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Featured Article

On the Federal Excise Tax Exemption for U.S. Gasoline Exports

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Abstract:

Exports of refined gasoline are exempt from Federal excise taxation. Accordingly, an increase in the Federal excise tax on gasoline may simply increase the market price of gasoline in the U.S. and encourage the export of gasoline to foreign markets, primarily West Africa and Latin America. Any reduction in negative environmental externalities from an increase in the Federal gasoline excise tax in the United States is therefore likely to be mooted (or perhaps made worse) on a global basis. The Federal excise tax on gasoline appears to be the most regressive form of taxation when both direct and indirect costs are taken into account. This article is the first to estimate the indirect costs (i.e., imbedded transports costs) to U.S. persons of a Federal gasoline and diesel taxes using data from the Consumer Expenditure Survey of 2012. This article further updates and expands Poterba's (1991) empirical calculation of the regressivity of the Federal gasoline tax based on direct gasoline expenditures. Finally, this article recommends that the Jones Act restrictions on gasoline shipment between the Gulf Coast refineries and East Coast terminals be removed.

Keywords: *gasoline taxes; excise tax; pigou.*

JEL Classification: H20; K34

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I. Introduction.

Much of the prior legal and economic literature on Federal gasoline taxation proposes a Pigovian tax approach where the individual American consumer is forced into paying the full price at the pump to account for any externalities from the consumption of gasoline.⁵ The negative externalities can therefore be reduced or optimized by domestic tax policy alone.⁶ But, according to the Congressional Budget Office and National Research Council, the estimate of gasoline externalities is 26 cents per gallon, but the currently existing Federal and state gasoline taxes average 41 cents per gallon.⁷ The combined gasoline excise taxes more than account for the externalities by this estimate. Thus, not only is the gasoline tax not a “free lunch” to the economy, but there is an “excess

⁵ N. Gregory Mankiw, *Smart Taxes: An Open Invitation to Join the Pigou Club*, EASTERN ECON. J. 35 (2009) (“The economics here is straightforward: emitting carbon into the atmosphere entails a negative externality. In absence of any policy, people will emit too much. The Pigovian policy response is to impose a tax on carbon emission.”); N. Gregory Mankiw, *Gas Tax Now!* Fortune Magazine (May 24, 1999); Shi-Ling Hsu, *The Politics and Psychology of Gasoline Taxes: An Empirical Study*, 15 WIDENER L. REV. 363, at Note 2 (2010) citing William J. Baumol & Wallace E. Oates, *The Theory of Environmental Policy* 21-23 (2d ed. 1988). (“Pigouvian” is meant to describe a tax that would be consistent with Pigou’s prescription that a tax equal to the marginal social harm from pollution should be imposed to provide just the right amount of disincentive for pollution. Alfred C. Pigou, *The Economics of Welfare* (1928). Taxes that reflected the extent of negative externality thus became known as “Pigouvian” taxes.”).

⁶ Congressional Budget Office, *The Economic Costs of Fuel Economy Standards Versus a Gasoline Tax* (Dec. 2003) at v.

⁷ *Id.*

burden” of this taxation. As explained by Goldin (2012): “Commodity taxes generate excess burden by distorting consumers’ decisions about which goods to purchase.... The larger these ‘avoidance costs’ the greater the tax’s excess burden.”⁸

Gasoline taxes also fall disproportionately on the persons least able to pay. Within the discipline of tax policy this is referred to generally as a “regressive” form of taxation. Brunner-Brown (2013) translates such tax theory into the domestic *economic policy* implications of the excise tax, (i.e., the “incidence” of the gasoline excise tax), as follows:

Excise taxes are not the solution to transportation preference and automobile congestion because they are simply ineffective. Excise taxation discounts the variety of other externalities that affect transportation selection... the increased costs may impose a large, disproportionate burden on those least able to pay them.... This is not consistent with policy goals, but rather conflicts with optimal transportation mode composition.⁹

⁸ Jacob Goldin, *Sales Tax Not Included: Designing Commodity Taxes for Inattentive Consumers*, 122 YALE L.J. 258, 276 (2012) (“Consumers who substitute away from the taxed good do not contribute to the tax’s revenue; but, having switched their consumption to a less desirable bundle of goods in order to avoid the tax, they are still worse off because of the tax.”).

⁹ John Andrew Brunner-Brown, *Thirty Minutes or Less: The Inelasticity of Commuting*, 43 GOLDEN GATE U. L. REV. 355 (2013).

But, an optimal transportation analysis of economic policy analysis takes into account only the *domestic* U.S. policy implications of an increase in the Federal excise tax on gasoline. People all over the world use gasoline – not just Americans. Indeed, gasoline, diesel fuel, and other refined petroleum products exported out of the United States are *exempt* from the Federal excise tax.¹⁰ As a matter of *international tax policy*, if either gasoline or crude oil is a commodity that can be *exported* to other nations, then the policymaker must consider both the domestic and *international* implications of a domestic excise tax on that commodity in the United States.¹¹ This is especially true where the exports of gasoline are exempt from *taxation*, thereby creating a potential tax incentive to export gasoline (or diesel). As it turns out, U.S. refiners indeed exported at least 18% of total gasoline

¹⁰ 26 U.S.C. §§ 4081, 4083; IRS Publication 510 at 6 (“Exception. The tax does not apply to a sale if all of the following apply: The buyer’s principal place of business is not in the United States; The sale occurs as the fuel is delivered into a transport vessel with a capacity of at least 20,000 barrels of fuel; The seller is a registrant and the exporter of record; The fuel was exported.”); *see also*: Practical Law (Thomson Reuters) available at <http://us.practicallaw.com/1-524-3130?q=&qp=&qo=&qe=> (last checked December 8, 2014) (“Taxes on the import and export of oil and gas: USA. Oil Spill Liability Trust Fund Tax imposed on petroleum produced in or imported to the US: 2009 to 2016: US \$0.08 per barrel. 2017: US \$0.09 per barrel. Tariffs on oil imports range from US\$0.0525 to US\$0.525 per barrel depending on the type of petroleum. Oil and petroleum products from some countries are duty-free due to trade agreements and Congressional programmes.”).

¹¹ Theo Eicher, John Mutti & Michelle Turnovsky, *International Economics* (7th ed.) (Routledge Publishing, New York, 2009) at 143.

refined as of the year 2011.¹² The anecdotal reports from major news agencies suggest both gasoline and U.S. crude oil exports may be increasing.¹³ However, since the Energy Information Agency relies exclusively on data provided by the American Petroleum Institute, an exact or more up-to-date gasoline export data remains unavailable.

Accordingly, because the prior economic analysis does not seem to consider the potential for export of gasoline by U.S. refiners to world markets without payment of the Federal excise tax, the “poll” of economists of Federal gasoline taxes may represent more fundamentally a survey of the proportion of economists who favor *regressive* domestic tax policies generally.¹⁴ As to Federal excise taxes in particular, such classic tax policy view is given anecdotally as: “Bah, let them drive a hybrid!” But, several empirical studies now show that low-income persons are often unable to drive fuel-efficient

¹² U.S. Energy Information Administration. Independent Statistics and Analysis available at <http://www.eia.gov/tools/faqs/faq.cfm?id=687&t=10> (“Gasoline exports were about 18% of total U.S. petroleum product exports in 2011.... Distillate fuel exports were about 30% of total U.S. petroleum product exports in 2011.”).

¹³ Reuters, *U.S. Refiners Export More Fuel Than Ever: American Companies Export Energy Boom World-Wide* (Oct. 8, 2013); The Washington Times, *U.S. energy giants use crude oil loophole to post record petroleum exports* (May 11, 2014).

¹⁴ Mankiw, *supra* Note 1 at 21-2 (“[P]art of a US gasoline tax gets paid by the producers of oil, not the consumers. This is an example of what economists call the optimal tariff argument.... Some might fear these taxes would be particularly hard on those at the bottom of the economic ladder. Yet that is not necessarily the case.... The poor are far more likely than higher-income households to ride the bus or subway to work.”).

vehicles. Chernick & Reschovsky say: “The data indicate that poorer families tend to drive older and less fuel efficient cars than families with higher incomes.”¹⁵ As West (2005) further explains, “poor vehicle owning households drive vehicles that pollute more than those owned by wealthy households.”¹⁶ Thus, the classical tax policy view becomes the modern environmental law equivalent to Marie Antoinette’s supposed glib: “Bah, let them eat cake!”¹⁷

This article summarizes and expounds the prior literature on the *regressive* effects of gasoline taxation. The indirect cost of gasoline taxation was excluded from Poterba’s (1991) seminal economic study.¹⁸ Therefore, in order to generate a comprehensive estimate of the regressive effect of gasoline taxation, the *indirect cost* of the Federal gasoline tax must be calculated in addition to the *direct tax expenditures* paid by

¹⁵ Howard Chernick & Andrew Reschovsky, *Who Pays the Gasoline Tax?* 50 NAT’L TAX J. 2 (1997).

¹⁶ Sarah E. West, *Equity Implications of Vehicle Emissions Taxes*, 39 JRN’L OF TRANSPORT ECON & POL’Y 1 (2005); *see also*: James A. Kahn, *Gasoline Prices and the Used Automobile Market: A Rational Expectations Asset Price Approach*, 101 Quart. J. Econ. 2 (1986).

¹⁷ Jean-Jacques Rousseau (1765). *Confessions*. (ed. Angela Scholar) (New York: Oxford University Press, 2000) at 262 (misattributing *perhaps* the quote to Marie Antoinette “*Qu’ils mangent de la brioche*.” The quote does appear to be correctly attributed to an unidentified contemporaneous princess of the period.)

¹⁸ James M. Poterba, *Is the Gasoline Tax Regressive?* in “Tax Policy and the Economy” v. 5 (ed. David Bradford) (The MIT Press 1990), at 150 (“This study does not attempt to analyze the distribution of indirect gasoline tax expenditures, i.e., the taxes that may be collected from the retail distribution sector but eventually passed on to consumers.”).

U.S. consumers of gasoline. Such an analysis is necessary because diesel fuel and gasoline are used to transport many consumer goods. In this article, we therefore expand and update the results of Poterba (1991) who applied the Consumer Expenditure Survey of 1985, to calculate the regressivity of direct gasoline expenditures by income level. However, here we go beyond Poterba’s (1991) analysis and also estimate the indirect costs of gasoline taxation. The indirect effects are found to be roughly an incremental 50% increase in the respective *regressive* effects of the gasoline expenditures by U.S. households from prior measurements. Accordingly, comparing generally the recent calculation by Bogenschneider (2014) on the regressivity of payroll taxation, the gasoline tax appears to be the most regressive of any form of domestic taxation.¹⁹

Finally, this article traces the tax subsidies offered in the Internal Revenue Code to oil producers, and compares these in magnitude with Federal excise tax collections. The ability of U.S. refiners to export refined gasoline to foreign markets appears to partially moot (or reverse) both the potential national security and carbon reduction externality justifications for higher rates of Federal gasoline taxation given by numerous economic studies. Nonetheless, if the policymaker considers these to be important policy goals, then a comparison of the regressive effect of gasoline taxes to the potential policy benefits of such tax policy is required.

¹⁹ *See*: Bret N. Bogenschneider, *The Effective Tax Rate of U.S. Persons by Income Level*, 145 TAX NOTES 117 (Oct. 6, 2014).

As to the Federal excise tax on gasoline good policy options are available. The Jones Act set strict maritime limits on the tankers which can be used to ship refined gasoline from the Gulf Coast refineries to the East Coast distribution terminals.²⁰ Accordingly, the cost of shipping gasoline by tanker to Western Africa is alleged to be less than the cost of shipment to the East Coast.²¹ The shipping cost issue is thus given as an explanation for the export of refined gasoline from the Gulf Coast. The policy purpose of the Jones Act appears to be both to ensure U.S. persons are employed in the maritime transport of refined gasoline between U.S. ports, and also an environmental protection goal that tankers operating between U.S. ports be subject to U.S. regulation to avoid the potential of a gasoline spill in coastal waters. Both of these policy goals are very important. However, the recent B.P. oil spill in the Gulf of Mexico indicates any presumption that U.S. crewmembers may be able to implement better safety

²⁰ The Merchant Marine Act, codified as 46 U.S.C. § 30104 (Oct. 6, 2006).

²¹ Business Week, *Are U.S. Gasoline Exports About to Goose Prices at the Pump?* (Nov. 25, 2013) (“West Africa is also taking more U.S.-made fuel. Exports to Nigeria shot up to 2.7 million barrels in August. Driving this growth is a strange price incentive that’s largely a function of the Merchant Marine Act of 1920 (known also as the Jones Act), which requires goods transported between U.S. ports to be carried on vessels based in the U.S., made in the U.S., and crewed mostly by U.S. citizens. A shortage of these ships has created a bizarre scenario where it’s cheaper to ship gasoline from Texas to Nigeria than it is to ship it to New York, or to Florida for that matter. ‘I can ship a barrel of gasoline across the Atlantic for one-third the cost of shipping it to New York from Houston,’ says Fadel Gheit, an oil and gas analyst at Oppenheimer. Gheit estimates there are only 28 vessels certified by the Jones Act that are allowed to ship fuel between U.S. ports. He calls them ‘the chosen ones.’”).

conditions is inconclusive. The primary thesis of this paper is that the Jones Act should be modified to encourage the maritime shipment of refined gasoline from the Gulf Coast to the East Coast.

The remaining possibility is that the shipment of refined gasoline from the Gulf Coast to West Africa and other locations did not occur because of incremental maritime shipping costs, but was instead done primarily for tax avoidance purposes. All the data indicates the United States is simultaneously importing and exporting refined gasoline. Therefore, based on the available evidence we cannot *exclude* the possibility that the market price of gasoline in the United States might be higher than the market price of gasoline in Latin America or West Africa, but *higher by less* than the amount of the incremental Federal excise tax avoided by exporting the gasoline. Thus, it appears at least *possible* that U.S. refiners are exporting gasoline to meet market demand in West Africa, Latin America, and other nations at the lower market price specifically in order to avoid the excise tax. Notably, the net carbon effect externalities may be *negative* depending on the efficiency of the gasoline usage abroad – especially if any portion of the gasoline is allowed to evaporate directly into the atmosphere or by spillage from open containers. Under these assumptions, the tax policy options become multi-faceted. Based on its current international treaty obligations the United States might be able to impose a tariff on exported gasoline to those nations receiving gasoline imports equivalent to the amount of the excise tax.²² However,

²² *See generally*: 19 U.S.C. §2504(a).

if the United States is prohibited by international treaty obligations from imposing such a tariff, then the “deadweight loss” from the excise tax on gasoline would need to be calculated *in addition to* the incremental negative externalities.

II. An Estimation of the *Indirect* Regressivity of Federal Excise Taxes on Gasoline.

The Bureau of Labor Statistics publishes the Consumer Expenditure Survey with the most current edition being that of 2012. No economic study exists on the imbedded diesel or gasoline fuel costs in consumer goods representing the *indirect cost* of diesel fuel and gasoline excise taxes. However, Cooper (2014) recently published a calculation of trucking fuel costs by U.S. household based on the Consumer Expenditure Survey of 2010.²³ Here, we update both studies to the year 2012 as set forth in Table 1, Column(s) 1, 2. In addition, the methodology by Cooper (2014) is followed except with the indirect fuel costs allocated by relative household *expenditures* rather than by total *households*.²⁴

²³ Mark Cooper, *Paying the Freight: The Consumer Benefits of Increasing the Fuel Economy of Medium and Heavy Duty Trucks*, Consumer Federation of America (February, 2014) [available at http://www.consumerfed.org/pdfs/Paying-the-Freight.pdf](http://www.consumerfed.org/pdfs/Paying-the-Freight.pdf).

²⁴ *Id.* at 4.

Table 1. Direct and Indirect Gasoline Expenditures by Income Quintile (2012).

U.S. Persons by Income Level:	Direct Gas Expenditure / Income (%) (2012)	Indirect Gas Expenditure / Income (%) (2012)	Combined / Income (%) (2012)
Lowest 20 Percent	12.51%	8.56%	21.08%
Second 20 Percent	7.31%	4.52%	11.82%
Third 20 Percent	5.83%	2.02%	7.85%
Fourth 20 Percent	4.45%	2.96%	7.41%
Highest 20 Percent	2.53%	0.00002%	2.53%

Notes: Indirect Gas Expenditure based on Cooper (2014) study with total commercial fuel expense as \$234 billion (most recent data, 2010) allocated as a ratio of total expenses and expressed as a percentage of income based on actual CES household data for 2012. Income is presented without income accruals for holdings gains. The incidence of the indirect gasoline tax is assumed to fall entirely on the end consumer.

Poterba (1991) published a calculation on the regressivity of direct gasoline expenditures based on the Consumer Expenditure Survey of 1985 as reproduced here in Table 2. The calculation is updated based on the Consumer Expenditure Survey of 2012.

Table 2. Comparison of Direct Gasoline Expenditures by Income Quintile 1985 vs 2012.

U.S. Persons by Income Level:	Direct Gas Expenditure / Income (%) (1985)	Direct Gas Expenditure / Income (%) (2012)
Lowest 20 Percent	8.99%	12.51%
Second 20 Percent	6.22%	7.31%
Third 20 Percent	4.83%	5.83%
Fourth 20 Percent	4.07%	4.45%
Highest 20 Percent	2.98%	2.53%

Notes: Data simply updated from Poterba (1991). Income is presented without income accruals for holdings gains.

In each version of the Consumer Expenditure Survey from 1985 to 2012 the lowest income persons are seen to accrue expenditures which *exceed* income. Therefore, Poterba (1991) and Mankiw (2009) both cite this as justification for using a ratio of relative expenditures (in lieu of reported income) to calculate the regressivity of the excise tax on gasoline. By comparing total expenditures to direct gasoline expenditures Poterba (1991) was therefore able to say only the middle income quintiles were worse off relative to the highest income quintiles. The implication appears to be that low-income persons are receiving transfer payments *not included in income* to purchase gasoline, and therefore are not made worse off by the Federal excise tax.

However, most transfer payments received by the poor are considered “income” by the Federal government and measured by the survey. One exception might be “food stamps”, but obviously food stamps are not gas stamps. Instead, the “higher” expenditures measured in the survey appear to relate to retired persons in the lowest income bracket spending *out of savings* in retirement. If low-income retired persons are forced to use savings to buy gasoline this does not diminish the regressivity of a tax. This simply changes the meaning of the word “regressive” from its colloquial definition. Accordingly, Poterba’s (1991) relative expenditure calculation relating to expenditures by the elderly from savings is not presented here.

III. Crude Oil Production Tax Subsidies versus Federal Excise Tax Revenues.

As set forth in detail here, *infra* Table 3, the crude oil production subsidies offset approximately one-third (1/3) of the total Federal excise tax receipts. The data here is a composite of three Joint Committee on Taxation scoring estimates and a General Accounting Office report some of which were summarized by Kolarova (2012).²⁵ The domestic crude oil production level is increasing in the Upper Midwest region so the prior year estimates may understate the tax expenditure effect. Also, domestic gasoline consumption is declining slightly and the most recent Excise Tax data is from the year 1999 which would tend to overstate the tax expenditure effect.

²⁵ Temi Kolarova, *Oil and Taxes: Refocusing the Tax Policy Question in the Aftermath of the BP Oil Spill*, 42 SETON HALL L. REV. 351 (2012).

The data presented here is a side-by-side comparison of the Federal Crude Oil Tax subsidies versus the Federal Excise Tax revenues.

Table 3. Crude Oil Tax Subsidies versus Federal Excise Tax on Gasoline

Excise Tax (gasoline & diesel):		
IRC §4081 (C18.4 gas; C24.4 diesel) (1999)	\$21,236,659	
Income Tax Subsidies (U.S. crude oil):		
Foreign Tax Credit Disguised Royalties (§907)		(\$2,550,000)
Domestic Manufacturing Deduction (§199)		(\$1,825,000)
Oil Well Percentage Depletion (§613)		(\$1,625,000)
Last-in First-Out (LIFO) Accounting (§263)		(\$860,000)
Intangible Drilling Cost Expensing (§263)		(\$650,000)
Tertiary Injection Expensing (§193)		(\$100,000)
Enhanced Oil Recovery Credit (§43)		(\$100,000)
	\$21,236,659	(\$7,710,000)
	<u>Net:</u>	\$13,526,659

Notes: (amounts in thousands) An \$0.08 per barrel Oil Spill Liability tax applies to Crude Oil production. Any increase in production in recent years would increase the subsidy estimate. The Superfund trust fund liability tax expired in 1995.

Such data appears to indicate a possible “rule-of-thumb” is one-third (1/3) of total excise tax receipts are offset by the subsidies to the oil companies.

IV. Estimate of Foregone Revenue on Exempt Exports of U.S. Gasoline.

The Congressional Research Service (“CRS”) provided a report in April, 2012, summarizing the total U.S. exports of petroleum products. This report makes it possible to estimate the foregone revenue from the excise tax exemption on gasoline and diesel fuel exported out of the United States. The CRS report provided as follows:

U.S. oil exports, made up almost entirely of petroleum products, averaged 2.9 Mb/d in 2011. This is up from export of 1.2 Mb/d in 2005, led by growing export of distillates (diesel and related fuels) and gasoline. More than 60% of U.S. exports went to countries in the Western Hemisphere, particularly to countries such as Mexico and Canada from which the U.S. imports crude oil. Exports occur largely as a result of commercial decisions by oil market participants which reflect current oil market conditions as well as past investment in refining.²⁶

Based on this data an estimate of the potential (i.e., foregone) revenue from the failure to levy excise tax on exported petroleum products including gasoline, diesel and other condensates is presented here in Table 4, *infra*.

²⁶ Neelesh Nerurkar, *U.S. Oil Imports and Exports*, Congressional Research Service (April 4, 2012).

Table 4. Estimate of Foregone Revenue from Excise Tax Exemption on Exported Gasoline

Barrels Millions/per day exported (CRS, 2011)	2,900,000
Gallons Conversion (31.5 gallons/barrel)	91,350,000
Annualized	33,342,750,000
Excise tax rate €20.4 (2/3 gasoline; 1/3 diesel)	6,801,921,000
<u>Foregone Excise Tax:</u>	\$6.8 billion

An additional portion of the CRS report may provide insight into the failure to levy an excise tax on gasoline exports. The CRS report stated:

Oil Export Tariff. Instead of prohibiting exports, some have suggested a federal tax, tariff, or duty on exports. However, these are generally prohibited by Article 1, section 9, clause 5 of the U.S. Constitution, which states that “No Tax or Duty shall be laid on articles exported from any State.”

To the contrary, the U.S. Constitution obviously does not prevent the Federal government from levying a tax on exported gasoline or any petroleum product. The provision cited prevents *each individual state* within the United States from levying such a tariff. However, that is irrelevant to the Federal government’s power to levy the excise tax on petroleum products. Also the U.S. Constitution’s prohibition on direct taxes does not apply to the excise tax applied on export of a petroleum product. As such, it appears possible that some

members of Congress and their staff are confused about the potential to tax exports of gasoline under the U.S. Constitution.

V. Analysis of the Incidence of an Increase in Federal Excise Taxes on Gasoline.

Much to the contrary, a significant increase in the Federal excise tax on gasoline without a prohibition on gasoline exports from the United States could become an economic and environmental calamity. The incidence of the tax increase would fall almost entirely on U.S. consumers and producers thereby harming the relative competitiveness of the U.S. economy.²⁷ Indeed, aggregate demand for gasoline in the United States would decrease. However, gasoline refiners could then be expected to export an increasing proportion of the production of gasoline and other condensates thereby causing a decrease in gasoline price in foreign markets, and increasing the foreign demand for gasoline at the *now lower* price. This is standard fair in any course in International Economics.²⁸ Furthermore, because the environmental protections are lower in some of the gasoline export markets the potential for environmental disaster is very real. For example, it is not inconceivable to calculate unregulated foreign consumption of cheap gasoline to result in environmental damage 100 fold or 1,000 fold greater than the consumption of the same *or greater* amount of such gasoline in

²⁷ See: Eicher, Mutti & Turnovsky (2009), *supra* Note 11.

²⁸ Compare: N. Gregory Mankiw, *Raise the Gas Tax*, Wall Street Journal (Oct. 20, 2006).

the United States. Any open-container spillage or evaporation of gasoline on a wider scale is almost unthinkable from an environmental perspective.

VI. On the Regressivity of Federal Excise Taxes on Gasoline.

The regressivity of the taxation on gasoline is not a myth.²⁹ The only category of taxation near to the Federal excise tax on gasoline in terms of regressivity is the combined payroll taxes paid by U.S. workers. A direct comparison between the regressive effects of the gasoline tax versus the payroll tax can be made with Table 1 here with the tax table of Bogenschneider (2014) on taxes by U.S. persons generally. A comparison of “regressivity” however can only be made specifically by pairing the data, i.e., to say the tax is regressive *as to whom* and to say whether the regressivity is increasing or decreasing over time. Here, the aggregate amount of gasoline expenditures generally has increased roughly 50% between 1985 and 2012 for the lowest income quintile of U.S. persons as a percentage of income. However, Poterba (1991) implies that the gasoline tax may not be regressive, with the following:

Low-expenditure households devote a smaller share of their budget to gasoline than do their

²⁹ Shi-Ling Hsu at 375 (2010) (“[O]ne of the persistent concerns with the gasoline tax has to do with its purportedly regressive nature. This is a myth, one that is reinforced by the “Do no harm effect” an aversion to causing harm, to the point that people would prefer a greater harm to occur by omission.”).

counterparts in the middle of the expenditure distribution. Although households in the top 5% of the total spending distribution spend significantly less on gasoline (as a share of expenditures) than those who are less well off, gasoline’s expenditure share is much more stable across the population than the ratio of gasoline outlays to current income.³⁰

However, as a matter of tax policy “middle-class regressivity” remains “regressivity”. There is nothing in the jurisprudence of tax policy to support Poterba’s (1991) assertion that tax policies favoring the ultra-rich are *not* “regressive” merely because the regressivity effects only accrue against the middle-class and not the very poor. Of course, as set forth *supra*, these statements are also grossly misleading when we take into account relative income levels of U.S. persons and the spending on gasoline by retired persons out of savings.

VII. Conclusion.

“The U.S. will remain the world’s biggest oil producer this year after overtaking Saudi Arabia and Russia as extraction of energy from shale rock spurs the nation’s economic recovery... U.S. production of crude oil, along with liquids separated from natural gas, surpassed all other countries this year with daily output exceeding 11 million barrels in the first quarter... U.S. oil output will surge to 13.1 million barrels a day in 2019 and

³⁰ Poterba (1991) at 152.

plateau thereafter, according to the IEA, a Paris-based adviser to 29 nations. The country will lose its top-producer ranking at the start of the 2030s, the agency said in its World Energy Outlook in November."³¹

The tax policy debate focuses on how to offset the regressive effects of incremental Federal excise taxes on gasoline on low-income persons. Notably, the Congressional Budget Office issued a policy report analyzing potential means to offset higher gasoline taxes on low-income households.³² Strange (2009-10) explains:

It would also be a mistake to believe that reduced payroll taxes alone will offset the regressive effect of European-style gas taxes. Even if a poor family does not own a car and, therefore, buys no gas directly, everything they purchase that has a transportation component will cost more. Unemployed poor people, or people working on a cash basis, would receive no benefit from reduced payroll taxes, and underemployed poor people may not make

sufficient income for reduced taxes to offset their increased costs.³³

As such, there does not appear to be an “easy” Pigovian answer to simply shift the externality cost to the low-income consumers of gasoline. Nonetheless, the United States Maritime Administration has the ability to grant waivers to the Jones Act restrictions on shipping in U.S. coastal waters. As a matter of international trade, the United States would benefit by allowing incremental shipment of refined gasoline from the Gulf Coast to the East Coast distribution terminals through otherwise-restricted “coastal waters”. The granting of such waiver to shipping operators would create an immediate economic gain both in the Gulf Coast and the East Coast – and, could increase Federal excise tax revenue under existing law. A global environmental windfall might also occur if we assume gasoline distribution in the East Coast of the United States is better regulated than in the export markets of West Africa and Latin America.

³¹ Bloomberg News, *U.S. Seen as Biggest Oil Producer After Overtaking Saudi Arabia* (Jul 4, 2014) citing World Energy Outlook, International Energy Agency (Nov. 2013).

³² Terry Dinan, *Offsetting a Carbon Tax’s Costs on Low-Income Households*, Congressional Budget Office Working Paper 2012-16 (2012).

³³ Rick Strange, *Weaving a Tangled Web: The Intersection of Energy Policy and Broader Governmental Policies*, 5 TEX. J. OIL GAS & ENERGY L. 1, 51 (2009-10).