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An Idea: Vehicle Efficiency Market

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This post is a guest post by Morgan Downey. Morgan is a commodities trader and author of the recent book "Oil 101".

Recently, there has been a growing call for the U.S. to increase gasoline and diesel taxes to the levels that exist in Europe in order to encourage efficiency and reduce oil imports. However, there are fundamental differences between Europe and the U.S. that make this model unsuitable for here.

In this post, I look at the reasons the European model appears unsuitable here and propose an alternate method of encouraging fuel efficiency, even when gas prices are low.

Author beside small vehicle in Paris.

Why the European Model Wouldn't Work in the US

There are several fundamental differences between the Europe and the U.S. that make the European model unsuitable here.

First, there are major differences in population density between the U.S. and Europe. High gasoline and diesel taxes are effective in encouraging public transportation use in Europe in part because their high population density makes public transportation a convenient alternative. But

U.S. population density is much less than a third that of France, Germany, Italy and the UK. American drivers would simply suffer the taxes without access to mass transit transportation alternatives which require European level high population densities.

Second, North America's geography dictates far different commercial transportation patterns. The European Union has seven times more coastline for its landmass than the U.S. European commercial seaports are thus in close proximity to consumer centers and less road trucking is required. In the U.S. two large coastlines require commercial trucking to haul goods inland. U.S. businesses cannot easily avoid using oil burning trucks, making a diesel tax an unavoidable and stifling cost to businesses rather than encouraging efficiency.

Third, car ownership is spread widely across the wealth spectrum in the U.S. compared to Europe. A fixed gasoline tax would account for a much higher percentage of American working and middle class discretionary income at a time when such working families are struggling to make ends meet.

Given these fundamental differences, the U.S. should be looking for solutions appropriate to our circumstances, rather than adopting ill-fitting models. The U.S. can make far more progress by using a simple vehicle efficiency market to increase efficiency and lessen oil imports.

Jevons' Paradox

Before outlining how the vehicle efficiency market would operate, it is essential to briefly describe an unusual and somewhat counter intuitive effect of improvements in efficiency: when fuel use technology enables improvements in efficiency, it leads to higher overall consumption. This is known as Jevons' Paradox.

In his 1865 Book 'The Coal Question', William Stanley Jevons observed that, as coal-powered steam engine efficiency improved, coal consumption increased. The cause was market prices for coal. Increased coal prices led initially to improved efficiency technology. This caused coal prices to fall, which spurred increased consumption. As oil consumers, the situation we face today is similar. Over the past 30 years, there have been huge advances in engine efficiency technology; yet as oil prices subsequently fell, consumption grew. Drivers in the U.S. chose to forgo efficiency technology gains by driving larger and more powerful cars.

As a result of higher prices over the past three years, oil consumption efficiency in the U.S. has increased. Consumers began buying hybrids, diesels, and smaller cars rather than SUVs. Increased efficiency caused oil prices to fall. However, now that oil prices have fallen, there are nascent indications of a recovery in the percentage of SUV sales relative to cars.

A Proposal: Vehicle Efficiency Market

Resolving Jevons' Paradox would require separating efficiency from oil prices. A vehicle efficiency market involves subsidizing efficient cars with money raised directly at the point of purchase from buyers of inefficient cars. The efficiency of a car relative to the rest of fleet sales would be determined by a monthly miles per gallon (MPG) assessment. The monthly MPG balancing point would be posted on the Internet and at all new car dealer showrooms along with the schedule of credits or levies. Consumers would pay or receive a cash amount depending on whether the vehicle purchased was under or over the average miles-per-gallon (MPG) balancing point for the prior month. The further a vehicle is from the average MPG, the higher the cash payment or credit.

Taxpayers nationwide would not have to pay any additional taxes. There would merely be a simple direct cash transfer from those who are inefficient to those who are efficient. There would be a constant incentive for consumers to purchase more efficient vehicles, even when oil prices are low.

Creating a vehicle efficiency market makes sense for America; it's fair and easy to implement, and it achieves the goal of reduced oil consumption in a manner that fits the U.S. context, rather than trying to impose an ill-suited gasoline tax that simply won't work here.