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ACTUM

Car ownership and use taxes as pollution correcting instruments

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DTU Transport

There have been many attempts to alter the taxation of private vehicles to obtain more energy-efficient car transport. The last significant reform in Denmark was completed in 2007. The most important objective was to improve fuel efficiency and consequently to reduce emissions related to car transport. To analyse the effects of such a reform it is necessary to model both long term decision like car ownership and short term decision like car usage in a combined framework. The purpose of this paper is to study to what extent Danish households change their car ownership and their car use after a change in car taxes. Based on a simple theoretical framework we use a large sample of detailed Danish data to estimate the joint demand for vehicles and kilometres. The empirical results point at effects that have important implications.

Keywords: car market, car ownership, car use, car taxation, fuel efficiency.

JEL codes: D12, L62, L68, R41.

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