Gas Taxes, Gas Prices, and Fuel Economy

By Kim Reuben and Yuri Shadunsky

Since the early 1990s, gasoline prices have been increasing and are likely to hit a new high this summer. At the same time, vehicle fleets are getting more fuel efficient and consequently our existing gasoline taxes are raising less revenue. This year, the average price for a gallon of gasoline in the United States has gone from $3.30 to $3.94 (as of April 2, 2012). Although federal and state governments have been lobbied to do something to lower gas prices, tax policy is not to blame for high gas prices. Real gas prices in 2011 were higher, on average, than in any year since 1990, and prices so far in 2012 are higher than in 2011. As the weather heats up, they are bound to go higher. Gasoline taxes have stayed fairly constant in real terms throughout the past decade (see graph) and lowering them would be unlikely to have much effect on the price at the pump.

Although gas prices are near historic highs, the average tax per gallon has stayed constant through-out the 2000s. The federal gas tax has been 18.4 cents per gallon since 1995. The average state gas tax has ranged from 21 cents per gallon to 29 cents since 2000 and is now 22 cents. Because gasoline taxes are usually levied per gallon rather than as a share of the price, rising gas prices have driven the tax share of gas prices down from 28 percent in 2000 to just 11 percent in 2011. Because gasoline taxes traditionally fund transportation infrastructure, this can lead to shortfalls in our infrastructure investment.

Differences in gas prices across states reflect a variety of factors. The two biggest are differences in state taxes and the local cost of crude oil. For example, according to the American Automobile Association and the American Petroleum Institute, the six states with the highest gas taxes all ranked in the top 10 in terms of gas prices in mid-April. Conversely, seven of the eight states with the lowest gas taxes ranked in the bottom 15 in terms of gas prices in mid-April (Alaska was the lone exception). Gas taxes, however, do not account for the entirety of the difference. Much of the rest is due to differences in the cost of crude oil available to area refineries.

Higher gas prices, combined with fuel economy standards, have induced drivers to buy more fuel-efficient vehicles. This effect is captured in two ways. First, drivers’ preferences have shifted away from trucks and toward cars. The distribution of vehicles purchased matters a great deal for the overall fuel economy of the fleet because fuel efficiency standards differ based on whether a vehicle is classified as a car or a truck. In 2004, 45 percent of new vehicles purchased in the United States were trucks or SUVs. Since then, as gas prices have risen, the proportion of trucks has fallen to 38 percent in 2011. Second, higher gas prices and increasing CAFE standards for fuel efficiency of vehicles have pushed the average fuel economy of model year 2011 vehicles to 22.8 by increasing the average fuel efficiency of both cars and trucks. This is higher than in any year since the Environmental Protection Agency started tracking fuel efficiency in 1975. Although good for the environment, rising fuel economy will reduce gas tax revenue, posing problems for the federal Highway Trust Fund and states that rely heavily on gas tax revenues.