Taxes Show One Way to Save Fuel

By EDUARDO PORTER

Fuel Taxes and Consumption

Fuel consumption tends to be lowest in countries with the highest fuel taxes. The United States taxes fuel at much lower rates than most European countries, and consumes more.

Just the other day, President Obama unveiled another example of how our hostility to anything that even remotely looks like a tax is leading us down the wrong path, ultimately making us worse off.

The president proudly announced energy-efficiency standards negotiated with the nation’s carmakers, which will have to nearly double the average fuel economy of cars and light trucks sold, hitting 54.5 miles a gallon in 2025.
“It’ll strengthen our nation’s energy security, it’s good for middle class families and it will help create an economy built to last,” he said in an official statement.

The rules are a significant step in the battle against global warming. The Environmental Protection Agency and the National Highway Traffic Safety Administration, which developed the standards, said they will reduce our energy use by 12 billion barrels of oil and cut carbon emissions spewed by our cars, pickups and sport utility vehicles in half by 2025. They should also cut down on other forms of pollution, helping with problems like asthma and acid rain.

What the government didn’t mention is that these improvements come at a high cost for drivers, automakers and society in general. They could be achieved much more cheaply by raising taxes on gasoline to a level comparable to that of pretty much every other industrialized nation.

The new mileage rules are so expensive, in fact, that even if one factors in all the expected gains from the policy — like less damage from climate change and fewer deaths from respiratory disease — many economists think that the costs actually outweigh the benefits.

The reason is fairly straightforward. Fuel-efficiency standards do not really change drivers’ behavior in a helpful way. Gas taxes do.

Consider how a gas tax would work. Because it would make gas more expensive at the pump, we would drive less. When time came to replace the old family S.U.V., we would be more likely to consider a more fuel-efficient option. As more Americans sought gas-sipping hybrids, carmakers would develop more efficient vehicles.

This is not theory. We’ve seen it happen. In 2008, when the price of gas shot abruptly past $4 a gallon, Americans cut back sharply on their driving. Total miles driven on American highways declined for the first time since 1980 and gas use fell more than 4 percent. General Motors ditched the Hummer, and gas-guzzling pickups were briefly dislodged from the perch they had occupied since 1992 as the nation’s most popular light vehicle.

Driving levels started creeping back up as soon as gas prices started receding, but a gas tax would be permanent and would lead to even bigger changes in habits. And the cost is lower than it seems. Economists point out that the energy savings would not change if the government returned all the revenue raised by a gas tax to Americans — perhaps through rebates for low-income people who spend a bigger share of their money on gas.

The weakness with the fuel-economy rules is that they don’t affect people’s behavior the way higher gas prices do. They apply only to new vehicles — not the ones on the road now — so it takes quite a long time to alter our overall gas use. And they carry perverse incentives: because new vehicles go farther on a gallon of gas, they give us a reason to drive more, leading to more congestion, accidents, pollution and gas consumption.

The incentives to carmakers can also be weird. The original standards for fuel economy in the 1970s exempted light trucks, which were a small share of the market. That decision was critical
to the explosive growth of the S.U.V. In 1973, light trucks amounted to 3 percent of new vehicle sales. Today they account for half.

Who knows what distortions the new rules will bring? The standards vary according to the footprint of the car — the length between the axles multiplied by the width. So maybe cars will be boxier in the future.

Automakers will make the most efficient cars they can that customers will buy. A gas tax that goads drivers to choose gas-sippers takes advantage of this fact. A mileage standard does not.

Christopher Knittel, an energy economist at the Massachusetts Institute of Technology, estimated that if carmakers had devoted all their technological progress since 1980 to improving fuel efficiency, gas mileage would have improved 60 percent by 2006. Instead, they put most of their effort into more power and weight, and fuel economy gained less than 12 percent.

All this makes mileage standards an expensive way to restrain our energy use.

According to the government’s analysis, the additional production and maintenance costs made necessary by the mileage rules will rise gradually to about $31.7 billion in 2025 — which will add about $1,900 to the average price of cars and light trucks. There are other costs, too. Some Americans will not be able to afford a new car. Profits of some automakers and dealers are likely to decline. Greater congestion will impose an added burden on health.

According to economists crunching the numbers, this makes mileage standards somewhere between 2.4 and 13 times more expensive than a gasoline tax as a tool to reduce our use of fuel. Indeed, by some calculations, raising fuel-economy standards is more costly than climate change itself.

The government has to predict how much climate change will cost us in the future — through lost agricultural productivity, poorer health, bigger hurricanes and the like — to figure out how much we should spend today. It does so through a measure called the “social cost of carbon,” which captures the added damage that will be caused by adding one more ton of CO2 into the air.

The government’s estimate of the cost to our society covers a wide range of $5 to $68 a ton and increases over time. Several economists have concluded that cutting carbon emissions via fuel-efficiency standards may be even more expensive. Adding in benefits not related to global warming — like less pollution, less reliance on foreign oil, and less time spent filling up — the mileage standards may still cost more than their benefits.

The Obama administration will say that mileage standards are the best we can do to limit our gas usage. The president’s proposal to create carbon allowances, which would act like a tax to limit companies’ carbon emissions, withered in Congress two years ago despite the plan to use the money to provide tax credits to low-income families. A tax on gasoline doesn’t stand a chance.
And doing nothing about global warming might seem crazy considering how little we really know about the potentially devastating consequences of climate change.

Still, we could do much better if taxes were on the table.

**The United States has the lowest gas taxes by far among the industrialized nations.** This includes countries with mandatory fuel-efficiency standards and countries without them. It includes big countries and little ones. Among them, guess who uses the most transportation fuel of all?
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*Tax rates as of Jan. 1, 2010. Data from the United States and Canada include average excise taxes at the state/provincial level. VAT is not included. Taxes paid in each country are based on the weighted average of diesel and gasoline use.

**Data is from 2009, the latest year available.

Sources: Department of Energy; World Bank
Hint: in Britain, where gas and diesel are taxed at $3.95 a gallon, the American automaker Ford sells a compact Fiesta model that will go nearly 72 miles on a gallon. In the United States, where gas taxes average 49 cents, Ford's Fiestas will carry you only 33 miles on a gallon of gas.

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This article has been revised to reflect the following correction:

**Correction: September 12, 2012**

An earlier version of this column referred imprecisely to the fuel mileage of a Ford Fiesta model sold in Britain compared to one sold in the United States. The British model gets nearly 72 miles to the American gallon, not “nearly 86 miles,” which is a figure based on imperial gallons.