

## **FEDERAL TAX SUBSIDIES AND SPECIAL TAXES ON OIL**

## **CHAPTER 2**

Tax subsidies result from selective tax legislation that benefits particular groups of people or industries in the economy. In effect, they share the costs of certain actions between the private sector and the government, impacting investment decisions by increasing the expected returns associated with a particular pattern of economic activity. Tax subsidies take a variety of forms. Credits allow certain expenditures to be deducted from taxes owed. Reductions in the tax rate lower the percentage tax levels on particular activities relative to standard levels. Reductions in the taxable *basis* maintain the standard percentage tax rate, but allow higher than normal deductions from taxable income. Finally, alterations in the taxable entity may allow shifting of income and expenses in ways not normally allowed to reduce the tax burden.<sup>4</sup>

Tax subsidies directly targeted at oil production are the easiest provisions to identify. However, many provisions available to a broader range of economic activity also benefit the oil sector. This latter class of provisions are still properly included in our analysis of oil because other types of economic activity that could substitute for oil are placed at a relative economic disadvantage. Whenever we have included more broadly targeted tax breaks in our assessment, we have pro-rated the subsidy so that numbers included in the report reflect only oil's share. The degree of distortion in economic activity from tax subsidies varies from provision to provision. In general, greater distortions in economic decision making are likely to result from provisions that narrowly target beneficiaries and create large divergences from the standard tax rates paid by other entities in the economy.

Politicians often argue that tax breaks are costless. They are not. Although tax breaks do not require outlays from the U.S. Treasury, they reduce baseline tax revenues, funds that must be raised in other ways, often from other economic sectors. In addition, tax breaks can create economic distortions that encourage inefficient or unwarranted investment. For example, in the early 1980s, provisions allowing for highly accelerated depreciation of nuclear plants permitted much of the 40-year investment to be written off in a period of less than ten years.<sup>5</sup> The larger

---

<sup>4</sup> For additional background on tax expenditures, see Douglas Koplou, *Federal Energy Subsidies: Energy, Environmental, and Fiscal Impacts -- Appendix B*, Washington, DC: Alliance to Save Energy, 1993, "Chapter B2: Tax Subsidies to Energy."

<sup>5</sup> Richard Morgan, *Federal Energy Tax Policy and the Environment*, Washington, DC: Environmental Action Foundation, April 1, 1985.

the amount that actual service life exceeds the tax depreciation period, the greater the portion of the capital risk associated with these investments borne by the federal government. As occurred with nuclear power plants, this reduces the normal market signals that encourage investors to seek alternatives with shorter, less risky paybacks. Although tax subsidies to oil are not as severe as this example, their impact on market signals is the same.

Evaluating net subsidies to oil requires examining both tax breaks and special taxes on oil. Our approach to categorizing the various federal levies on the oil industry is summarized in Exhibit 2-1. Where taxes that are specific to the oil industry are used for general revenue purposes, they are treated as a special tax and netted from total subsidy values. However, not every levy on oil is a “special tax.” Many levies are earmarked for a specific purpose that benefits the production or sale of oil, or ameliorates a problem related to the oil fuel cycle. In essence, they reimburse the government for services to the industry. Examples include fees for leaking underground storage tanks, oil spills, and road building.<sup>6</sup> So long as these funds are used for their stipulated purpose and pay interest on any unused balances, they are not counted as special taxes, but are rather viewed as user fees. User fees are treated as offsets to the costs of programs they support. Other oil-related payments, such as royalties (discussed in detail in Chapter 6), are also not considered special taxes because they reflect a return to the resource-owner for selling the oil in question.

The remainder of this chapter examines federal tax breaks and special taxes for oil in more detail.

## **2.1 FEDERAL TAX BREAKS TO OIL**

We present tax breaks to oil in two ways.<sup>7</sup> The first section examines specific provisions that benefit oil, using data from the Joint Committee on Taxation (JCT) and the U.S. Treasury to estimate the value of the subsidies they provide. The second section provides a rough measure of the aggregate value of all tax breaks using data on the overall taxes paid by the major oil companies. These sections represent *alternative approaches* to estimate the value of subsidies to the industry; they are not additive.

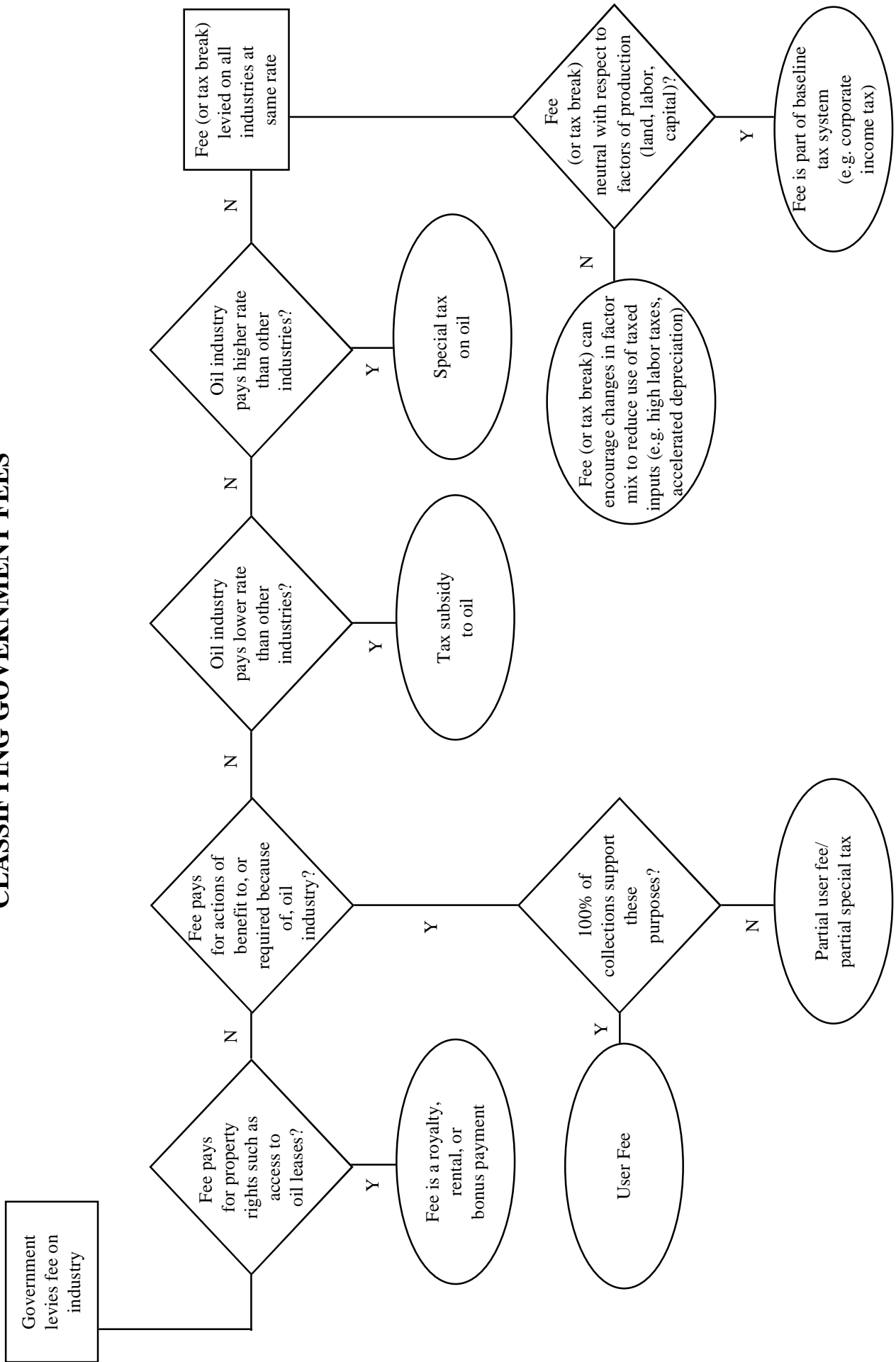
---

<sup>6</sup> Oil is generally viewed as a primary beneficiary of new road construction. This reflects the fact that oil is virtually the only fuel used in road transport and because use of oil for this purpose is by far the fuel’s major market, nearly three times the next largest market, that of home heating oil.

<sup>7</sup> Tax breaks are also called tax expenditures to reflect their cost to the government.

Exhibit 2-1

CLASSIFYING GOVERNMENT FEES



### **2.1.1 Major Tax Provisions Benefiting Oil**

Tax expenditure estimates are made on an annual basis by both JCT and the Treasury. The two organizations prepare their estimates independently and often do not agree on estimated tax losses. Both sources develop estimates using a revenue loss approach, which estimates how much additional revenue the Treasury would collect in the absence of particular tax provisions, and best reflects the cost to taxpayers for these provisions.<sup>8</sup> The Treasury also develops a second set of estimates using an outlay equivalent approach. Outlay equivalents reflect the fact that tax breaks convey tax-free benefits. The approach measures the amount that would have to be paid to the taxpayer to derive the same *after-tax* income as obtained under the revenue loss approach. For this reason, the outlay equivalent approach best reflects the value of the breaks to industry.

We have pro-rated the tax expenditure estimates to reflect their value to the oil industry. The exhibits that follow include both a high and a low estimate for many of the provisions, and this range can be fairly large. Differences between our high and low estimates sometimes reflect variance in our calculation methods or allocation assumptions. More often, however, the range reflects differences between the revenue loss and outlay equivalent approaches, as well as differences in the assumptions made by JCT and the Treasury. Since neither of these groups publish detailed derivations of their estimates, we were unable to evaluate particular assumptions in order to narrow the estimate range.

Exhibit 2-2 provides an overview of federal tax breaks benefiting oil and Appendix Exhibit A-2 provides more detailed information on each estimate.<sup>9</sup> The following are the largest sources of subsidy:

- **Accelerated depreciation.** Accelerated depreciation provisions enable capital investments to be written off more quickly than their actual service lives. While this provision applies to all capital investments (including renewable energy), the largest beneficiaries are established, capital-intensive industrial sectors, of which oil is one. We have pro-rated these provisions based on the portion of total capital expenditures that is related to oil. Although the tax losses from accelerated depreciation have been reduced substantially since the Tax Reform Act of 1986, the Congressional Research Service notes that the economic decline rate for both equipment and buildings is still “much slower than that reflected in

---

<sup>8</sup> This calculation is made for each tax break individually. In reality, companies often find alternative mechanisms to shelter income when a particular tax break is removed. Thus, the values from both sources should be viewed as rough estimates.

<sup>9</sup> All estimates are net of the alternative minimum tax (AMT). The AMT was instituted to counteract the large deductions that profitable corporations used in the 1980s to eliminate their tax liability completely. In theory, the AMT ensured that such firms, regardless of eligibility for particular tax breaks, paid some taxes to the Treasury. In practice, it has had very little impact on the actual taxes paid by the oil industry.

Exhibit 2-2

FEDERAL TAX EXPENDITURES BENEFITING OIL IN FY1995  
(Millions of 1995 Dollars)

| Provision   | Prorated Share Benefiting Oil |              | Primary Source of Variance* |
|---|-------------------------------|--------------|-----------------------------|
|   | Low                           | High         |                             |
| <b>Tax Provisions Targeted Directly at Oil</b>  |                               |              |                             |
| Expensing of oil and gas exploration and development costs  | (146)                         | 243          | JCT/Treasury                |
| Excess of percentage over cost depletion  | 335                           | 746          | JCT/Treasury & Est. Meth.   |
| Alternative (non-conventional) fuel production credit   | 10                            | 27           | Est. Meth.                  |
| Exception from passive loss limitation for working interests in oil and gas properties                          | 31                            | 31           | NA                          |
| Enhanced oil recovery credit  | 25                            | 25           | NA                          |
| Expensing of tertiary injectants  | 25                            | 25           | NA                          |
| <b>Subtotal for Direct Provisions‡</b>  | <b>280</b>                    | <b>1,097</b> |                             |
| <b>Broader Tax Provisions Also Benefiting Oil</b>   |                               |              |                             |
| Deferral of income from controlled foreign corporations   | 62                            | 303          | JCT/Treasury & Allocation   |
| Foreign Tax Credit  | 486                           | 1,057        | Allocation                  |
| Expensing of research and experimentation expenditures  | 15                            | 25           | JCT/Treasury                |
| Credit for increasing research activities   | 18                            | 28           | Est. Meth.                  |
| Accelerated depreciation of buildings other than rental housing   | 234                           | 355          | JCT/Treasury                |
| Accelerated depreciation of machinery and equipment   | 720                           | 976          | Allocation                  |
| Treatment of Alaska Native Corporations   | 5                             | 8            | Allocation                  |
| Deferral of tax on shipping companies   | 10                            | 48           | JCT/Treasury                |
| Exclusion of interest on industrial development bonds for airports, docks, and sports and convention facilities | 50                            | 77           | Est. Meth.                  |
| <b>Subtotal for Indirect Provisions‡</b>  | <b>1,599</b>                  | <b>2,876</b> |                             |
| <b>Subtotal for All Provisions‡</b>   | <b>1,879</b>                  | <b>3,973</b> |                             |
| <b>Incremental Reduction in State Tax Liability Due to Federal Tax Breaks to Oil</b>                            | <b>56</b>                     | <b>119</b>   |                             |
| <b>TOTAL‡</b>   | <b>1,936</b>                  | <b>4,092</b> |                             |

\* There are three primary sources for variance between the high and low estimates for tax breaks to oil: differences between the expenditure estimates reported by the Joint Committee on Taxation and the Treasury ("JCT/Treasury"), between the Treasury's methods for estimating tax expenditures ("Est. Meth."), and between the allocation methods used for prorating expenditures to oil ("Allocation").  
‡ Numbers do not add due to rounding.

tax depreciation methods.”<sup>10</sup> We estimate that accelerated depreciation provisions conferred tax benefits worth \$954 million to \$1.33 billion in 1995.

- **Percentage depletion.** Normally, capital assets are deducted from taxable income over a period of years, until the entire investment is written off. Percentage depletion allowances for oil allow the industry to write off a percentage of the gross *income* from oil production each year, as opposed to a percentage of the gross *investment*. As a result, deductions can actually exceed the original investment. Beginning in 1975, the provision was successively narrowed so that it primarily benefited smaller, independent oil companies. However, this trend has been reversed somewhat since 1990, because percentage depletion has been allowed on transferred properties (even if the new owner would not otherwise be eligible for percentage depletion benefits) and exempted from the Alternative Minimum Tax.<sup>11</sup> In 1995, the value of this provision was approximately \$335 million to \$746 million.
- **Expensing of Oil Exploration and Development Costs.** This provision allows oil companies to immediately deduct many types of expenses from their taxable income that other industries must deduct over multiple years.<sup>12</sup> The ability to expense these costs encourages increased exploration and extraction of domestic oil. According to the Congressional Research Service, this provision is mostly claimed by integrated oil producers.<sup>13</sup> We estimate the value of this provision to be as much as \$243 million in 1995.
- **Foreign Tax Credits (FTCs).** Foreign tax credit provisions allow firms that operate in both the U.S. and abroad to avoid double taxation. In reality, oil companies are often able to receive credit for payments to foreign governments that are actually royalties rather than taxes paid.<sup>14</sup> This is especially apparent when oil companies report paying taxes in countries that have no corporate income taxes. In other cases, tax rates are

---

<sup>10</sup> Congressional Research Service, *Tax Expenditures: Compendium of Background Material on Individual Provisions*, Senate Committee on the Budget, December 1996, pp. 228, 233.

<sup>11</sup> *Ibid.*

<sup>12</sup> This provision applies to investments in producing wells only. Investments into dry wells, as with any defunct asset, can be written off immediately under standard tax law.

<sup>13</sup> Congressional Research Service, December 1996, p. 53.

<sup>14</sup> See Edwin Rothschild, *Oil Imports, Taxpayer Subsidies and the Petroleum Industry*, Washington, DC: Citizen Action, May 1995, pp. 13-15, for a detailed history of the foreign tax credit and oil companies.

higher for oil companies than for other sectors, suggesting similar shifting.<sup>15</sup> By disguising royalties as taxes, oil companies can claim *credits* against U.S. taxes owed rather than *deductions*, as royalties are normally treated.

Using an approach developed by Wahl, our low estimate assumes that all foreign taxes paid in nations that have no standard corporate income taxes are actually royalties.<sup>16</sup> We then calculate the additional taxes that would be paid if they were treated as royalties instead of taxes (i.e., deducted instead of credited). Our high estimate assumes that 50 percent of all foreign tax credits claimed by oil companies are really disguised royalties, including a portion of the tax paid in foreign nations that *do* have some corporate income taxes.<sup>17</sup> These approaches yield estimates of \$486 million and \$1.06 billion for this subsidy in 1995.

- **Deferral of Foreign Income.** When a U.S. firm earns income through a foreign subsidiary, that income is taxed only when it is repatriated as dividends or other income (at which point taxes paid on the income in the foreign country are also credited against U.S. taxes owed). Because the parent firms are able to time when this happens, they can defer their U.S. tax liabilities for many years. As international oil companies are both large and operate in many other countries, it is clear that they benefit from this tax deferral. We estimate that this provision confers between \$62 and \$303 million in reduced taxes per year.<sup>18</sup>

---

<sup>15</sup> Proposals to reform FTCs claimed by oil companies have been introduced for about the past six years, but have been unsuccessful. Although quantitative analyses of the benefits to oil companies prepared by JCT are not publicly available, JCT did confirm that oil companies continue to pay differential rates in many large oil producing nations. Pat Dreissen, Joint Committee on Taxation, personal communication, February 24, 1998.

<sup>16</sup> See Jenny Wahl, *Oil Slickers: How Petroleum Benefits at the Taxpayer's Expense*, Washington, DC: Institute for Local Self Reliance, August 1996, p. 7.

<sup>17</sup> Wahl's high estimate assumed that all foreign taxes paid were disguised royalties, an assumption that we did not feel was realistic (Wahl, p.7). Corporate income taxes do exist in other countries. Furthermore, Braathen has argued that, in addition to taxes paid on profits, some governments require *de facto* taxes in the form of required exploration and development spending (Nils Axel Braathen, OECD, personal communication, December 11, 1997). Nonetheless, we agree that the practice of disguising royalties as taxes is likely to occur in countries that have some corporate income tax, and not just those that have none. In such cases, taxes paid would include both the corporate income tax and royalties. Such an arrangement would benefit both foreign governments and the oil companies.

<sup>18</sup> Our low estimate follows Wahl's methodology, allocating the total value of the tax expenditure by the 10 to 15.9 percent of the 7,500 largest controlled foreign corporations that were associated with oil and gas interests in 1996 (Wahl, p. 6). We then allocate a portion of this to oil based on oil's share of total foreign pre-tax income earned by the largest U.S. energy companies. Our high estimate pro-rates the deferred foreign income of major oil producers (based on EIA data) by oil's share of total foreign pre-tax income.

- **State and Federal Interactions.** Most state tax systems use the adjusted gross income value from federal returns as a starting point for calculating state taxes. Thus, tax breaks that reduce the federal taxable income also reduce the taxes paid at the state level, magnifying the distortionary effect of the federal breaks. Our estimate assumes an average state corporate tax rate of 5 percent, yielding a 3 percent increase in tax benefits (\$56 to \$119 million) once interactions between state and federal taxes are taken into account.<sup>19</sup>

### **2.1.2 Effective Tax Rates on the Oil Sector**

Another way to estimate the value of tax breaks is to examine data provided by the Energy Information Administration (EIA) on actual taxes paid by the industry. The *statutory*, or *marginal*, tax rate is the percentage of taxable income that would be paid as taxes in the absence of special provisions. The average *effective* tax rate measures what the industry actually paid. The difference between the two values is a proxy for the aggregate value of all tax breaks to a particular industry.<sup>20</sup>

As with tax expenditures, the effective tax rate data provided by EIA are subject to a number of caveats. First, they are based on survey data of only the largest oil producers. Thus, they do not reflect tax breaks (such as percentage depletion) that are primarily used by smaller firms.<sup>21</sup> Second, they are calculated after standard business deductions, such as depreciation, and therefore do not reflect the benefits enjoyed by the industry from accelerated depreciation provisions or the expensing of exploration and development costs.

According to the EIA's data, the average effective tax rate on integrated operations fell from 21.5 percent during the 1977-1981 period to only 8.7 percent for 1992 to 1995. During that same period, the corporate statutory rate has also fallen by about 12 percentage points, from 47 to

---

<sup>19</sup> Average percentage rates are from Wahl, p. 8.

<sup>20</sup> Corporations pay a graduated income tax, rising from a low of 15 percent on the first \$50,000 in taxable income in 1995 to 35 percent for all taxable income over \$18.3 million. Given the large multinational oil companies in our data set, as well as IRS recapture provisions which charge higher marginal rates of 38 and 39 percent for taxable income between \$100,000 and \$335,000 and between \$15 and \$18.3 million, it is reasonable to assume an overall statutory rate of approximately 35 percent for oil.

<sup>21</sup> George Miller, Chairman of the U.S. House of Representatives Committee on Natural Resources, states that the effective tax rate on independent oil and gas producers is estimated to be zero. (George Miller, "Unjustified Giveaway to the Oil Industry," *Albion Monitor*, September 2, 1995, obtained from <http://www.monitor.net/monitor>, September 1997.) In contrast, the Independent Petroleum Association of America, representing the independent oil and gas producers, claims that a 1995 survey of independent producers "found that the effective tax rate for the industry [was] 20 percent greater than other industries." (Independent Petroleum Association of America, "Domestic Oil and Natural Gas Producers Call on Congress for Fairer, More Competitive Tax System," July 31, 1996, obtained from <http://www.ipaa.org>, October 29, 1997.) Given that the majors have a lower effective tax rate than other industries, and that independents are eligible for additional tax breaks, IPAA's finding seems counterintuitive.



35 percent. However, as Exhibit 2-3 shows, integrated producers have paid roughly 25 percentage points less in taxes than their statutory rates suggest they owe. This differential is evidence of the substantial tax breaks they have received over the past 20 years.

Special provisions reduced integrated producers' tax liabilities by roughly \$7.0 billion in 1995. This approach yields subsidy estimates nearly \$3 billion higher than what we calculated on a provision-by-provision approach. About \$1 billion of this differential can be accounted for by the fraction of foreign tax credits claimed and state/local tax deductions that are properly excluded from U.S. taxable income to avoid double taxation. This leaves a \$2 billion discrepancy between the two estimation methods that we are unable to reconcile given available data. Due to this limitation, we use the lower estimates for tax subsidies, calculated on a provision-by-provision basis, in our totals. Although this approach is more conservative, it may understate the value of tax breaks to oil.

Exhibit 2-3 also illustrates that the Alternative Minimum Tax provisions, implemented to ensure that all profitable companies pay a fair tax regardless of tax preference items, have made little difference in the taxes owed by the integrated energy firms included in the EIA survey.

Other tax data made available by EIA (see Exhibit 2-4) indicate that the production part of the oil fuel cycle benefits from substantially lower taxes overall than downstream operations, and that global tax rates on all oil operations have fallen since 1980. In 1995, integrated oil companies had an aggregate effective tax rate for federal, state, local, and foreign taxes of 37 percent for their U.S. refining, marketing, and transportation operations, compared to only 20.3 percent for domestic production.<sup>22</sup>

## **2.2 THE EVER-CHANGING TAX ENVIRONMENT: NEW TAX BREAKS FOR OIL**

While tax expenditure provisions expire, others are enacted with each new tax bill passed by Congress. In this ever-changing arena, continued vigilance is necessary to provide an up-to-date picture of subsidies. The recently passed *Taxpayer Relief Act of 1997* (TRA) is an example of a very large (though fairly infrequent) revision of the tax code that often contains many new tax subsidies. This specific act contained approximately \$130 billion in new tax breaks.

We analyzed TRA to identify components that provide new subsidies to oil, and found a few new provisions that benefit the industry.<sup>23</sup> None of these items are included in our quantified subsidies since they were not in effect during 1995, our base year.

---

<sup>22</sup> U.S. Energy Information Administration, *Performance Profiles of Major Energy Producers 1995*, supporting data file provided by Jon Rasmussen, EIA, August 1997.

<sup>23</sup> The proposed H.R. 1648, "The National Security Act of 1997," contained five provisions increasing subsidies to oil production, but only one was eventually integrated in TRA 1997. The defeated provisions included an attempt to count water reinjection to maintain well pressure (a process used by most wells) as "advanced" recovery eligible for the enhanced oil recovery tax credit. They also included a provision to expand capital expenses that could be deducted from taxes immediately. See "H.R. 1648 The National Energy Security Act of 1997," provided by the Office of Wes Watkins (R-Oklahoma), November 6, 1997.

**Exhibit 2-3**

**FEDERAL TAXES PAID BY FRS COMPANIES (Note 1)  
(Millions of Dollars)**

|   | <b>1977-1981</b> | <b>1982-1986<br/>(Multi-year Totals)</b> | <b>1987-1991</b> | <b>1992-1995</b> | <b>1995<br/>(Single Year Total)</b> |
|---|------------------|--|------------------|------------------|-------------------------------------|
| Income Subject to U.S. Taxation (Note 2)                  | 204,903          | 177,382                                  | 135,138          | 97,545           | 30,195                              |
| Actual Taxes Paid (Refunded)                              | 44,059           | 30,074                                   | 20,858           | 8,490            | 3,585                               |
| Average Effective U.S. Federal Tax Rate for FRS Companies | 21.5%            | 17.0%                                    | 15.4%            | 8.7%             | 11.9%                               |
| Average Federal Statutory Marginal Rate During Period     | 46.8%            | 46.0%                                    | 35.3%            | 34.7%            | 35.0%                               |
| <i>Average Rate Differential</i>                          | -25.3%           | -29.0%                                   | -19.8%           | -26.0%           | -23.1%                              |
| Resulting Reduction in Tax Liability at Marginal Rate     | (51,272)         | (51,520)                                 | (26,309)         | (25,443)         | (6,982)                             |
| <b>Sources of Reduced (Increased) Tax Liability</b>       |                  |  |                  |                  |                                     |
| Provisions related to foreign taxes paid                  | 80.6%            | 96.4%                                    | 107.2%           | 81.5%            | 83.0%                               |
| Provisions related to state & local taxes paid            | 4.6%             | 3.5%                                     | 5.4%             | 2.9%             | 2.2%                                |
| Investment tax credits                                    | 14.9%            | 14.7%                                    | 1.4%             | 1.3%             | 1.4%                                |
| Percentage depletion                                      | 2.6%             | 2.1%                                     | 2.1%             | 0.9%             | 1.0%                                |
| Alternative Minimum Tax offset                            | 0.0%             | 0.0%                                     | -0.2%            | 0.4%             | 0.0%                                |
| Other (e.g., Section 29 credits)                          | -2.7%            | -16.7%                                   | -15.9%           | 13.0%            | 12.4%                               |
| Total (Note 3)  | 100.0%           | 100.0%                                   | 100.0%           | 100.0%           | 100.0%                              |

**Notes:**

- (1) FRS companies are comprised of major energy producing corporations that report annually to the Energy Information Administration's Financial Reporting System. Nearly 80 percent of these firms' revenues are derived from petroleum operations.
- (2) Includes income from all activities, not just oil. The figures are net of accelerated depreciation and expensing. These tax provisions are factored into taxable income rather than being reported as deductions from that income. Therefore, the reduction in tax liability, which is calculated based on taxable income, does not account for tax breaks related to accelerated depreciation and expensing.
- (3) Numbers do not add due to rounding.

**Source:** U.S. Energy Information Administration, Department of Energy, *Performance Profiles of Major Energy Producers 1995*, datafile for Table B19 provided by EIA.

Exhibit 2-4

**GLOBAL TAX BURDEN FOR MAJOR OIL COMPANIES, BY ACTIVITY\***  
(Includes Federal, State, Local, and Foreign Tax Payments)

| Year               | U.S. Petroleum         |                      |       | Foreign Petroleum      |                      |       |
|--------------------|------------------------|----------------------|-------|------------------------|----------------------|-------|
|                    | Oil and Gas Production | Refining/Mktg/Transp | Total | Oil and Gas Production | Refining/Mktg/Transp | Total |
| 1980               | 45.9%                  | 42.5%                | 45.2% | 73.9%                  | 39.5%                | 66.5% |
| 1985               | 44.6%                  | 44.0%                | 44.4% | 68.4%                  | 83.5%                | 68.9% |
| 1990               | 32.6%                  | 37.2%                | 34.2% | 54.0%                  | 37.8%                | 50.2% |
| 1995               | 20.3%                  | 36.9%                | 28.2% | 52.8%                  | 30.6%                | 48.1% |
| Average, 1977-1995 | 38.5%                  | 37.8%                | 39.0% | 61.6%                  | 42.4%                | 57.4% |

\* Rates shown equal total tax payments to all governments as a percent of taxable income.

**Source:** U.S. Energy Information Administration, Department of Energy, *Performance Profiles of Major Energy Producers 1995*, supporting datafile provided by Jon Rasmussen, EIA, August 1997.

- **Increased ability to utilize existing oil and gas percentage depletion allowance.** Existing rules cap the ability of firms to offset their taxes with the percentage depletion allowance. These rules have reduced the value of this tax subsidy to larger producers over the past twenty years. TRA relaxes these rules, increasing the ability of existing producers to use the existing provision by about \$70 million between 1998 and 2000. As currently written, this provision will exist for only two fiscal years. Thus, once the subsidy is annualized and pro-rated between oil and gas, the market impacts are not likely to be substantial. However, short-term provisions are often extended year-after-year for decades. Extensions would increase the importance of the subsidy substantially.
- **Increased Ability to Utilize Existing Accelerated Depreciation Provisions.** The Alternate Minimum Tax (AMT) was developed to ensure that all profit-making entities paid a minimum level of tax, despite the range of tax breaks available to them. One aspect of the AMT was slower depreciation than available to non-AMT taxpayers. TRA eliminates this distinction. As a result, the provision effectively reduces the minimum tax level under AMT and increases the losses to the Treasury under the standard accelerated depreciation provisions. The Joint Committee on Taxation estimates that incremental losses to the Treasury will be \$18.3 billion for FY1997 through FY2007 from all industries.<sup>24</sup> Allocating this subsidy based on oil's share of total AMT payments yields a new subsidy to oil worth \$770 million, or about \$70 million per year.<sup>25</sup> Allocating based on the oil sector's share of total capital spending yields a similar result.
- **Elimination of the use of motor fuels tax receipts for deficit reduction.** Road transportation is almost entirely dependent on oil, and cars and trucks provide the fuel's primary market. A tax on gasoline and diesel fuel finances many of the country's roads. For the past several years, a portion of the gasoline tax went to deficit reduction rather than to road construction. These funds offset a portion of the general taxes now used to build roads.<sup>26</sup> TRA eliminated the use of any of the motor fuels tax receipts for deficit reduction. If receipts previously allocated to deficit

---

<sup>24</sup> Joint Committee on Taxation, "Estimated Budget Effects of the Conference Agreement on the Revenue Provisions of H.R. 2014, the 'Taxpayer Relief Act of 1997': Fiscal Years 1997-2007," July 30, 1997, JCX-39-97, p. 2.

<sup>25</sup> According to JCT, the share of current AMT payments is a reasonable method by which to allocate benefits to specific industries. Tom Barthold, JCT, personal communication, February 20, 1998.

<sup>26</sup> Some analysts counted this portion of the tax as an offset to oil subsidies, ignoring the fact that billions of dollars of general tax revenues supplement the gasoline excise tax to finance road construction and repair. See, for example, U. S. Energy Information Administration, *Federal Energy Subsidies: Direct and Indirect Interventions in Energy Markets*, November 1992.

reduction are now used to increase road spending, then what was once an offset to subsidies will disappear. The result could be a \$2 billion increase annually in net subsidies to highway construction.

- **Climate Change Action Plan.** The Clinton administration's greenhouse gas emission reduction plan may also include new subsidies to the oil industry. Although the support will not start until FY1999, early discussions suggest the plan will provide \$5 billion in incentives, a portion of which may provide tax breaks and research support to the oil industry for emission reduction activities.<sup>27</sup>

### **2.3 SPECIAL TAXES ON OIL**

As we discussed at the beginning of this chapter, the government levies many fees on the oil industry. Some fees reflect the baseline treatment of all industries in the economy, while others specifically target the oil. Of this latter category, "user fees" reimburse the government for its oil-related activities, while "special taxes" increase oil's general tax burden above the normal baseline for all industries. In this report, we deduct user fees from the specific oil-related programs they help fund. We treat special taxes as a general offset to overall subsidies.

Exhibit 2-5 summarizes federal taxes specific to oil. Nearly all of these levies are user fees because they serve to address issues associated with oil production and consumption, such as leaking storage tanks and spills. The largest federal levy, that on motor fuels, pays for the construction of roads. While not related to oil production *per se*, it is clear that the public construction of highways greatly benefits oil producers since the primary demand for oil is from the cars and trucks using these roads. Thus, the motor fuels tax, like many other federal taxes on oil, is appropriately treated as a user fee.

At the Federal level, the only levy on oil that qualifies as a "special tax" on industry is the crude oil windfall profits tax, which was created to prevent the oil industry from selling existing reserves at the higher market price that prevailed during the oil price shocks. In many markets with short-term scarcities that lead to windfall profits for a period of time, the government rarely intervenes to levy a special tax as it did for oil. However, the windfall profits tax was no longer in effect in 1995, so it does not affect our analysis.

---

<sup>27</sup> "Administration Begins Crafting Plan to Cut Greenhouse Emissions," *Inside EPA*, October 31, 1997, p. 10.

Exhibit 2-5

FEDERAL TAXES ON OIL

| Provision                                   | Tax Base                  | Non-User Fee Share to Oil | Net Oil Subsidy Offset (\$millions) | Allocation Base and Rationale  |
|---|---------------------------|---------------------------|-------------------------------------|--|
| <b>Motor Fuels Excise Tax</b>               |                           |                           |                                     |  |
| Leaking Underground Storage Tank Trust Fund | Consumption               | 0%                        | \$0                                 | Funds oil-related problem.   |
| Aquatic Resources Trust Fund                | Transport/<br>Consumption | 0%                        | \$0                                 | Funds oil-related problem.   |
| Highway Trust Fund                          | Consumption               | 0%                        | \$0                                 | Funds road construction, benefiting oil consumption and refined product transport.   |
| Mass Transit Account                        | Consumption               | Note 1                    | Note 1                              | Cross-subsidy between roads and mass transit. May provide net benefit to some non-oil electric.                                      |
| Deficit Reduction                           | Consumption               | Note 1                    | Note 1                              | Would need to be netted against transit funding from general fund to determine any net tax on oil consumption. Discontinued in 1997. |
| <b>Airport &amp; Airway Trust Fund</b>      | Consumption               | 0%                        | \$0                                 | Funds transit infrastructure dependent on petroleum.   |
| <b>Crude Oil Windfall Profits Tax</b>       | Production                | 100%                      | \$0                                 | Expired; no current impact on oil companies.   |
| <b>Superfund Feedstock Fee</b>              | Consumption               | 0%                        | \$0                                 | User fee; funds environmental damage predominantly associated with petroleum and petrochemical industries.                           |
| <b>Oil Spill Liability Trust Fund</b>       | Transport                 | 0%                        | \$0                                 | User fee; funds environmental damages associated with petroleum transport.   |

**Notes:**

(1) Both provisions include some tax collections from oil that are used for non-oil purposes (e.g., deficit reduction and electric trains and trolleys). Thus, a portion of these provisions are special taxes on oil that offset some of the billions of dollars from the general fund used to build road infrastructure. Full accounting of these programs would both deduct these special taxes from the oil subsidy totals and add spending for road building to those totals. Because we have not evaluated subsidies to highways in this report, we do not deduct these special taxes either.

## **2.4 SUMMARY**

Tax subsidies to oil remain an important source of government support for the oil fuel cycle, providing \$1.9 to \$4.1 billion in benefits during 1995. Efforts to curb special tax breaks, which culminated with the Tax Reform Act of 1986, have been steadily eroded over the past ten years. Tax rates on integrated operations of large oil producers were only 12 percent in 1995, versus a statutory rate of 35 percent. In the 1990s, rates have been at their lowest levels since the Energy Information Administration began tracking the data in 1977. Congressional efforts continue to try to broaden the definition of existing tax breaks for oil and gas, including three provisions of benefit to the industry contained in the recently enacted Taxpayer Relief Act of 1997. Greater efforts are needed to reduce tax subsidies to oil, encouraging improved price signals to investors, producers, and consumers.

Exhibit A-2

FEDERAL TAX EXPENDITURES BENEFITING OIL, DETAIL  
(Millions of Dollars)

| Provision  | FY1995 Expenditure Estimates* |                 |                      |       | Oil Share |      |   | Primary Source of Variance** | Description   |
|--|-------------------------------|-----------------|----------------------|-------|-----------|------|---|------------------------------|---|
|  | JCT                           | Treas. Rev Loss | Treas. Outlay Equiv. | High  | Low       | High | Allocation Base   |                              |   |
| <b>Tax Provisions Targeted Directly at Oil</b>   |                               |                 |                      |       |           |      |   |                              |   |
| Expensing of exploration and development costs, oil and gas***                         | 500                           | (300)           | (300)                | 500   | (146)     | 243  | Annual well-feet drilled for oil wells as a percent of total drilled for gas + oil wells.   | JCT/Treasury                 | Allows expensing, rather than amortization, of certain drilling costs. Integrated companies can deduct 70 percent of eligible costs and amortize remaining 30 percent.                                  |
| Excess of percentage over cost depletion, oil and gas                                  | 600                           | 945             | 1,335                | 1,335 | 335       | 746  | This provision is based either on actual capital expenses of exploiting a mineral or on sales revenue. It is allocated based on oil's share of oil and gas value of production. | JCT/Treasury & Est. Meth.    | Independent fuel producers and royalty owners deduct 15 percent of gross income from oil and gas production. The deduction can be 100 percent of net property income and can exceed cost of investment. |
| Alternative (non-conventional) fuel production credit                                  | 1,100                         | 970             | 1,370                | 1,370 | 10        | 27   | Estimated oil share of provision  | Est. Meth.                   | Credit of \$3/barrel (1979 dollars) of oil-equivalent production for several alternative fuels. Applies to oil from oil shales and tar sands.   |
| Exception from passive loss limitation for working interests in oil and gas properties | NA                            | 55              | 55                   | 55    | 31        | 31   | Oil share of oil and gas value of production  | NA                           | Working interest-holder who manages development of wells and incurs operation costs can aggregate negative taxable income with income from other sources.   |
| Enhanced oil recovery credit   | 25                            | NA              | NA                   | 25    | 25        | 25   | All Oil   | NA                           | 15 percent income tax credit for costs of recovering oil using "enhanced recovery" methods (e.g., tertiary injectants, heat).   |



Exhibit A-2

FEDERAL TAX EXPENDITURES BENEFITING OIL, DETAIL  
(Millions of Dollars)

| Provision  | FY1995 Expenditure Estimates* |                 |                      |              | Oil Share  |              |  | Primary Source of Variance** | Description   |
|--|-------------------------------|-----------------|----------------------|--------------|------------|--------------|--|------------------------------|---|
|  | JCT                           | Treas. Rev Loss | Treas. Outlay Equiv. | High         | Low        | High         | Allocation Base  |                              |   |
| Expensing of tertiary injectants   | 25                            | NA              | NA                   | 25           | 25         | 25           | All Oil  | NA                           | Allows expensing (deductions in current year instead of amortization) of costs of recovery using tertiary injectants.   |
| <b>Subtotal for Direct Provisions</b>  | <b>2,250</b>                  | <b>1,670</b>    | <b>2,460</b>         | <b>3,310</b> | <b>280</b> | <b>1,097</b> |  |                              |   |
| <b>Tax Provisions Targeted at Broader Range of Economic Activity that also Benefit Oil</b> |                               |                 |                      |              |            |              |  |                              |   |
| Deferral of income from controlled foreign corporations (normal tax method)                | 1,100                         | 1,700           | 1,700                | 1,700        | 62         | 303          | Based on estimated share (5-7%) of top 7500 companies claiming the deferral in 1992.   | JCT/Treasury & Allocation    | Allows companies to defer U.S. taxation on earnings from foreign oil operations.  |
| Foreign Tax Credit   |                               |                 |                      | 5,661        | 486        | 1,057        | Data based on actual deductions by integrated energy producers in EIA Form EIA-28, scaled to reflect O&G production share of foreign income. Estimates assume credit is converted to a deduction for production in some countries. | Allocation                   | Allows oil companies to deduct from U.S. taxes owed, rather than from U.S. taxable income. Many foreign "taxes" are really royalties, overstating taxes paid to the foreign government. |
| Expensing of research and experimentation expenditures (normal tax method)                 | 1,000                         | 1,635           | 1,635                | 1,635        | 15         | 25           | Petroleum share of private R&D   | JCT/Treasury                 |   |
| Credit for increasing research activities  | NA                            | 1,185           | 1,820                | 1,820        | 18         | 28           | Petroleum share of private R&D   | Est. Meth.                   | Tax credit of 20 percent of qualified expenditures above each year's threshold amount -- based on ratio of research expenditures to gross receipts in preceeding years.                 |

Exhibit A-2

FEDERAL TAX EXPENDITURES BENEFITING OIL, DETAIL  
(Millions of Dollars)

| Provision   | FY1995 Expenditure Estimates* |                 |                      |               | Oil Share    |              |   | Primary Source of Variance** | Description   |
|---|-------------------------------|-----------------|----------------------|---------------|--------------|--------------|---|------------------------------|---|
|   | JCT                           | Treas. Rev Loss | Treas. Outlay Equiv. | High          | Low          | High         | Allocation Base   |                              |   |
| Accelerated depreciation of buildings other than rental housing (normal tax method)                             | 4,900                         | 7,440           | 7,440                | 7,440         | 234          | 355          | Minimum and maximum estimates of oil's share of new capital expenditures for buildings  | JCT/Treasury                 | Allows depreciation calculations to be based on a shorter time period than under the normal tax method.   |
| Accelerated depreciation of machinery and equipment (normal tax method)   | 25,600                        | 24,460          | 24,460               | 25,600        | 720          | 976          | Minimum and maximum estimates of oil's share of expenditures for new, non-building capital  | Allocation                   | Allows depreciation calculations to be based on a shorter time period than under the normal tax method.   |
| Treatment of Alaska Native Corporations   | NA                            | 30              | 30                   | 30            | 5            | 8            | Maximum based on share of AK Native Corporation subsidiaries associated with oil. Minimum based on oil's share of subsidiaries weighted by corporations' individual revenues. | Allocation                   | Alaska Native Corporations have a limited exemption from restrictions on profitable corporations merging or buying corporations with net operating losses (NOLs) to reduce tax liabilities. |
| Deferral of tax on shipping companies   | 100                           | 20              | 20                   | 100           | 10           | 48           | Oil share of shipping ton-miles.  | JCT/Treasury                 | Companies operating U.S. flag vessels can defer income taxes on income used for shipping purposes (e.g., constructing, modernizing, repairing ships).                                       |
| Exclusion of interest on industrial development bonds for airports, docks, and sports and convention facilities | 800                           | 855             | 1,240                | 1,240         | 50           | 77           | Seaport and marine terminal share of municipal bonds; Oil share of domestic shipping (by ton-mile).   | Est. Meth.                   | Allows financing of certain government-owned facilities with tax exempt bonds.  |
| <b>Subtotal for Indirect Provisions</b>   | <b>33,500</b>                 | <b>37,325</b>   | <b>38,345</b>        | <b>45,226</b> | <b>1,599</b> | <b>2,876</b> |   |                              |   |
| <b>Subtotal for All Provisions</b>  | <b>35,750</b>                 | <b>38,995</b>   | <b>40,805</b>        | <b>48,536</b> | <b>1,879</b> | <b>3,973</b> |   |                              |   |
| <b>Additional Benefits from Federal</b>   | 1,073                         | 1,170           | 1,224                | 1,456         | 56           | 119          |   |                              | Most states base state taxable  |

Exhibit A-2

FEDERAL TAX EXPENDITURES BENEFITING OIL, DETAIL  
(Millions of Dollars)

| Provision                        | FY1995 Expenditure Estimates* |                 |                      |               | Oil Share     |              | Primary Source of Variance** | Description   |
|----------------------------------|-------------------------------|-----------------|----------------------|---------------|---------------|--------------|------------------------------|---|
|                                  | JCT                           | Treas. Rev Loss | Treas. Outlay Equiv. | Low           | High          | Low          |                              |   |
| <b>Tax Breaks on State Taxes</b> |                               |                 |                      |               |               |              |                              |   |
|                                  | 36,823                        | 40,165          | 42,029               | 41,747        | 49,992        | 1,936        | 4,092                        | income calculations on federal tax returns. Thus, tax breaks at federal level affect state taxes as well. Conservative estimate that state tax "piggybacking" increases total subsidies by 3 percent. |
| <b>TOTAL</b>                     | <b>36,823</b>                 | <b>40,165</b>   | <b>42,029</b>        | <b>41,747</b> | <b>49,992</b> | <b>1,936</b> | <b>4,092</b>                 |   |

Breakout of Foreign vs. Domestic Benefits

|          | Min   | Max   |
|----------|-------|-------|
| Domestic | 1,388 | 2,733 |
| Foreign  | 548   | 1,360 |

NOTES:

\* Several tax provisions that may provide subsidies for oil have not been quantified above. These provisions include the exclusion of income earned abroad by U.S. citizens; the exclusion of income of foreign sales corporations; the inventory property sales source rules exception; the exclusion of interest on public purpose state and local debt; and the maximum 28 percent tax rate on long-term capital gains.

\*\* There are three primary sources for variance between the high and low estimates for tax breaks to oil. "JCT/Treasury" indicates that the variance is caused primarily by differences in the tax expenditure estimates reported by the JCT and Treasury. "Est. Meth." indicates the variance is driven by differences between the Treasury's two estimation methods, revenue losses versus outlay equivalents. The third cause, "Allocation," indicates that we have used two different methods for prorating the expenditure to oil, accounting for the majority of the variance.

\*\*\* Tax expenditure estimates for some tax provisions are negative, implying that the Treasury is receiving more money with the subsidy than it would have without it. This occurs due to the timing of tax write-offs, where deductions are higher than the baseline early in the asset life, but lower than the baseline later. The net benefit to the firm (and loss to the Treasury) for these provisions is still positive, since the firm can earn interest on the larger than normal early deductions and pay the later taxes back with inflated dollars.

Exhibit A-2

FEDERAL TAX EXPENDITURES BENEFITING OIL, DETAIL  
(Millions of Dollars)

| Provision | FY1995 Expenditure Estimates* |                 |                      |     | Oil Share |     |      | Primary Source of Variance** | Description |
|-----------|-------------------------------|-----------------|----------------------|-----|-----------|-----|------|------------------------------|-------------|
|           | JCT                           | Treas. Rev Loss | Treas. Outlay Equiv. | Low | High      | Low | High |                              |             |

SOURCES:

- U.S. Joint Committee on Taxation, 103d Congress, 2nd Session, *Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999*, November 9, 1994.
- U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Fiscal Year 1997*, Tables 5-1 and 5-4.
- U.S. Energy Information Administration, "Analysis of Income Taxes for FRS Companies, 1977-1995," Form EIA-28, 1997.
- Wahl, Jenny B., *Oil Slickers: How Petroleum Benefits at the Taxpayer's Expense*, Institute for Local Self-Reliance, August 1996.

**FUELING GLOBAL WARMING:  
FEDERAL SUBSIDIES TO OIL IN  
THE UNITED STATES**

By:

Douglas Koplow and Aaron Martin  
Industrial Economics, Incorporated  
2067 Massachusetts Avenue  
Cambridge, MA 02140

Prepared for:

Greenpeace  
1436 U Street, NW  
Washington, DC 20009

June 1998