

GBA 464: Assignment 2: Is the regulation on fuel efficiency effective?

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September 8, 2020

1 Background

The story that was running in the background was about the CAFE, or Corporate Average Fuel Economy standards. In the 1960-70s, collusion among oil-producing countries caused the crude oil price to rapidly increase. In reaction to this, the congress first passed the CAFE regulations in 1975, demanding car producers to raise fuel efficiency to certain standards, within the next 10 years (that is, by 1985). Of course, this pushes research and development (R&D) towards greener cars. What also happened is that for manufacturers who sells a lot in the US, this regulation matters much and the R&D efforts can be seen on other markets. For manufacturers who are not selling a lot in the US, the effect is less clear.

Our assignment tries to look at what happened to Volkswagen and Nissan's average fuel efficiency during the period 1970-1999, in the EU market. Note that both firms are non-US manufacturers but Volkswagen was selling more in the US, so are supposedly affected by this regulation more than Nissan. But there are also other regulations going on in other markets, at that time.

2 Instructions

Like last time, please follow the instructions in the .R file. On a technical note, we emphasize on the use of 3 things: aggregate, merge and plot. You can choose freely what functions you use as long as the results are correct (so e.g. you can use cast or data.table to replace aggregate), even though I sometimes hint what functions you *can* use. Also, for both assignments, please hand in the full R code itself (you can write directly on it). Please include the load data part of the code.