# THE PRESIDENT'S PROPOSAL TO DECONTROL DOMESTIC CRUDE OIL
(A Preliminary Analysis)

Congressional Budget Office
April 23, 1979

## INTRODUCTION

This paper provides a preliminary analysis of the President's April 5, 1979, proposal to phase in the decontrol of domestic crude oil coupled with a windfall profits tax. 1/ It is an overview of the major economic impacts of decontrol and the tax initiatives rather than a detailed analysis of the many specific proposals included in the Presidents' message. Furthermore, the paper does not evaluate alternative approaches to reducing the demand or increasing the supply of oil to reduce imports. Nor does it analyze alternative tax options that could be implemented to reduce the excess profits to the oil industry. The Congressional Budget Office will complete a more detailed analysis of alternatives within the next several weeks.

Over the next several years, the President's proposal would provide several benefits, but it would also impose a number of costs. On the benefit side, higher crude oil prices will promote a reduction in oil demand—by encouraging substitution of alternative fuels and outright conservation—and will induce both increased oil production from older wells and new exploration. Price increases under decontrol would also encourage investments in solar energy and conservation but they would probably not be sufficient to make unconventional fuels such as liquefied coal or shale oil economic. Combined, these supply and demand effects will provide some relief from oil imports.

On the other hand, price increases for domestic oil, coming as they do on the heels of the recent OPEC price hikes, will further accelerate inflation, and may slow economic activity and increase unemployment. Moreover, these price increases will place a new burden on low-income households and will transfer a windfall income gain from consumers to producers through higher prices for oil that could be produced at the current lower regulated prices. The President proposes capturing part of this windfall for public purposes through a windfall profits tax. He also proposes rebating some of the tax revenues to low income households to minimize the burden of the oil price increases. The impacts of both the oil decontrol proposal and the tax initiatives are evaluated in this preliminary analysis, but the issue of the tax rebate to low-income households is not addressed.

---

1/ Since decisions on some of the details of the President's proposal are still being made by the Administration, CBO has made a number of assumptions for this analysis. These assumptions may differ somewhat from the final Administration proposal.

## MAJOR ECONOMIC IMPACTS

To analyze the President's energy plan, we have compared the President's proposal for phased decontrol of oil prices with an indefinite continuation of the controls now in place. Since the legislation that sets price controls on domestic oil expires October 1, 1981, oil prices would increase to world levels on that date if additional legislation is not passed. Consequently, most of the demand reductions, supply responses, and inflationary impacts that are currently attributed to the President's plan would take place anyway when prices are decontrolled in 1981. Therefore, it appears that the relevant baseline for analysis is one of continued price controls. Our preliminary results can be summarized as follows:

- The President's proposal for the phased decontrol of oil prices will reduce demand by about 100,000 barrels per day in 1981 and by 250,000 to 350,000 barrels per day by 1985.

- The phased decontrol proposed by the President will result in an increased domestic production of approximately 200,000 barrels per day in 1981 and 400,000 to 500,000 barrels per day by 1985. A significant percentage of this oil, however, represents production that would have become available at a later date as prices increased; thus, decontrol only changes the timing of that production. This is particularly true for 1981 when most of the response is from old wells. The combined effect of this supply response and the demand reduction cited above would be to reduce imports by 650,000 to 850,000 barrels per day by 1985.

- Compared with the wellhead price increases allowed under current law, the President's proposal for phased decontrol will result in a transfer from consumers to oil producers of $0.6 billion in 1979, $5.1 billion in 1980, and $11.3 billion in 1981, for a total of $17.6 billion between now and the end of 1981. All numbers are in current dollars and represent total revenue increases before either windfall or corporate profits taxes.

- If the President's proposals to tax these windfall gains are enacted by the Congress, the transfer to the oil companies would be reduced by $10.0 billion between now and 1982. The federal government would tax back approximately $4.0 billion in windfall profits tax and an additional $6.0 billion in normal corporate profits tax during that period.

- The initial estimates of the price effects of the President's proposals indicate that the inflation rate would be higher by 0.1

percentage point in 1979, by 0.2 percentage point in 1980, and by 0.3 percentage point in 1981. 2/ In total, the President's proposals for phased decontrol of oil would increase the level of prices by about 0.6 percent by the end of 1981. This represents an increase of approximately 5 cents per gallon on petroleum product prices by the end of 1981. In subsequent years, feedback effects would continue to increase the price level so that by 1983 prices would be three-fourths of a percent higher under decontrol. All these impacts are in addition to both the price increases resulting from the March 26, 1979, OPEC pricing decisions and the price increases allowed under the Energy Policy and Conservation Act (EPCA).

## THE PRESIDENT'S PROPOSALS

The President has indicated that he intends to use his executive authority to raise prices on domestically produced crude oil; beginning in June 1979 he will gradually raise prices until they reach the level of world oil prices by October 1981, when his authority to control oil prices under the terms of EPCA expires. If the President did not use this authority and if the Congress did not pass additional legislation, oil prices would effectively become decontrolled on October 1, 1981. In addition, the President is requesting that the Congress pass legislation to tax 50 percent of the excess profits that the oil companies would receive from this decontrol.

Under the present pricing system, about 36 percent of domestically produced oil is sold at the lower tier price, about $6.00 per barrel; another 34 percent is sold at the upper tier price, about $13.00 per barrel; the remainder, including oil from stripper wells (wells producing fewer than 10 barrels per day), the Alaska North Slope, and the Naval Petroleum Reserves, is effectively decontrolled. Under the terms of EPCA, the controlled oil prices are allowed to increase at a maximum rate of 10 percent per year, although recent practice has been to allow 7 percent. In his proposal to raise domestic oil prices to world levels by October 1981, the President is allowing those categories of oil production that are most sensitive to higher prices--for example, so-called marginal wells--to increase fastest. 3/ The specifics of the President's proposals are as follows:

- Beginning June 1, 1979, newly discovered oil, as defined by the Administration, will receive the world price.

---

2/ These inflation estimates have been revised due to a technical error.

3/ The marginal well portion of the President's crude oil proposal has already been implemented through a Department of Energy order issued April 5, 1979.

- Also beginning June 1, 1979, 80 percent of oil production from so-called marginal wells can be sold at the upper tier price. Marginal wells are those that produce below a certain volume of oil per day, depending on the depth. 4/ The Administration has estimated that oil from all marginal wells accounts for about 20 percent of lower tier production.

- On January 1, 1980, the remaining 20 percent of production from marginal wells will be released to the upper tier price.

- As previously announced by the Department of Energy, incremental production employing tertiary or other enhanced recovery techniques will receive the world price. Under the President's new proposals, the incentives to use enhanced recovery techniques will be increased further. Beginning on January 1, 1980, producers who invest in enhanced recovery may release as yet unspecified volumes of lower tier oil to the upper tier price to finance that investment. In effect, this raises the incremental revenue received by the producer for the use of enhanced recovery techniques.

- Beginning January 1, 1980, the upper tier oil price will increase in equal monthly increments until it reaches the world price on October 1, 1981.

- Beginning January 1, 1980, the quantity of oil subject to the lower tier price will be permitted to decline at a rate of 3 percent per month. That is, each month 3 percent of the base period volume of lower tier oil will be eligible for upper tier prices. Between June 1, 1979, and January 1, 1980, the decline rate will equal 1.5 percent per month.

Taken together, the net effect of these actions is that by October 1, 1981, all domestically produced oil will receive the world price. In order to

---

4/ The term "well" is used in this paper with qualification. A well in a unified field (a field divided among its owners into "properties" but still produced as if it were controlled by one owner) produces, from the regulatory point of view, from many "properties". Similarly, a property may have several wells, and if a property's production is divided into a large number of wells, then the production per well may become low enough so as to justify "marginal" treatment, even if the property is not marginal. These definitional problems have not yet been resolved.

prevent excessive revenues from flowing to oil producers, the President has requested that the Congress enact a windfall profits tax. Essentially this tax would be a per barrel tax similar to a severance tax and would not depend on defining "normal" profits. This tax would be in addition to the normal corporate profits tax and it would be treated as a deduction for the purposes of calculating the normal corporate profits tax liability. The windfall tax rate of 50 percent would be applied to specified portions of the increased producer revenues resulting from the phased decontrol. Beginning January 1, 1980, the windfall tax applies to three separate sources of increased producer revenues resulting from price decontrol:

- Increased producer revenues on oil released from lower tier to upper tier in excess of 2 percent per month. Effectively, this tax would continue after decontrol on October 1, 1981, albeit on small quantities of oil.

- Increased producer revenues associated with the phased decontrol of upper tier oil to world levels. There is some question whether or not this tax is maintained indefinitely or is in effect only between January 1, 1980, and September 30, 1981. CBO has assumed that it will cease on October 1, 1981.

- Increased producer revenues on domestic oil resulting from increases in the real price of foreign oil above the posted OPEC price (about $16.34 per barrel in April 1979). A number of oil producers have recently placed a surcharge above the posted OPEC price; CBO has assumed that this surcharge will total approximately $1.20 per barrel. If that level should increase (decrease) in the future, the taxable producer revenues on domestic production will increase (decrease) accordingly. This tax, referred to as the OPEC tax, will continue in effect indefinitely.

Some new revenues created by decontrol would not be subject to the windfall profits tax: specifically marginal wells released from lower to upper tier, lower tier oil released to finance tertiary projects, and lower tier oil rolled into upper tier that is below 2 percent per month. In total, these three categories represent approximately 20 percent of the total oil that is decontroled. New revenues from Alaskan North Slope oil would also be exempted under the President's proposal.

## CONTINUED PRICE CONTROLS

In order to estimate what would happen in 1979 and beyond as a result of decontrol, a baseline of indefinite controls was assumed. For 1979 and beyond, the prices of both lower and upper tier oil were assumed to increase at the rate of inflation (7 percent per year) and the prices for oil from

stripper, the Alaskan North Slope, and Naval Petroleum Reserves were allowed to increase with OPEC prices. OPEC prices were assumed to remain constant in real terms (at an inflation rate of 7 percent) starting in April 1979 without the $1.20 average surcharge. The $1.20 surcharge was then assumed to be added to the constant real base throughout the period to develop the final price assumption for OPEC. For both the current policy and the President's proposals, it was assumed that all the changes in wellhead prices are entirely passed through to consumers. It is possible, however, that higher domestic crude oil prices and foreign product competition will reduce refiner margins,and the potential passthrough will be less then 100 percent. If the margins are reduced, the inflationary impacts would in turn be reduced. For all the policies, it was also assumed that no changes occurred in the prices of other fuels, such as coal or natural gas. To the extent that some increases in the price of these fuels might occur, the estimates of the inflationary impact might be somewhat underestimated and the estimates of demand reductions somewhat overstated.

## ANALYTICAL BACKGROUND

### Oil Import Reductions

Higher crude oil prices would reduce oil imports by reducing demand for oil and by inducing additional production. Combined, these demand and supply responses resulting from the President's proposals would reduce imports by approximately 300,000 barrels per day in 1981 and 650,000 to 850,000 barrels per day by 1985. The Administration has estimated these reductions to be 950,000 to 1,100,000 barrels per day by 1985.

Demand. CBO's preliminary estimate of the demand reduction induced by the President's proposed phased decontrol is approximately 100,000 barrels per day in 1981 and 250,000 to 350,000 barrels per day by 1985. The 1985 estimates are based on a medium-term elasticity of demand for all petroleum products of approximately 0.20. This figure appears reasonable based on available evidence. Industrial use of energy appears to be quite sensitive to price, whereas the use of petroleum for home heating and automotive gasoline—the least price sensitive of petroleum uses--is estimated to have an elasticity of approximately 0.1.

Supply. The President's proposal will stimulate four potential sources of new supply, which should total approximately 200,000 barrels per day in 1981 and between 400,000 and 500,000 barrels per day by 1985. A significant portion of this oil, however, would have been produced in any event; decontrol provides an incentive to produce it over the next 5 to 8 years as opposed to subsequent years.

The first source of increased production is from marginal wells. Currently, old wells are assigned a base production control level (BPCL) according to their historical production rates. Up to the level indicated by the BPCL, all production from old wells receives a lower tier price. Production in excess of the BPCL is considered upper tier. The BPCL is allowed to decline slowly over time in any event, reflecting natural rates of decline in production of oil wells if no new investments were made. Some incentives, therefore, exist under present policy for increased production from old wells. Some wells may not, however, be able to produce their BPCL allotment without costly pressure maintenance or additional in-fill drilling, and therefore they may not be producing at a maximum. Because of their low levels of production, marginal wells are most likely to be in this group. By allowing 80 percent of the oil from marginal wells to receive the upper tier price on June 1, 1979, and the remaining 20 percent to rise to the upper tier price by January 1, 1980, the President is offering a production incentive to relatively small, deep wells, some of which might otherwise be uneconomic to keep in production. Some of the incremental production arising from the marginal well provisions in the early years will, however, come at the expense of oil that would otherwise have been produced in subsequent years.

The second source of increased production is from the phased decontrol of the remaining (nonmarginal) lower tier wells. Higher oil prices will stimulate some new investment, thereby increasing production from these generally older wells. Slightly over 50 percent of the CBO estimated additional supply response for 1985 is attributable to these two categories of old oil that are being provided upper tier prices.

The third source of new production is from tertiary or other forms of enhanced recovery. As previously announced by the Department of Energy, producers are already eligible to receive the world price for approved tertiary projects. To date, several applications have been submitted but none has been approved so far. In the April 5, 1979, statement, the President reconfirmed his commitment to these pricing incentives and, in addition, he proposed additional financial incentives. The Administration has stated that, beginning January 1, 1980, it intends to allow producers that invest in enhanced recovery projects to release specified volumes of lower tier oil to the upper tier price in order to finance their investment. The details of this proposal, however, are still unspecified.

The last source of new supply is from qualifying new fields as yet to be defined by the Administration. At present, a truly new well would receive the upper tier price of about $13.00 per barrel, rising by a maximum of 10 percent per year under the terms of EPCA. Under the President's proposal, truly new oil would receive the equivalent of the world price in April 1979

and would rise with future OPEC prices, subject to the so-called OPEC tax. The preliminary CBO estimate for this category is approximately 100,000 barrels per day by 1985.

## Inflationary Impact

In the near term, decontrol of domestic crude oil will impose economic costs by escalating the rate of inflation and, most likely, by reducing real output and employment. CBO's initial estimates are that the rate of inflation would be about 0.1 percentage point higher in 1979, 0.2 percentage point higher in 1980, and 0.3 percentage point higher in 1981. 5/ The cumulative impact from now until the end of 1981 of the President's proposals is to increase the price level about 0.6 percent, which corresponds to an estimated 5 cents per gallon on gasoline. In subsequent years, there may be an additional increase in the level of prices attributable to the feedback effects of the initial price rise associated with decontrol. Thus, the cumulative increase in the overall price level may be as high as three-fourths of a percent by 1983. These estimates are in addition to the inflationary impact of the recent OPEC pricing decisions and the pricing provisions for domestic oil allowed under EPCA.

Over the longer term, the state of the economy will be strongly influenced by both monetary and fiscal policy and by the uses of the increased tax revenues as well as by the oil companies decisions on new investment. If monetary policy is accommodative and the money stock is increased, inflation should stabilize with a higher level of prices. On the other hand, if monetary policy is restrictive, interest rates would be expected to rise with a negative effect on the rate of growth of real output. If the President's proposed windfall tax is enacted, about one-half of the increased revenues arising from oil decontrol between now and 1981 will be channeled back into the economy in the form of increased government expenditures (including tax expenditures). The other half of the increased revenues will remain with the producers. Some fraction of that increase, and possibly all of it, will be channeled back into the economy in the form of increased investment or stockholder distribution.

## Producer Revenues

The decontrol of domestic oil prices increases producer revenues, creating what the President has labeled a windfall. Without the use of special excess profit or windfall taxes, some portion of those increased revenues would accrue to the federal government through the normal corporate profits taxes and personal income taxes. Exactly what portion of

---

5/ These inflation estimates have been revised due to a technical error.

these increased revenues would be paid in such taxes is a controversial matter. Although the statutory marginal rate for corporate profits taxes is 46 percent, a number of deductions and credits allowed under the law--for example, the investment tax credit and the expensing of some drilling costs--tend to reduce the actual rate paid by many corporations, including oil companies. For the purposes of the calculations presented in this paper, CBO has used the same marginal tax rate for oil companies as is used by the Treasury Department, namely 40 percent.

Producer Revenues and Tax Revenues--1979-1981. As compared with the current price controls, the President's phased decontrol proposal will result in approximately $17.6 billion of additional revenues flowing to the oil producers between now and the end of 1981. This is before either windfall or normal profits tax. The Administration has estimated that these additional revenues to the oil producers will total approximately $16.0 billion for the similar period. On the assumption that the oil companies pay a marginal tax rate of 40 percent, $7.0 billion of these increased revenues would have accrued to the government without windfall taxes. If the windfall profits tax is enacted by the Congress, that tax and conventional corporate income taxes on the oil companies would yield $10.0 billion in revenues to the federal government between now and the end of 1981. 6/ These estimates do not include revenues or tax receipts from oil that would not have been produced without decontrol. The Administration has estimated this tax burden as being $8.3 billion over the same period. The differences are primarily due to differences in the liability of the taxes versus actual collections. This does not mean, however, that this total would be equal to the net increase in total federal corporate profits taxes, since there may be minor offsets in the profits and thus corporate profits taxes from other industries due to the higher oil prices.

Future Producer Revenues and Tax Revenues--Upper Tier Oil. Under current law, the government has no authority to control oil prices after September 1981. Therefore, the definition of what constitutes windfall profits after that date is conjectural. If prices were to be decontrolled in October 1981, then by definition there would be no windfall profits and thus no windfall profits taxes after that date. If, on the other hand, controls were to be extended indefinitely on upper tier oil, then there would be an annual per barrel windfall profit equal to the difference between the inflated price for upper tier oil and the inflated world price. While the Administration is not advocating an extension of controls, it has not made a

---

6/ There would also be some additional royalty and state taxes, but these have not been estimated in this analysis.

final decision on whether or not the excess profits tax on upper tier oil is extended until upper tier oil is exhausted. Therefore, the CBO estimates do not include an extension of such a tax--that is, it is assumed that this tax ceases on October 1, 1981.

Whether or not an excess profits tax should be maintained on upper tier oil should depend on several considerations such as potential supply response, administrative ease, and equity. First, with respect to a supply response, it is doubtful that any additional supply would be stimulated by allowing the higher price for upper tier oil. For marginal and nonmarginal old oil, tertiary oil, and truly new oil, however, moderate supply responses are likely. Second, continuation of the taxes would maintain more of the complex administration of the current control system, which does produce some inequities and inefficiences. A final consideration is whether the companies should receive these additional revenues as a return for risk and investments, or whether the revenues are a complete windfall that should be taxed away for the public. This issue will be more fully addressed in a subsequent paper.

Future OPEC Increases. The Administration is requesting an indefinite windfall profits tax on 50 percent of the excess price increase above any future real OPEC price increases. Since CBO has assumed constant real OPEC prices over the next several years, no estimates are made of this total.