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The Windfall Profit Tax On Crude Oil: Overview of The Issues

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THE WINDFALL PROFIT TAX ON CRUDE OIL: OVERVIEW OF THE ISSUES

SUMMARY

The windfall profit tax (WPT) was a special, temporary excise tax enacted in 1980 and repealed in 1988. It was an excise tax, not a profits tax, imposed on the difference between the market price of oil and a base price, which was adjusted for inflation and State severance taxes. Nearly all domestically produced oil was subject to the tax. The main purpose of the tax was to recoup for the Government much of the revenue that would have otherwise gone to the oil industry as a result of the decontrol of oil prices. The Government viewed this revenue as an unearned and unanticipated windfall caused by high oil prices, which were determined by the OPEC cartel.

Between 1980 and 1988, the WPT generated about $79 billion in gross revenues. But due to the deductibility of the WPT against income, the oil industry paid less income tax revenues, and cumulative net WPT revenues were therefore only about $40 billion. This was significantly smaller than the $393 billion in gross revenues and $175 billion in net revenues projected by Government analysts in 1980.

The WPT reduced domestic oil production from between 3 and 6 percent, and increased oil imports from between 8 and 16 percent. This made the U.S. more dependent upon imported oil. The WPT was also a serious compliance burden to the oil-producing industry and an administrative burden for the Internal Revenue Service. Because of this, and because in 1987 and 1988 the tax generated little or no tax revenues the WPT was repealed in 1988. The depressed state of the U.S. oil industry after 1986 also contributed to the repeal decision.

Assuming a $27 per barrel oil price, reinstating the old WPT system in response to the recent upsurge in oil prices would generate about $1.5 billion in net revenue over the next year. In view of the rationale for repealing the previous WPT in 1988, this would probably not be enough money to justify the alleged costs of taxpayer compliance with and Government administration of the tax. Reinstating the windfall profit tax would reduce the potential transfer or redistribution of resources from energy consumers to energy producers.

Reinstating the WPT, however, would reduce domestic oil production and increase the level of oil imports, which are above 50 percent of demand. Reinstating the WPT would also prevent many small independent oil producers and royalty owners, who have not fully recovered from the low prices of the late 1980s, from enjoying the benefits of higher oil prices. Likewise, oil producing states -- Texas, Louisiana, Alaska, Oklahoma, and California, which have not fully recovered from the effects of a depressed oil industry -- would be prevented from enjoying the benefits from higher oil prices.

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On April 1980 the Federal Government enacted a special Federal excise tax -- the crude oil windfall profit tax -- that was expected by some to be the biggest tax ever levied on a U.S. industry. The tax was enacted basically to recoup much of the large increase in oil industry profits that was anticipated from the decontrol of oil prices. The tax was repealed in 1988 because it was an administrative burden to the Government and a compliance burden to the oil industry even though, due to low oil prices, the tax was generating little or no revenues, and because it made the U.S. more dependent upon foreign oil.

The doubling in oil prices from June to August of 1990, due to the crisis in the Middle East, has raised the possibility of reinstating the windfall profit tax so as to reduce what many policymakers believe would be the projected large increases in oil industry profits. This report provides an overview of the crude oil windfall profit tax that was in existence from 1980 to 1988. The first section describes the structure of the tax. The second section provides a brief history of events surrounding enactment of the tax. The third section discusses the rationale for the tax. The fourth section examines the revenue effects and other economic effects. The lessons that can be learned from the eight-year experience with the tax and the implications of reinstating the tax are discussed in the final section.

STRUCTURE OF THE 1980 WINDFALL PROFIT TAX

The Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223) introduced an excise tax -- or more accurately, a system of excise taxes -- on domestically produced oil effective March 1, 1980. The tax was imposed on the difference between the market price of oil, which was technically referred to as the removal price, and a statutory 1979 base price that was adjusted quarterly for inflation and State severance taxes.[1]

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[1] P.L. 96-223 also contained amendments to the energy tax credits, as well as to several non-energy tax provisions. See Joint Committee on Taxation. *General Explanation of the Crude Oil Windfall Profit Tax Act of 1980 (H.R. 3919, 96th Congress; Public Law 96-223).* Joint Committee Print. U.S. Govt. Print. Off. Washington, 1981.

All domestically produced oil which was not specifically tax-exempt was classified into one of three categories or "tiers" based upon the age of the well, the type of oil, and the amount of daily production. These categories were a carryover from the oil price regulations which also categorized oil into various tiers.

For each oil category there was a corresponding tax rate (or rates, as explained below) and a corresponding adjusted base price. The tax rates and adjusted base prices differed not only according to the type of oil but also according to whether an oil producer was an integrated producer (called a major) or an independent oil producer. The tax rates applicable to oil sold by an independent oil producer were lower than the tax rates applicable to oil sold by a major integrated producer. The windfall profit tax liability on any barrel of oil was limited to 90 percent of the net income (profit) from the sale of that oil.

Five categories of oil were originally exempt from the windfall profit tax: (1) oil owned by a State or local government or any political subdivision thereof; (2) oil owned by a qualified educational institution or a charitable medical institution; (3) oil owned by Indian tribes or individual Indians on January 21, 1980, over which the U.S. exercises trust responsibilities; (4) new oil produced from much of Alaska; and (5) front-end tertiary oil.[2] In 1981 stripper oil and a limited number of oil produced by royalty owners became tax exempt under an amendment in the Economic Recovery Tax Act of 1981.

Table 1 shows the structure of the tax just prior to its repeal.

The collection point for the windfall profit tax was generally the first sale of taxable oil, which was generally to a refiner. The refiner -- known also as the first purchaser -- withheld the tax from the amounts otherwise payable to a producer and deposited the moneys semi-monthly into an account. In other words the tax amount per barrel was subtracted from the oil's purchase price. The first purchaser was required to file tax returns on a quarterly basis. In cases where withholding was not required, such as when the producer and first purchaser were one and the same, the tax was paid directly to the Treasury.

The windfall profit tax was a deductible expense in determining an oil producer's income tax liability because it was considered a cost of doing business. As will be explained in a forthcoming section, this meant that, as a result of paying the windfall profit tax, a producer's income tax liability was lower than it would have been without the tax. In other words, with a windfall profit tax, oil producers paid less income taxes than without a windfall profit tax.

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[2] Tertiary oil is oil that is recovered through certain enhanced oil recovery techniques such as flooding the reservoir with water or chemicals. This is oil that is usually not recoverable through secondary recovery methods.

TABLE 1. Structure of the Crude Oil Windfall Profit Tax

Oil Type	Tax Rate	Average Base Price For 1980	Estimated Average Base Price for 1988, 2nd Quarter
Tier I Oil	70% for Majors	$12.81	$19.54
(Most domestic oil in reservoirs productive before 1979)	50% for Independents	$12.81	$19.54
Tier II Oil	60% for Majors	$15.20	$23.19
(Oil from Stripper wells and from the Naval Petroleum Reserve)	30% for Independents	$15.20	$23.19
Tier III Oil	30% for heavy oil and incremental tertiary oil,	$16.55	$29.92
(Includes heavy oil, incremental tertiary oil, and newly discovered oil)	22.5% for newly discovered oil	$16.55	$29.92

Source: Sections 4986-4998 of 1986 Internal Revenue Code; Commerce Clearinghouse, 1987; and Research Division of the Internal Revenue Service.

Notes: The 1981 tax legislation changed the rate structure as follows: (1) The tax rate on new oil was reduced gradually, but further reductions were frozen in 1984 so that the rate remained fixed at 22.5 percent until 1988; (2) Stripper oil produced by independents was made tax-exempt; (2) Royalty owners received a tax credit followed by an exemption for limited amounts of oil production.

The WPT was a temporary tax. The statute provided that the tax would *begin* to phase out sometime during the three-year period between January 1988 and January 1991. The precise starting point for the phaseout depended on cumulative net revenues. If the Secretary of the Treasury reported that, on a given month beginning January 1988, cumulative net revenues would exceed the pre-established target of $227.3 billion, then the phaseout of the tax would begin on the month following the attainment of the target. If estimated cumulative net revenues would not exceed $227.3 billion between January 1988 and January 1991, then the phaseout of the tax would begin January 1991. Irrespective of the onset of the phaseout, once the phaseout began, the tax was to have been phased out over a 33-month period by reducing each producer's tax by 3 percent each month.

Cumulative net revenues, which totaled about $40 billion between 1980 and 1987, fell far short of the $227.3 target. Hence, if it had not been repealed, the WPT phaseout would have begun January 1991 and terminated on October 1993. As will be discussed later, however, the tax was repealed before the onset of the phaseout rules.

Finally, while the tax was entitled a "profit" tax it was not really a profit tax but rather a special type of excise tax -- a selective excise tax on oil producers. The tax was paid first, before profits from the sale of the oil were determined. And except for the net income limitation, profits had no bearing on how much windfall profit tax was paid. The base prices had no precise or even approximate relationship to the costs of oil production.

BACKGROUND

The windfall profit tax (WPT) was enacted in 1980 as part of a compromise between the Carter Administration and the Congress over the decontrol of crude oil prices. Between 1971 and 1980 the price of oil was controlled under President Nixon's wage-price freeze of August 15, 1971.[3] At the time of this freeze oil prices were just above $3 per barrel. These controls were not focused on oil alone -- they applied generally to most goods and services. The general wage-price freeze terminated in 1973 but price controls on oil were continued until President Reagan repealed them in 1981. This controls program was Phase IV of the price control program, which was scheduled to begin on August of 1973. It was this price control program that created oil "tiers."

The Emergency Petroleum Allocation Act of 1973 -- enacted in the wake of the Arab oil embargo -- extended this system of price controls through

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[3] Wage and price controls were enacted under the Economic Stabilization Act of 1970.

1975.[4] Under this law, average domestic oil prices could not exceed $7.66 per barrel, and they were permitted to increase at the rate of 10 percent annually. These controls were extended through May 31, 1979, in the Energy Policy and Conservation Act of 1975. By 1979, all domestic oil production was placed into categories or tiers, each with its own controlled price. These tiers were artificial designations for the purposes of controlled pricing; they had no other meaning. The oil price control program was administered by the Department of Energy.

Between 1973 and 1980, there were attempts to decontrol oil prices and to impose an excess profits tax tied to decontrol. In 1974, the Ford Administration proposed an "emergency windfall profit tax" coupled with a tax to recapture oil industry windfalls. In August of 1975, the Senate Finance Committed approved a windfall profit tax conditioned on price decontrol. The tax failed when the Congress could not agree on whether to decontrol oil prices. In 1977, the Carter Administration proposed an oil tax similar to the windfall profit tax -- the crude oil equalization tax -- as part of a program to restructure the existing price controls.[5] These proposals were the precursors of the 1980 windfall profit tax.

The windfall profit tax that was ultimately enacted originated in 1979 with the Carter Administration. On April 5, 1979, the Carter Administration announced its intention to gradually phase out price controls between June 1, 1979, and September 30, 1981, when the existing price controls were to have expired. Some types of oil were decontrolled completely on June 1. The intent of the gradual decontrol was to promote energy conservation and to stimulate energy exploration and production without the dislocations that might result with sudden decontrol. In announcing oil price decontrol, the Carter Administration also announced its proposal to impose a windfall profit tax "to prevent unearned excessive profits" of the oil industry.

President Reagan repealed price controls on January 1981, which was one of his first official decisions as President. The Administration's original proposal called for a fixed tax rate of 50 percent.

In Congress, the Carter Administration's original windfall profit tax bill, H.R. 3919, was proposed by Representative Al Ullman, Chairman of the Ways and Means Committee. The House approved an amended version on June 28, 1979. The Senate approved its version at the end on 1979, and the House-

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[4] The economic stabilization program consisted of five stages or time periods called phases, each with various degrees of controls. In phase IV -- the period from August 12, 1973 to April 30, 1974 -- all controls were to be eliminated except for petroleum.

[5] U.S. Congress. Senate. *Energy Tax Provisions, 4: Crude Oil Equalization Tax and Rebate.* Committee Print. Senate Finance Committee. September 19, 1977. U.S. Govt. Print. Off. Washington, 1977.

Senate Conference deliberated for about three months. President Carter signed the bill into law on April 2, 1980.

The WPT was amended many times after it was enacted in 1980. Virtually every tax law that was enacted between 1980 and 1988 made some type of amendment, usually minor and technical. For example, the Technical Corrections Act of 1982 (P.L. 97-448) made several of these type of amendments. Major changes were made, however, under the Economic Recovery Act of 1981 (P.L. 97-34), which reduced tax rates on newly discovered oil, made stripper oil tax exempt, and introduced a tax credit for royalty owners.

Soon after its enactment there were proposals to reduce tax rates, liberalize some of the provisions, and to repeal the WPT statute altogether. Such proposals were common throughout the eight year life of the tax. Repeal was part of President Reagan's platform in the 1980 presidential campaign and repeal proposals were embodied in the Administration's FY 1988 and FY 1989 budgets.[6] WPT repeal was part of the Treasury Departments's tax reform proposal of 1984 as part of a compromise that would have repealed the oil industry's two major tax (incentives) subsidies: the percentage depletion allowance and expensing of intangible drilling costs. In the spring of 1986, there was speculation that a repeal proposal would be part of the tax reform bills of 1986. The eventual law -- the Tax Reform Act of 1986 (P.L. 99-514) -- did not, however, repeal the WPT.

Another major repeal attempt was made through an amendment to the 1986 debt limit bill (H.J. Res. 668) which would have increased the debt ceiling to over $2.3 trillion through FY 1987. This amendment was approved by the House and Senate, but it was deleted in conference.

Some Members of Congress also favored repeal; congressional support for repeal probably reached a peak in 1987 and 1988. In May 1987, for example, ten bills were pending in the Congress proposing to repeal the WPT.

The actual repeal of the WPT in 1988 was made through an amendment to the omnibus trade legislation (H.R. 3). After hearings in the summer of 1987, the Senate voted 58-40 in favor of a repeal amendment to the trade bill. The original House trade bill, however, did not contain the amendment. While House conferees were generally opposed to WPT repeal, conferees from the Senate Finance and House Ways and Means Committees did agree on a repeal amendment on March 31, 1988. The House approved H.R. 3 with the repeal amendment on April 21, by a vote of 312-107. The Senate approved

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[6] Executive Office of the President. Office of Management and Budget. *Budget of the United States Government: Fiscal Year 1988.* January 1987. U.S. Govt. Print. Off. Washington. p. 2-42; and Executive Office of the President. Office of Management and Budget. *Budget Document of the United States Government: Fiscal Year 1989.* February 1988. U.S. Govt. Print. Off. Washington. p. 4-16.

the conference report on H.R. 3 on April 27. Enactment of H.R. 3 including the WPT repeal amendment was precarious because President Reagan -- objecting to several of the provisions in the trade bill -- had threatened to veto it. Eventually however, these problems were resolved and the trade bill with the repeal of the WPT was signed in August of 1988.

RATIONALES FOR IMPOSING THE WINDFALL PROFIT TAX

The WPT was the price the U.S. oil industry had to pay for oil price decontrol. It was a compromise between the Carter Administration and the Congress; without the tax, many doubted that the Congress would have supported oil price decontrol.

The reasons for this are manifold and complex; they transcend economics and they concern the image and perception of the oil industry. The record does show, however, that the Congress was concerned that the industry would reap enormous revenues and profits as a result of decontrol to world oil price levels. The Congress believed that the huge redistribution of income from energy consumers to energy producers would not be fair. The Congress was concerned that the oil industry was not paying its fair share of Federal taxes. And finally, the Congress was looking for additional sources of revenue.

OIL PRICE DECONTROL AND WINDFALL PROFITS

Price decontrol implied that domestic crude oil prices would rise from an average of about $14 per barrel (1979) to world market levels, which at that time were averaging about $24 per barrel and projected to rise to $50-$60 per barrel or more by 1985.[7]

The sharp increase in domestic oil prices was projected to significantly increase oil industry revenues and profits. The Joint Committee on Taxation had estimated that decontrol would increase oil industry revenues by about $1 trillion from 1980-1990 and profits by over $400 billion. Federal policymakers believed that these added profits were in the nature of a "windfall" -- an unearned, unanticipated gain in income through no additional effort. This windfall, it was believed, provided no additional incentive to produce more oil, especially "old oil," which was being produced under the preexisting controlled price regime. Rather, existing oil reserves would be just worth more -- command a higher price by virtue of price decontrol. Moreover, all oil would command a higher price, including oil that was discovered at historically low costs, and produced at the controlled price. Old oil, which was primarily owned and produced by the major oil companies, was selling for about $6 per barrel prior to decontrol;

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[7] U.S. Library of Congress. Congressional Research Service. *Oil Price Projections and the Windfall Profit Tax on Crude Oil.* CRS Report 88-147 E, by Salvatore Lazzari, February 17, 1988. Washington, 13 p.

it would have increased to a market price of about $24 per barrel. The Congress was concerned that no additional effort, investment, or cost would be incurred by oil producers in generating the added profits. The Congress believed that a higher price was not needed for all oil in order to stimulate its production -- a higher price might be needed for new oil. The decision to produce much of the oil had been made with the expectation of a return based on the controlled price.

The following quote illustrates the concerns of the Congress:

> For most types of oil, after a certain point, these higher prices will only lead to very limited increases in production. The revenues resulting from these higher prices, however, would provide income to oil producers far in excess of what most of them originally anticipated when they drilled their wells and in excess of what they might now be expected to invest in energy production. Indeed, some producers are now using their excess revenues to acquire unrelated businesses.
>
> Thus, the committee believes that the additional revenues received by oil producers and royalty owners, both as a result of decontrol of oil prices and as a result of increases in world oil prices substantially above those prevailing in 1978, are an appropriate object of taxation. The windfall profit tax in this bill will tax away a fair portion of these additional revenues while allowing producers to receive very high prices for those types of oil whose production can be expected to increase in response to that incentive.[8]

Other salient motivations and factors underlying imposition of the windfall profits tax were that:

(1) domestic crude prices would rise to market levels that did not reflect competitive market forces but the market power of OPEC (the Organization of Petroleum Exporting Countries);

(2) "OPEC prices" were projected to increase in real terms at very high rates, usually assumed to be 3 percent per year;

(3) these market prices were believed to be in a sense "unanticipated," unearned, and unneeded for the profitability of the oil industry;

(4) society should share in the economic return to natural resource production;
(5) oil is a natural resource whose long-run supply is fixed; it is not like other factors of production such as labor and capital. The stock of natural resources

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[8] U.S. Congress. House. *Crude Oil Windfall Profit Tax Act of 1979.* Report of the Committee on Ways and Means. Report No. 96-304, June 22, 1979. U.S. Govt. Print. Off. Washington, 1979.

is fixed in the long run whereas the stock (or supply) of the other factors is variable. Since the stock of oil is fixed, some argued that high levels of industry income were not necessary to ensure adequate supplies. If only low levels of income would ensure adequate oil supplies, then any industry income above that income earned from alternative use of industry resources could be deemed excessive (economic rents) and should be taxed away;

(6) Some believed oil industry income was excessive to start with due to the concentrated structure of the domestic oil industry and due to the fact that domestic price of oil is not a competitively determined price.

Additionally, it should be remembered that the WPT was enacted in the wake of the 1973-74 oil embargo, which raised oil prices fourfold, the Iranian revolution -- the second oil shock -- which doubled oil prices (after a quadrupling of prices in 1974) and created gasoline shortages and long lines of motorists at the gasoline pumps, and the Three Mile Island nuclear plant accident, which added to the preexisting cynicism toward the energy industry. Also there was a certain amount of public suspicion of the oil industry; suspicion that the energy crisis was not real but a contrivance of the industry in concert with OPEC for the purpose of profiteering.

DISTRIBUTIONAL EQUITY OR FAIRNESS

Another rationale for the windfall profit tax was equity or "fairness." It was estimated that oil price decontrol would cause a large redistribution of income from energy consumers to energy producers. Policymakers believed that it was unfair for the oil industry and landowners to experience such sharp increases in income when so many consumers -- particularly low income consumers -- would see a sharp increase in their energy bills. Society at large, through the Federal Government's policies, should also share in some of the income gains.

The fairness rationale was strongly influenced by impact of higher energy prices on poorer consumers. Although all energy consumers would experience a higher absolute burden due to higher oil prices, including higher electricity prices, natural gas prices, and coal prices, poorer people would experience a higher relative burden. That is, in relation to their income, poorer persons spend more money on energy and other necessities than higher income persons. Therefore, energy costs represented a higher proportion of low income persons' budgets than high income persons' budgets -- the burden from decontrol would be greater for low income persons than from high income persons.

Federal policymakers also believed that the resulting increase in industry income would be far in excess of amounts needed for reinvestment in energy production and that producers would not significantly increase oil production but would instead invest in enterprises unrelated to the oil business.

The windfall profit tax was intended to be the instrument for achieving a more equitable redistribution of the income which would result from oil price decontrol. Underlying this instrument was the belief that the oil companies were entitled to a fair and reasonable return but not an "excessive" return, which was in any event determined by OPEC set prices rather than competitive prices.

THE INDUSTRY'S LOW EFFECTIVE TAX RATES

Another powerful argument for enacting the WPT was that the tax helped to offset the oil industry's low effective income tax rates due to the availability of two oil industry tax subsidies (incentives): the percentage depletion allowance and the provision which permits companies to expense (deduct fully in the initial year) the intangible costs of drilling.

The percentage depletion allowance permits oil producers to deduct an amount for the exhaustion of an oil reserve equal to a percentage of revenues. In theory, the deduction should be based on the actual oil output and the actual investment costs of the deposit -- it should be cost depletion. The percentage depletion allowance was introduced in 1926. In 1975 the allowance was eliminated except for a limited amount of oil produced by independents. The deduction for intangible drilling costs permits oil producers to expense -- deduct contemporaneously -- costs that should in theory be capitalized over the income producing life of the deposit. This subsidy or incentive was introduced in a 1918 administrative ruling by the Treasury Department. According to the Congressional Budget Office, repealing these two oil and gas tax subsidies would increase tax revenues by about $1.6 billion in FY 1988.[9]

The combined effect of the two major oil tax provisions was to lower effective income tax rates for oil extraction below the comparable effective tax rates in other industries and below the top marginal statutory income tax rate of 34 percent for corporations. This is supported by the early as well as by the more recent empirical research studies on effective tax rates.[10]

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[9] U.S. Congressional Budget Office. *Reducing the Deficit Spending and Revenue Options.* A Report to the Senate and House Committees on the Budget - Part II. January, 1987. Washington. p. 220.

[10] A few representative studies include Harberger, Arnold C. *The Taxation of Mineral Industries.* In U.S. Congress. Joint Committee on the Economic Report. *Federal Tax Policy for Economic Growth and Stability.* Joint Committee Print, 84th Congress, 1st session. November 9, 1955. Washington, U.S. Govt. Print. Off., p. 439-449. Steiner, Peter O. *Percentage Depletion and Resource Allocation.* In U.S. Congress. House. Committee on Ways and Means. *Tax Revision Compendium.* Committee Print, 86th Congress, 1st session, v. 2, November 16, 1959. Washington, U.S. Govt Print. Off., p. 949.

In the early studies, Harberger (1955) and Steiner (1959) demonstrated that oil and gas, as well as other minerals, received approximately twice the amount of tax incentives as other industries. In the category of effective tax rate studies, a 1971 report by U.S. Oil Week showed that major oil companies had an effective tax rate of 8.7 percent in 1970. Cox and Wright (1973) calculated rates ranging from 8.3 percent to 14.7 percent, depending upon accounting methods and income measures used.[11]

Studies on effective tax rates that were published between 1973 and 1980 attempted to include the cutback in subsidies and the windfall profits tax give mixed results. Some studies, for example, showed that oil and gas extraction was subject to very low effective tax rates. Several studies by the Congressional Research Service published between 1977 and 1983 (when the corporate tax rate was 46 percent) show very low and, under certain circumstances, even negative marginal effective tax rates. For example, expensing of intangible drilling costs and dry hole costs and a 22 percent depletion rate resulted in an effective tax rate of -3.0 percent without the minimum tax and 12.0 percent with the minimum tax.[12] One CRS report, which included the effects of the crude oil windfall profits tax, again showed generally low effective tax rates for oil and gas extraction. In cases where the effective tax rates were low, however, the crude oil windfall profits tax constituted a significant part of the total effective tax burden.[13] In an inter-industry comparison, oil extraction and production had the lowest effective tax rates of eleven major industries -- 14 percent compared to 17 percent for construction (the next lowest) and 30 percent for the trade industry (the highest).[14]

Marginal effective tax rates in the oil and gas industry after 1986 increased due to the repeal of the 10 percent investment tax credit, the lengthening of the recovery period for depreciation, and the change in the depreciation methods. Studies continue to show, however, marginal effective tax rates below the 34

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[11] Much of this early empirical evidence is cited in U.S. Congress. Senate. Committee on Interior and Insular Affairs. *An Analysis of the Federal Tax Treatment of Oil and Gas and Some Policy Alternatives*. Committee Print, 93rd Congress, 2d session. Washington, U.S. Govt. Print. Off., 1974. p. 18.

[12] U.S. Library of Congress. Congressional Research Service. *Tax Provisions and Effective Tax Rates in the Oil and Gas Industry*. Report no. 77-238 E [by] Jane Gravelle. Washington, 1977. p. 2.

[13] U.S. Library of Congress. Congressional Research Service. *Effective Federal Tax Rates on Income from Oil and Gas Extraction*. Typed Report by Jane Gravelle, April 13, 1983. Washington, 1983. p. 5.

[14] Gravelle, Jane G. *Effective Federal Tax Rates on Income from Oil and Gas Extraction*. Paper presented at the annual meeting of the Conference for Taxation, Resources and Economic Development. October 1983. Cambridge, Mass. p. 6.

percent statutory rate, and below the comparable rate for most other industries.[16]

BUDGET DEFICITS AND THE NEED FOR REVENUE

There were also important fiscal reasons for enacting the WPT -- the Federal Government needed money. Between 1961 and 1979 the Federal budget was in deficit in every year but one (there was a small surplus in FY 1969). In FY 1976 the deficit reached $71 billion, which at that time was the highest level in U.S. history. As a percent of Gross National Product this deficit was 4.2 percent in 1976, the highest since 1946. In FY 1977,78, and 1979, the deficits were lower but still sizeable -- $50 billion, $55 billion, and $38 billion. Certainly they pale in comparison to the deficits of the eighties but according to the standards of history they were still large.

Preliminary estimates or projections of the additional tax revenues from decontrol with the windfall profit tax showed that the Federal Government would generate, over the eleven year period between 1980-1991, an additional $402. This comprised $227 billion in windfall profit tax revenues, and $175 billion in business income tax revenues due to the oil price decontrol alone. Including State and local severance taxes and income taxes, and taxes on royalty income, all levels of Government were projected to receive 70 percent of the additional revenue from oil price decontrol. The oil industry was projected to receive the remaining 30 percent.

ECONOMIC EFFECTS

The major economic issues concerning the windfall profits tax and its effects were: revenues, increased dependence upon foreign oil, economic efficiency, and the administrative and compliance burden.

REVENUE EFFECTS

As was just explained the need for revenue was one of the reasons for enacting the windfall profit tax. This section will show that the question of

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[16] Rates for integrated oil companies ranged from 6 to 15 percent; rates for independent producers ranged from a 5 to 14 percent. This includes the effect of the minimum tax, which basically raises the rate, and repeal of the windfall profit tax, which basically lowers the rate. See Lucke, Robert and Eric Toder. *Assessing the U.S. Federal Tax Burden on Oil and Gas Extraction.* Energy Journal, v. 8, No. 4, 1987. Recent CRS calculations showed an effective marginal tax rate of 17 percent for integrated oil and gas producers. The rate for independents was not reported. See U.S. General Accounting Office. *Tax Policy: Additional Petroleum Production Tax Incentives Are of Questionable Merit.* GAO/GGD-90-75, July 1990. Washington, 1990. p. 58.

revenue was a principal issue in the debate over the WPT. It was also a key reason for both its continuation and its repeal.

Table 2 shows the revenue effects of the WPT. Column (1) shows gross WPT revenues. Gross revenues are the actual tax monies collected by the Internal Revenue Service (IRS) as a result of applying the WPT rates to taxable crude oil production -- they are revenues before any deductions or allowances. Column (2) shows WPT payments on federally owned oil. These figures must be deducted in arriving at net revenue effects because they represent money paid from the Department of Interior to the Department of the Treasury -- they are mere transfers of funds between agencies. Column (3) shows refunds and credits due to overpayment on prior tax returns. Column (4) shows estimated foregone payments of income tax collections due to the deductibility of the WPT against the income tax liability as a cost of production. Both foregone individual and corporate tax payments are included in these column. The estimated net revenue effect of the WPT is shown in column (5). These figures represent the net gain in tax revenue as a result of the WPT, i.e., the estimated contribution of WPT revenue toward reductions in the Federal budget deficits.

As the data show, gross revenues totaled nearly $80 billion, far less than projected amount of $393 billion, but still a sizeable sum. Most of this gain was accumulated over the years 1981-1983, when gross revenues totaled $55 billion. These large initial revenues from the windfall profit tax were also an important reason in the early part of the 1980s for not repealing the tax, despite President Reagan's campaign promise and numerous congressional attempts to repeal it.[16]

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[16] The need for revenue became even greater in the early 1980s than in the middle 1970s. As a result of the 1981-82 recession, tight monetary policy, the large tax cuts in 1981, and continued spending increases, the Federal budget deficit were extremely large -- over $1 trillion cumulatively for the period FY 1981-FY 1986. Between FY 1986 and FY 1987, the annual budget deficit dropped from $221.2 billion to $150.4 billion, but later it was projected to increase again. Deficits were large relative to our overall economy -- in FY 1985 the deficit as a share of GNP was about 5 percent, higher than any time in the 1970s.

TABLE 2. Estimated Revenue Effect of the Windfall Profit Tax, Fiscal Years 1980-1989 ($ millions)

Fiscal Year	(1) Actual Gross Revenues	(2) Less Receipts from Federal Interests	(3) Less Refunds from Prior Over-payments	(4) Less Estimated Foregone Income Tax Payments	(5) Equals Estimated Net Revenue Effect
1980	3,052	492	0	945	1,615
1981	16,931	1,105	664	6,019	9,143
1982	22,036	1,092	880	9,250	10,814
1983	15,660	902	826	6,576	7,356
1984	8,120	757	427	3,100	3,836
1985	5,073	601	201	1,931	2,341
1986	8,866	567	354	3,432	4,513
1987	15	1	1	6	7
1988	121	N.A.	N.A.	N.A.	N.A.
1989	-1	N.A.	N.A.	N.A.	N.A.
Total 1980-1989	79,873	5,517	3,353	31,259	39,625

Sources: Data are from IRS report of excise taxes and data made available by the Congressional Budget Office (CBO), and the Treasury Department.

Notes: (1) N.A. denotes not available; (2) Negative figures represent refunds and adjustments due to overpayment and overwithholding on prior returns i.e., prior production; (3) Future WPT revenues could be affected by current efforts by the IRS to claim back taxes from companies that allegedly underestimated the market oil prices and consequently underpaid the Treasury. In one case against ARCO the amount claimed as back taxes and interest and penalties could exceed $1 billion. Other companies being investigated are: Mobil, Texaco, Shell, Exxon, and Standard Oil. These investigations are still pending. (Rose, Frederick. ARCO Says IRS Asks $1 Billion for Back Taxes. *The Wall Street Journal*. July 19, 1988. p. 6.)

The net revenue gain from the WPT -- the amount which actually went into the Treasury's general fund -- was about one-half of gross revenues, or nearly $40 billion, over its lifetime.[17] As the data also show, however, net revenues were significantly smaller than gross revenues. Most of the difference between gross and net revenues was attributable to losses in business income taxes (both individual and corporate) due to the deductibility of the gross WPT payments. Between 1980 and 1989, as shown in column (4), income tax revenues were estimated to be about $31 billion lower as a result of the deductibility of the WPT. The remaining revenue losses were due to receipts from Federal interests [column (2)] and refunds [column (3)].

Note also that after 1983, revenues declined sharply. There were three reasons for the small amount of revenues collected under the WPT in its later years. First, market crude oil prices declined markedly from 1982 to 1986. Second, since 1980 base prices had been gradually adjusted upward due primarily to inflation, as specified by law. The result was two forces acting to reduce the tax base -- the so-called "windfall profit." The third reason was the decline in domestic oil production. As will be discussed in a forthcoming section, the small amount of revenue collected from the WPT in 1987 and 1988 was a principal reason for the repeal of the tax.

Table 3 compares the original projections of windfall profit tax revenues with actual revenues for fiscal years 1980-1989. The original 1980 projections are adjusted downward for changes in the tax laws enacted in 1981, 1982, and 1984, which tended to reduce windfall profit tax revenues.[18]

As these data show, the windfall profit tax was originally projected to generate $238 billion in gross revenue through 1987, but actual gross revenues were $80 billion, significantly short of projections. Also, estimated net revenues as shown in table 1 are significantly smaller than the original 1980 projection of $196 billion through FY 1987. Large overestimates occurred in the original forecast of tax revenues, reflecting those in the oil price forecasts. It should also be noted that upward revisions of the 1980 price forecasts were made

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[17] It is important to underscore the point that net revenues are not reported on any tax return -- they must be estimated from tax return data on gross revenues and marginal personal and corporate tax rates. The WPT statute required the Treasury Department to estimate net revenues. These are the figures shown in column (5) of table 2.

[18] The Economic Recovery Tax Act of 1981 (P.L. 97-34) made several changes to the windfall profit tax which reduced revenues. The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) increased the tax on Alaskan oil which increased revenues by about $150 million per year. The Technical Corrections Act of 1982 (P.L. 97-448) made very minor changes in the windfall profit tax which reduced revenues negligibly.

TABLE 3. Crude Oil Windfall Profits Tax, Fiscal Years 1980-1987
($ millions)

Year	Projected Tax Revenues (1)	Actual Tax Revenues (2)	Projected less Actual (3)=(1)-(2)	Difference As % of Actual (4)=(3)/(2)
1980	$ 5,159	$ 3,052	$2,107	69.0%
1981	20,955	16,931	4,024	23.8
1982	30,973	22,036	8,937	40.5
1983	33,472	15,660	17,812	113.7
1984	35,332	8,120	27,212	335.1
1985	36,852	5,073	31,779	626.4
1986	37,446	8,866	28,580	332.3
1987	38,652	15	38,637	257,580.0
1988	40,181	128	40,053	312,914.0
1989	42,270	-1	42,271	N.M
Total 1980-1989	321,292	79,880	241,412	301.2

Sources: (1) Projected figures are from U.S. Congress. Joint Committee on Taxation. *General Explanation of the Crude Oil Windfall Profits Tax Act of 1980* (H.R. 3919, 96th Congress; Public Law 96-223). Joint Committee Print. Washington, 1981. p. 15; (2) Actual tax revenues for FY 1980-1986 are from quarterly excise tax reports published by the Internal Revenue Service. Data for 1986-1991 were obtained from the Congressional Budget Office.

Notes: N.M. denotes not meaningful.

made in 1981, which increased the overestimation.[19] The decline in oil prices was not anticipated in 1981. In fact, it was after 1983 that analysts began to adjust their oil price forecasts downward in consideration of new sources of oil supply, increased conservation of oil, and the development of alternative energy resources.

DOMESTIC OIL PRODUCTION AND FOREIGN OIL IMPORTS

Another effect of the WPT was that it made the U.S. more dependent upon foreign oil. The degree of dependence on foreign oil was greater as compared with a situation without a WPT, but it was less than under decontrol without a WPT. The WPT was a tax on oil produced domestically in the United States. In economic terms, the WPT increased the marginal cost (the incremental cost) of domestic oil production: the marginal cost of producing every barrel of taxable crude oil was higher with the WPT than without it. In consequence, it can be argued that the WPT reduced the supply of domestic oil and that at every possible market oil price domestic oil production was lower with the WPT than it would have been without it. Oil imports to the United States are a residual, the difference between aggregate demand for oil and aggregate domestic oil supply.[20] And imported oil is the marginal source of oil -- whenever an extra barrel of oil is needed to meet an increase in demand, it is imported. Any condition or factor which either reduces domestic supply (such as higher industry taxes) or which increases the aggregate demand for oil (such as higher national income) will increase oil imports.

The magnitude by which the WPT reduced domestic oil supplies and increased imports depends on two variables: (1) the size of the shift in the marginal cost (supply) curve, which determines the aftertax price received by oil producers; and (2) the price elasticity of the supply curve, which determines the reduction in oil production in response to the lower price (net of the WPT) received by oil producers. The shift in the oil supply curve is determined by the WPT per barrel, which varies with fluctuations in market oil prices and adjustments in base prices. Since oil prices are determined in a world market, the WPT has only a negligible affect on pre-tax oil prices in the U.S. This means

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[19] Bureau of National Affairs. *Daily Tax Report.* JCT Staff Memorandum to Members of Senate Finance and House Ways and Means Committees on Windfall Profits Tax Revenue Estimates. March 23, 1981. Washington. p. J-1.

[20] This is discussed in detail in two other CRS reports: U.S. Library of Congress. Congressional Research Service. *Energy Taxes: A Comparative Analysis of the Gasoline Excise Tax and an Oil Import Tax and Their Effect on the States.* CRS Report No. 86-637 E, by Salvatore Lazzari, July 25, 1986. Washington, 1986. p. 8-12; and U.S. Library of Congress. Congressional Research Service. *Oil Import Taxes: Revenue and Economic Effects.* CRS Report No. 86-572 E, by Bernard A. Gelb and Salvatore Lazzari. May 28, 1986. Washington, 1986. p. 28-32.

that the aftertax price received by domestic oil producers is lower by the full amount of the WPT per barrel. (That is, the WPT cannot be shifted forward in higher prices; producers absorb the entire tax in terms of lower profits.)

The second variable which determines the output effects is the price elasticity of the oil supply curve, which measures the responsiveness of oil production to changes in oil price.[21] An elasticity of +1.0 means that a 10 percent reduction in the price of oil translates into a 10 percent reduction in the quantity of oil supplied; an elasticity of +0.5 means that a 10 percent reduction in price would reduce output by half that or 5 percent. The price elasticity of oil supplies is determined by the technology underlying domestic oil production. The percentage reduction in oil production in response to the WPT would be the product of the percentage reduction in the aftertax price of oil times the price elasticity of supply.

Table 4 presents estimates of annual domestic oil production that was lost in response to the WPT based on conventional assumptions. Estimates were prepared for the period 1980-1986, using the most recent energy and WPT data available. Due to the uncertainty and the difficulty in estimating price elasticities, estimates are presented under two scenarios: columns (1)-(3) reflect the assumption that the price elasticity of oil supply is +0.5; columns (4)-(6) reflect the assumption that the price elasticity of supply is +1.0.[22] For perspective, the annual estimates of production losses are compared to the actual levels of domestic oil production and imported oil.

These estimates show domestic oil production losses from the windfall profit tax in every year but 1986. If lag effects are discounted, the largest effects were in 1981. For example, in 1981, the estimated loss in domestic oil production in response to the WPT was between 194 million barrels and 387 million barrels, depending upon which price elasticity, +0.5 or +1.0, is used. This constituted 5.2 percent and 10.4 percent of domestic production respectively, and 12.1 percent and 24.0 percent of imports, respectively. Estimated losses in domestic oil production were largest in 1981 due to relatively high oil prices and relatively low base prices (the spread that equals the so-called "windfall profit" against which the tax is assessed was largest) in that year.

Estimated annual production losses declined steadily between 1981 and 1986. This was due to the combined effect of declining market prices and increasing base prices over this period. In 1986 and 1987, production losses

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[21] This estimate is quite sensitive to the assumed supply price elasticity, which is also unknown and has been derived from other studies. Generally, the more price elastic is the supply of oil, the larger would be the additional oil imports induced by the WPT.

[22] Kaplan, Seymour. *Energy Economics: Quantitative Methods for Energy and Environmental Decisions.* McGraw-Hill, New York. 1983. p. 67.

TABLE 4. Estimated Reduction in Domestic Oil Production in Response to the Windfall Profit Tax

	Assumes E^Ps = +0.5			Assumes E^Ps = +1.0		
Year	Million barrels (1)	As % of Domestic Production (2)	As % of Imported Oil (3)	Million barrels (4)	As % of Domestic Production (5)	As a % Imported Oil (6)
1980	166	4.5%	8.6%	331	8.9%	17.2
1981	194	5.2	12.1	387	10.4	24.0
1982	145	3.9	11.4	290	7.8	22.8
1983	103	2.8	8.5	205	5.5	16.8
1984	101	2.6	8.1	202	5.3	16.2
1985	71	1.8	6.1	142	3.7	12.2
1986	0	0.0	0.0	0	0.0	
1980-1986	780			1,557		

Note: E^Ps denotes price elasticity of domestic oil supplies. This measures the responsiveness of domestic oil supplies to changes to the domestic price of oil. For example, an elasticity of +0.5 means that as the price of oil increases by 10 percent, the quantity of oil supplied increases by half that or 5 percent.

Source: Author's estimates based on data published by the Department of Energy and the Internal Revenue Service.

were estimated to be zero because average market oil prices were below average base prices (the average windfall profit was negative in each of these years). It is important to note that the estimates in table 4 assume that the production losses occur in the same year as the tax increase. In reality there may be lags in the effect of the WPT on domestic oil production. To this extent, the aggregate production losses estimated over the 1980-1986 period are probably more meaningful than the losses estimated for any one year.

The effect of reducing domestic oil production was to increase the level of imported oil. Columns (3) and (6) show the estimated production losses caused by the WPT as a percent of the actual level of imported oil. As these estimates show, a more elastic supply curve (elasticity = +1.0) yields production losses ranging from 24.0 percent for 1981 to 12.2 percent for 1985. A less elastic supply curve (elasticity = +0.5) yields production losses ranging from 12.1 percent in 1981 to 6.1 percent in 1985. These estimates make a case that oil production losses in response to the WPT may have been a significant share of total oil imports.

Over the entire 1980-86 period, it is estimated that the WPT reduced domestic oil production from between 780 million barrels and 1.6 billion barrels. Such lost output amounted to an average of between 3 percent and 6 percent of domestic production, and between 8 percent and 16 percent of total imports. On this basis it may be argued that the WPT increased oil imports and that the United States was made somewhat more vulnerable to sharp oil price increases or complete oil supply embargoes from foreign oil producers.

ECONOMIC EFFICIENCY

The efficiency effects of the WPT on the allocation of resources are less clear than some of the other economic effects. In general, excise taxes distort the price system's ability to efficiently allocate resources among competing economic sectors. But the windfall profit tax had little if any effect on oil prices simply because such a tax cannot be forward shifted i.e., producers are not able to pass the tax forward by increasing prices to refiners because refiners would merely substitute imported oil. The reason that for this is that oil prices in the United States are taken as a given -- they are determined or established in the world oil market in which the United States is only one producer of many producers.

In the long run, a permanent excise tax reduces the rate of return in the taxed sector and resources are allocated toward the non-taxed sectors. But the WPT was a temporary tax when it was enacted, and it was repealed three and one-half years prematurely. It is difficult to say whether this is a long enough period of time to cause resources to be reallocated in any significant way.

The other complicating factor was the decontrol of oil prices. It is a fundamental economic law that, generally, price controls cause serious distortions and create allocational inefficiencies. Oil price decontrol removed these distortions and inefficiencies. In all probability, decontrol with a WPT was probably less distorting than controls without a WPT.

The efficiency effects of the WPT also hinge on the question of whether oil production creates costs -- these are called external costs -- that society incurs but that producers do not account for. If the business of producing oil domestically creates these external costs, then the appropriate policy would have been to impose some type of excise tax on oil production. The WPT that was in effect was not inconsistent with this policy and, to this extent, may have contributed to economic efficiency.

The WPT, however, may have distorted the way resources were allocated within the oil industry. Since the tax was imposed on oil as it was being removed, extraction was penalized and other aspects of the business become relatively favored. Thus it created financial incentives to shift resources from exploration and drilling to refining and marketing.

There may have been additional distortions within the oil-producing sector as a result of the structure of the tax. Under the structure of the windfall profit tax, different tax rates and base prices applied to taxable oil, depending upon its classification in one of three tiers (see table 1). These differences seemed to favor oil from newer wells as opposed to oil from older wells, and oil produced from small wells and by independents, as opposed to oil produced from larger wells and by integrated producers. Thus, the structure of the windfall profit tax created artificial tax incentives based on where the oil was located and who owned the oil.

In addition to the above distinctions, the following categories of oil were tax exempt: (1) oil produced from a property owned by a State or local Government or any political subdivision of a State Government; (2) by educational institutions or charitable medical institutions; (3) oil produced from wells in certain regions of Alaska; (4) oil owned and produced by certain American Indian tribes; and (5) front-end tertiary oil and royalty oil.

Even so, it must be underscored that the distortions under the windfall profit tax with decontrol were probably less than the distortion under full price controls without a WPT.

THE BURDEN OF COMPLIANCE AND ADMINISTRATION

After 1986, the WPT imposed no tax liability on oil producers because oil prices were below the threshold base prices that triggered it. Oil producers were obliged to comply with the paperwork requirements of the law, however, and the Internal Revenue Service was compelled to administer the system despite the fact that the tax generated no revenue.

The oil industry maintained all along that the WPT was an extremely complicated tax to comply with and to administer. The Internal Revenue Service, the General Accounting Office both agreed with the industry's claim, and the eight-year experience with the tax also tended to support this.

The process of complying with the WPT involved a complicated system of interactions between a variety of oil industry entities and a variety of separate tax laws and energy regulations. The windfall profit tax was imposed on oil producers when taxable crude oil was removed from the oil-producing property. Any individual or business with an economic interest in an oil-producing property was considered as a producer and subject to the tax. There were four kinds of producers -- independent producers, integrated oil companies, royalty owners (landowners), and tax-exempt parties. According to a 1984 General

Accounting Office (GAO) report, there were about 1 million oil producers (persons, institutions, and businesses) in the United States in 1984.[23]

Operators were the approximately 18,000 persons in the business of managing oil properties. The property operator supplied the relevant information to the agent who withheld the tax. The operator had to determine the proper tier, how much oil was sold, and who had the economic interest. Sometimes there were hundreds of people having a fractional economic interest in a single oil-producing property. Even determining the proper tier was no easy task. According to a 1982 GAO report, considerable uncertainty surrounded the concept of oil property, thus making it difficult to classify oil into tiers.[24]

The withholding agent had to compute and withhold the windfall profits tax based on the information supplied by the operator. The withholding agent, also called the first purchaser, was usually an integrated oil company, but it could also have been an independent producer or refiner.

To compute the windfall profits tax amount, the agent subtracted from the removal price the base price and the corresponding State severance tax (if any). This computation required the following steps: (1) knowing the category of oil; (2) determining the removal (selling) price; (3) adjusting the corresponding base price; (4) subtracting the State severance tax; and (5) testing for the 90 percent net income limitation.[25] Even some of the basic steps in this computation could be complex. For example, in 1983 there was some controversy over how to determine the "removal price" in the case of certain Sadlerochit oil in an Alaskan North Slope reservoir. Three different methods were used by the oil companies. The IRS had to issue several rulings before the matter was settled.

Having computed the tax liability, the first purchaser deducted this from the purchase price to be paid to the operator, and deposited the money in a Federal Reserve Bank. Integrated producers were required to deposit twice per month; independent producers were required to deposit every 45 days. The tax payment process did not, however, end there. In the event of overpayment or underpayment, due primarily to the net income limitation and

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[23] U.S. General Accounting Office. *IRS's Administration of the Crude Oil Windfall Profits Tax of 1980.* Report to the Chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations. GAO/GGD-84-15, June 18, 1984. Washington, 1984. p. i.

[24] U.S. General Accounting Office. *Uncertainties about the Definition and Scope of the Property Concept May Reduce Windfall Profit Tax Revenues.* Report to the Secretary of the Treasury. May 13, 1982. GAO/GGD-82-48. Washington, p. 14.

[25] The net income limitation limited the windfall profit tax liability to no more than 90 percent of the net income per barrel of oil. Net income was defined in terms of taxable income per barrel, with some adjustments.

underwithholding respectively, this required either refunds or additional payments.

Throughout this compliance process many tax return forms and information forms were required. The process was further complicated due to the numerous exceptions to the basic general rules and due to possible interactions between the windfall profit tax rules, the personal and corporate income tax rules, energy regulations, and State and local tax and energy laws.

The windfall profit tax also appeared to be a significant administrative burden for the IRS. The tax statute itself encompassed thirteen sections in twenty-five pages of the 1986 Internal Revenue Code.[26] In addition, the IRS had to promulgate dozens of separate regulations, revenue rulings, letter rulings, and information releases to enforce it. Furthermore, there had been statutory amendments to the WPT in virtually every tax bill enacted between 1980 and 1988.

The IRS acknowledged the administrative burden of the tax in 1981 hearings before the House Subcommittee on Government Operations. A 1984 GAO report seemed to support this when it referred to the tax as "perhaps the largest and most complex tax ever levied on a U.S. industry."[27] Fortune magazine referred to the tax as one of "the most monumental excises ever levied in U.S. history..."[28]

REASONS FOR THE REPEAL OF THE WINDFALL PROFIT TAX

As was discussed in the background section, the crude oil windfall profit tax was repealed in August of 1988 -- three and one-half years before the expected onset of the termination date in January 1991. There was no one reason for repeal of the tax. Rather, repeal was caused by the confluence of several factors and conditions from 1987-1988.

The Congress became convinced that the tax was a complex and costly tax to comply with and to administer. It was a compliance burden to the oil-producing industry and an administrative burden for the Internal Revenue Service even though the tax generated little or no tax revenues. It is doubtful that the Congress would have repealed the WPT had it been generating significant revenues at that time or had it been expected to generate significant

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[26] U.S. Code #26, Internal Revenue Code Sections 4986-4990.

[27] U.S. General Accounting Office. *IRS's Administration of the Crude Oil Windfall Profit Tax.* p. 1.

[28] Chapman, Stephen. Government's Windfall from Windfall Profits. *Fortune*, March 24, 1980. p. 60.

revenue in the future. The fact that the tax was generating little or no revenue, however, made the argument that the tax was a burden easier to accept.

Another important reason for the repeal of the WPT was the recognition that the tax kept domestic oil production below what it would have been without the WPT and increased petroleum imports above the level of imports without the WPT. This made the United States more dependent upon foreign oil and therefore more vulnerable to either a price upsurge or a supply disruption. Petroleum imports were growing. From 1985 to 1986, there was a sharp increase in the share of oil use being met by imports. Oil imports as a percent of total oil use increased from 32 percent to nearly 38 percent -- one of the largest annual increases on record. Moreover, projections showed this degree of dependence rising to over 50 percent by 1990, a projection which has been realized.[29]

Finally, the domestic U.S. oil industry was experiencing very bad economic conditions due to the sharp fall in oil prices. Crude oil prices dropped from about $30 per barrel in the fall of 1985 to just over $10 per barrel in the summer of 1986. Since 1986, oil prices have been volatile but basically increasing. At the time of repeal oil prices were about $18 per barrel.

There was little question about the effect of the rapid price decline on the United States oil-producing industry. It had a devastating effect on oil producers (i.e., drillers, operators, and landowners with an economic interest in oil) in general, and the small independent producer in particular. According to industry data, earnings from exploration/production operations of selected companies in the first half of 1986 declined by about 60 percent from the first half of 1985.[30] This decline mirrored, roughly, the percentage decline in crude oil prices. After that profits started to recover, especially for independents.[31]

Declining profits from oil production sharply reduced drilling and exploration expenditures and employment. In the long run, oil production is expected to decline significantly. Two States in particular, Texas and Louisiana, were hit hard by low crude oil prices. In these States, oil and oil dependent businesses (such as banks and other financial institutions) became bankrupt, large numbers of employees were laid off, and revenues to State and local

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[29] U.S. Library of Congress. Congressional Research Service. *Oil Import Taxes: An Economic Analyis of S.694, The Economic Security Act of 1987.* CRS Report No. 87-779E by Salvatore Lazzari. August 10, 1987. Washington, 1987.

[30] Beck, Robert J. and Glenda E. Smith. Unparalleled Drop in Crude Prices Reduces Earnings for OGJ Group. *The Oil and Gas Journal*, v. 84, no. 35. September 1986. p. 17-22.

[31] Beck, Robert J. Without Texaco, OGJ Group Earnings Increase 25.1% In 1987. *Oil and Gas Journal*, v. 86, March 28, 1988. p. 6.

governments plummeted. According to the Bureau of Labor Statistics the oil and gas extraction industry nationwide lost about 130,000 jobs from the second quarter of 1985 to the second quarter of 1986.[32] Between 1982 and 1988, this industry lost about one-third of its jobs.[33] The collapse of oil prices has helped some segments of the industry such as independent refiners and marketers.

The Congress came to view the windfall profit tax as a burden on an industry that was becoming severely depressed due to the sharp drop in oil prices and due to the volatility in oil prices. Repealing the WPT did not reduce industry tax payments so it was of little actual economic benefit at that time because oil prices were below base prices and there was no tax liability to producers. However, higher oil prices in the future might have exceed base prices and the WPT would have been triggered. At the very least, repealing the WPT reduced business costs and improved industry profitability somewhat by eliminating the compliance burden of the tax.

Opponents of repeal basically made the following arguments: (1) the oil industry's income is an economic rent or monopoly profit to a highly concentrated industry which society, through taxation, should share in; (2) the oil industry benefits from other tax subsidies which have traditionally kept effective income tax rates very low; (3) if oil prices rise above base price levels, then the tax would generate additional revenues which are badly needed to reduce large Federal budget deficits; (4) the administrative apparatus is already in place and it makes little sense to eliminate the tax now, given that the tax is temporary. This final argument in favor of retaining the WPT was, in effect, a counterargument to those who have criticized the tax as a compliance and administrative burden. The point was that, even admitting its complexity, the WPT system was already in place. Much of the costs of administering the tax are fixed costs. They had been in large part, already incurred since most of the regulations had been promulgated. Given that the IRS had already incurred the fixed costs of running the WPT system, and given that the system would only be in effect for seven more years, they argued it made little sense to eliminate it.

REINSTATING THE WINDFALL PROFIT TAX

The doubling of crude oil prices from June to August 1990, due to the latest crisis in the Middle East, has made many policymakers concerned that the domestic U.S. oil industry would reap enormous and unearned windfall profits. Some propose that either the old windfall profit tax be reinstated or that some new version of that tax be introduced. Senator Packwood has announced plans to introduce a bill to impose a windfall profit tax on crude

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[32] U.S. Department of Labor. Bureau of Labor Statistics. *Monthly Labor Review*, v. 109, no. 8, August 1986. p. 6.

[33] U.S. Department of Labor. Bureau of Labor Statistics. *Monthly Labor Review*, v. 111, no. 3, March 1988. p. 72.

oil. According to the Senator, the proposed bill will be fashioned after the windfall profit tax that was in effect between 1980 and 1988. This section of the report discusses some insights that policymakers may have gleaned from the eight year experience and the economic implications of reinstating the windfall profit tax.

THE QUESTION OF WINDFALL PROFITS

In just two months from the beginning of July 1990 to August 1990, domestic oil prices (the spot price of West Texas Intermediate) have nearly doubled increasing from just over $16 per barrel to nearly $32 per barrel. This, in effect doubles the value of oil reserves, and roughly doubles the revenue from the sale of domestically produced oil. Every barrel of oil was worth twice as much in August than in July. Any increase in oil prices make oil reserves and production more valuable, just as any higher market price for a commodity makes inventories or other stock of that product more valuable.[34] Using domestic oil production of 8 million barrels per day, a doubling of crude oil prices would generate an additional $50 billion in annual revenue to oil producers. If prices were to decline to $27 and stabilize at that rate for one year, revenues would increase by about $30 billion. Profits would also increase, but not by the increased revenue because income taxes -- Federal and State and local -- would have to be paid on the windfall. Current income taxes would recoup 34 percent of any increase in oil industry profits.[35]

Most of any additional revenue and profit would accrue to the major oil companies since they own most of the reserves and produce the bulk of the oil in the U.S. According to available data, the largest 20 or 30 producers account for about 2/3 of total domestic production.[36] Thus of the $50 billion in higher revenues, about $33 billion would accrue to the major oil companies, and $17 billion would accrue to smaller producers, including landowners (also known as royalty owners).

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[34] An example is the stock of homes. As the price of new homes increases -- due to inflation, increase in relative prices, or other reason -- the value of the existing stock of homes also increases so that homeowners experience a windfall.

[35]The marginal statutory rate is the appropriate rate to use in this instance rather than the marginal effective tax rate. The marginal rate includes the effects of intangible drilling costs and other tax provisions which enter into the calculation of the tax on income from the marginal *investment.* In the windfall profits tax situation in the text, there is no marginal investment hence these oil and gas tax incentives/subsidies do not enter into the calculation.

[36] *1983 U.S.A. Oil Industry Directory.* Penn Well Publishing Co. 1983; and American Petroleum Institute. *Market Shares and Individual Company Data for U.S. Energy Markets: 1950-1984*, Washington, 1985. p. 30.

These sharp and rapid increases in profits, if they are realized, would be a pure windfall in the sense that they are an unforeseeable, unanticipated gain that accrues to owners of the Nation's stock of oil reserves. In a sense they are unearned: little or no additional cost or effort is incurred in generating this additional income; oil that would have been produced at $16 or $17 per barrel, but that can now be sold for $32 per barrel. In another sense they are earned: increased profits are the reward for the risks the industry takes to provide petroleum products to consumers.

In addition to the higher profits accruing to oil producers, there appears to be additional profits accruing to refiners, but these increases have been smaller than the profits accruing to producers. From the beginning of July to the end of August, the spot market price of unleaded gasoline at the wholesale level increased by $0.44 per gallon, from $0.62 per gallon to $1.06 per gallon -- an increase of 71 percent.[37] The price of fuel oil, which is used to make diesel and heating oil, increased by $0.41 per gallon from $0.49 per gallon to $0.90 cents per gallon -- an increase of 84 percent. These increases compare with the increase in crude oil costs -- on a per gallon basis -- of $0.38 cents per gallon ($16 divided by 42). Because the increases in product prices are larger than the increases in crude prices, it appears that refiners' profit margins have increased during this two month period.

One measure of refinery profit margins is called the "crack spread." The crack spread measures the weighted difference between the wholesale price of gasoline and fuel oil on the spot market, and the price of crude oil. This difference is weighted according to the yield from one barrel of oil: three barrels of crude oil input produces an average of two barrels of gasoline and one barrel of fuel oil. The crack spread at the beginning of July was about $11 per barrel ($0.26 per gallon). This was the highest in five years; the average spread from 1985 to 1990 was about $4.5 per barrel ($0.11 per gallon). The crack spread at the end of August was about $12 per barrel ($0.29 per gallon). In other words, from July to August 1990 refinery margins only increased about $0.3 cents per gallon.

It appears, therefore, based on these preliminary estimates that most of the windfall profits would accrue to crude oil owners and producers, and only a small portion to refiners. The major integrated oil companies should benefit from both higher crude oil prices and higher refinery margins; the independents will benefit less since the higher refinery margins are largely, but not totally offset by higher crude oil prices.

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[37] The "spot market" is the market that a buyer would go to purchase a commodity "on the spot." It is a very important part of the oil market, and a significant amount of crude oil and petroleum products are purchased there.

REVENUE EFFECTS

Even without a windfall profit tax Government tax revenues would increase commensurate with any oil industry windfall. This is because as profits of the oil producers increase so does taxable business income. Since there is little or no cost incurred in generating the added profits, then all of the revenue gains would be taxable. At a marginal tax rate of 34 percent -- the marginal corporate tax rate -- the Federal Government would gain about 34 percent of any oil industry windfall. At $32 per barrel oil price Federal tax revenue would be $17 billion higher; at $27 per barrel revenues would be about $10 billion more.

We have also calculated the revenue effects from reinstating the windfall profit tax under the old structure. Using the same tax rates, inflating the 1988 base prices to 1990 base prices according to the formulas in the statute, and assuming market oil prices are sustained at $27 per barrel for one year, gross WPT revenues would be about $2.2 billion. Net revenues would be about $1.5 billion. The difference of $0.7 billion would represent the loss in income tax revenues due to the deductibility of the WPT against business income.

The reason that net WPT revenues would be small is that the 1988 base prices (those reported in table 1) would have to be readjusted upward according to the inflation rate from 1988 to 1990, which reduces the tax base. Higher revenues could obviously be generated by using lower base prices or raising the tax rates. Lowering the base prices would raise the problem of how to determine appropriate base prices and how to justify the base prices. Under the old WPT law, the base prices were basically the old controlled prices adjusted upward by inflation. No such guideline is available today since oil prices are no longer controlled. Raising the tax rates would also be difficult because for most oil tax rates under the old tax law were either 60 or 70 percent. The low tax rate of 22.5 and 30 percent were for newly discovered oil and for independent producers, respectively. The former was enacted to provide incentives, or at least minimize the disincentives for continued exploration and production. The latter was enacted to minimize the tax burdens on the individual producer and landowner. Finally, higher revenues could be generated by reducing or eliminating the exemptions (listed on p. 2), which account for about 1/4 of all domestically produced oil.

OTHER ECONOMIC IMPLICATIONS

Reinstating the windfall profit would make the United States more dependent upon foreign oil. This is likely to be a more serious problem in 1990 because, unlike in 1988 when the United States was importing 38 percent of its petroleum use, the U.S is now importing close to 50 percent of its petroleum use. The windfall profit tax would reduce domestic oil production and increase the demand for imported oil and petroleum products.

Reinstating the windfall profit tax would probably raise the question of the burden and cost of compliance and administration of the tax, which was an important rationale for repeal of the tax in 1988. This issue seems to become more of a concern when WPT revenues don't live up to expectations. Unless the tax were greatly simplified, or unless a large amount of revenue was generated from the tax, past experience suggests that this would be a serious problem in reinstating the WPT. Since there is no reason to believe, based on market fundamentals that the recent oil price upsurge is a lasting one, and since oil prices have been highly volatile in recent years, there is no way to judge whether WPT revenues would be large enough to justify the alleged high costs of compliance and administration.

Finally, reinstating the windfall profit tax would be detrimental to small oil producers and individual royalty owners who have not fully recovered from the economic recession that befell the industry after the price plunge of 1986. The U.S. oil-producing industry comprises not just the large major integrated oil companies but thousands of independent producers and millions of royalty owners having an economic interest in oil.[38]

CONCLUSIONS

Should the windfall profit tax, or a similar tax, be imposed on the oil industry to capture any windfall from the latest "oil shock?" There is no question that producers and refiners might reap enormous windfall profits if the recent price upsurge is sustained. But it is not a certainty that the recent price spike will be sustained. Already, at this writing crude oil prices have declined to $26 per barrel. And barring any other problems in the Middle East, prices should decline somewhat further. It should be remembered that oil prices declined from a high of over $30 per barrel in the early 1980s to about $10 per barrel at its low point in the spring of 1986. Since then domestic oil prices have been rather volatile. From this behavior of oil prices, is not clear that there will be a persistent windfall profit for the longer run; and that while there may be temporary windfalls in periods of sharp price upsurges, there will be "windfall losses" in periods of price plunges.

It is important to underscore that the United States oil industry is neither a monopoly or a member of a cartel: it is not capable of controlling the price of oil nor the price of refined products, which are both determined in the world markets. Nor is the U.S. industry a member of OPEC -- it plays no part in the collusion within the cartel to help establish the price of oil around the world. If the U.S oil industry is neither capable of controlling the price of petroleum and plays no direct role is establishing these prices, then it cannot control whether it earns persistent windfall profits. To be sure it may earn windfall profits

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[38]U.S. Congress. Senate. *Small Royalty Owners Exemption From the Windfall Profit Tax.* Hearings before the Committee on Finance. May 21, and July 17, 1980. U.S. Govt. Print. Off. Washington, 1980.

under the cover of an oil price umbrella established or significantly determined by OPEC, as happened in the recent two month period from July-August 1990. But just as sure, the industry might suffer windfall losses when OPEC decides to push oil prices downwards, as happened in 1986.

It might be important to note that the oil market situation in 1990 is different than that of 1979, although Middle East turmoil appears to be underlying the price upsurge in both periods. Any windfall for the oil industry in 1979 was due to the deregulation of oil prices from Government controlled prices to market prices, as determined by OPEC. At that time, there were no commodity markets; the spot market was relatively less important than it is today. Thus it could be argued that domestic oil prices were being deregulated to levels that were not competitively determined.

Any windfall for the industry in 1990 is due to a change in prices induced by the turmoil in the Middle East. But crude oil prices are determined in a competitive market. At the present time, the commodity futures markets and the spot markets are exerting a significant influence over crude oil prices. The recent upsurge in crude oil prices is a response of the commodity markets in the United States to the events in the Middle East. It is not, as was the case in 1979, due to OPEC pricing decisions and supply disruptions. Moreover, OPEC seemed to have a much greater control over oil prices in the 1970s than they do today. The market power of OPEC has declined in recent years as member countries have increased their market share above cartel-set quotas, as non-OPEC producers have increased output, and with the discovery of relatively new sources of oil (e.g., the North Sea, Prudhoe Bay, and in countries such as Brazil, China, and India). However, OPEC still accounts for about 40 percent of the supplies in the non–Communist world (down from their peak of 62 percent in 1977) and a significant share of total world output. Moreover, in an attempt to regain its market share, OPEC was a major force behind the decline in oil prices from 1985 to 1986, and the subsequent increase to $19 per barrel. It would appear that OPEC has sufficiently large oil reserves and market power to significantly influence oil prices, though not control as they did between 1973 and 1982.