140	+149	+160
B. With House windfall tax:					
Gross increase[1]	$14.0	$27.1	$34.9	$37.2	$40.0
Gross windfall tax[1]	$6.1	$12.9	$16.5	$16.7	$16.9
Income taxes (at 20 percent[2])	$1.6	$2.8	$3.7	$4.1	$4.6
Net increase	$6.3	$11.4	$14.7	$16.4	$18.7
Percent increase from current profits of $20,000,000,000	+32	+57	+74	+82	+94

[1] Source Joint Committee on Taxation
[2] Source Rate estimated by Congressional Budget Office

OIL COMPANY PROFITS, 2D QUARTER 1979

Company	Percent profit increase from 2d quarter 1978[1]	Annualized return on equity[2] (percent)
Exxon	+20	16.4
Standard Oil of California	+61	20.0
Mobil	+38	18.1
Standard Oil of Indiana	+36	22.5
Gulf	+65	15.0
Shell	+55	18.1
Arco	+23	18.9
Conoco	+40	27.4
Phillips	+44	23.6
Standard Oil of Ohio	+70	39.5
Amerada Hess	+34	33.2
Occidental	([3])	23.7
Cities Service	+90	15.6
Pennzoil	+89	34.9
Industry composites	+51	21.0

[1] From the Washington Post, July 26, 1979
[2] Based on total equity at end of 1978
[3] Profit of $112,500,000 in 2d quarter 1979, loss of $68,000,000 in 2d quarter 1978.

Senator GRAVEL. I have no further questions.

I think we both understand each other. Your statements are in the record and unfortunately I do have a vote, and you are our last witness, and so I would like to thank you and adjourn the hearings.

[The prepared statement of Mr. McIntyre follows:]

STATEMENT OF ROBERT S. MCINTYRE, DIRECTOR, PUBLIC CITIZEN'S TAX REFORM GROUP

On April 5 of this year the President announced that, pursuant to authority granted him by Congress in the Energy Policy and Conservation Act of 1975, he would begin the phased decontrol of domestic oil prices – or, perhaps more aptly put, the phased shift in control authority from the federal government to the OPEC cartel. Clearly a fallback position for the administration from its 1977 proposal for a crude oil equalization tax, this profound change in the price-setting mechanism for domestic crude oil will add tens of billions of dollars to oil producers' revenues, dollars which will be paid in higher energy costs by American consumers.

In his energy address, the President made a number of commitments to the American people. He pledged to take important steps to enhance America's conservation efforts and to speed up the development of alternative energy sources. He promised to "demand that [the oil companies] use their new income to develop energy for America, and not to buy department stores and hotels." He said he would ask Congress to close foreign tax credit loopholes, a step which has already begun in the House budget process and is now before the Ways and Means Committee. Finally, and most important, he promised to avoid putting "an undue burden on people who can hardly make ends meet as it is" by fighting for a windfall profits tax to recapture some of the new producer profits for the public.

How this last presidential promise will be implemented is the issue now before the Congress. It arises at a time when oil producer profits are at record highs, with many companies showing annual returns on equity for the first quarter of this year at levels a third or more above last year's average for all U.S. industry. Cash flow is now so great for some companies that they are laughing at the President's admonition about acquisitions. Just two days after the President had repeated his remarks about mergers at a press conference, Standard Oil of Indiana announced its intended purchase of Cyprus Mines, Inc. for $450 million. Mobil continued its efforts to acquire the Bodcaw timber company for over half a billion dollars, although it has since been beaten out by Weyerhauser. Exxon has bid close to a billion dollars for Reliance Electric.

The burden is now on the Congress to assure that the people of America are not unfairly victimized by decontrol. Whether Congress will fulfill that responsibility is now in the hands of this Committee. In the House, a commendable proposal by the Ways and Means Committee was substantially weakened on the floor, and the bill which has been sent from the House is not an adequate corollary to decontrol.

We are fully aware that there are members of this Committee who would prefer to weaken the windfall profits tax even further. We strongly believe, however, that the arguments for a tougher tax are far more convincing – especially in light of the extraordinary need for funds to finance alternative energy projects. In the remainder of our testimony, we offer our recommendations as to how a fair windfall tax should be designed and how the House bill should be improved.

WHY HAVE A WINDFALL TAX?

Although decontrol will mean a massive transfer of funds from consumers to producers, there are those who are rather sanguine at the prospect of the companies keeping almost *all* of the new revenues. They maintain that the oil companies would have been gathering these profits already had Congress not intervened with controls. Such a contention, however, misses the point. The prices currently obtainable for oil absent controls have little or nothing to do with farm-to-market prices producer costs, or "just deserts." Instead they are set by a foreign cartel which controls them by a combination of direct price-fixing and supply manipulation. Domestic controls act to take away from American producers some, although not all, of the windfall benefits which the foreign price-fixing would otherwise provide them. But such restrictions on price gouging are no more intrinsically burdensome than are the antitrust laws, public regulation of utilities, or any other curbs on the abuse of concentrated power.

Given the extreme burdens of decontrol on consumers, a windfall profits tax to recapture some of the revenues for the public is not only appropriate but essential. This is especially true in light of the regular corporate income tax's historic failure to exact a significant share of oil company profits for the commonweal. *Except where the tax would seriously interfere with the purposes of decontrol, we believe that the tax rate should be very high*

MAKING THE WINDFALL PROFITS TAX CONSISTENT WITH THE GOALS OF DECONTROL

Decontrolling the price of domestic crude oil is designed to accomplish a number of laudable purposes, including:

(1) To encourage conservation;

(2) To encourage use and development of alternative energy sources;

(3) To eliminate subsidies for importing foreign oil (i.e., the entitlements program);

(4) To provide incentives for new oil discovery;

(5) To provide incentives for increased production from existing oil properties which currently cannot be achieved profitably.

Obviously, the first three listed goals are dependent only on the *price* of crude oil, and not on the share of that price going to producers. Therefore, if these were our only goals, something close to a 100% windfall tax rate would be appropriate. The achievement of goals (4) and (5), however, would seem to require a lower tax rate in specific circumstances. Specifically, decontrol coupled with any tax rate less than 100% on increases in prices allowed for newly discovered oil, oil obtained by using enhanced recovery methods, and so on, will augment the profitability of looking for or producing such oil.

This analysis leads to the conclusion that, in the case of oil categories in which additional production may be obtained, the appropriate tax rate requires a careful balancing of the incentives needed against the interests of consumer protection. In the case of oil categories in which the possibility of additional production is remote, the appropriate windfall tax rate on decontrol profits ought to approximate 100%.

REGULAR CORPORATE INCOME TAXES PAID BY OIL PRODUCERS

One of the important factors which Congress should keep in mind in formulating a windfall profits tax is the historic failure of the regular corporate income tax to exact a substantial share of oil producer income. Because of the various special preferences in the tax laws for oil income, as well as the large tax benefits available to capital intensive businesses generally, the oil companies have traditionally paid low effective tax rates on their earnings. And recent analyses indicate that the regular corporate effective rate is likely to remain low on decontrol profits.

The following evidence is presented to the Subcommittee to illustrate how mistaken it would be to expect the regular corporate income tax to garner a significant portion of the windfall profits from decontrol of domestic oil prices:

- A 1978 Treasury study of 1972 corporate tax burdens indicates an effective federal tax rate of 17% on oil producers' domestic income, when adjusted for intangible drilling cost writeoffs. ("Effective Income Tax Rates Paid By United States Corporations in 1972," Department of the Treasury, May 1978, p. 20.)
- Information contained in 10-K reports filed with the SEC shows the effective U.S. rate on the domestic income of the major oil companies in 1977 and 1978 to be approximately 20 percent:

Effective Federal Income Tax Rates On Domestic Income For Some Of The Largest Oil Producers

	1977	*1978*
Exxon	21.8%	•
Standard Oil of Indiana (AMOCO)	32.8%	•
Mobil	10.8%	25.1%
ARCO	1.7%	•
Texaco	15.2%	14.1%
Gulf	20.5%	5.1%
CONOCO	25.9%	20.0%
Getty	32.2%	27.4%
Marathon	15.9%	14.8%
Weighted Average	*20.4%*	*18.8%*

Source: All rates computed by the Tax Reform Research Group based on 1978 SEC 10-K reports, except Exxon and AMOCO, which are based on the average of figures in Congressman Vanik's Corporate Tax Study for 1977 and the June 12, 1978 *Tax Notes*, and ARCO, which is from the Vanik study.

●Effective rates for independent producers are generally lower than for the majors. In fact some of these companies pay rates as low as one or two percent. Many independents would continue their low tax rates even without increasing drilling. Based on SEC data, nine of 16 randomly chosen independent oil and gas producers have net operating loss carryforwards from 1978. Seven of these nine also have investment credit and/or depletion carryforwards. An additional three companies have investment credit and/or depletion carryforwards (but no NOL carryforward). All 12 of these companies showed profits for shareholder reporting purposes, but 11 paid no federal income taxes other than the minimum tax.

LOSS AND CREDIT CARRYFORWARDS FOR 12 INDEPENDENT OIL PRODUCERS

	1978 Net Income	Net Operating Loss Carryforward	Investment Credit Carryforward	Depletion** Carryforward
Baruch Foster	$ 490,593	$ 1,296,000	$ 109,000	$1,170,000
C & K	$ 1,248,000	$14,900,000	$ 1,600,000	$3,600,000
Consolidated Oil & Gas	$ 5,818,000	$ 3,100,000	$ 1,000,000	$4,300,000
Damson Oil	$ 962,846		$ 724,000	$1,215,000
Houston Oil	$100,284,000	$26,364,000	$14,901,000	
Mitchell Energy	$ 56,748,000		$ 3,000,000	
Forest Oil	$ 15,773,688	$41,954,000		
Mesa Petroleum	$ 68,036,000	$91,000,000		
Patrick Petroleum	$ 3,053,849	$ 3,546,000	$ 348,000	$ 998,000
Louisiana Land & Exploration Co.	$181,052,000	$15,700,000	$ 1,700,000	
Buttes*	$ 6,726,000	$11,100,000	$ 6,920,000	
Inexco Oil	$ 17,966,000		$ 4,700,000	

* *Year ending 1977 latest statistics available.*

** *Not all companies disclose this figure.*

Based upon this data, an estimate that overall effective federal tax rates on the U.S. income of oil producers are about 20% seems conservatively high. But, it might be said, isn't the marginal rate on a sudden upsurge in income likely to be higher? Although such a conclusion seems intuitively plausible, it is not borne out by the best historical evidence available — what happened after the 1973 oil embargo — nor does it agree with more careful analyses of the issue:

- In 1973, oil company domestic profits increased by over 50% from the previous year and in 1974 they doubled from 1973. Yet the industry's effective tax rate increased by less than 2 percentage points in 1973, and actually dropped half a point in the boom year of 1974.*
- An analysis performed by the Tax Reform Research Group using a methodology derived by the Library of Congress during consideration of a windfall profits tax proposal in 1975 suggests that the income tax rate on increased revenues from decontrol would be between 9 and 27%, depending upon reinvestment rates.
- Finally, a May 1979 Congressional Budget Office paper on "The Decontrol of Domestic Oil Prices" concludes that the effective oil company corporate tax rate on increased profits from decontrol would average only 15% over the period 1979-85.

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*Testimony of Emil M. Sunley, Deputy Assistant Secretary of the Treasury for Tax Policy, before the Subcommittee on Energy and Foundations of the Senate Finance Committee, May 7, 1979, page 11. Using the National Income and Products Accounts (NIPA) as his basis, Mr. Sunley computed the oil industry's tax rates on domestic income as 20.4% in 1972, 22.2% in 1973, and 21.7% in 1974. Our experience with NIPA indicates that it has serious flaws as an accurate measure of company income (and tends to lead to overstated tax rates), but Mr. Sunley's analysis is useful for relative comparisons.

THE OIL INDUSTRY'S LACK OF CASH NEEDS

There will be some who will argue before Congress that there is a need to have a low tax on increased oil producer profits on already-discovered oil or that some of the revenues from t' s windfall tax should be "plowed back" to companies which reinvest in oil exploration. We believe that such proposals are ill-advised, and urge that they be rejected. The only effect of such "plowbacks" will be to transfer more money from consumers to producers, reducing the funds available to aid low-income families and to finance alternative energy investments and mass transit.

The prices which will be available under decontrol for newly-discovered oil and enhanced recovery will provide ample incentives for investment in these areas — even with a tough windfall tax on already-discovered oil and future OPEC price increases. Plowback would, of course, increase the petroleum industry's cash, but there is no shortage of funds in the industry.

Mobil's purchase of MARCOR is now familiar to everyone, but it is only the tip of the iceberg. Just within the last year, Exxon has announced its intention to acquire Reliance Electric for $1 billion; Mobil has attempted to buy Bodcaw timber company for over $500 million; Standard Oil of Indiana announced its purchase of Cyprus Mines, Inc. for $450 million; Occidental tried to pay $900 million for Mead Corp.; Sun bought Becton, Dickinson & Co. (medical supplies) for $300 million; and so on. The point is that the industry is not short of cash; to the contrary, it is awash in it.

In fact, the oil industry does not even borrow money like other businesses:

- Exxon had no long-term debt at all until non-financial factors forced it to leverage part of its share of the Alaska pipeline.
- Standard Oil of California, pointing to a big increase in capital and exploratory expenditures in 1978, proudly told its shareholders: "These investment programs were financed entirely from internally generated funds. New borrowings . . . were more than offset by debt retirements. Long-term debt and capital lease obligations . . . represented 19% of total capital at the end of 1978, down from 22% a year earlier."
- Texaco made capital and exploratory expenditures of $1.6 billion in 1978, while reducing its long-term debt by $100 million.
- Mobil spent $2 billion in capital and exploration activities in 1978 without any change in its long-term debt, and a decrease in its debt-to-equity ratio.
- Gulf, which did increase its long-term borrowing by $182 million in 1978, notes in its annual report that "although long-term debt increased during 1978, the Company's debt-to-capitalization ratio was only 16 percent at December 31, 1978."
- Getty increased its capital expenditures by 26% in 1978, while reducing its long-term debt.

A June 1, 1977 *Forbes* article details the extraordinary amounts internally available to the oil companies for oil investments:

> "And the oil companies have the cash flow ready and waiting to plunge into a new round of exploration. Exxon alone is running a cash flow of more than $4 billion a year; Mobil, Texaco and Standard of Indiana are each at $1.5 billion. The North Sea and North Slope are producing, beginning to return the investments made in them by the oil companies since the mid- to late-Sixties. The costly Alaska pipeline will begin throwing off cash rather than swallowing it. The industry's capital and exploration budget for this year runs to $30 billion."

Outside funds have also been pouring into oil investments. The April 30, 1979 issue of *Business Week* reports that last year publicly registered oil and gas drilling fund deals jumped by 64%, to $1 billion. Decontrol will make these investments even more attractive.

In explaining why the Ford administration rejected a plowback proposal in its windfall tax bill in 1975, then-Treasury Secretary William Simon summarized the issues well:

> "The proposal does not include a credit for so-called 'plowback' investments . . . . Plowback is not justified because the amounts oil producers will retain after the tax as it is structured will provide a price incentive sufficient to attain our energy independence goals. To put it another way, there is no convincing evidence that permitting a plowback credit will produce significantly more energy than not doing so. Further, a plowback credit means that persons already engaged in oil production can make investments with tax dollars supplied by the government, while new investors must use their own money. We do not believe that kind of discrimination and anti-competitive effect can be justified . . . .
>
> "Plowback credits . . . would undoubtedly make existing oil producers wealthier than they would otherwise be, but would not significantly increase oil production. It is taxpayers generally who pay the prices that produce the windfall, and the revenues should go for the benefit of taxpayers generally."

Secretary Simon's point that plowback – or for that matter anything which reduces taxes on already-discovered oil – will inure only to the already oil wealthy is not merely an academic point. Writing in the *Wall Street Journal* recently, on behalf of the Independent Petroleum Association of America, Jude Wanniski notes that "in almost every case, a plowback provision is useless to an independent."

For the majors, who hold most of the old oil, plowback would be a bonanza. But, as was noted in a recent issue of the investment guide *ValueLine* concerning Mobil, their idea of increasing domestic energy supplies is "to buy domestic producing properties [rather] than to explore for them." (Mobil, for example, has just agreed to purchase a huge amount of already proven reserves for $800 million.) The independents, on the other hand, who do 90% of the exploratory drilling in the U.S., are interested not in increased cash flow from old fields or plowback from taxes on already-discovered oil, but in higher prices for new discoveries. This is why the lobbyists for the independents were so happy with the Energy Department's extraordinarily broad definition of "newly-discovered oil," and why they were ecstatic when the Ways and Means Committee *expanded* the definition, and set a high base price and a special lower windfall rate for newly-discovered oil. (See next section.)

Plowback would be nothing more than an additional windfall for the major oil companies, which would have almost no effect toward increasing domestic petroleum supplies.

OIL COMPANY PROFITS – 1st Quarter 1979

Company	% Profit Increase From 1st Quarter 1978*	Annualized Return On Equity**
Exxon	+37	18.8%
Mobil	+81	19.6%
Standard Oil of Indiana	+28	19.5%
Gulf	+61	12.8%
Texaco	+81	13.0%
Standard Oil of California	+43	16.9%
CONOCO	+343	20.4%
Shell	+16	14.7%
Phillips	+4	19.5%
ARCO	+61	17.6%
Occidental	+174	16.0%
Getty	+42	14.6%
Marathon	+61	28.9%
Sun	+43	16.3%
Amerada Hess	+258	33.2%
Cities Service	+42	15.9%
Ashland	+75	33.0%
Standard Oil of Ohio	+309	32.8%
Industry Composites	+54	18.5%

*From Business Week, *May 21, 1979.*

***Based on total equity at end of 1978.*

THE HOUSE BILL

The House bill is to a limited extent consistent with the criteria for a good windfall tax we have discussed above. The tax is concentrated on already-discovered oil. Newly-discovered oil is taxed only at world prices in excess of $17 (plus inflation), and then at a reduced rate. But there are very serious deficiencies in the House-passed legislation -- many of them created on the House floor -- which make the overall bill unacceptably weak.

We recommend that the following changes be made to the House bill:

A. Already-discovered oil:

(1) The rate: The 60% windfall tax rate generally applicable to already-discovered oil (after deduction for increased state severance taxes) is far too low. Since this oil is by definition already being profitably produced at controlled prices, there are little or no production incentives from higher oil company profits. We suggest that a tax rate in the range of 75 - 90% would be reasonable.

(2) The marginal wells exception: As part of its phased decontrol program, the administration is allowing oil from a new category of property called "marginal" wells to be sold at the upper tier price immediately. The House bill would exempt this 117% price hike from the windfall tax. We do not believe this step -- which by itself would exempt about 30% of the "old" or lower tier oil from the tier one windfall tax -- is justified, especially at the low tax rate in the House bill.

(3) The phase-out of the tier one tax: In addition to the marginal wells exception, the House bill has a further exemption from the windfall tax on the increase in price of "old" oil from $6 per barrel to the upper tier price of $13 per barrel. It would phase out the "tier one" tax on the remaining lower tier oil by July 1984, through the use of a 1½% linear decline curve (production above which is excluded from the tier one tax). The effect is to exempt about half of the cumulative production of what would otherwise have been lower tier oil from the tier one tax as of the July 1984 date. In addition, because of the phase-out, only 30% of the cumulative production through January 1989 of what would have been lower tier oil would be subject to the tier one tax. In conjunction with the marginal old oil property exception, only 36% of the production through July 1984 and only 21% through January 1989 would be subject to the tier one tax. We believe that it would be more appropriate to subject *all* of the windfall profits from decontrol of lower tier oil to the tier one tax, a result which could be achieved through the use of an historical decline curve for tax purposes. If Congress decides to phase out the tier one tax, we believe a decline rate lower than that in the House bill should be used. A 1¼% linear decline rate would phase out the tax by May 1985, and would subject a substantially higher portion of the cumulative lower tier production to the tier one tax. The Treasury indicated to the Ways and Means Committee that it had no objection to the use of a 1¼% decline rate.

Cumulative Percentages of Lower Tier Production* Subject to Tier One Tax As of Particular Dates, Using Various Decline Curves

As of: Using:	*Sept. 1981*	*July 1984***	*Jan. 1989*
Historical Decline After 1/80	98%	99%	99%
1¼% After 1/80	80%	68%	42%
1½% (W&M bill)	68%	51%	30%
1½% with marginal exemption (House bill)	48%	36%	21%

**Lower tier production is production which would have been lower tier under price controls as of March 1979, assuming such controls were continued indefinitely.*

***Phase-out date using 1½% decline rate. For the 1¼% decline rate, the phase-out ends in May 1985.*

B. Newly-discovered oil.

We have no quarrel with the House's decision to tax newly discovered oil only on prices in excess of $17 per barrel (plus inflation), nor do we object to the use of a reduced rate on prices less than $26 (plus inflation). In fact, we advocated such favorable treatment in our testimony before Ways and Means. We believe, however, that the House erred in over-broadly defining new discoveries for tax purposes, and in treating tertiary recovery oil as newly discovered, and we also object to the 2% "kicker" in the base price for taxing newly-discovered oil.

(1) The definition of "newly-discovered oil": On January 2, 1979, the Department of Energy issued proposed regulations to decontrol the price of newly-discovered oil. The definition of "newly-discovered" paralleled that in the Natural Gas Act, to wit:

> "crude oil produced from (1) a 'new well' which is at least 2.5 miles from an existing producing well, or the completion depth of which is at least 1000 feet below the deepest completion location of an existing producing well within 2½ miles of the new well; or (2) a 'new lease' on the outer continental shelf (OCS)."

In addition, "newly-discovered oil" would have included oil from a "new reservoir," provided that commentators were able to justify such an inclusion in the context of DOE's purpose that "the incentive price should be available only for exploratory drilling activity."

The proposed regulations went on to note that the higher price was intended only for "drilling activities that are directed toward new field exploration rather than development, and which are, therefore, likely to involve a high degree of risk, as well as the possibility of significant new finds."

All in all, this was an admirable statement of the production-side purposes of decontrol. When the proposed regulations were finalized on May 1, 1979, however, it appears that DOE may have lost sight of those purposes. Instead of the 2½ mile or 1000 feet rule, DOE adopted a "new property," test under which any crude oil produced from a property from which there was no production in calendar year 1978 will qualify as "newly-discovered oil." The reason for this change was baldly stated:

> "Our decision to delete the depth and distance requirements and to rely exclusively on the property concept is based upon our determination that these criteria would cause substantial difficulties to [the] industry."

More specifically, industry commentators had informed the Department that "fewer than ten percent of onshore exploratory [sic] well drillings could be expected to qualify as new wells under the 2.5 miles and 1,000 feet criteria."

In the context of the President's decontrol announcement, DOE's decision to accelerate by two years the decontrol of oil from "new properties" may be a reasonable regulatory simplification. But such a consideration is not applicable to the decision about the windfall tax level on such oil. The exemption for newly-discovered oil in the tax – like DOE's original decontrol proposal – is intended to provide incentives "for drilling activities that are directed toward new field exploration," which "involve a high degree of risk" and the possibility of "significant new fino

In the Ways and Means Committee, tax treatment as newly-discovered oil was limited to production from properties which did not produce before 1970, so that capped wells or oil that would otherwise be lower tier would not qualify. And an anti-gerrymandering rule was adopted, to try to avoid "new" properties being created from old ones. But the Committee then added to the "new property" criterion a "new reservoir" one as well. We are told that this will substantially broaden the definition and create significant enforcement problems, as DOE feared in its original proposed regulation.

We recommend that the Ways and Means definition of "newly-discovered oil" be narrowed to include only oil from wells 2½ miles from or 1000 feet deeper than another producing well.

(2) Treating tertiary production as newly-discovered oil: There is reason to believe that the use of enhanced recovery techniques in already-producing oil fields may prove to be a significant source of petroleum in the future. To encourage the utilization of tertiary recovery methods, the House bill would treat "incremental" tertiary production – generously defined – as newly-discovered oil for purposes of the windfall profits tax. This means that only revenues of over $17 per barrel would be taxed, and at a lower rate than that on other already-discovered oil.

We are sympathetic to the House's goal with regard to tertiary recovery, but we believe that the House went much too far in providing incentives. Tertiary recovery is *not* newly-discovered oil. While the costs of tertiary production are higher than for standard wells, the risks are not nearly as great as those associated with exploratory drilling. We believe that the Ways and Means approach, which exempted tertiary production up to $16 per barrel and then applied the regular windfall tax rate, is preferable.

(3) The 2 percent "kicker": Newly-discovered oil is subject to a 50% windfall tax on price increases in excess of $17 per barrel, plus inflation, plus an additional 2% per year. Above $26 per barrel, plus inflation, plus an additional 2% per year, the tax rate is 70%.

We recommend that the 2% "kicker" be eliminated. In deciding the proper tax treatment for newly-discovered oil, Congress must weigh production incentives against the need for revenues to protect low-income consumers and to finance alternative energy investments. In balancing these interests, we believe that $17 per barrel plus a half share in any OPEC-caused further price increases is a sufficient incentive for new production, and that the 2% kicker is a mistake.

C. *The 1990 termination of the tier two and tier three taxes:*

The House bill would terminate the windfall profits tax in 1990. We believe it would be a tremendous blunder for this Committee to acquiesce in this provision.

First of all, the need for the revenues from the windfall tax — to finance alternative energy development and to help the poor — will not disappear in 1990. If anything, our needs may be greater in 10 years.

Second, the scenario in the late 1980s with a termination date on the tax is a very troublesome one. As the 1990 date approaches, there will be great uncertainty about whether the tax will be continued. Some oil producers may feel an incentive to limit production until after the tax is removed. Others, attempting to plan exploration and development projects, may find it hard to make firm predictions as to their potential return. As we have learned during the current inflationary period, there is nothing which inhibits investment so much as uncertainty.

We hope this Committee will delete the House-passed termination date for the windfall tax. Of course, at some future date, the tax will have to be re-evaluated But a fixed termination date creates serious and unnecessary problems.

Senator GRAVEL. We will adjourn until tomorrow morning at 10 o'clock.

[The following is Treasury's reply to Senator Bradley's question regarding the increase in Energy Security Trust Fund receipts from the July 10 hearings, on crude oil tax page 73.]

Were OPEC to increase crude oil prices by 32 percent between 1981 and 1982, the additional windfall profits tax and income taxes from decontrol that would accrue to the Energy Security Trust Fund would total about $11 billion in 1982.

[Whereupon, at 4 p.m., the hearing was adjourned, the subcommittee to reconvene on Thursday, July 19, 1979, at 10 a.m.]