

TREMOVE Contact Group Meeting
Leuven 5-6 March 2007

Comparison of TREMOVE cost elasticities with literature

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The TREMOVE demand module simulates the impacts of policy measures in terms of changes with respect to a given baseline

Simulated changes depends on the parameters of CES (Constant Elasticity of Substitutions) functions

From the modelling results cost elasticities can be derived and compared to literature values in order to assess whether the modelling results are in line with expected values

Elasticities extracted from TREMOVE are generalised cost elasticities rather than monetary elasticities



Comparison of TREMOVE cost elasticities with literature

Cost elasticities of transport demand have been estimated in several studies

Most of the studies concern passenger demand elasticity, especially private car demand

Estimations depend on several elements: analysing different countries, at different times, with different methods leads to even very different results

Ranges of elasticities rather than specific values are therefore considered as comparison



Comparison of demand cost elasticities by mode

Mode	Literature range	TREMOVE
Car (number of trips)	-0.05 / -0.4	-0.15 / -1.0
Bus	-0.15 / -0.8	-0.4 / -1.0
Passenger train	-0.3 / -1.5	-0.5 / -1.5
Air	-0.1 / -0.3	-0.9 / -2.0



Comparison of demand cost elasticities by trip purpose

Mode	Business		Personal	
	Literature	TREMOVE	Literature	TREMOVE
Car	-0.05 / -0.35	-0.15 / -1.0	-0.1 / -0.4	-0.15 / -0.1
Bus	-0.3	-0.5 / -1.0	-0.6	-0.3 / -0.8
Passenger train	-0.3 / -0.7	-1.0 / -1.3	-1.4 / -1.6	-0.7 / -1.7



Comparison of bus cost elasticities by average distance

Distance	Literature range	TREMOVE
Urban	-0.2 / -0.6	-0.5 / -1.0
Non urban	-0.2 / -1.0	-1.0 / -1.6

