

The Border Tax Adjustment: Really a Tax on Imported Oil¹

Philip K. Verleger, Jr.

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The border adjustment tax (BAT) proposed by House Speaker Paul Ryan and House Ways and Means Committee chairman Kevin Brady is really a tax on imported oil dressed in drag. While the pundits have debated the proposal's effectiveness, legality, and efficiency *ad nauseam*, no one has bothered to look at the revenue distribution. We have. Comparing our BAT revenue estimates to those of the Tax Foundation and the Brookings Institution's Tax Policy Center², we find that oil imports will generate between fifty and sixty-five percent of the total. Based on the diverse nature of the economy and the relative importance of oil to GDP, we suggest that oil importers would bear a disproportionate share of the tax burden. The BAT, as noted above, is an import fee in drag.

Background

Our regular reports, *Notes at the Margin* and *The Petroleum Economics Monthly*, have provided extensive analyses of the border tax. Beginning with the August 15, 2016 issue of *Notes at the Margin*, we have written here on the tax's structure and its possible impacts on gasoline prices and global crude markets. Before now, though, we had not compared the tax revenues generated from oil imports to the BAT's total revenues.

Last week, a former colleague from the US Treasury and close friend called with a simple question: "Isn't the border tax really a tariff on imported oil?" He went on to ask whether most of the tax revenues would be produced from those imports. We did not have an answer. However, we promised to examine the question. The results, which we present here, came as a complete surprise.

The Approach

Estimating the BAT revenues from oil turns out to be complex because the proposal put forward by Ryan and Brady does not tax imports directly. Instead, under the BAT, refiners and petroleum product importers would not be allowed to take a tax deduction for the cost of imports. Thus, with the Republican proposal a firm that pays \$50 per barrel for imported oil and brings in one million barrels would see its tax liability increase \$10 million.

This firm would see a loss if it could not pass the increased cost on to consumers. The data suggest it could to do this.³ As we calculate it, a twenty-percent tax on corporate cash flows would lead to a

¹ Excerpted from *Notes at the Margin*, March 6, 2017. ©2017, PKVerleger LLC. All rights reserved.

² See Kyle Pomerleau, "Details and Analysis of House Republican Tax Reform Plan," Tax Foundation, July 5, 2016 [<https://goo.gl/nw61cD>] and James R. Nunn et al., "An Analysis of the House GOP Tax Plan, Tax Policy Center, September 16, 2016 [<https://goo.gl/xFiu9T>].

³ In our study with The Brattle Group, we showed that changes in imported prices (or changes in costs) have historically been fully passed through. See Philip K. Verleger, Jr., Kevin Neels, Pallavi Seth, and Fabricio Nunez, "Border Adjustment Import Taxation: Impact on U.S. Crude Oil and Petroleum Product Markets," The Brattle Group, December 16, 2016 [<https://goo.gl/zdVqzU>].

The Border Tax Adjustment: Really a Tax on Imported Oil

twenty-five-percent increase in imported crude and product costs, effectively a fee on imports. Domestic producers would realize a twenty-five-percent increase in revenue at the same time if they could find US buyers.

In recent reports, we noted that domestic producers would likely avoid the tax impact because they would spend most of their income on drilling. Again, these producers would probably want to sell to US buyers.

Many US refiners, though, prefer the heavier crudes produced in other countries. Those specializing in refining economics assert that most refiners have built their facilities to process heavy crude rather than the lighter types produced by US frackers. Thus, the US is expected to keep importing large volumes of heavy crudes, such as the oil produced in Canada or the Middle East, for these refiners. Meanwhile, greater US output would flow to other markets. The refiners would naturally seek to raise product prices. The nation's continued dependence on product imports as well as growing foreign demand for US products would likely make it possible to pass the BAT's full effect through to consumers.

With full pass-through, the BAT becomes a fee on imports. Over ten years, it would generate revenues from oil between \$550 and \$600 billion (in current dollars). The projected cumulative BAT revenues fall between \$936 billion and \$1.18 trillion per the Tax Foundation and the Brookings Institution.

We based our estimates of the BAT revenues produced from oil on the US Energy Information Administration's 2016 annual energy forecast.⁴ We chose this forecast because it came out before the BAT revenue estimates. So, in effect, the BAT estimates are contemporaneous with the 2016 forecasts. We calculated BAT revenues generated from the oil industry from 2016 to 2025, the same interval used by the Tax Foundation and Tax Policy Center for their BAT analyses.

The EIA published projections for crude and petroleum product imports from 2016 to 2040. It also estimated nominal prices for crude and products. For crude, the agency published forecasts for Brent, WTI, and the average price of imported crude. Through its forecast period (see Figure 1, page 3), the EIA expects the discount for imported oil to Brent to average \$8 per barrel. The discount likely results from the preference of US refiners for imported oil.

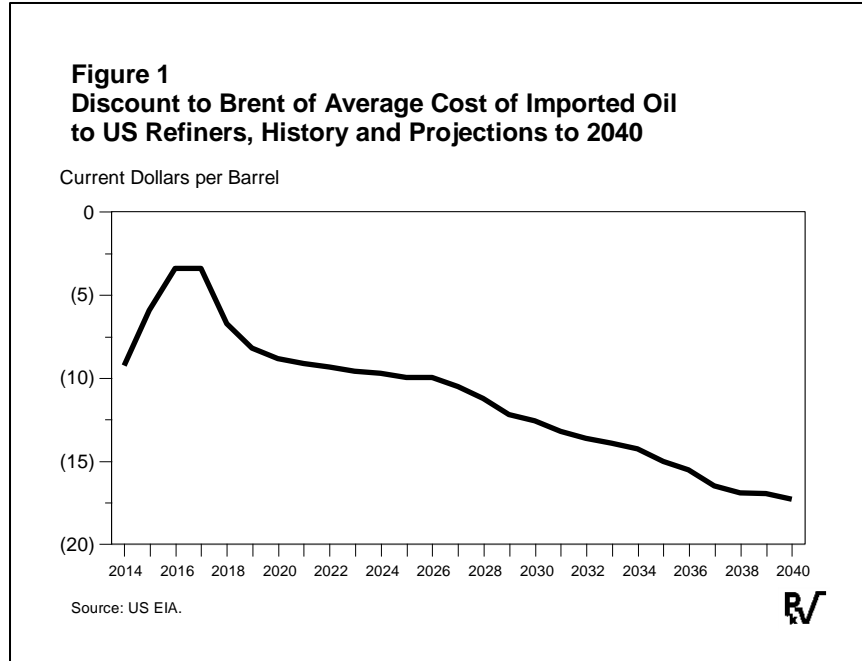
Here we used the EIA's forecast of the current dollar cost of imported crude oil to refiners to determine total expenditures on imported crude. For the ten-year period beginning in 2016, we estimate that \$2.1 trillion will be spent on imported crude oil. With a twenty-percent tax rate on cash flow, the BAT revenues would total \$520 billion.

Additional tax revenues would be generated from product imports. The US East and West Coasts depend on product imports. East Coast consumers use significant gasoline volumes brought in from Canada and Europe, while the West Coast product imports come from Asia. The product prices are higher than the crude prices. Since the EIA does not forecast import prices, we assumed product prices would average \$15 per barrel more than the average imported crude cost. This margin is consistent with history. Applying the higher price to product imports, we found that the EIA projects expenditures on

⁴ US EIA, *Annual Energy Outlook 2016* [<https://goo.gl/wS5kEi>].

imported products of \$372 billion. With full pass-through, the BAT would generate another \$93 billion from product imports.

The combined BAT revenue estimate from oil is \$613 billion. Table 1 (page 4) presents the year-by-year numbers. The rows near the bottom of the table show the revenue estimates prepared by the Tax Foundation and the Tax Policy Center. These include two estimates from the Tax Foundation. The first is a static estimate and the second a dynamic estimate that presumably attempts to model the tax impact.



The table's final rows show the percentage of tax revenue generated by the BAT from imported oil. As shown, the tax generates roughly half of revenues expected to be earned from the tax.

Oil Price Volatility and Expenditure Uncertainty

Many articles written recently on the Republicans' overall tax reform and its goals have emphasized how the BAT revenues are needed to pay for other revisions. Republicans seek balance in the budget. Thus, large tax cuts for individuals and corporations require large expenditure cuts or an offsetting revenue source. The BAT has been designed to generate \$1.2 trillion in revenues over ten years.

However, half or more than half of that will come from imported oil, the price of which is highly uncertain. Eight years ago, in 2009, the EIA and many other forecasters confidently expected crude prices to rise from \$70 per barrel to \$180 by 2025. Eight years later, the EIA sees prices rising only to \$135 (see Figure 2, page 5). In 2009, the average price for the 2016 to 2025 period was \$150 per barrel. That average had declined to \$86 in the 2016 forecast.

Looking forward, one can be sure of only one thing: the price forecast will be off. It could be higher, as many believe. It could be much lower, especially if US oil producers keep driving down costs and boosting output.

Oil import volumes could also deviate substantially from the EIA projections shown in Figure 3 (page 5). Increased conservation by consumers or greater productivity from drillers could cut imports and tax revenue significantly. Imports could also be cut if US refiners boost capacity to process domestic oil.

For economic planners, this uncertainty is important. As they prepare revenue projections going forward, they must factor in the huge uncertainty associated with projected BAT revenues from oil. A

The Border Tax Adjustment: Really a Tax on Imported Oil

windfall of as much as \$300 billion could occur over ten years. It is much more probable, though, that tax revenues would fall \$300 to \$400 billion short of expectations.

Economists and tax writers have been seeking certainty for decades since they set out to reform taxes. In this case, the Republicans propose to replace certainty with a high-stakes gamble on oil prices.

Table 1. Calculation of BAT Tax Revenues from US Crude Oil and Petroleum Imports
Based on 2016 EIA Reference Forecast

	Import Volume (Million Barrels per Year)		Price (\$/bbl)		Import Cost (\$ Billions)	Tax Revenue (\$ Billions)
	Crude	Products	Crude	Products		
2016	2,876	277	34.15	49.15	112	28
2017	3,019	391	46.63	61.63	165	41
2018	2,891	394	53.74	68.74	182	46
2019	2,829	405	67.66	82.66	225	56
2020	2,774	405	75.76	90.76	247	62
2021	2,763	412	82.66	97.66	269	67
2022	2,759	431	88.55	103.55	289	72
2023	2,763	438	93.14	108.14	305	76
2024	2,763	453	97.36	112.36	320	80
2025	2,767	464	102.14	117.14	337	84
Total						613
Total Revenue						
<u>Estimates</u>						
TF (static)						1,069
TF (dynamic)						936
TPC						1,180
Revenue						
<u>Share from Oil</u>						
TF (static)						57
TF (dynamic)						65
TPC						52

Note: TF = Tax Foundation; TPC = Tax Policy Center.

Source: Import volumes and crude oil prices (current dollars), US EIA; Tax Foundation (see text); Tax Policy Center (see text); PKVerleger LLC.

Figure 2
EIA Forecasts of Nominal Imported Crude Price
for US Refiners: 2009 vs. 2016

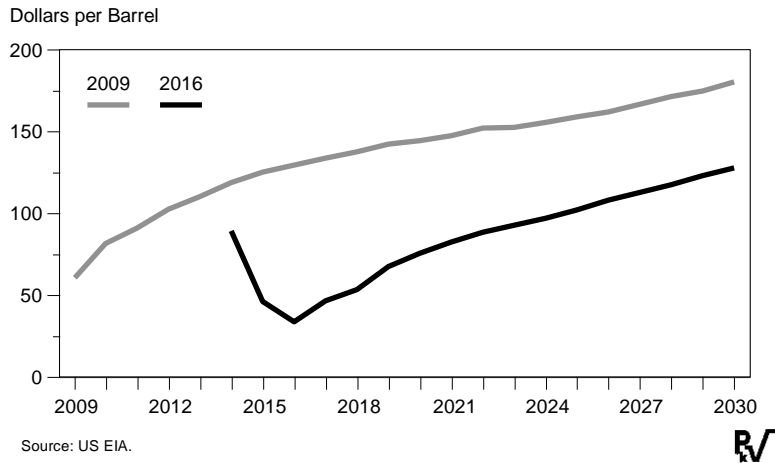


Figure 3
EIA Forecasts of US Crude Oil Imports: 2009 vs. 2016

