OIL AND THE BTU TAX:
Still Time for Re-design

April 1993
I. Executive Summary

Part of the Administration's comprehensive economic plan is a "Modified BTU Tax," called "Modified" because it taxes most energy sources at 25.7¢/MMBtu but taxes oil at more than twice that amount, 59.9¢. The Administration's BTU Tax as a whole was justified as a proxy for a consumption tax, since all goods and services have an energy component. However, its selective base creates distortions between the energy sector and the rest of the economy. The portion of the tax imposed on oil alone, the "Supplemental Oil Tax," was justified on environmental, balance of trade, and national security grounds. In fact, however, the Supplemental Oil Tax accomplishes none of its stated goals, while imposing a discriminatory burden first on refiners and then on oil consumers. Furthermore, the BTU Tax will damage our balance of trade.

- The BTU Tax treats coal, the most polluting fuel, the same as gas, arguably the cleanest fuel. A higher tax on oil than on coal cannot be justified on environmental grounds.

- Imports of oil are equal to about 10% of total U.S. merchandise imports, a lower share than automobiles and a number of other important commodities. Unlike some of these other industries, however, U.S. oil production cannot be increased to make up the deficit. In fact, the BTU Tax may increase the trade deficit, by making U.S. goods less competitive in world markets and making imports more competitive in our markets.

- U.S. oil import dependency will continue to rise even under the Supplemental Oil Tax, given the Administration's own estimated insignificant slow-down in the growth of imports due to the Supplemental Tax. Furthermore, oil prices are and will continue to be determined in global markets for the U.S. and its trading partners. Hence, whatever "national security" aspect there may be to our oil import dependency will not be affected by the Supplemental Oil Tax.

- The tax’s gross collections, according to the Treasury Department, total $97 billion and net $73 billion over the Fiscal Years 1994 to 1998. However, planned offsets bring the net revenue to as little as $31 billion.

- If the Supplemental Oil Tax cannot be passed through on some products because of interfuel competition, other non-substitutable oil products may bear a disproportionate burden, shifting the onus of the tax from one set of consumers to another.

- To the extent that the tax cannot be passed through and must be absorbed by refiners, some may cross the line between viability and closure, since refiners are already facing increased environmental costs, low margins and capital investment challenges imposed by the Clean Air Act as well as dictated by the market. Most vulnerable will be the relatively smaller plants, some of which serve discrete regional markets where their loss will be sharply felt.
Since it does not accomplish its goals, but introduces unnecessary regional burdens, will worsen the balance of trade and may undermine competitiveness in the vital refining industry, the Supplemental Oil Tax should be abandoned.

More generally, the BTU Tax should also be evaluated as the third major piece of legislation aimed at the energy sector in recent years, after the Clean Air Act and the Energy Policy Act, with a cumulative impact that has not yet been fully quantified or felt either in the sector or in the economy as a whole.
II. Outline of the Tax

As part of the Administration's comprehensive economic plan, President Clinton proposed a "Modified BTU Tax." The major components outlined initially on February 16, 1993 and revised on April 1, 1993 include a 25.7¢/MMBtu ("MM") BTU tax on energy sources other than oil and a 59.9¢/MMBtu tax on oil (the "Base Tax" of 25.7¢ plus a "Supplemental Oil Tax" of 34.2¢). Other details of the proposal are shown below. It is clear that the legislative process will make additional changes to the tax's structure.

Outline of the Administration's "Modified BTU Tax"

**Rates**

Base Tax: 25.7¢/MMBtu (Gas, Coal, Nuclear, Hydroelectricity, Liquefied Petroleum Gases, Home Heating Oil)

Supplemental Oil Tax: 34.2¢/MMBtu (on taxable oil products other than Liquefied Petroleum Gases and Home Heating Oil)

All rates indexed for general inflation after second quarter 1996, with the first adjustment to be made January 1, 1998

**Coverage/Point of Imposition**

Oil: Domestically refined products at the refinery gate; imported products at the point of importation

Natural Gas: At the citygate

Liquefied Petroleum Gases: At the refinery gate or processing plant

Coal: At the end-user

Nuclear: At the utility

Hydro: At the utility

Imported Electricity: At the point of importation

Electricity Produced by Non-Utility Generators: At the purchasing utility

**Exclusions**

Non-conventional fuels (solar, geothermal, biomass, wind)
Exported taxable products
Non-fuel uses of fossil fuels (feedstocks)
Non-fuel products (asphalt, lubricants, waxes)
Ethanol, methanol, MTBE, ETBE
Bunker and jet fuel used in international transportation
Coal used for production of synthetic natural gas
Coal seam methane from operating mines
Natural gas used in enhanced oil recovery for heavy oil
Imported electricity generated from non-taxable fuel

**Date of Imposition**

Three-year phase-in beginning July 1, 1994
Full implementation by July 1, 1996
The principal purpose of the BTU Tax is to collect revenue. The Administration believes a "broad-based" energy tax would distribute the burden of taxation throughout the economy since most consumer, business and government activities have an energy component. However, a general consumption tax, which the Administration is apparently still considering, would provide a much broader tax base and distribute the tax burden more evenly among the various sectors of the economy. Furthermore, the BTU tax impairs the international competitiveness of the U.S. economy, thus increasing our trade deficit, an effect that neither a consumption tax nor an income tax would have.

Hence, the decision to limit the consumption tax to the energy sector of the economy is at least in part a reflection of the Administration's energy policy. This has been clearly stated; the Administration expects the tax not only to raise revenue but also reduce energy consumption in order to improve environmental conditions and reduce our balance of trade deficit as well as our reliance on "insecure" foreign energy supplies. Actually, the BTU Tax would contribute only minimally, if at all, to these non-revenue goals, as we discuss in Section III of this memorandum.

A. Modifications to the Proposal and Exclusions/Adjustments

Soon after President Clinton outlined the tax on February 16, 1993, it became clear that the hastily crafted proposal would have unintended deleterious effects on a number of sectors. The revised proposal, published on April 1, addressed a number of these concerns:

- **Refinery Fuel and Oil Imports.** The Administration's initial proposal taxed crude oil as it entered the refinery, but taxed refined petroleum products as they were imported. A domestic refiner would thus have been paying a tax on its fuel and feedstocks used in the refining process, while a foreign refiner would not. Furthermore, U.S. refiners would in effect have processed a barrel of crude oil taxed at $3.47/barrel into products ranging in BTU content from 5.2 MMBTU/Bbl (gasoline) to 6.3 MMBTU/Bbl (residual fuel oil) and thus taxed at $3.14/Bbl to $3.77/Bbl. The most complex facilities take the heavy end of the barrel--the residuum--and turn it into light products, like gasoline. Under the tax, these refineries would have been taking residual fuel oil taxed at $3.77 and further processing it into gasoline on which they could collect $3.14. The Administration recognized the untenable situation by moving the collection point for domestically refined products to the refinery gate, thus excluding refinery feedstocks and refinery fuel. A debate continues on whether to move the collection point for petroleum products further downstream to the wholesale "rack." The move would address concerns about the inclusion of the tax in commodities prices and other hedging mechanisms. Collection of the tax closer to the end-user eliminates the possibility of some products (like gasoline) bearing a disproportionately high burden per million BTU to make up for the inability of the markets for some products to absorb their share (See Section IV).

- **Liquefied Petroleum Gases and Natural Gas Liquids.** The initial proposal had been silent on the issue of whether liquefied petroleum gases ("LPG's") and natural gas
liquids ("NGL's") would be treated alike or would be differentiated depending on whether they were produced at a natural gas processing plant or a refinery. The April 1 proposal clarifies that they will be exempt from the Supplemental Oil Tax.

- **Home Heating Oil.** A particularly onerous provision of the tax was the imposition of the Supplemental Oil Tax on home heating oil, a measure which disadvantaged the Northeast. Under the February 16 proposal, New England would have paid an average tax rate on its non-industrial energy, on a cents-per-MMBTU basis, of 12% more than the U.S. average. It would have paid an average tax rate of 40% more than the national average on its residential energy, non-discretionary consumption. Oil heat consumers would have paid a tax of about $50 more per year than their gas-heated neighbors next door. According to Treasury estimates, New England remains the region with the highest tax burden per capita. While the April 1 proposal removed the Supplemental Oil Tax on residential heating oil, the Supplemental Oil Tax remains on energy used in the "commercial" sector—schools, hospitals, apartments and businesses. See Section III (B).

- **Energy Used to Produce Energy.** Use of crude oil or natural gas on its production lease has now been exempted from the BTU tax. Any disincentive to produce oil or gas from existing fields would run counter to the Administration's announced policies, would further threaten the economic condition of producing regions, and would disadvantage U.S. producers relative to their foreign competition. Heavy crude oil production, especially in California where purchased natural gas is used in production, presented a special case and was dealt with in a special exemption for the gas. Other enhanced oil recovery projects, however, are faced with the BTU Tax on their purchased fuel. The BTU Tax may erode heavy crude oil production in the U.S. if softer residual fuel oil markets lead to lower heavy crude oil prices here and abroad.

In 1990, the U.S. used about 81 quadrillion BTU ("quads") of energy, according to Energy Information Administration estimates\(^1\). About 8.5 quads that can be easily quantified in the 1990 base will be excluded under the proposal. Among such exclusions are non-fuel uses such as lubricants, asphalt, and petrochemical feedstocks. Renewable energy such as geothermal are also excluded. With the collection point at the refinery gate, refinery fuel is also excluded. See Table 1. Additional exclusions are discussed below.

### B. Gross Revenue

According to this first estimate, the BTU Tax will collect a total of almost $28 billion when fully implemented, using our base of 1990 data. (The net benefit to the budget will be significantly lower, as discussed in Section D below.) The U.S. Treasury's initial calculations implied a broadly similar gross annual revenue of about $30 billion in

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\(^1\) Use of the 1990 base year was dictated by the need for state-by-state detail utilized in later section of this memorandum; the detail is unavailable for later periods.
the first full year of implementation.

As shown in Table 2, almost 60% of the revenues come from oil, even though oil supplies less than 40% of the taxable BTU's of energy. Section III of this memorandum discusses the role of the Supplemental Oil Tax in more detail.

The $28 billion gross revenue collected by the BTU Tax is equal to about $300 per household; the transportation sector contributes the most revenue as shown in Table 2. The exclusions for non-fuel uses shown in Table 1 come almost entirely from the "industrial" sector under the conventional classification of energy data. Before the exclusions, the taxable BTU's in the industrial sector would have been almost 30 quads, instead of the post-exclusion estimate of 21.5, and taxes collected on the industrial use of energy would be about 50% higher.

In addition to the exclusions specified in Table 1, the Administration's April 1 proposal included a number of exemptions that have not yet been quantified:

- **Ethanol, methanol, MTBE, and ETBE**, and the fuel used to make them. At this time competing oxygenates such as TAME are fully taxed;

- **Bunkers and jet fuel for international use**;

- **Coal seam gas**;

- **Coal used to produce synthetic natural gas**.

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<th>Table 1</th>
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<td><strong>Taxable Energy and Gross Revenue under the BTU Tax</strong></td>
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<td>Coal</td>
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<td>Metallurgical Coal</td>
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<td>Petroleum*</td>
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<td>Petrochemical Feedstocks</td>
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<td>Asphalt, Road Oil</td>
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<td>Lubricating Oils</td>
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<td>Refinery Fuel</td>
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<td>Petrochemical Feedstocks</td>
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<td>Total</td>
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<td>Other</td>
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<td>Total</td>
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* Excludes LPG's; includes 0.8 quads of home heating oil on which there is no Supplemental Oil Tax.
** Includes LPG's.

Note: Some volumes excluded under the April 1, 1993 proposal are not quantified above. See text.
These new exemptions take well over $1 billion out of the gross annual revenue stream and reduce the taxable energy by about 3 quads by the time the BTU Tax is fully implemented.

C. Floor Stocks Tax

Under the April 1 proposal, on the date of each rate increase (including an inflation adjustment), there will be a tax equal to the rate change imposed on inventories held for sale or use downstream of the tax’s collection point: refined petroleum products in tank farms or bulk terminals, large users’ stocks, retailers’ stocks. Natural gas, if held beyond the citygate, would also be subject to the tax. Small individual users will be exempt under a de minimus rule. The floor stocks tax is designed to minimize the incentive to push volumes downstream just prior to a rate change to avoid the increase.

For oil, the rate changes over the phase-in period are equal to $1.00-1.25/Bbl, depending on the product (the rate changes for LPG’s and home heating oil would be 50¢ and 34¢ per barrel respectively). For the taxable products held in the “primary” storage system downstream of the refinery on July 1, 1992, this would have been about $280 million. (Product stocks at refineries were equal to $145 million alone.) The estimate excludes pipeline fill, as this volume should not be subject to the floor tax. Pipeline fill is set by the physical attributes of the pipe and cannot be increased or decreased to take advantage of changing tax rates. Furthermore, space in a common carrier pipeline is allocated ratably across all nominees, and thus cannot be reserved or hoarded.

Secondary storage, that held by retailers or in small facilities without waterborne or pipeline access, is more difficult to estimate. One of the few estimates available was prepared by the National Petroleum Council, for March 1988. At that time, secondary stocks of the main petroleum products were 65 million barrels (including volumes at retail stations), and end-user stocks were about 135 million barrels. End-user stocks exclude 50 million barrels estimated to have been held by residences and the 65 million estimated for private vehicles, both of which would be exempt under any reasonable de

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2 The floor stocks tax also applies to coal, but because end-users will routinely remit the BTU Tax on coal, it is unlikely that any volumes would be subject to the floor stocks tax.

minimus rule. For each phase-in period, then, the revenue from the floor stocks tax on secondary and tertiary oil would be as much as $200-250 million.

D. Net Revenue

Routinely, the Treasury Department estimates that the gross revenue collected by a tax is offset approximately 25% by items like additional government purchase costs, increased payments under inflation-adjusted entitlement programs and reduced income tax collections in a slower economy. (The Treasury Department has said that even after the April 1 revisions, collections over the FY 1994-98 period will be a net of $73 billion. Supporting detail has not yet been published.)

In addition, the Administration intends to increase low income assistance programs, some of which are specifically energy-related and are explicitly meant to mitigate the burden of the BTU Tax on low income consumers. 4 At projected levels, the incremental funding for these programs will total more than $10 billion per year, $42 billion over the 1994-98 period. As shown in Table 3, therefore, the Administration will be redistributing more than 43% of the gross revenue to these programs over the period.

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<th>Table 3</th>
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<td>How Much Money and Where Is It Going?</td>
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<td>Revenues from the BTU Tax and Offsets</td>
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<td>Administration Projections, FY 1994-98</td>
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<td>(Billion $)</td>
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<tr>
<td>Gross Revenue</td>
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<tr>
<td>Net After Standard Offset</td>
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<td>Additional Offsets</td>
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<td>LIHEAP</td>
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<td>Food Stamps</td>
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<td>Earned Income Credit</td>
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<td>Subtotal</td>
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<td>Net</td>
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III. Impact of the Supplemental Oil Tax

The Supplemental Oil Tax creates an arbitrary differential between competing fuels and impairs international competitiveness, as discussed below. According to the Administration, the tax "would advance three goals: reduction of environmental damages, energy conservation, and reduced dependence on foreign sources of energy. The tax would encourage energy efficiency and fuel mix choices better reflecting the true

4 In a Presidential Document called A Vision of Change For America, it was concluded that "the energy tax by itself would place a relatively heavy burden on many taxpayers with limited ability to pay. For this reason, the introduction of the energy tax was combined with several offsets, including an expansion of the Earned Income Credit and an increase in transfers under the Low Income Home Energy Assistance Program (LIHEAP) and under the Food Stamp program."
environmental and security costs of energy use. As discussed below, however, the tax would have negligible success meeting any of these goals.

One effect of the Supplemental Oil Tax is that retail consumers pay significantly different percentage increases in their fuel cost. In fact, Administration officials apparently believed that the Supplemental Oil Tax was necessary for equity reasons: without it, oil would have an advantage over coal and gas. However, this assertion is incorrect, as it fails to consider 1) differing distribution costs for different fuels and 2) that the tax's final incidence was intended to be the end-user, and thus retail prices are the appropriate comparison point. Table 4 shows the impact of the BTU Tax on prevailing price levels at different levels of the energy distribution chain. The percentage

| Table 4 |
| Administration's Proposed Energy Tax: Fuel Price Impacts (dollars; 1992 estimated prices) |
|---|---|---|---|---|
| Price | Price | Tax | Percent |
| (/Unit) | (/MMBTU) | (/MMBTU) | Increase |
| Upstream | | | |
| Coal (Minemouth) | 23/ton | 1.06 | .257 | 24 |
| Crude Oil (Refiner) | 18.47/Bbl | 3.18 | .599 | 19 |
| Gas (Wellhead) | 1.75/MCF | 1.70 | .257 | 15 |
| End-User | | | |
| Residential | | | |
| #2 Heating Oil | .92/gal | 6.63 | .599* | 9* |
| Natural Gas | | 5.72 | .257 | 4 |
| Commercial | | | |
| #2 Heating Oil | .68/gal | 4.92 | .599 | 12 |
| Residual Fuel Oil | 16.08/Bbl | 2.56 | .599 | 23 |
| Natural Gas | 4.73 | .257 | 5 |
| Transportation | | | |
| Gasoline | 1.13/gal | 9.07 | .599 | 7 |
| Electric Utility | | | |
| Coal | | 1.42 | .257 | 18 |
| Heavy Oil | 2.46 | .599 | 24 |
| Gas | 2.12 | .257 | 12 |

* April 1 proposal eliminates the Supplemental Oil Tax on residential Home Heating Oil. At 25.7¢/MMBTU, the tax on #2 oil in residential uses will represent a 4% increase.

5 Summary of the Administration's Revenue Proposals, Department of the Treasury, February 1993, p.64.
increases are of course higher when applied against upstream prices, before trans-
portation, distribution or processing costs are added. In consuming regions, the tax cal-
culates to a lower percentage increase on retail prices. Where gas and oil are used in
neighboring locations for the same use, the burden of the Supplemental Oil Tax becomes
obvious: oil bears a significantly higher percentage increase. For electric utility fuels for
instance the oil price increase is 25% while the gas increase is half as big, 12%. For fuel
used in the commercial sector, the natural gas tax is only 5% of the end-use price,
compared to 12% for distillate fuel oil and 23% for residual fuel oil.

A. The Administration’s Non-Revenue Rationales

The Administration’s own justifications and rationales do not hold up to scrutiny.

- A Supplemental Tax on oil consumption for environmental reasons is
  arbitrary if no similar tax is imposed on coal, an environmentally
  inferior fuel; and it is unwarranted in view of the mandated steps,
  past and future, taken by the industry to improve the environmental
  quality of oil products.

- The argument that the Supplemental Oil Tax reduces oil imports which in turn
  reduces our balance of trade deficit is no more valid for oil than for any other
  imported commodity, and would actually work better for those other imported
  goods which can be readily replaced from domestic sources.

- Regarding "insecure" foreign supply sources, most other developed and
  industrializing nations have a much higher ratio of foreign oil dependency
  than the U.S. and have managed to live with it. Furthermore, the Supple-
  mental Oil Tax would reduce our oil import dependency so little as to
  make it irrelevant.

1. The Environmental Factor

a. Coal

Environmental considerations would dictate that coal, the most polluting of the
three fossil fuels, bear the highest tax. Its carbon content per BTU is about 30% higher
than that of most oil products, it accounts for the bulk of U.S. sulfur emissions (precur-
sors to acid rain) and has a NOx emission comparable to oil per BTU. Yet, under the
proposed legislation, it would be taxed no higher than natural gas, the cleanest fossil
fuel, and 57% below oil which is environmentally cleaner than coal. So, obviously the
decision to tax coal at the same rate as gas and much lower than oil was not based on
environmental considerations but other factors. President Clinton himself stated this
clearly in an off-the-cuff remark in New York when he explained that a tax on carbon,
the principal contributor to greenhouse gas, would be "very tough on . . . coal states that
have been very hard hit." Thus, the allocation of the BTU tax among the three fossil
fueled more on political than environmental considerations. Given the fact that coal mining is a very labor intensive industry and is important in the economies of many states, this is understandable. On the basis of the Administration’s preliminary calculations, coal consumption by 2000 would be just 1-1.5% lower than without the 25.7¢/MM-BTU tax.

b. Oil

While the Supplemental Oil Tax will gross almost $9 billion annually in real dollars from 1997 on, its impact on air pollution and global warming will be negligible by any reasonable definition of that term. According to the DOE’s calculations, the full BTU tax will reduce oil consumption -- and imports -- by 350,000 B/D (an estimate using maximum assumptions on revenue and pass-through) by 2000. This would be a 1.8% reduction from the 19.25 million B/D level forecast by the DOE in its latest Reference Case. In other words, instead of rising by 2.25 million B/D between 1992 and 2000, demand would rise by 1.9 million B/D. If you consider only the proposed Supplemental Oil Tax, the reduction in demand from that measure will be less than 1% by 2000.

The standard assumption that the reduction in consumption translates directly to a reduction in imports relies on the stability of domestic production. However, the BTU Tax actually continues to threaten heavy oil production. In particular, if the tax on residual fuel oil cannot be fully recouped in U.S. markets (see Section IV), refiners with high residual fuel oil output may cut runs to stem their losses. This in turn will lead to new weakness in heavier crude oil markets, both in the U.S. and abroad. If heavy crude production in the U.S. is shut in, higher imports would be necessary.

The mandated environmental quality of oil products -- from gasoline to heavy fuel oil -- has been improving steadily since the 1970’s. This costly process increasingly transfers the external environmental costs of oil consumption into the product’s price structure. Furthermore, air quality has been improving for a variety of reasons, including product quality and enhanced equipment efficiency. Thus, conceptually and functionally, it is difficult to justify any part of the Supplemental Oil Tax as necessary for environmental reasons.

2. The Balance-of-Trade Rationale

Next, let us look at the balance-of-trade argument for the Supplemental Oil Tax. Obviously, the argument applies only to oil since the U.S. is a net exporter of coal and

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6 Examples of this trend abound: the average fuel efficiency of passenger cars has risen in every year since 1973, is now about 22 miles per gallon and will improve further in the rest of the decade; vehicle miles travelled approximately doubled between 1970 and 1990, while automotive pollution was cut about in half; the Environmental Protection Agency’s calculations show that in 1987 only 4% of the cities surveyed did not exceed ozone allowances on any day, while in 1991 37% of the cities had a perfect record; the sales-weighted average efficiency of heating oil equipment increased from 75% to 83% over the 1978 to 1991 period.
its only significant gas imports are by pipeline from Canada. Thus, we can assume that a major reason for the Supplemental Oil Tax is the fact that net oil imports last year supplied 40% of our total domestic oil requirements and this share is likely to increase significantly between now and 2000.

In 1992 our gross oil imports amounted to $51 billion, equal to not quite 10% of our total merchandise imports — about the same as in 1989 and 1991.\(^7\) (See Figure 1. Exports of oil are so small relative to total merchandise trade that they are not readily visible on this scale.) By comparison, our imports of motor vehicles and parts amounted to over $71 billion last year, our chemical imports were about $28 billion and our manufactured goods imports $60 billion. Hence, the oft-quoted calculation that oil imports account for almost 60% of our trade deficit is arbitrary and meaningless.

As far as the balance of trade is concerned there is no difference between any of these import categories, except that in all the other categories a reduction in imports could be readily made up by higher domestic production since most U.S. industries have spare capacity. For oil, however, a reduction in imports can only be achieved by a costly reduction in domestic consumption. It should also be remembered that trade is a two-way street. Last year we imported $33 billion from the OPEC countries and exported $22 billion to them.

Completely ignored by the Administration is the adverse impact of the BTU Tax and the Supplemental Oil Tax on the balance of trade. Whatever the status quo before the imposition of the tax, U.S. business will be less competitive internationally after the tax takes effect. Thus, tax rates in competing countries, which may be significantly higher than in the U.S., are irrelevant in this context. The energy intensive basic industries such as primary metals (especially aluminum), some chemicals operations and paper manufacture will feel the disadvantage most, but any export industry will suffer an erosion in its position. Furthermore, many of our trading partners specifically protect their export industries from high domestic taxes by rebating VAT payments on exports. The General Agreement on Trade and Tariffs explicitly allows the rebate of these "indirect" taxes if their amount can be established; following the paper trail of VAT payments has been made routine so export rebates are relatively simple. The same

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\(^7\) It was higher in 1990 because of the price increase caused by the Gulf War.
treatment will not be available to U.S. industries under the BTU Tax. (Direct exports of fuel will be exempt, as noted previously.)

Finally, the Administration's tax ignores the potential shift from crude oil imports to petroleum product imports. While the mix between crude oil and product may be irrelevant for dependency calculations, it has an important impact on the balance of trade, since crude oil is cheaper than light petroleum products like gasoline and distillate. If refiners are unable to pass the tax through, as discussed in Section IV, they are likely to reduce crude oil runs, so the demand would have to be met from product import sources.

3. The National Security Justification

Finally, let us consider the Administration's argument that reducing energy imports would strengthen our national security. Again, this argument applies only to oil and, hence, if correct, must be viewed as providing a justification for the imposition of a Supplemental Oil Tax. The first point to make is that our 40% net import dependency includes over 1 million B/D of pipeline shipments from Canada which has no other export outlet. These imports have traditionally been considered as secure as domestic supplies. This reduces our strategic net import dependency to 35%.

As has been frequently pointed out, this percentage is far less than the oil import dependency of most industrial and industrializing countries. A frequently cited example is Japan which must import all its oil from overseas sources (as well as its gas). With the exception of the U.K. and Norway, all European countries have an oil import dependence ratio at least twice as high as ours and are also dependent on imports for most of their gas requirements. The same is true of the industrializing countries of South East Asia. All of these countries seem to find this dependency viable. They recognize that in normal times there is a commercial interdependence between oil importers and exporters. The latter are as compelled to sell their oil as the former are to buy it. During any supply disruption, the shortage and accompanying price increases will be felt by all consumers regardless of their source of supply or their degree of dependence on foreign supplies. Thus, even if we could reduce our import dependence significantly by 2000, we would still have to bear the full price impact of an international oil shortage.

Furthermore, the Supplemental Oil Tax would reduce our oil import dependency by only an insignificant amount. The Treasury's total tax impact, as noted on page 10, would reduce imports by no more than 350,000 B/D, or 3.5%, from the 10,770 MB/D projected in the EIA's Reference Case for 2000. This would mean that imports would rise by 50%, instead of 55%, between 1992 and 2000. Thus, as a measure to reduce U.S. dependence on "insecure" foreign oil supplies, the Supplemental Oil Tax has virtually no effect. Whether our oil import dependence in 2000 is 56%, as projected in the EIA's Reference Case, or 54%, if the tax is implemented, is irrelevant for our security of supply.
B. The Regional Impact: Who Pays the Supplemental Oil Tax?

Differences in energy use patterns make it clear that some regions will be more affected than others by the BTU Tax, especially the Supplemental Oil Tax. Given the Northeast's economic base and size, its energy use, even outside the industrial sector, is relatively lower than other regions. Use per household, both direct and indirect, is less than 500 MMBTU annually, and 30% lower than the region with the highest consumption, the Southwest. Figure 2 demonstrates the penalty imposed on the Northeast and the West by the BTU Tax. (See the Appendix for a map delineating Federal regions). Rather than paying less because its uses less, New England pays a higher tax per million BTU than other regions, even after the exclusion of home heating oil from the Supplemental Oil Tax. The region and its neighbor New York/New Jersey use oil not only for heating but also for generating electricity. Nationwide, oil accounts for only about 3% of the electric generation; in New England, oil accounts for more than 25%, and in New York/New Jersey, 20% oil-fired electric generation.\(^8\)

The West also pays a higher tax rate, not so much because it uses more energy than other regions, but because transportation energy, virtually all of which is taxed at the oil rate of 59.9\(c\)/MMBTU, accounts for 53% of the West's taxable energy and but only 43% of the rest of the country's.

The Administration began to recognize the burden placed on the Northeast's non-discretionary energy consumption by the Supplemental Oil Tax when it removed the extra tax from residential heating oil. If residential heating oil had paid the Supplemental Oil Tax rate, New England's average tax rate for non-industrial energy would have

\(^8\) The sectoral estimates presented throughout include an adjustment for the energy burned to generate the electricity consumed, and for the Supplemental Oil Tax on oil used in electricity generation.
been 47c/MMBTU, 12% higher than the U.S. average. With the removal of the Supplemental Oil tax on residential heating oil, the New England average moves to about 44c/MMBTU, 5% higher than the U.S. average. Averages for New York/New Jersey also move closer to the U.S. average when the Supplemental Oil Tax is removed from residential heating oil. The averages for most regions stay about the same, since they use little oil in the residential sector.

A concern remaining for the Northeast, of course, is the Supplemental Oil Tax burden that remains on its schools, hospitals, apartments and businesses. We have combined this commercial sector energy with the energy used in homes and called it "heat and comfort energy." Even after the exclusion of residential heating oil from the Supplemental Tax, the Northeast continues to pay substantially more tax than the rest of the country on this essential energy. (See Figure 3.) New England's average tax rate is 23% higher than the national average, and New York/New Jersey's is 14% higher. The penalty on the Northeast is of course higher if one takes the commercial sector energy alone. This can be translated into an "indirect" tax per household, as shown in Figure 5.

Under the President's proposal, the BTU Tax will be indexed for inflation beginning in 1998, widening the disadvantage for the oil-dependent regions. As shown in Figure 4, the disadvantage for oil would increase by more than 50% in the period to 2010, moving from 34 to 53c/MMBTU.
C. Alternatives to the Supplemental Oil Tax

1. Removal of the Supplemental Oil Tax on the Commercial Sector

Legislators from the Northeast have proposed removing the Supplemental Oil Tax on heating fuels (distillate fuel oil, kerosene, and residual fuel oil) used in the commercial sector: schools, hospitals, apartments and businesses. What would the effect be? The regional variation narrows; the highest tax region, New England, would pay taxes on its commercial sector energy of about 32¢/MMBTU, 18% greater than the national average. New York/New Jersey's tax on commercial energy falls to 30¢, or about 8% more than the national average. The continuing penalty on these regions comes from the importance of residual fuel oil in electric generation. On a per-household basis, the indirect tax on commercial energy remains 14% higher than the national average in New England and 22% higher in New York/New Jersey. See Figure 5.

![Indirect Burden of the BTU Tax Taxes on Commercial Energy Compared](image)

**Figure 5**

2. Regional Impact of Removal of the Total Supplemental Oil Tax

If the Supplemental Oil Tax were removed entirely, each region would pay the same rate, say 25.7¢, for the energy it uses. The use of a single BTU tax level puts the burden squarely on the energy use pattern: energy efficiency is rewarded, high energy consumers pay heavily. Thus, the highly urbanized northeast, with its mature economy and focus on service industries, faces a lower regional tax per household than areas of larger geographic size with more basic industries. It should be noted and emphasized, however, this alternative offers "horizontal equity": similar taxpayers are treated similarly. Consumers using energy for the same task -- heating, cooling, or lighting -- will pay the same amount for that task under this alternative.

IV. Continuing Questions and Concerns

The data presented in this memorandum have focused almost exclusively on the straight pass-through of tax payments using the historical energy use pattern for state and
regional estimates. The dynamics of the oil market and other energy markets will provide an overlay to the straight pass-through scenario. The fundamental question is, Will each product bear the tax in proportion to its volume and BTU's? Or will products with no short-term alternatives (like gasoline, diesel and jet fuel) bear a higher share, while products used in stationary markets with interfuel competition (like residual fuel oil) bear less than their share? The answer is critical to the continuing viability of some refiners, and to the regional impact of the tax.

Since the BTU Tax puts the same Base Tax (25.7¢/MMBTU) on all fuels, interfuel competition may allow the Base Tax to be passed through, even on residual fuel oil. If the Supplemental Oil Tax, however, had to be borne solely by transportation fuels, their price would rise by about 10¢/gallon, rather than the 7-8¢ calculated in a straight pass-through. Because importers will be paying a BTU Tax of 7.5¢/gal on gasoline and 8.3¢/gal on jet fuel and diesel, refiners may be unable pass through the increment, leaving them with an under-recovered tax in excess of a billion dollars per year. This additional burden could tip the scales for some companies between viability and bankruptcy.

The simple refinery, too, will be threatened by such a development. If a refiner with a relatively high output of residual fuel oil is forced by interfuel competition to under-recover taxes paid on residual fuel oil, even a skew toward recovery on the transportation fuels will not solve the problem. If the taxes paid on the large volume of residual fuel oil had to be recovered on the small volume of lighter products which these refiners produce, the light products, prices would have to be even higher. In this case, then, recovery will be additionally constrained by competition with more complex refineries.

The unrecouped tax on residual fuel oil will likely lead to downward pressure on the heavy crudes from which it is made if the simple facilities are forced to reduce crude oil runs to stem the loss. The differentials between light and heavy crudes would grow. In some areas like California where heavy crude oil production is dependent on these residual fuel oil refineries as customers, prices could be eroded to the point of shutting volumes in.

V. Time for Re-design

Clearly there is no justification for a Supplemental Oil Tax. It is not needed to equalize oil’s competitive relationship with other fuels, as the Treasury had initially assumed, but, on the contrary, grossly distorts it. And, as pointed out, it cannot be justified as being in the national interest.

With more time available for design, a better, more equitable overall tax plan could likely be developed. The Administration may argue that the need for additional revenue begins with Fiscal Year 1994, right away. However, in FY 1994 the tax will be in place
for only one quarter (July-October), with a gross revenue of about $750 million from the Supplemental Oil Tax. Thus, there is no justification for responding to a fiscal "emergency" in the out-years with a headlong rush into a bad -- but permanent -- policy starting almost immediately.

To avoid a bad permanent tax design but protect revenue in FY 1994, the only year where prompt decisions are necessary, any number of modest tax alternatives could be employed, including an interim BTU tax rate.

For the long term, if there is to be a BTU Tax, the Base Tax should be left at 25.7¢ and an offset to the Supplemental Oil Tax should be collected outside the energy sector. The budget impact of the elimination is significantly lower than the $9 billion gross annual revenue cited earlier, because of direct and indirect offsets to government expenditures. Given the fact that the Base Tax already singles out the energy sector of the U.S. economy as a tax collection vehicle -- the Base Tax alone will increase consumer energy prices by about 4% when fully implemented -- it is better from an economic point of view as well as an equity point of view to spread the burden of the Supplemental Oil Tax throughout the U.S. economy in the form of a general consumption tax, changes in income taxes, business taxes or any other form of tax with a widespread basis.