Summary
The finite nature of oil resources and the adverse environmental effects associated with the purchase and use of conventionally fuelled vehicles demands a fundamental revision of our current transportation system. Clean vehicle technologies (such as LPG, CNG, biofuels, electric or hybrid electric cars) can provide an attractive solution to counterbalance these important effects, but their market adoption on the Belgian level is fairly low. The objective of this dissertation is to identify a policy strategy on how to stimulate the purchase of environmentally friendlier cars by private households. A particular focus is on the financial considerations within the individual car purchase decision process as these are prone to be affected by governmental policy. Acting on the economic aspects by means of pricing measures, differentiated along the environmental performance of the car, could be an effective way to promote the purchase of cleaner vehicle technologies. The extent to which pricing measures will be effective in changing people’s purchasing behaviour is first of all analysed in this PhD. For this purpose, a thorough examination of the consumers’ individual characteristics is performed. In addition, a new multidisciplinary model is established that empirically examines the shift to environmentally friendlier cars as a result of single and combined pricing measures. Secondly, the effectiveness of pricing measures also depends on their public acceptability, which is known to be larger if policy measures are combined in a package comprising both “push” and “pull” measures. Moreover, the existence of political pressures, lobbying, etc. might potentially hamper the effective implementation of policy measures. The commitment and support from all involved stakeholders (e.g., car manufacturers, fuel industry, NGOs) is more likely to happen if a clear, long-term policy strategy is in place. That is why this dissertation has explicitly involved the stakeholders in the establishment of three multi-instrumental policy packages (“baseline”, “realistic”, “progressive”) to stimulate a cleaner vehicle fleet. The ultimate choice of the policy package will depend on policy priorities, but it is advised that policy makers should have the political courage to opt for the “progressive” scenario.