

Seek Project:

Fostering Competitiveness of the European Car Industry

Motivation

- ▶ The European car industry has been one of the major beneficiaries of public support in the last economic crisis.
- ▶ Two categories of instruments were used to support the industry:
 - Traditional instruments: public support that entails and does not entail state aid
 - “Temporary Framework” for state aid for the real economy approved by the EU as a response to the crisis.
- ▶ Major objective of our project is to investigate the impact of selected public support measures on competition in the European car market.

Research Questions

- ▶ Overall public support for the European car industry:
 - What are its major channels and economic effects?
 - What have its trends over the last decade been?
- ▶ Economic effects of scrapping schemes:
 - Do they stimulate car sales?
 - How does the design of a scheme matter?
 - Do domestic firms benefit more than their foreign competitors?
- ▶ Competitive effects of government bailouts of car producers:
 - How do they affect the market structure?
 - What are the welfare implications of such bailouts?

Methods

- ▶ Overall public support for the European car industry:
 - Identification of major support categories and their quantification
- ▶ Economic effects of scrapping schemes:
 - Treatment effects difference-in-difference approach
 - Fixed effects estimations of sales equation with macroeconomic controls
- ▶ Competitive effects of government bailouts of car producers:
 - Structural model approach:
 - Estimation of the model of oligopoly competition with product differentiation for the European car market
 - Simulation of policy counterfactuals
 - Welfare analysis

Research Team

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Data and Some Descriptives

- ▶ Data on the European car market:
 - Monthly/yearly data on car prices, registrations and technical specifications for 9 European countries (Belgium, France, Germany, Great Britain, Greece, Italy, Netherlands, Portugal, Spain)

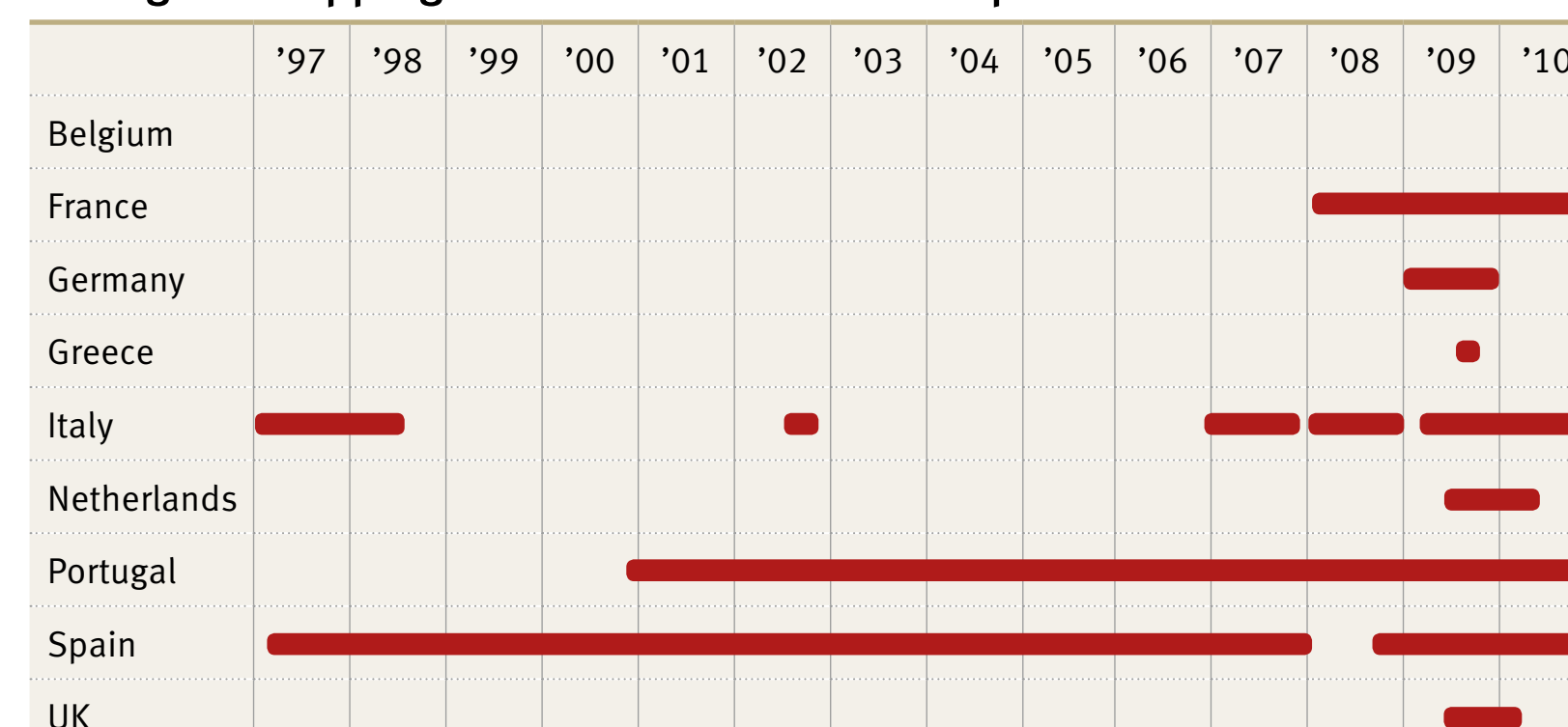
Summary Statistics for the European Car Market: 1998 – 2009

	All countries		France		Germany	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
Sales (units)	5,307	13,837	7,789	18,842	10,747	20,124
Price/income	1.19	0.94	0.95	0.58	0.98	0.69
Horsepower (in kw)	94.6	47.1	93.8	43.8	98.7	50.3
Fuel efficiency (EUR/100 km)	9.7	3.3	9.8	2.8	10.0	3.1
Width (cm)	174.3	8.9	174.5	9.1	174.7	9.0
Height (cm)	149.3	13.8	149.8	13.9	148.8	14.1
Foreign (0-1)	0.92	0.27	0.86	0.34	0.70	0.45
Months market presence (1-12)	9.83	2.59	9.66	2.66	9.80	2.54

Source: own estimations based on JATO data
Note: The Table reports means and standard deviations of the main variables. The total number of observations (models/markets) is 25,711, where markets refer to 9 countries and 12 years.

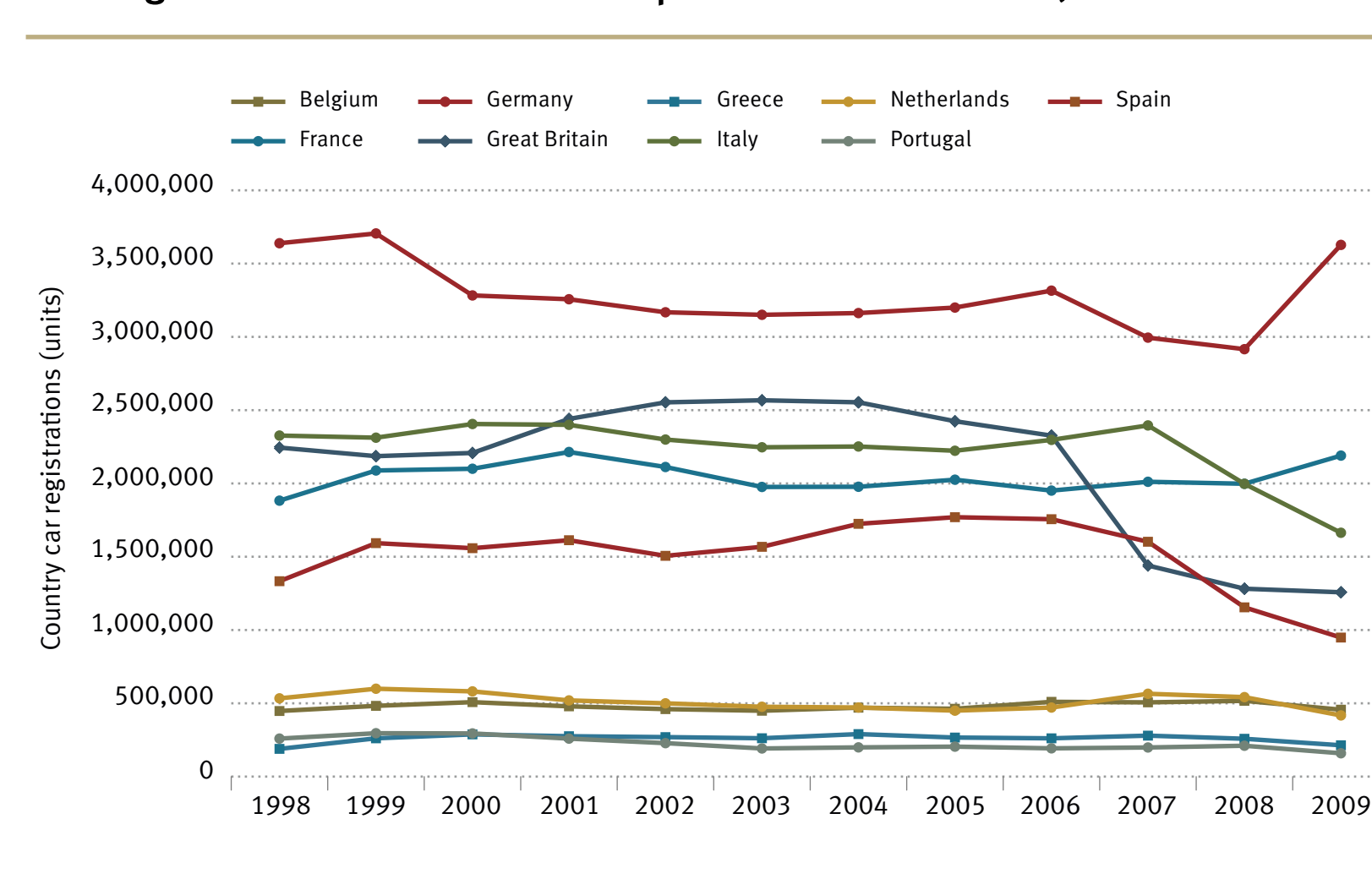
- ▶ Data on European scrapping schemes:
 - Own monthly database on scrapping schemes (duration and their design features, e.g. size of incentive, CO₂ emissions condition) for 9 European countries

Timing of Scrapping Schemes in Selected European Countries: 1997–2010



Note: official time duration of a scrapping scheme is indicated.
Source: own presentation based on Global Insight, ACEA and national sources

Car Registrations in Selected European Countries: Units, 1998 – 2009



Source: own estimations based on JATO data

Selected Preliminary Results

Overview of Public Support to the European Car Industry

- ▶ Multiplicity of public support instruments at EU and MS level may create coordination problems and lack of transparency
- ▶ “Temporary Framework” has lacked clear rules and clearly defined objectives, without formal control of individual state aids

- ▶ Due to public support, the crisis has not led to any restructuring in the European car market:
 - Substantial amounts of subsidised loans and guarantees were granted under the “Temporary Framework”
 - Public support instruments usually presumed not to entail state aid (and subject to less formal control) were used intensively, in particular scrapping schemes and EIB loans
- ▶ Variety of instruments and amounts of public support in the recession might have intensified subsidy races between the MSs and between the EU and the rest of the world

Economic Effects of Scrapping Schemes

- ▶ Scrapping schemes may cause cross-market shift effects, benefiting cars eligible for schemes, and giving disadvantage to cars that do not match schemes
- ▶ Design of a scheme may matter:
 - More generous incentive stimulates higher car purchases
 - Eligible cars in terms of environmental conditions (e.g. CO₂ emissions, fuel efficiency) benefit most
- ▶ Competitive effects of schemes:
 - Domestic car producers may benefit more than foreign competitors
 - Premium car producers lose from scrapping schemes

Competitive Effects of Government Bailouts of Car Producers:

- ▶ We look at two cases within the scope of the “Temporary Framework”:
 - Subsidised state loans to Peugeot and Renault in France
 - Bridging loan to Opel in Germany
- ▶ Motivation for selected counterfactuals:
 - Rescue&Restructuring State aid Guidelines: if state aid is not granted, would competition worsen in the market, i.e., would the exit of a car producer lead to a tighter oligopoly situation?
 - Some other sort of restructuring may happen if aid is not granted, e.g. mergers
- ▶ Selected preliminary results:
 - Absent state aid, merger may imply either a moderate or strong reduction of consumer and total welfare depending on merging parties
 - State aid may or may not be warranted
 - Absent state aid, exit implies a strong reduction of consumer and total welfare, mainly due to reduction in product variety
 - State aid is warranted