

The Case for a Crude Oil Price Stabilization Tax

by Richard A. Westin

Richard A. Westin is the Laramie Leatherman Professor of Taxation, University of Kentucky College of Law.

Editors' Summary

Policymakers should work to place a floor under the price of crude oil and derivatives by imposing a variable import tax on those products. A variable import tax would give consumers and the alternative energy industries a clear price signal in order to improve their decisionmaking, as well as to provide a steady price signal to domestic energy producers. The tax would also prevent price collapses. Although economists have debated flat oil import fees vigorously, this proposal has been overlooked to date.

The United States lacks a coherent energy policy and as a result is vulnerable to wild swings in oil prices and gradually running out of its own crude oil. Our indifference has a number of expensive results:

- Our automobile and truck manufacturers cannot predict oil prices, and therefore cannot accurately determine what model lines to produce. As an example, the Toyota Prius routinely sold for thousands of dollars more than its sticker price, with waiting lists up to a year long. In fact, when oil prices spiked in October of 2006, there was only a three-hour inventory of Priuses, so Toyota expanded its manufacturing facilities, but later found that thanks to falling oil prices it had to offer incentives to sell enough of its hybrids.¹ This is just one example of short-term macroeconomic dislocations caused by oil price collapses, which, when aggregated, result in large losses to the economy.
- Because any oil supply shutoff can result in a dangerously disruptive increase in the price and even availability of the fuels that we rely on, our government considers it has to project our power globally, at great expense. Because the percentage of imported oil is steadily rising, this disadvantageous situation is worsening. Costs include those for military forces defending the Middle East and foreign aid to countries in the Middle East.² One study put the price at \$7.32 per barrel.³ In addition, there is the cost of maintaining the Strategic Petroleum Reserve, as to which the Externality Subgroup and the Strategic Petroleum Reserve Office reportedly estimated average annual carrying costs between \$0.50 to \$0.66 per barrel of oil in the reserve.⁴ Futures markets (which are publicly traded) and forward markets (private arrangements to deliver or buy) for petroleum can help mediate the shocks, as can the strategic petroleum reserve (against price spikes), but they are of limited use. The strategic reserve is good for only a little over two months and long-term futures contracts (which can extend as far as 84 months on the New York Mercantile Exchange (NYMEX)) are expensive. Because futures contracts call for actual deliveries, they would be dangerous

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1. Micheline Maynard, *Waiting List Gone, Incentives Are Coming for Prius*, N.Y. TIMES, Feb. 8, 2007, available at <http://www.nytimes.com/2007/02/08/automobiles/08hybrid.html>. Toyota's vice president for North American marketing also stated that need to generate demand "keeps me up at night." *Id.*
 2. PAUL N. LEIBY ET AL., OAK RIDGE NAT'L LAB., OIL IMPORTS: AN ASSESSMENT OF BENEFITS AND COSTS, at S-10 (1997), available at http://www.esd.ornl.gov/eess/energy_analysis/files/ORNL6851.pdf.
 3. Darwin C. Hall, *Oil and National Stability*, 20 ENERGY POL'Y 1089, 1094 (1992).
 4. LEIBY ET AL., *supra* note 2, at S-12.

and expensive as a means to stabilize purchase prices for, say, a refiner. It would be possible to reduce the risk of a price decline by putting calls on futures contracts, but such calls would be prohibitively expensive if the refiner wanted to fully protect itself against price increases and would offer no protection against price collapses. Moreover, most futures contracts expire in three months or less, so long-term stability is virtually unachievable.⁵

- Alternative energy purveyors that compete with petroleum cannot predict whether their programs will pay off. For example, conversion of coal to gasoline is reportedly viable if world oil prices are stabilized at \$65 per barrel.⁶ No coal business can confidently invest in that technology under the current circumstances because of the instability of oil prices, and yet the United States is the Saudi Arabia of coal. The same dilemma exists for shale oil.
- Biofuel production is contingent on enormous federal tax subsidies as opposed to market forces, which revenue loss might be eliminated by installing a floor under the price of crude oil.
- Commuters and employers have trouble deciding whether to engage in organized car and van pooling.
- Suppliers of fuel efficiency devices for vehicles cannot predict their sales and profitability.
- Homeowners cannot accurately determine how much money to spend on improving the efficiency of their homes because of the fluctuations in home heating oil.
- Global warming trends continue menacingly, and with great uncertainty as to exactly when catastrophic irreversibility may set in. (Leading economists have entered

the debate, and a new literature of uncertainty in the face of environmental calamity is emerging.⁷) We, as a country, have not made any serious effort to curb excessive use of petroleum for personal transportation, a major source of carbon dioxide (CO₂) emissions.⁸ Our one effort, the Corporate Average Fuel Economy (CAFE) standards that are supposed to limit the production of oversized vehicles, are weak, given that they are essentially toothless until 2016, when they rise to a modest 35 miles per gallon (mpg), and yet the price of unabated global warming is virtually incalculable, but potentially immense. Atmospheric CO₂ parts per million (ppm) is now about 387, up from 280 at the start of industrial revolution.⁹ Four hundred and fifty ppm or lower is, by at least one credible source, the critical tipping point after which disaster follows.¹⁰ James Hansen, director of the National Aeronautics and Space Administration's (NASA's) Goddard Institute for Space Studies has warned that a global tipping point will be reached by 2016 if levels of greenhouse gases (GHGs) like methane and CO₂ are not reduced.¹¹ That would be when the CAFE standards dictate 35 mpg. NB: The scientific basis for global warming theory may be incomplete, and it is true that CO₂ emissions from burning petroleum are not much greater than that from coal-fired electricity production, but the *risk* that petroleum used as fuel is contributing to global warming is real. Prudent policymakers guard against risk when they reasonably can.¹²

5. NYMEX contracts run up to 84 months, but those trades are rare. There is evidence that oil futures prices have been run up by the entry of index funds into the market, taking enormous long positions, along with swap dealers, exploiting a loophole for large positions, resulting in price increases in spite of adequate inventories. See James L. Williams, *Futures, CFTC and Oil Price*, ENERGY ECONOMIST, Nov. 6, 2009, <http://www.energyeconomist.com/a6257783p/archives/ee091105.html>; see also *Financial Speculation in Commodity Markets: Are Institutional Investors and Hedge Funds Contributing to Food and Energy Price Inflation: Hearing Before the S. Comm. on Homeland Sec. & Governmental Affairs*, 110th Cong. (2008) (testimony of Michael W. Masters) (calling for various reforms and stating that by exploiting a loophole, large pools of capital have formed very large commodities index funds that have greatly driven up oil prices). Harvard University reportedly lost its shirt in commodities in this game. See The Accidental Hunt Brothers, *Harvard Loses \$8 Billion: July Through October*, Dec. 5, 2008, <http://accidentalthuntbrothers.com/?p=125>.

6. A Rand report put the cost of 90% plant site CO₂ emissions sequestration at not over \$5 per barrel. James T. Bartis et al., *Producing Liquid Fuels From Coal: Prospects and Policy Issues* 19 (Rand Monograph Series, No. 754, 2008).

7. See Martin L. Weitzman, *On Modeling and Interpreting the Economics of Catastrophic Climate Change*, 91 REV. ECON. & STAT. 1 (2009); Martin L. Weitzman, *Some Basic Economics of Extreme Climate Change* (Harvard Univ. Mimeo, 2009).

8. The primary U.S. source by far is electrical generation facilities. See, e.g., U.S. DEPT OF ENERGY & U.S. ENVTL. PROT. AGENCY, CARBON DIOXIDE EMISSIONS FROM THE GENERATION OF ELECTRICAL POWER IN THE UNITED STATES (2000), available at http://www.eia.doe.gov/cneaf/electricity/page/co2_report/co2emiss.pdf.

9. T.P. Whorf & Charles D. Keeling, *Atmospheric CO₂ Records From Sites in the SIO Air Sampling Network*, Trends: A Compendium of Data on Global Change. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn. (2005).

10. Leslie McCarthy, Research Finds That Earth's Climate Is Approaching "Dangerous Point" (May 30, 2007), http://www.nasa.gov/vision/earth/environment/danger_point.html.

11. Nancy Atkinson, Hansen: Earth at Crisis Point, Apr. 7, 2008, <http://www.universetoday.com/2008/04/07/hansen-earth-at-crisis-point/>.

12. U.S. Energy Information Administration, Energy and the Environment Explained: Where Greenhouse Gases Come From, http://tonto.eia.doe.gov/energyexplained/index.cfm?page=environment_where_ghg_come_from (last visited Jan. 13, 2010) (stating that about 81% of GHG emissions are from energy use, with methane contributing about 10%; CO₂ from fuel uses—petroleum 43%, coal 36%, natural gas 21%). An observation is in order here: controlling CO₂ emissions is only part of the solution. For example, methane releases are rarely discussed in the press, and yet methane is a particularly powerful GHG, and the interactive effects of GHG emissions are often ignored. For example, as CO₂ levels rise, methane can be emitted from such sources as permafrost and possibly deep water sources where methane lies trapped under

- Congressional tax subsidies to save energy are spasmodic, and the targeting of the taxes is questionable because in many instances the revenue losses are associated with consumer expenditures that would have happened anyway.
- Vast flows of U.S. wealth to pay for imported petroleum undermines the stability of the dollar and thereby makes financing the gargantuan federal deficits more costly and uncertain than if the flow of wealth were slowed.¹³ This problem is looking more dangerous because there is now a growing discussion abroad of moving off the dollar for oil purchases. That outcome would liberate an enormous volume of petrodollars, setting the stage for an accelerated decline in the dollar and likely domestic inflation, making it all the harder to sell U.S. debt to foreign buyers without steep increases in interest rates, which increase could in turn further handicap the economy.
- Oil price shocks (up and down) cause disruption costs to the economy, to which an oil stabilization tax offers a partial antidote. Economists have broken these costs down into an array of direct and indirect impacts, have debated those impacts extensively, and have come to divergent conclusions as to the level of the impact, largely because of the very complexity of the question. A full summary to the debate is beyond the scope of this Article.¹⁴

I. The Model

The proposal set forth in this Article is to enact a federal excise tax on crude equal to the difference between the purchase price of the oil and a fixed level selected by the U.S. Congress. It would apply both to domestic and imported oil. The tax would impose a rough floor on oil prices for long enough to allow long-range planning by the oil industry and for the alternative energy industry, energy-efficiency industries, and consumers. It would not address spikes in oil prices. Formally, it would be a tax on the importation, first sale, or first use¹⁵ of crude petroleum and its derivatives.

To illustrate: Congress enacts a tax on petroleum equal to around \$75 per barrel, based on a set of world benchmarks¹⁶ (Brent crude, etc.) minus the cost to the purchaser of the domestic or imported product. The tax would be

imposed at the time of importation and would have to include hypothetical sales within integrated producers. If, for example, the particular world benchmark price for Brent crude petroleum were \$75 and importer X purchased a barrel of that fuel for \$35, then the tax would be \$40 upon importation. The tax would have a long time horizon to protect people's reliance on the tax, and could be increased by some fraction of inflation or some annual rate, such as \$1.50 per barrel, for at least a decade to drive further industrial and consumer adjustments predictably. It should be added to the inventory cost of the crude oil to prevent a confiscatory federal income tax result. The incidence of the tax generally falls on American taxpayers as buyers of crude oil and related products.

The necessary administrative mechanism for imposing and collecting the tax already exists in the form of the federal excise tax system that applies to imported petroleum and derivatives, namely the removal at terminal tax.¹⁷ The tax would not require a new bureaucracy, and implementation would be relatively easy to administer because of the small number of importers, all of whom already collect the removal at terminal tax.

Because the United States is a "price taker" with respect to crude oil, one can safely assume that the domestic price will rise to meet the price of imported oil, including the tax, as happens now.

To illustrate: The tax would fall on the first domestic sale of petroleum, including hypothetical sales by integrated producers. If a well operator in the United States sold its output, in the running example, it would demand \$75 (the benchmark price for the particular grade of oil) and would retain the profit. It would be possible to revise the proposed tax to appropriate the windfall from the seller (\$40 in the example), but that is not proposed here. As long as such a windfall profits tax were limited to fuels ultimately used for energy, the result would be consistent with some of goals of the oil price stabilization tax proposed here, but such a windfall profits tax would be inconsistent with the goal of assuring predictability of prices for producers. To put it another way, the windfall-tax-free method offers a price signal to producers that the tax would turn off.

A corollary tax should be applied to imported refined products to prevent undermining the purposes of the tax and threatening U.S. refiners and processors with lost production. There are complicated questions of setting correct

low-level cold water strata. Mitigating the CO₂ emissions problem—even if it were possible—would be only part of the solution.

13. This is separate from the macroeconomics issue of "excess wealth transfers" as to which there are debates among economists as to the indirect costs of monopoly power. For one description of that debate, see LEIBY ET AL., *supra* note 2, at 22-24.
14. See generally LEIBY ET AL., *supra* note 2, at S7-S8, 36-50 & app. E, for a review and analysis. As is usual in this literature, no account is taken of the risks of global warming.
15. First-use taxation would cover integrated oil companies, treating the first use as deemed sale at imputed prices. It would be necessary to prevent avoidance of the tax.
16. Calibration is necessary in order to avoid price distortions among qualities in the same market. For example, heavy sour crude would be assigned a bench-

mark price lower than West Texas Intermediate. Pricing would have to accommodate delivery costs, a complicating but solvable issue.

17. I.R.C. §4081 (2007). It applies to crude oil and derivatives, including diesel fuel and gasoline, at various rates, depending on the liquid. The tax generally falls on imports and removal of liquids from terminals. The U.S. Senate defeated an attempt to reinstate the Superfund tax on oil and chemical companies. Superfund tax collections expired in 1995, and the program has run out of money, with the result that Superfund cleanups are paid for out of government revenues. It may be that economists are unaware of the tax and its structure. See, e.g., Margaret A. Walls, *Welfare Cost of an Oil Import Fee*, CONTEMP. POL'Y ISSUES, Apr. 1990, at 176 (concern about creation of new bureaucracy). There is also an extant oil spill liability trust fund tax that reaches imports. I.R.C. §4611.

benchmark tax levels and imputed sales price here that are the proper subject of congressional hearings.¹⁸

Because the purpose of the tax is to stabilize the price of petroleum as a source of fuel, it is unreasonable to add the tax to the price of petroleum not used for energy, for example, petroleum used to make plastics and petrochemicals. Accordingly, the tax should be rebated (or not imposed in the first place) to any purchaser who bought a barrel of petroleum that bore the tax and used the petroleum for a use other than as a fuel. This adjustment is important because without it, manufacturing interests will fiercely resist, and rightly so. Likewise, the tax should be exempted or rebated if the barrel is in fact exported. That already occurs with removal at terminal tax.¹⁹ Whether fuel used for manufacturing should be exempt is not so clear. On the one hand, it is a fuel use, but on the other hand, U.S. manufacturers are struggling and petroleum used for manufacturing is minimal.²⁰

II. The Benefits of an Oil Stabilization Tax

A. Revenues

The prospect of immediate revenues is obviously attractive, especially in light of currently declining federal revenues and a tsunami of national debt. The United States imports approximately 12 million net barrels per day of crude oil.²¹ A simple example of revenues for a single day using a \$75 floor and a \$70 world price yields a daily revenue figure of \$60 million. The volatility of the price of crude oil makes predicting revenues impossible. The volatility and uncertainty are tremendous; according to the federal Energy Information Administration (EIA), which tracks prices and output closely, from August 2008 to February 2009, the monthly average price of West Texas Intermediate (WTI) crude oil fell from \$133 per barrel in July to \$41 in December and January, but the EIA expects WTI prices to average \$43 per barrel in 2009 and \$55 in 2010.²² In fact, the numbers the EIA proposed were far too low, demonstrating that even the best economic prognosticator is stabbing in the dark when it predicts future prices. If the thesis that oil prices have been artificially increased by institutional spec-

ulators is correct, the revenues would increase and price spikes would be lower.²³

B. Improved Decisionmaking With Improved Price Information

It is impossible to hedge in the private markets against more than short-term oil price fluctuations. The private mechanisms are too limited as to time and too expensive. As a result, oil price swings can make decisionmaking by a large array of domestic producers and consumers a risky matter. This has been a period of extreme volatility in energy prices, but even in stable times, instability of oil prices operates as a sword of Damocles hanging over consumers, the oil industry and the suppliers of alternative energy products and services, all to the benefit of the Organization of the Petroleum Exporting Companies (OPEC) cartel.²⁴ The greater the risk of price collapses, the more difficult it is to prepare for long-term investments in domestic hydrocarbon production and in alternative energy projects; likewise, price volatility makes consumers uncertain about decisions, such as buying home insulation, more efficient vehicles, and appliances, all of which are helpful in slowing global warming. The Toyota Prius riches-to-rags story already mentioned is an example. Likewise, long-term decisionmaking about our overall transportation system would be simplified, likely making it easier to invest in efficient new railway systems. A floor on oil prices eliminates the risk of price collapses.

C. Environmental Improvement

Reduction in the emissions of GHGs from burning petroleum and gradually replacing those emissions with biofuels are the primary benefit. The benefits from the floor come in various forms, including economic incentives to conserve energy in light of the knowledge that short-term squandering of energy will not be recouped by lower oil prices in the future. It may also be true that reduced imports could reduce OPEC's market share and the value of exploiting its short-run market power, thereby reducing the likelihood of opportunistic price shocks. Clearly, the floor would encourage consumers to buy—and manufacturers to produce—more fuel-efficient vehicles and other products that depend on internal combustion engines or oil-burning furnaces. For example, at \$60 per barrel, the national average price of a gallon of unleaded gasoline averaged about \$2.34.²⁵ Even at that modest \$60 level, consumers would cease to fantasize about gasoline for under \$2.00 per gallon. If the tax were overtly designed to creep up predict-

18. See, e.g., James Poterba & Julio Rotemberg, *Environmental Taxes on Intermediate and Final Goods When Both Can Be Imported*, 2 INT'L TAX & PUB. FIN. 221 (1995).

19. See, e.g., Treas. Reg. §48.4081-3(f)(2)(iv) (as amended in 2007).

20. According to the Energy Information Administration, distillate fuel oil represented 5.5% of all fuels used in 1974, but by 1994 accounted for just 1.2%, and residual fuel oil reached a high of 12.4 % of purchased energy for fuel in 1978, but by 1994 dropped to 3.3 % of the total. U.S. Energy Information Administration, Fuel Oil Use in Manufacturing, http://www.eia.doe.gov/emeu/consumptionbriefs/mecs/fueloil/mecs_fueloil_use.html (last visited Jan. 15, 2010).

21. U.S. Energy Information Administration, How Dependent Are We on Foreign Oil?, http://tonto.eia.doe.gov/energy_in_brief/foreign_oil_dependence.cfm (last visited Jan. 10, 2010).

22. Economagic.com, Price of West Texas Intermediate Crude; Monthly NSA, Dollars Per Barrel, <http://www.economagic.com/em-cgi/data.exe/var/west-texas-crude-long> (last visited Jan. 25, 2010).

23. See *supra* note 5.

24. For the view that OPEC consciously disfavors high oil prices because high prices encourage alternative energies, see Morris A. Adelman, *OPEC as a Cartel, in OPEC BEHAVIOR AND WORLD OIL PRICES 37* (James M. Griffin & David J. Teece eds., 1981).

25. John Porretto, *Oil Falls Near \$60 a Barrel*, MANUFACTURING.NET, Nov. 6, 2008, <http://www.manufacturing.net/News-Oil-Falls-Near-60-A-Barrel.aspx?menuid=250>.

ably, the effect would be enhanced. CO₂ emissions would decline as a result of the purchase of more efficient internal combustion engines.

D. Support for Biofuels

The greater the certainty that oil prices will not fall below a given floor, the better the future of biofuels, because price stability allows long-term planning to invest in the crops, facilities, and other inputs needed to make biofuels. The environmental case for effective biofuels is that, unlike petroleum, the CO₂ produced by burning these fuels is taken up by subsequent crops of biofuels. The less energy burned to produce the biofuels, the greater the anti-global warming benefits.

Ethanol, the primary U.S. biofuel, is blended with gasoline for use as motor fuel. The price of ethanol generally follows the price of petroleum,²⁶ so as the price of crude oil rises, so does the market price for ethanol, although rising fuel prices are also apt to increase the price of producing the necessary corn. According to the Energy Future Coalition, corn ethanol is competitive with gasoline when crude oil costs \$70 per barrel.²⁷ According to an intricate study in 2007, at \$60 per barrel of crude oil, smaller producers (those making not over 60 million gallons per year) of ethanol can make money when corn prices are not over \$3.90 per bushel, and large producers (120 million gallons per year) can make money when corn prices are as high as \$4.25 per bushel, assuming the 51 cent per gallon tax credit for producers remains in place,²⁸ to the great benefit of ethanol producers. The profitability of ethanol depends on an array of factors, including acceptable internal rates of return on capital, gas prices, crude oil prices, corn prices, the market price for the byproducts of ethanol production, and the availability of foreign markets, as well as the presence or absence of the current federal tax credits.

There is also a deep question as to whether the entire corn ethanol program is worthwhile,²⁹ in the sense that the yield on the energy expended to produce a unit of energy from ethanol is low compared to the resulting energy produced. It seems unlikely that the ratio is even 1:2, compared to ratios as high as 1:10 for cellulosic ethanol. For years, Brazil has achieved a 1:8 ratio with sugar cane,³⁰ on which the United States imposes an environmentally perverse but politically protected 54 cent per gallon tariff, which is almost three times the tax imposed on imported gasoline.³¹ Be all these matters as they may, an increase in petroleum prices should benefit the corn ethanol industry by taking out the risk of declining petroleum prices as a planning factor.

Stable crude oil prices also make planning for biodiesel production easier. There is presently a tax credit of \$1.00 per gallon of agri-biodiesel made from vegetable oils and animal fats and another credit of \$1.00 per gallon for biodiesel made from used oils, such as yellow and brown grease.³² In addition, biodiesel plants that produce 60 million gallons per year or less are eligible for an annual small-producer tax credit of up to \$1.5 million.³³ (The latter credit is available to large producers as well, but the credit is spread over more gallons and so is smaller per gallon.) As for biodiesel, the Oregon Department of Energy sets the price of production at \$2.00 or more per gallon,³⁴ while the EIA puts the price between \$2.00 and \$2.50 per gallon.³⁵ There is no federal study of the crude oil price at which agri-biodiesels become competitive with standard diesel.³⁶

26. See Vernon R. Eidman, *Economic Parameters for Corn Ethanol and Biodiesel Production*, 39 J. AGRIC. & APPLIED ECON. 345 (2007). This exceptionally thorough article shows that ethanol production prices depend on a multitude of variables, including the markets and prices for the byproducts of ethanol.

27. Energy Future Coalition, *The Facts About Biofuels: Ethanol*, http://www.energyfuturecoalition.org/biofuels/fact_ethanol.htm (last visited Jan. 17, 2010).

28. Eidman, *supra* note 26, at 349. For 2009 and 2010 year, the blender amount of 51 cents-per-gallon alcohol mixture credit and 51 cents-per-gallon alcohol credit will each decrease to 45 cents, and the low-proof blender amount of 37.78 cents-per-gallon alcohol mixture credit and 37.78 cents-per-gallon alcohol credit will each decrease to 33.33 cents. I.R.C. §40(h)(2) (2007).

29. See Gilbert E. Metcalf, *Using Tax Expenditures to Achieve Energy Policy Goals*, AM. ECON. REV., May 2008, at 90 (broad survey of wasteful use of tax expenditures for energy/environment; the incidence of the credit is on some combination of farmers and producers).

30. Wikipedia, *Ethanol Fuel: Efficiency of Common Crops*, http://en.wikipedia.org/wiki/Ethanol_fuel#Efficiency_of_common_crops (last visited Jan. 16, 2010).

31. The explanation is a matter of agricultural states' congressional power. See Editorial, *Corn Power: Sen. Grassley Snuffs Out Dissent on Ethanol Subsidies*, WASH. POST, Aug. 5, 2009, (reporting that nominee for U.S. Ambassador to Brazil carefully hedged on this tariff to avoid alienating Sen. Grassley of Iowa over health care reform proposals).

32. I.R.C. §§40A(b), 6426(c).

33. §40A(e).

34. Oregon.gov, *Bioenergy: Cost of Production*, <http://www.oregon.gov/ENERGY/RENEW/Biomass/Cost.shtml> (last visited Jan. 21, 2010). The U.S. Department of Agriculture has offered grants for biodiesel production via the Commodity Credit Corporation, something not taken into account here.

35. Anthony Radich, Energy Information Administration, *Biodiesel Performance, Cost, and Use*, <http://www.eia.doe.gov/oiaf/analysispaper/biodiesel/pdf/biodiesel.pdf> (last visited Jan. 18, 2010).

The Energy Information Administration also provides a useful table for predicting the cost of producing a gallon of biodiesel from petroleum, soy bean oil, and yellow grease. *Id.*

36. Telephone calls from the author to federal energy policy agencies in September 2009.

E. Opportunity to Cut Back Proliferation of Federal Tax Credits

The following list is from the May 2009 federal Tax Expenditures Budget, showing revenue losses in millions of dollars from various such incentives for the period 2008-2013:

		2008	2009	2010	2011	2012	2013	2014	2010–2014
Energy									
14	Exclusion of interest on energy facility bonds	10	20	20	30	30	30	30	140
15	New technology credit	920	1,130	1,180	1,180	1,150	1,140	1,120	5,770
16	Energy investment credit	50	50	50	50	50	50	50	250
17	Alcohol fuel credits [1]	50	60	90	190	390	230	0	900
18	Bio-Diesel and small agri-biodiesel producer tax credits	40	30	20	0	0	0	0	20
19	Tax credit and deduction for clean-fuel burning vehicles	170	90	80	40	10	60	100	290
20	Exclusion of utility conservation subsidies	120	120	110	110	110	110	110	550
21	Credit for holding clean renewable energy bonds	40	70	70	70	70	70	70	350
23	Credit for investment in clean coal facilities	30	200	290	260	240	230	210	1,230
27	Allowance of deduction for certain energy efficient commercial building property	170	200	210	190	200	20	60	680
28	Credit for construction of new energy efficient homes	30	20	10	0	0	0	0	10
29	Credit for energy efficiency improvements to existing homes	230	380	150	0	0	0	0	150
30	Credit for energy efficient appliances	120	130	130	50	0	0	0	180
31	Credit for residential purchases/installations of solar and fuel cells	20	30	20	0	0	0	0	20
32	Partial expensing for advanced mine safety equipment	20	0	0	0	0	0	0	0
33	Qualified energy conservation bonds	0	0	10	30	40	40	40	160
Natural resources and environment									
40	Expensing of capital costs with respect to complying with EPA sulfur regulations	30	50	30	-10	0	0	0	20
41	Exclusion of gain or loss on sale or exchange of certain brown-field sites	30	40	40	40	30	30	30	170
42	Industrial CO ₂ capture and sequestration tax credit	0	0	0	40	130	240	290	700
43	Deduction for endangered species recovery expenditures	0	10	20	20	30	30	30	130

F. National Security

National security would be enhanced by the diminution in vulnerable imports, the increase in domestic production, and market-driven shifts into alternative energy supplies.

G. Domestic Employment

Employment should increase in the alternative energy and domestic energy industries. Specific areas of domestic employment that stand to gain, to name just a few, are: weatherproofing; energy auditing; retrofitting vehicles and structures; installation of solar and thermal heating; biofuel production and distribution; and manufacture of insulation, solar panels, fuel efficiency devices for transportation, and passive solar devices.

III. Relationship to Other Selected Initiatives

A. Relationship to Carbon Tax or Emissions Trading

The proposed tax is compatible with carbon taxes and emissions trading. Its only function is to stabilize oil prices, principally to guide consumer and industrial behavior. It is definitely not a comprehensive solution to climate change. Rather, it is one arrow in the government's quiver. Although cap-and-trade policies are generally agreed to have markedly different outcomes from carbon taxes³⁷—and one might argue that the oil stabilization tax is a disguised carbon tax—the fact is one can have both. Economics is a tool, not a religion.

37. The traditional view is that a tax does not assure achievement of an emissions target, but it provides more certainty regarding costs and greater temporal flexibility; cap and trade guarantees results.

Be that as it may, at present prices of tradable permits on CO₂ emissions, running around 7 cents per barrel equivalent of CO₂ emissions, one can expect international oil companies and other natural predators of the oil import tax to plead the case for permits in place of the tax.³⁸

B. Relationship to a Per Barrel Oil Import Tax

A fixed per barrel tax is a clumsy device. It offers no certainty as to future prices to investors in domestic oil production, consumers, or to the alternative energy industry. Its hydrocarbon energy-reduction effects would be haphazard, and so in itself the environmental benefits would be limited. It could, on the other hand, offer large federal revenues and some security against oil shocks, among other benefits.

C. Relationship to Increased Gasoline Tax

It would be easy to increase the federal gas tax, which now stands at 18.4 cents per gallon and 24.4 cents per gallon of diesel fuel.³⁹ In fact, it evidently should be increased in order to make the federal highway trust fund⁴⁰ solvent (the fund has been raided and replenished of late⁴¹), consistent with its historical purpose of funding highway construction and maintenance. The defect of a further gas tax as an environmental/economics measure is that it merely piggybacks on

the price of transportation fuels, as opposed to providing the floor price that market participants affected by oil price fluctuations need to factor into their planning. One of the intricacies of the petroleum stabilization tax is that it would, all things being equal, reduce gasoline consumption, thereby reducing fuel excise tax revenues, and might necessitate a small increase in fuel taxes, on a transfer of stabilization tax revenue to the already underfunded Highway Trust Fund.

It would be possible to design variable domestic motor fuels taxes that would be similar in operation to an oil stabilization tax, such as a gasoline tax that assured that regular gasoline never fell to less than, say, \$2.50 per gallon, with similar floors for diesel fuel (including home heating oil), kerosene, and so forth. One thing such a tax would not do is provide a price signal for domestic oil and gas producers, and it is not recommended here.

IV. North American Free Trade Agreement Limitations on a Petroleum Stabilization Tax

As the discussion below shows, a properly formed stabilization tax will not violate North American Free Trade Agreement (NAFTA) or the General Agreement on Tariffs and Trade (GATT).

A. Introduction

The view has been expressed that an oil import tax would violate the Canadian American Free Trade Agreement and would lead to great diplomatic disturbances.⁴² That debatable assertion was mooted when NAFTA led to the suspension of the agreement.⁴³

B. NAFTA Rules Specific to Dealing in Energy

NAFTA⁴⁴ contains a handful of neatly packaged rules with respect to transactions in petroleum in §§601-609. However, it has no bite. Specifically:

- It begins with a declaration that the following sections are preminent, except for an irrelevant reservation by Mexico relating to control over its domestic industry.⁴⁵

38. The amount of CO₂ emitted by burning one barrel of crude oil can vary. Apparently, some barrels of oil have different components that would cause more CO₂ to be released when burned. EPA made a calculation for how much CO₂ is released from the burning of one barrel of crude oil. This calculation provides a value of .43 metric tons of CO₂ released by each barrel of crude oil. U.S. Environmental Protection Agency, Green Power Equivalency Calculator Methodologies: Barrels of Oil Consumed, <http://www.epa.gov/grnpower/pubs/calcmeth.htm#oil> (last visited Jan. 17, 2010). The Chicago Exchange (CCX) is where Carbon Future Contracts are traded. On October 30, 2009, the closing price for 1 metric ton of carbon (emission or offset) was .15 or 15 cents per metric ton. Contracts are sold on a basis of 100 metric tons minimum, so a contract would cost a minimum \$15. Also, there is a price floor of 5 cents per metric ton, so we know that the price for a contract should never go below \$5. Chicago Climate Exchange, CFI Contract Specifications, <http://www.chicagoclimatex.com/content.jsf?id=483> (last visited Jan. 18, 2010). Combining these facts, at a price of 15 cents per metric ton, burning a barrel of oil that emits .317 metric tons of CO₂ should cost about 5 cents. In order to burn a barrel of oil that emits .43 metric tons of CO₂, one would have to pay about 6 cents (6.45) per barrel. In conclusion, it is probably better to go with EPA's estimate for the amount of CO₂ emitted by a barrel of crude oil of .43 metric tons. That means that burning each barrel of crude oil should cost about 6 cents per barrel, or a contract should cost \$13.95. If all the math is correct, it does not appear to be very expensive to burn a barrel of oil based on CO₂ emissions.

39. Upon removal at terminal, nonaviation gasoline is taxed at 18.4 cents per gallon, the total of (1) the 18.3 cents per gallon gasoline rate, plus (2) the 0.1 cents per gallon Leaking Underground Storage Tank Trust Fund (LUSTTF) financing rate (also called the LUST tax). See I.R.C. §4081; Ann. 97-91, 1997-37 I.R.B. 25. It is 19.3 cents per gallon for aviation gasoline, and more for jet fuel. Rates are apt to increase to cover the FAA's costs.

40. See Highway Revenue Act of 1956, Pub. L. No. 84-627, 70 Stat. 390, for the foundation law. Tax revenues go to the Highway Trust Fund from excise taxes on highway motor fuel and truck-related taxes on truck tires, sales of trucks and trailers, and heavy vehicle use. In addition, a Mass Transit Account gets part of the motor fuel taxes, as does the LUSTTF and the General Fund.

41. In the fall of 2008, Congress appropriated US\$8.017 billion of general revenue to the Highway Trust Fund (H.R. 6532) evidently replenishing raided funds. See H.R. 6532, 110th Cong. (2008). It seems that over a few years, the fund will be in the red, in spite of the replenishment. See Jack Basso, The Future of the Highway Trust Fund (Aug. 8, 2006), <http://www.transportation.org/sites/aashto/docs/Basso-2006-08-08.pdf>.

42. See, e.g., James L. Sweeney, *Oil Import Fees With Exemptions: An Empirical Examination*, 11 RESOURCES & ENERGY 215 (no authority cited for proposition). The article also asserts, *inter alia*, that a tax would greatly upset U.S. relations with Canada and Mexico. *Id.*

43. NAFTA entered into force on January 1, 1994, and suspended the U.S.-Canada Free Trade Agreement (CFTA, 27 I.L.M. 281 (1988), in force 1989). See Canada-United States Free Trade Agreement, U.S.-Can., Dec. 22, 1987—Jan. 2, 1988, 27 I.L.M. 218 (1988); see also North American Free Trade Agreement Implementation Act §107, Pub. L. No. 103-182, 107 Stat. 2057, 2065 (1993).

44. NAFTA, U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 289 (table of contents, preamble, pts. I-III), 32 I.L.M. 605 (pts. IV-VII, annexes) (1993) [hereinafter NAFTA].

45. Except as specified in Annex 602.3, energy and petrochemical goods and activities shall be governed by the provisions of this agreement. NAFTA, *supra* note 44, 32 I.L.M. at 366-67.

- Article 603⁴⁶ prohibits minimum or maximum export-price requirements in cases where restrictions on the volume of exports are prohibited. It is plainly not relevant, because it involves exports.⁴⁷
- Article 604 prohibits NAFTA members from imposing any export tax or duty on the sale of energy or petrochemical products, unless the same tax is placed on *all* NAFTA members, including the exporting party. Again, it is plainly not relevant, because the proposal does not involve an export tax.
- Article 605 described the conditions under which a country can restrict energy exports. Again, it is not relevant, because it relates only to exports.
- Article 606 requires that domestic energy regulation respect the requirements of Articles 301, 603, and 604. The last two have already been disposed of as not relevant. Article 301 at heart calls on the parties to discriminate against imports of other parties,⁴⁸ by

46. There is an Annex to Article 606 that is irrelevant to this Article. It states: "For only those goods listed below, Mexico may restrict the granting of import and export licenses for the sole purpose of reserving foreign trade in these goods to itself," and then goes on to provide a list. *Id.* at 367.

47. Article 603: Import and Export Restrictions states:

1. Subject to the further rights and obligations of this Agreement, the Parties incorporate the provisions of the General Agreement on Tariffs and Trade (GATT), with respect to prohibitions or restrictions on trade in energy and basic petrochemical goods. The Parties agree that this language does not incorporate their respective protocols of provisional application to the GATT.
2. The Parties understand that the provisions of the GATT incorporated in paragraph 1 prohibit, in any circumstances in which any other form of quantitative restriction is prohibited, minimum or maximum export-price requirements and, except as permitted in enforcement of countervailing and antidumping orders and undertakings, minimum or maximum import-price requirements.
3. In circumstances where a Party adopts or maintains a restriction on importation from or exportation to a non-Party of an energy or basic petrochemical good, nothing in this Agreement shall be construed to prevent the Party from:
 - (a) limiting or prohibiting the importation from the territory of any Party of such energy or basic petrochemical good of the non-Party; or
 - (b) requiring as a condition of export of such energy or basic petrochemical good of the Party to the territory of any other Party that the good be consumed within the territory of the other Party.
4. In the event that a Party adopts or maintains a restriction on imports of an energy or basic petrochemical good from non-Party countries, the Parties, on request of any Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing and distribution arrangements in another Party.
5. Each Party may administer a system of import and export licensing for energy or basic petrochemical goods provided that such system is operated in a manner consistent with the provisions of this Agreement, including paragraph 1 and Article 1502 (Monopolies and State Enterprises).
6. This Article is subject to the reservations set out in Annex 603.6. *Id.* at 365.

48. Article 301: National Treatment states:

1. Each Party shall accord national treatment to the goods of another Party in accordance with Article III of the General Agreement on Tariffs and Trade (GATT), including its interpretative notes, and to this end Article III of the GATT and its interpretative notes, or any equivalent provision of a successor agreement to which all Parties are party, are incorporated into and made part of this Agreement.
2. The provisions of paragraph 1 regarding national treatment shall mean, with respect to a state or province, treatment no less favorable than the most favorable treatment accorded by such state or province

reference of Article III of the GATT, which is discussed below (the solution is a parallel domestic (American) tax on domestic production).

- Article 607 incompletely prohibits restrictions on imports of petrochemical goods under Article XXI of the GATT grants national security exceptions.⁴⁹ Article XXI is not relevant, because there is no need to refer to it, as the above entries show, although one might argue that supply disruptions (which provide an exception to Article 607) are more apt to occur in the absence of an oil import tax.
- Article 608 allows continued incentives to explore for and develop energy reserves. It is obviously not relevant.

C. General Rules Under NAFTA

The previous discussion shows that the energy-related provisions of NAFTA are not a problem. What about the more general provisions of NAFTA?

Article 302.1 of NAFTA calls on the Parties not to "increase any existing customs duty, or adopt any customs duty, on an originating good." "Goods of a Party" is defined to mean "domestic products" as these are understood in the General Agreement on Tariffs and Trade or such goods as the Parties may agree, and includes originating goods of that Party." Article 318 then undercuts the previous directives with the following statement:

[C]ustoms duty includes any customs or import duty and a charge of any kind imposed in connection with the importation of a good, including any form of surtax or surcharge in connection with such importation, *but does not include any: (a) charge equivalent to an internal tax imposed consistently with Article III:2 of the GATT, or any equivalent provision of a successor agreement to which all Parties are party, in respect of like, directly competitive or substitutable goods of the Party, or in respect of goods from which*

to any like, directly competitive or substitutable goods, as the case may be, of the Party of which it forms a part.

3. Paragraphs 1 and 2 do not apply to the measures set out in Annex 301.3.

Id. at 299-300.

49. Article 607: National Security Measures states:

Subject to Annex 607, no Party may adopt or maintain a measure restricting imports of an energy or basic petrochemical good from, or exports of an energy or basic petrochemical good to, another Party under Article XXI of the GATT or under Article 2102 (National Security), except to the extent necessary to:

- (a) supply a military establishment of a Party or enable fulfillment of a critical defense contract of a Party;
- (b) respond to a situation of armed conflict involving the Party taking the measure;
- (c) implement national policies or international agreements relating to the non-proliferation of nuclear weapons or other nuclear explosive devices; or
- (d) respond to direct threats of disruption in the supply of nuclear materials for defense purposes.

Id. at 365.

the imported good has been manufactured or produced in whole or in part.⁵⁰

V. Legality of Import Taxes Under GATT

NAFTA relies on the GATT's rules as to taxes on imported goods. So, what then does Article III:2 of GATT have to say? The answer is that under Article III:2:

The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.

Paragraph 1 prohibits members of the WTO from affording any beneficial treatment, whether fiscal or regulatory, to its domestic products as compared to imported products. However, it is only a preliminary statement, because the prohibition is undermined by the following paragraphs, including paragraph 2. Finally, Article III:4 provides that imported products must be accorded treatment no less favorable than that accorded to "like products" of national origin.

A. GATT Jurisprudence Concerning Article III:2

There is a large body of interpretation by GATT panels concerning the scope and meaning of Article III:2, but at the end of the day, plain meaning has won out and one can safely say that if a "like" domestic good enjoys a lower internal tax rate than a competing foreign good, then the tax is unlawful under GATT. The plainest example is the so-called Superfund case in which the United States imposed a tax several cents higher on each barrel of imported petroleum than on domestic.⁵¹ The tax was rightly found to have violated GATT's rule against discriminatory domestic taxes.

50. *Id.* at 304 (emphasis added). The section goes on with other exceptions that are not relevant to this study, specifically, "b) antidumping or countervailing duty that is applied pursuant to a Party's domestic law and not applied inconsistently with Chapter Nineteen (Review and Dispute Settlement in Antidumping and Countervailing Duty Matters); c) tax or other charge in connection with importation commensurate with the cost of services rendered; d) premium offered or collected on an imported good arising out of any tendering system in respect of the administration of quantitative import restrictions, tariff rate quotas or tariff preference levels; and e) tax applied pursuant to section 22 of the U.S. Agricultural Adjustment Act, subject to Chapter Seven (Agriculture and Sanitary and Phytosanitary Measures).

51. *United States—Taxes on Petroleum and Certain Imported Substances* (June 17, 1987), GATT B.I.S.D. (34th Supp.), at 136 (1988). A more subtle case was presented by the case styled *Japan—Customs Duties, Taxes, and Labeling Practices on Imported Wines and Alcoholic Beverages* (Nov. 10, 1987), GATT B.I.S.D. (34th Supp.), at 114 (1988), the heart of which were peculiar product categories that drew specious distinctions between competing imported and foreign alcoholic beverages, attracting higher taxes to import product categories, which (along with a strange schedule of specific excise taxes) favored domestic products in practice.

B. Conclusion

As long as the crude oil stabilization tax is imposed in an even-handed way on domestic products and imports, it is legal under NAFTA and GATT. This is true even if it rarely applies domestically because of America's status as a price taker. In addition, because the tax is an environmental instrument with a major economic security feature, and not a disguised effort to restrict trade, it is not philosophically offensive to GATT.

VI. Revenue Potential

A. Direct

Although the tax is not at heart a revenue measure, it has the potential for generating a great deal of revenue, because imported oil accounts for about 58% of U.S. consumption at a rate of about 12 million barrels of net imports per day times 365 days, but computing how much revenue can be obtained is impossible, because oil prices are so volatile.⁵²

When the tax is not collected because of high international prices, there would be no revenue effect.⁵³

B. Indirect

When the tax is being collected, there would be a complex pattern of results the description of which is beyond the scope of this Article. The lists that follow immediately below are only generalizations.

- On the positive side, federal revenues would, over time, increase from numerous sources, including: increased alternative energy and energy-savings employment and manufacturing; increased domestic oil production; increased domestic manufacturing of efficient vehicles; and decreased tax subsidies in the forms of lower tax expenditures for credits for biofuel credits, insulation credits, and the seemingly endless further tax stimuli for energy conservation and (to a much lesser extent) CO₂ reduction.
- On the negative side, federal revenues would decrease from, among other factors: revenue losses from declining income to international oil companies that face reduced demand for their products; reduced interna-

52. It appears that, in the short term at least, the price elasticity of petroleum demand has always been small, suggesting that, in the short term, the impact of tax on consumption will be small. See James Hamilton, *Causes and Consequences of the Oil Shock of 2007-08* (Brookings Papers on Econ. Activity, Draft, Mar. 23, 2009), available at http://www.brookings.edu/economics/bpea/-/media/Files/Programs/ES/BPEA/2009_spring_bpea_papers/2009_spring_bpea_hamilton.pdf.

53. This is discussed in two articles, one critical of a variable import tax, Dale Henderson, *Perverse Effects of a Variable Oil Import Fee*, 10 ENERGY J. 159 (1989), which is ably criticized by S. Fred Singer, *VIF Vivit: Reply to Henderson*, 10 ENERGY J. 171 (1989). The focus of the articles is largely on revenues and probability/improbability of price discrimination against the United States. The economics literature on a variable import tax is limited, and seems nonexistent as to the environmental rationale for such a tax. Oil shock protection is identified by S. Fred Singer as a rationale.

tional shipping; decreased fuel consumption, reducing associated excise taxes; and decreased manufacturing of inefficient vehicles.

When the tax is not being collected, the indirect revenue benefits would be even more subtle and difficult to quantify.

VII. Objections and Further Considerations

A. “Drain America First”

A common objection falls under the slogan “drain America first,” meaning the United States exposes itself to greater economic and political vulnerability than our current domestic extraction of petroleum already causes. In the more refined term of economists, domestic resources will be pulled “prematurely” into the market.⁵⁴

In fact, Congress implicitly already has a policy to drain America first, thanks to exceptionally favorable tax provisions for domestic production (but not always for equivalent foreign activities), the repeal of which could slow the current drainage. The dollar amounts are the estimates from the Tax Expenditures Budget issued in 2009. The federal revenue losses that arise from the special benefits afforded the hydrocarbon industry over the years 2010-2014:

1. A reduction in federal income taxation for domestic production of hydrocarbons under Internal Revenue Code (I.R.C.) §199. Not quantified in the Tax Expenditures Budget.
2. Expensing oil and gas exploration expenditures: \$8.02 billion, and more if the same restriction were also applied to minerals.
3. A credit of up to \$3.00 per barrel (and a metric cubic feet-equivalent for gas) for extracting oil and gas from domestic stripper wells under §451. It is unlikely to ever apply, because the credit phases out as oil prices exceed a stated threshold.
4. Treating domestic intangible drilling and development expenditures as currently deductible. This is evidently part of 2 above in the Tax Expenditures Budget.
5. Exception from passive loss rules (§460) for certain oil and gas-related activities: \$50 million.
6. Percentage depletion deductions for fuels extracted in the United States in excess of basis of the property⁵⁵: \$6.89 billion, and \$2.85 billion more if the loophole were closed as to minerals.
7. Rapid write-offs of refinery construction and improvements, including for tar sands petroleum extraction: \$3.92 million.

8. Rapid depreciation of natural gas pipelines: \$530 million.

9. Two-year amortization of geological and geophysical expenditures: \$440 million.

If domestic producers are to get a windfall from an oil price floor, it would be reasonable to repeal much of the special-interest legislation on the above list, thereby simplifying the Tax Code. More importantly, rapid domestic extraction is not so much a problem as the need to develop alternative energy sources that do not generate CO₂ and other GHGs. Hoarding domestic petroleum and importing increasing amounts of it is a problem, not a solution. The trick is to match the presumably declining U.S. oil production curve to increased supplies of biofuels plus conservation.

B. Concern and Opportunity: Substitution of Coal for Petroleum

Public policy can intentionally cause consumers to shift from one fuel to another. For example, Brazil has demonstrated that vast substitution of ethanol for gasoline is practicable; in fact, pure gasoline is no longer even sold at retail in Brazil, but could higher petroleum prices drive electricity generators to substitute coal for petroleum used for energy production?

The initial answer is no. In 2006, coal provided 49% of the electricity generated in the United States, and petroleum provided only 1.5%.⁵⁶ Therefore, even if all the petroleum-fired electrical production plants were replaced with coal plants, the impact would be negligible. Regrettably, the current official projections are for only modest increases in carbon-neutral electrical energy sources after the tipping point date identified by NASA.⁵⁷

The longer term answer may be yes. If petroleum prices were stable at around \$65 per barrel, then coal reportedly becomes a replacement for petroleum for transportation purposes. The technologies to make the conversions exist.⁵⁸

56. Energy Information Administration, Electricity Explained: Electricity in the United States, <http://www.eia.doe.gov/neic/infosheets/electricgeneration.html> (last visited Jan. 16, 2010). According to this federal source, steam turbines are the primary mechanism. Natural gas is the second-largest provider. Petroleum provides 1.5% of electrical power. *Id.*

57. “Generation from renewable energy sources in the United States increases in response to requirements in more than one-half of the 50 states for minimum renewable generation or capacity shares. Renewable generation in the IEO2009 reference case is substantially higher than in last year’s projections, with the share of generation coming from renewable energy sources growing from 10.1% in 2006 to 14.7% in 2030. Federal subsidies for renewable generation are assumed to expire as enacted; however, if those subsidies were extended, a much larger increase in renewable generation would be expected.” U.S. ENERGY INFO. ADM’N, PUBL’N No. DOE/EIA-0484, INTERNATIONAL ENERGY OUTLOOK 2009 (May 27, 2009).

58. The methods are the Fischer-Tropsch (FT) and methanol-to-gasoline (MTG) liquefaction technologies. The FT is in commercial use in South Africa. The Mobil Research and Development Corporation invented the MTG approach in the early 1970s. Like the FT, it calls for preparing and feeding coal to a pressurized gasifier to produce synthesis gas, which is then cleaned (including of CO₂) and transferred to a catalytic reactor, where it is converted to liquid hydrocarbons of high quality, free of sulphur. NB: As of the end of 2009, the credit for fuel from coal at an advanced coal-gasification facility depends on sequestering at least 65% of the CO₂ (70% in a credit reallocation case). See I.R.C. §48A(e) (2007). Accordingly, it seems that government and industry agree that substantial sequestration is possible now.

54. Dale M. Nesbitt & Thomas Y. Choi, *The Numbers Say No*, 9 ENERGY J. 31, 34 (1988). This is difficult to accept, in the sense that the world oil market is an oligopoly and is already distorted, making the assertion of a “natural” point in time highly unrealistic.

55. I.R.C. §613A (2007).

This would have national security benefits, but potentially high environmental costs because of associated CO₂ emissions. According to a 2009 study reported by the National Research Council in *News From the National Academies*,⁵⁹ the CO₂ footprint of such a changeover would be twice as large as for crude oil, but could be resolved if the CO₂ from production could be sequestered.⁶⁰ The fact is, the CO₂ emissions are large from such processes because they essentially call for gasifying coal (or coal plus some biomass) to produce CO₂ and hydrogen, with the hydrogen turned into the liquid fuel.

The report considered that this initiative would require focused research, development, and policy efforts. In general, it seems safe to say that stabilizing the price of crude oil at \$70 per barrel would be a powerful incentive to move in this direction. The result would be an improvement in national security and the balance of payments.⁶¹

The trick would be to reduce the carbon footprint. According to a Rand Corporation study submitted to the U.S. Air Force, if there is co-firing with biomass and the CO₂ is sequestered, the net CO₂ emission from the processing can be reasonably low, but warned that any such program depends in large part on the existence of a serious national policy to reduce CO₂ emissions, among other factors.⁶² Notice again how unpredictability of petroleum prices hamstring this initiative and that an oil stabilization tax might supply at least part of the necessary “serious national policy.”

Coal to petroleum processing has a number of virtues and vices. On the positive side, it helps with the country's chronic negative international trade balance, induces domestic employment, and reduces the risk of shock from collapsing oil prices and the unavoidable macroeconomic costs they suggest.⁶³ But again, on the negative side, the process results in air pollution, including massive amounts of CO₂, and voluminous byproducts, and requires serious legislative and regulatory consideration as to how to sequester, handle,

and dispose of these gases and materials. The polluter-pays principle suggests that the burden should be on the producers to bear these economic costs, but it may be that federal assistance is appropriate in order to induce the necessary investment to bring coal-based petroleum to market. A stabilization tax set at a higher base level could make it easier for producers to cover the economic costs of making the process environmentally acceptable. Interestingly, it appears that government and industry agree that 70% sequestration is feasible.⁶⁴

C. Revenue Losses of International Oil Companies

It is true that an oil stabilization tax could reap massive federal revenues. A counter consideration is that in doing so, it will reduce the sales, hence the net income, of international oil companies, while increasing the net income of domestic producers.

D. Revenue Losses of Producing Countries

If the floor price exceeds the world price at any given moment, there will be, all things being equal, a reduction in U.S. importation and consumption of crude oil. Foreign producers will perhaps protest, and other consuming nations, largely our allies, will gain slightly, because the reduction in U.S. consumption opens the door to modest oil price reductions for them.

E. Diplomatic Difficulties

A petroleum import tax would reduce imports, which could in turn offend—or at least disappoint—oil exporting nations, potentially complicating diplomatic relations, although the action of placing a floor on prices is, on a forensic matter, a good deal less offensive than slapping a tax on a specific import.

The most affected nations would be Canada and Mexico, our leading suppliers. On the other hand, there are reasons to believe America's net diplomatic standing might even be improved.

First, during the last oil price spike (2008), oil-producing nations were overwhelmed by demand and put under their own diplomatic pressure to expend production. If the United States cut its demand in advance, such a future diplomatic crisis might be averted or at least delayed.

Second, enactment of the tax would reduce the antipathy many advanced countries feel toward the United States for its failure to seriously address the problem of global warming. That would, in turn, put the United States in a better position to negotiate GHG reductions.

Third, the Saudi official position is that a world price of \$75 per barrel is a “fair price,”⁶⁵ likely reflecting the senti-

59. Press Release, News from the National Academies, Fuels From Coal and Biomass Could Impact U.S. Oil Dependence, but Significant Technological Investments Are Still Needed, (May 20, 2009), available at <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12620>.

60. A Rand report put the cost of 90% plant site CO₂ emissions sequestration at not over \$5 per barrel. Bartis et al., *supra* note 6, at 32-33. The qualifying advanced coal project credit under §48A has substantial CO₂ sequestration credits. The technology and processes developed to qualify for the credit should be of interest.

61. For one analysis of the relationship of oil prices to currency values, see Gerard Caprio & Peter B. Clark, *Oil Price Shocks in a Portfolio Balance Model* (Fed. Reserve Bd., Int'l Fin. Discussion Paper No. 181, 1981), available at <http://www.federalreserve.gov/pubs/ifdp/1981/181/ifdp181.pdf> (includes references to other models and theories).

62. See Bartis et al., *supra* note 6.

63. For a discussion of how the futures markets fail to signal price shocks well, and consequently how actors cannot appropriately stockpile or engage in further hedging against private risk, see Apostolos Serletis & David Banack, *Market Efficiency and Cointegration: An Application to Petroleum Markets*, 9 REV. FUTURES MARKETS 372 (1990). For a list of studies of oil price shocks and at least some sources of disagreement about the magnitude of the effects of oil price shocks, see LEIBY ET AL., *supra* note 2, at S7-S8 & app. E. For an extensive discussion of costs of dependence on foreign oil, see Keith Crane et al., *Imported Oil and U.S. National Security* (Rand Monograph Series, No. 838, 2009) (finding military risks/costs “moderate”; terrorist fund not significant; funding of Hamas and Hezbollah as “moderate”; cutoff as serious problem; recommends tax on petroleum, the U.S. taxes on same being very low).

64. See *supra* note 57.

65. Jad Mouawad, *For OPEC, Current Oil Price Is Just Right*, N.Y. TIMES, Sept. 10, 2009, at B3, available at <http://www.nytimes.com/2009/09/10/business/energy-environment/10opec.html> (quoting Ali al-Naimi, the Saudi oil minis-

ments of many OPEC members. Thus, it seems the producing nations are unlikely to object strenuously. However, if OPEC is an effective cartel, then it might react to the tax by cutting production to reach its mark, thereby depriving the United States of revenues from the tax. Because the purpose of the tax is not primarily to raise revenues, the result is formally acceptable.

F. Dealing With Windfalls

I. Reduction of Outdated Tax Expenditures

The oil industry is an object of popular dislike, and there will certainly be those who object to shifting income to the domestic oil-extraction industry. There are several federal income tax benefits that could be taken away from that industry without violating basic tax policy principles, especially because with a guaranteed floor on domestic process, the historical justifications for the tax incentives would be gone. Easy targets include the following:

- Depletion deductions could be limited to the basis (investment) in the oil and gas property. Under current law, percentage depletion deductions can exceed the investment, something unique to the oil and gas industry.⁶⁶ Elimination of this loophole is long overdue.
- The special reduction in corporate tax rates that §199 extends to domestic manufactures, which in fact further (and inexplicably) extends to the extraction of domestic natural resources, can be withdrawn. The tax rate reduction slipped in under the semantic umbrella of “production” and should not have been granted in the first place, in light of the comfortable financial condition of that industry.
- The credit for acquiring CO₂ for injection into wells as a means of enhancing production can be eliminated.⁶⁷ The revenue loss from this credit does not appear to have been quantified.
- If Congress were of a mind to do so, it could impose a windfall profits tax on the industry by dusting off the oil Windfall Profits Tax Act and reintroducing it as to domestic producers. Again, this author considers such a tax to be unwise, because it shuts off the price signal domestic producers need.

ter). Around the same time, he expressed a lack of concern for the U.S. dollar declining because the Saudi currency and the U.S. dollar are linked.

66. I.R.C. §§611-613A (2007). The excess of depletion claimed over basis is a component of the alternative minimum tax, except the preference does not apply to depletion taken by independent oil and gas producers and royalty owners under I.R.C. §613A(c). I.R.C. §57(a)(1). See Calvin H. Johnson, *Percentage Depletion of Imaginary Costs*, 122 TAX NOTES 1619 (2009) (extensive discussion of proposal to eliminate depletion in excess of basis).

67. I.R.C. §43.

G. Dealing With Imports of Refined Fuels

A petroleum stabilization tax will, when it applies, stimulate imports of refined products unless such products also bear the tax. The United States already imports refined petroleum products, especially gasoline in large volumes from Europe. For example, in January of 2009, the United States imported 829,000 barrels of gasoline per week, for a rough annual average of around 43 million barrels per year.⁶⁸ The reason for the (large) European import component is, in essence, that European transportation policy favors diesel fuel because of its superior efficiency. This leaves over extra gasoline for sale, accounting in part for America’s relatively cheap gasoline. Conversely, we export diesel fuel. The gasoline we import is almost surely free of European taxes, because normal trade practice is to rebate domestic sales and excise taxes on exportation. In turn, the United States imposes its small 8 cents per barrel tax on imported crude oil and distillates⁶⁹ and a cents per gallon removal at terminal tax under I.R.C. §4081 on a variety of fuels, subject to complicated exceptions, rate differentials, and limitations.

There are two apparent choices as to what to do about cheap imported fuel products. One is nothing; one can allow unlimited imports until the prices in the domestic and international markets equilibrate. The obvious problem with doing nothing is a potential flood of cheap product that would overwhelm the purposes of the tax, reducing national oil production and refining, thereby discouraging domestic employment and disrupting refinery flows.

The alternative is a refined fuel products tax that parallels the crude oil tax on domestic and imported products, designed to bring the price of imported products to a level comparable to domestic products, and also at least formally falling on domestic products, calibrated to the particular fuel (diesel, high-test auto gasoline, and so forth). Again, the tax can be integrated into the removal at terminal tax system that is already in place. Congressional hearings can establish the appropriate tax schedule for each refined product. The revenue gains may be substantial.

VIII. Previous Proposals and Literature

Proposals for oil import fees go back decades, with varying rationales, starting with the Arab oil embargo of 1972, and

68. U.S. Energy Information Association, *Petroleum Navigator*, <http://tonto.eia.doe.gov/dnav/pet/hist/wgtimus2w.htm> (last visited Jan. 13, 2010). While Europe is the largest single source, other countries also export to the United States, including Brazil, Canada, and the Virgin Islands. *Id.*; U.S. Energy Information Association, *Western Europe Growing Source of Gasoline Imports*, http://www.eia.doe.gov/pub/oil_gas/petroleum/presentations/2005/distillate2005/distillate2005_files/frame.html#slide0022.html (last visited Jan. 18, 2010).

69. I.R.C. §4611. Tax is imposed on imported petroleum products when they enter the United States for use, consumption, or warehousing. Petroleum products include crude oil, refined and residual oil, and other liquid hydrocarbon refinery products. The person entering the petroleum product into the country is liable for the tax. I.R.S. FORM 6627, at 3 (2009), available at <http://www.irs.gov/pub/irs-pdf/f6627.pdf>. The tax is imposed at the rate of 8 cents per barrel. For gasoline and other types of fuels, a similar tax is imposed at a higher rate. Treas. Reg. §48.4081-3.

were focused on the need for energy independence. The economics literature contains a small but intense body of debates on the subject. They generally begin by deriving (or rejecting) a flat tax of \$x per barrel and then move on to rarified concepts as “deadweight losses”⁷⁰ and concerns that setting the tax at the wrong per barrel amount could result in a net social cost.⁷¹

Some economists are supportive of this flat tax⁷²; others are not.⁷³ The literature is old—generally dating from the 1970s and 1980s—and focuses on the narrow and perfectionistic “optimal tariff” that ought to be added to imported petroleum to account for implicit costs, e.g., national security and oil price shocks, built into the price of oil. Economists could never agree on the right level of the tax, and none seems to have made a serious study of a price stabilization tax, nor the environmental and employment gains from such a tax. At least one of them appears to be forensic.⁷⁴ The literature is out of date because, among other things, it consistently fails to consider the costs of global warming and the adverse impacts of wild swings in oil prices on investment decisions of domestic producers and the alternative energy industries. Other key issues that were not considered—or relevant at the time—include: the distortive effects on foreign policy that our hunger for oil drives, or America’s loss of stature in the world’s eyes, because of its failure to adopt a serious energy policy to combat global warming. The resultant loss of moral authority can, for example, make it difficult for the United States to influence China, India, and others from their current policy of frantically building coal-power electricity facilities.⁷⁵ These intangible factors are virtually impossible to quantify, but their omission is a serious defect and calls for skeptical reading of earlier economics articles that claim to be able to quantify the impact of oil import fees, and also for recognizing that scrupulous articles contain self-imposed limitations that are so extensive that their conclusions are commonly heroic but unconvincing, despite their frequent use of strings of symbolic logic.

A. Economists’ Prior Criticisms of Oil Import Fees

The economics literature concerns itself with flat oil imports, imposed on each barrel of imported oil, and not a tax that sets a floor on oil prices, although there are occasional references to a variable tax that sets a floor. Nevertheless, several

of the criticisms apply to the latter form of tax and so are worth reviewing. Some of the criticisms are little more than throwaway lines, while others are well developed.

In general, economists are cool to the idea of a per-barrel tax, perhaps, because their focus has consistently omitted environmental considerations. Instead, they concentrate on mitigating cartel rents, increases in the costs of imported oil during disruptions in supplies, and macroeconomic adjustment costs. So, the common objections fall into these categories:

- Federal revenues would decline. One particular more recent article⁷⁶ argues a simple oil import tax could result in revenue losses, on the theory that there would be: (1) a decrease in the corporate tax base by an unknown amount and shift it to and increase the individual base, which are argued to be lower than corporate rates; (2) welfare losses as a result of the tax change, because changes always create distortions;⁷⁷ (3) revenue losses caused by American industries facing imports of foreign goods made with cheaper petroleum inputs; and (4) revenue losses from plants relocating overseas because of higher petroleum inputs (not relevant to this Article). The arguments are laced with uncertainties, for example, although the nominal top federal income tax rate on corporations is 35% (which economists’ studies tend to accept as the general rate), serious studies have shown the effective corporate tax rate to be much lower, likely around 25%.⁷⁸ Be that as it may, at the end of the day, the point is not whether the result is a net revenue gain or loss from the fee, but its informational impact as a driver of consumer and business behavior as part of an overall effort to combat global warming and redirect the economy by a broad-bore measure, as opposed to an incomplete and shifting hodgepodge of credits.
- The poor might suffer if the tax turned out to be high, at least on occasion, robbing them of a chance to acquire vehicles and other products. Rebuttals include: (1) improved knowledge of future minimum petroleum prices would make purchasing patterns more rational, eliminating bad decisions to do such things as buy seemingly cheap gas-guzzlers on the optimistic theory that oil prices “have to” fall; (2) taxes can be remitted to the poor in lump sums stretched over long time periods, structured so as to minimize any incentive to consider the lump-sum rebate as a justification for continuing to be wasteful; and (3) the poor enjoy health benefits from reduced emissions of the products of burning petroleum products and averting catastrophic global warming.

70. The term refers to the net cost to society due to market imperfections or government interventions causing losses to consumers or producers that are not offset by other gains, such as increased government tax revenues.

71. In neoclassical economics, social cost is defined as the sum of private and external costs.

72. See, e.g., Harry G. Broadman & William W. Hogan, *The Numbers Say Yes*, 9 ENERGY J. 7 (1988).

73. See, e.g., Nesbitt & Choi, *supra* note 54.

74. See Sweeney, *supra* note 42 (includes prefatory footnote thanking Exxon for help in funding the article, which is a broad swipe at an oil import fee).

75. For example, every week to 10 days, a new coal-fired power plant reportedly opens somewhere in China that is big enough to serve all the households in Dallas. Keith Bradsher & David Barboza, *Pollution From Chinese Coal Casts a Global Shadow*, N.Y. TIMES, June 11, 2006, at A1, available at <http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html>. Other reports also show China is making efforts to reduce CO₂ emissions per unit of electrical output.

76. See Sweeney, *supra* note 42.

77. See *id.* The argument fails to consider welfare gains from environmental and security improvements, but assigns a very high negative value based on a communication with one individual.

78. DONALD J. MARPLES, CONG. RESEARCH SERV., PUBL’N NO. RL33171, FEDERAL BUSINESS TAXATION: THE CURRENT SYSTEM, ITS EFFECTS, AND OPTIONS FOR REFORM (2008). The enactment of I.R.C. §199 (grant of tax rate reductions to manufacturers and producers) may have reduced the rate since the period studied by the report.

- Industries would relocate. The assertion is that if crude oil sold at a premium in the United States, industries that relied heavily on crude oil would be disadvantaged. An example might be the petroleum refining company, which would leave in order to operate in a lower cost environment. Of course, this is only true as long as the tax actually applied, and proper congressional hearings should allow an opportunity to properly discuss and demonstrate such assertions. In any case, the tax proposed here is limited to fuels, and would not extend to other applications.
- Balance of payments benefits from reduced imports of crude oil will be at least partly offset by declines in exports as a result of increased petroleum prices. This truism remains to be quantified and ignores the export and employments benefits of an enhanced alternative energy and energy-conservation sector.
- If there were exceptions to the tariff, such as for Canada and Mexico, then exempt oil would flood the market, reducing the impact of the tax.⁷⁹ No such exception is proposed here.
- The tax would fail to drive down world oil prices, to America's detriment.⁸⁰ The concern appears to be that because the world oil market is a monopsony, buyers suffer a premium that includes this component, which a tax could combat by reducing U.S. demand.⁸¹ In turn, "free riders" would benefit from America's sacrifice by being able to buy oil at consequent lower prices. (Economists have provided a substantial body of writing on this topic.) On the other hand, the free riders are largely allies, many of whom have made much greater sacrifices of their own consumers' and producers' immediate welfare in the interest of the environment than has America. Moreover, the impact on oil prices is likely to be minor, perhaps even trivial in light of the recent wild swings in oil prices.

The key weakness of the free riders objection in the early economics literature is that it fails to consider the entire range of contemporary factors, and in particular fails to consider: (1) increased employment in the alternative energy sector; (2) increased revenues from the manufacture of alternative energy products; (3) reduction in risks associated with global warming; and (5) reduced risk premiums for investments in both hydrocarbon and green projects. Few of these considerations can be scrupulously quantified and therefore arguably do not "belong" in an academically proper economics article, but at the same time, their omission subverts the analysis.

79. David L. Weimer, *Petroleum and National Security*, in *THE NEW GLOBAL OIL MARKET* 225, 233 (Siamack Shojai ed., 1995).

80. This view was expressed by Dr. James J. Angel. See *Ending Excessive Speculation in Commodity Markets: Legislative Options: Hearing Before the S. Comm. on Homeland Sec. & Governmental Affairs*, 110th Cong. (2008) (testimony of Dr. James J. Angel predicting that oil prices could "drop like a rock" if and when the United States gets serious about alternative energy).

81. See William W. Hogan, *Import Management and Oil Emergencies*, in *ENERGY AND SECURITY* 261 (Deese & Nye eds., 1981).