

Commentary

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Time To Take Fuel-Efficiency Mandates In For A Checkup

An Op-Ed on CAFE Standards Written for The Hill

The Trump Administration recently ordered a full review of the corporate average fuel efficiency (CAFE) standards for automobiles sold in the U.S. market. The action by the President did not alter current or prospective CAFE standards, which require cars and light duty trucks sold in the United States to reach an average fuel economy of 41.7 miles per gallon by 2020, increasing to 54.5 miles per gallon by 2025. Note that the more challenging efficiency gains are scheduled for the out years, one reason the review was part of the original agreement on setting longer-term fuel efficiency standards. Of special concern was the issue that adjustments to the program might be necessary should new circumstances arise that would make the program costlier, including a long period of lower gasoline prices, changes in consumer preferences, health of the auto industry, and/or the pace at which new technologies could be adopted into future model years.

CAFE standards entail considerable economic risks because mandated advances in fuel efficiency are pushing against a technology that is already very efficient, i.e., we are experiencing the law of diminishing returns. A good example of this can be found in the iconic film “Bullitt” in which Steve McQueen chases the bad guys in a 1968 Mustang GT, 4 Speed, 328 HP Fastback. That muscle car spewed out somewhere between 1500 pounds to 1 ton of so-called criteria pollutants (carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide) per 100,000 miles. Today’s Mustang puts out somewhere between 10-20 pounds of criteria pollutants over the same distance. The automobile industry has made considerable progress in making cleaner vehicles, but further improvements will require moving up a steeper cost curve.

An important, but often not fully appreciated issue by regulators, is that increasing CAFE standards come with some important and counterproductive second order effects. For example, as new cars become more expensive due to the requirements to meet higher CAFE standards, the existing fleet turns over at a slower rate undermining the near-term objectives of the regulation. This is especially true for older gas guzzlers which continue to retain considerable value in the used car market. If you make bigger cars more expensive the fleet of older cars will turn over at a slower pace. There is also the so-called rebound effect as vehicle miles traveled rise as automobiles become more efficient. We now have plenty of research in the academic community and think tanks on both these topics and this research should certainly be part of the MTE.

A related concern is the importance of sustaining a “National Standard.” The automobile industry requires very large economies of scale to prosper and so there is considerable economic value to a single CAFE standard for sales throughout the continental U.S. In the past, California was given a waiver to set their own standards, in deference to the unique and severe air quality problems in the state. However, California is now likely to balk at any substantial change in the CAFE schedule based on concerns over emissions of greenhouse gas (GHG) emissions. California’s interest in a higher CAFE is largely to address GHG emissions, but there is not much of a case that in doing so the state is addressing a local concern since (i) climate is a global and not a local concern, and (ii) even if you accept the UN methodology for estimating climate benefits from reduced loadings of carbon dioxide, any initiative undertaken by California will have no measurable result on global or local climate.

In case you missed it, we have a lot of upset voters in the industrial heartland. You know that place where they build the automobiles. If we go through a long period of relatively low gasoline prices (a likely outcome), and we continue to move along a mandated requirement to the 54.5 mpg standard by 2025, there is a high

likelihood we will see a mismatch between what consumers want to buy and what manufacturers are required to sell. Automobile companies face both the law of diminishing returns (the cost of future improvements in fuel efficiency are much more expensive) and shifts in consumer demand towards larger cars are rising driven by lower gasoline prices. If the regulation is too stringent the auto industry will experience an increase in stranded capital, which in the real world translates into higher prices for automobiles, job layoffs and output contraction. Given the auto industry contributes 3.5 percent of US GNP and manufacturers and dealerships employ nearly a million workers, considerable care should be taken in evaluating the industrial consequences of the standard.

The Trump Administration has given the MTE a second life. Setting the appropriate CAFE standard is an extremely complex undertaking and so the review offers a new opportunity to give this important issue careful consideration. While the administration will certainly proceed with a thorough assessment, Congress also needs to undertake a serious oversight role to ensure that the entire range of technical issues and stakeholder concerns are addressed.

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