

The New, Improved CAFE Standards

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It could be said that Bob Lutz is the Will Rogers of the auto industry, a source of pithy witticisms that contain a core of unvarnished truth. One of the quotable quotes attributed to him that has been making the rounds lately is an analogy that CAFE standards are like trying to fight obesity by requiring tailors to make only small-sized clothes. With interest in the subject sparked by the recent release of new CAFE standards, versions of Lutz's 2007 comment can be found everywhere from auto blogs to Tom Friedman's column in the New York Times. It's an amusing analogy, and one of a number along the same lines by other industry observers, but it might not be quite as apt in the future.

In 2002, at the direction of Congress, the National Academy of Sciences conducted an analysis of the effects of the first two-and-a-half decades of the national fuel economy regulatory program and issued a report on "Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards." The end results were incorporated in a reformed structure that was made part of the 2006 light truck CAFE rules under the Bush administration, and now part of the Final Rule on industry-wide average fuel economy standards for Model Year 2011 that NHTSA published at the end of March.

The conclusions of the NAS recognized the unintended consequences of the existing CAFE program and recommended reforms that it said would increase energy savings, enhance safety, create a more equitable regulatory framework for different vehicle manufacturers, and make the CAFE program more market-oriented. The principal change that provides these benefits is a new approach that ties the target fuel economy to a vehicle's size (referred to as an 'attribute-based system') in a continuous function. Every vehicle program's footprint (wheelbase multiplied by track width) is associated with a mileage requirement that is deemed technologically and economically feasible by NHTSA, with input from NAS, EPA, the automakers, and Ricardo, an engineering consulting firm. Smaller vehicles have higher fuel economy requirements than larger vehicles. The overall CAFE obligation of an auto manufacturer now will be the result of its particular product mix and production levels.

The new system is more fair in the way that it allocates responsibility for improvement. Full-line manufacturers are not at an automatic disadvantage. Any company can sell any size vehicle it wants, as long as, in addition to the characteristics that are needed in order to generate market appeal (design, features, price), it also meets the performance regulations for safety, fuel economy, and emissions control. That's the price of admission to the market.

Fuel consumption will be reduced across the whole range of light vehicles with this new approach. The idea that a company is forced to sell small cars to offset its extra-large vehicles is no longer relevant. In that sense, the Lutz quote will no longer work as well. Of course, his broader point was that there are more direct ways to reduce oil consumption. Raising the federal gas tax, for example, which has been unchanged since 1993, would give consumers an incentive to change their habits by significantly

changing the economics of the equation. Gasoline consumption would be reduced, and driving behavior would adjust. This is an appealing prospect to economists because it internalizes externalities, that is, it causes the users to pay the full social costs of their actions (pollution, congestion, etc.). For the automakers, a higher tax would create a more stable market environment in which to develop and introduce new clean, fuel-saving technologies, such as hybrid and electric vehicles. The dramatic shifts in demand for the many fuel-efficient models that the automakers do offer could be smoothed with a mechanism that made fuel economy a more predictable consideration.

The roundabout nature of the CAFE standards is a function of political feasibility as much as anything. That was true when they were enacted in 1975 and today. In the same month that the tighter mileage standards were announced, March 2009, Transportation Secretary Ray LaHood ruled out increasing the gasoline tax, in spite of the widening gap between the need for, and the resources of, the Highway Trust Fund that the money goes into. The state of the economy makes it even harder to contemplate further taxing fuel, although a gas tax increase could be phased in gradually, e.g. 10¢ a year over the next decade, as economist Gregory Mankiw suggests. A variable consumption tax could operate to keep the gasoline price to consumers within a certain band. There are plenty of options, but the key ingredient may be political will.

So for the foreseeable future, we will continue to look for technological answers that cause less apparent pain to vehicle buyers. The Final Rule laying out the CAFE requirements contains a lengthy section on the technologies that are deemed close enough to commercialization to be useful by MY 2011 models. Although viewpoints on the value of the CAFE tool vary dramatically, the next couple of years should signal another exciting phase of progress in fuel economy.