Abstract

This thesis looks at the effect of an excise duty tax on gasoline and what that does to the CO2 emitted by cars in The Netherlands. A Vector Error Regression Model is used to calculate the effects in the long run. We use a Impulse Response Function to look at the effect. This model also looks at the effect other relevant variables might have on the CO2 emitted, such as, but not limited to rainfall, public transport, and household income.

The results show a significant (negative) relationship between excise duty tax and CO2-emissions. The CO2-emitted is calculated on Tank-to-Wheel principle, based on the amount of gasoline purchased at gas stations in The Netherlands. Yet the implications of this method do not show us what happens, whether people are simply driving less or that they buy their gasoline over the border (i.e., Belgium, Germany, or Luxembourg) cheaper and then bring it back to the Netherlands. More research is needed in this matter. The results show us that an increase of €0,01, if the extra generated tax would be used to compensate for CO2, would lead to a decrease of 4,65% of the CO2 emitted by gasoline-engine cars, and a decrease of 0,26% of the total amount of CO2 emitted in The Netherlands in the long run.