The Use of Experimental Evidence in Competition Policy –

The Magna-Karmann Case

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1. Experiments have been used in Competition Policy

- Pioneering: Hong and Plott (1982) and Grether und Plott (1986). They supplied experimental evidence in the Ethyl case and in the Inland Water transportation case

- DG Comp referred to experimental studies regarding the Non-Horizontal Merger Guidelines (2008) and in the 2009 merger Associated British Food – Gilde Bakery Ingredients (ABF - GBI)

- Further, experiments are regularly used for the design of auctions and other institutions (spectrum, CO_2 markets, eBay, Yahoo, irrigation systems etc.)

2. Why were experimental data used?

- Hong and Plott (1982):

  "Theoretical arguments could be made both in favour of and against the policy, and previous **experience with the policy was not available**. The regulator was skeptical and ordered an experimental investigation"

- US Federal Communications Commission (FCC, 2002):

  "The application of experimental economics is significant because of the **absence of formal economic theory**"

3. What are the advantages of experiments?

A. Experiments study **in isolation and under known conditions** the forces we are interested in

  ➔ One can study the forces of interest in all else equal environments, and we can unambiguously interpret the data

B. The experimental **conditions can be manipulated** according to the relevant questions—keeping all other factors constant

  ➔ One can study the impact several possible policy decisions, including some that cannot be observed in the field
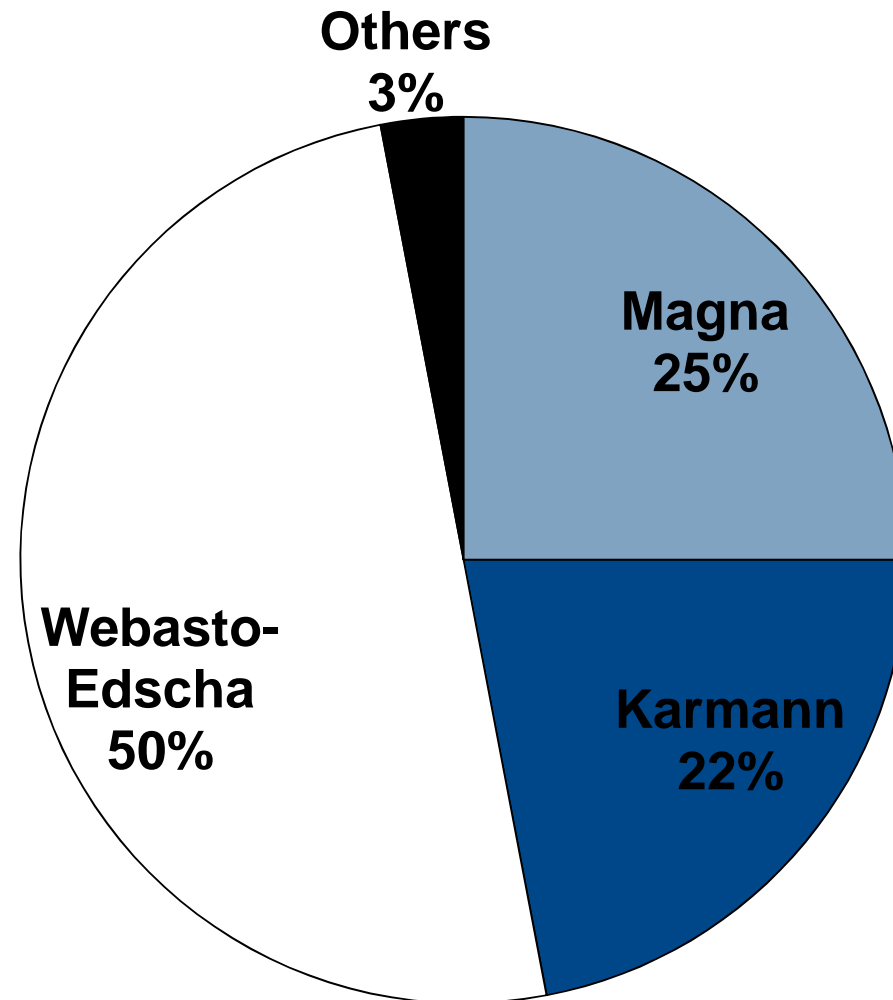
4. The Magna-Karman Case

Webasto – Edscha **4 → 3 merger** in 01/2010

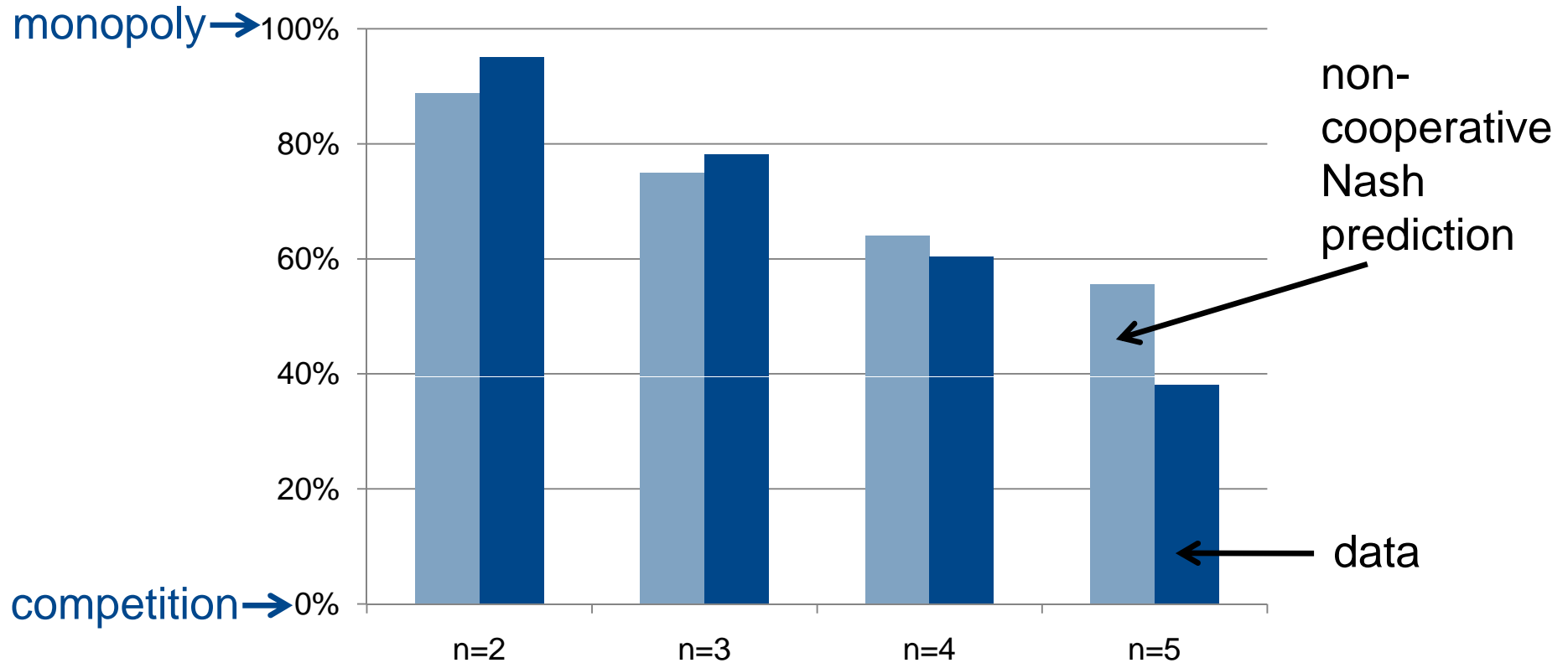Magna – Karmann **3 → 2 merger** in 05/2010

Magna-Karmann Merger would have had two effects:

1. reduce number of firms 3 → 2

2. create a symmetric market structure

Others 3%

Magna 25%

Webasto-Edscha 50%

Karmann 22%

Market shares

Experimental evidence on "numbers effects"

Huck, Normann and Oechssler (2004): "*Two are few and four are many*"

Dolbear et al. (1968): observe the same numbers effect, keeping incentives to collude constant

Experimental evidence on the 3 → 2 merger

- In the 3 → 2 merger, how does the reduction of # of firms interact with the change in symmetry?

- Conventional wisdom:

  Asymmetries hinder collusion

  Formal models: Compte, Jenny and Rey (2003), Vasconcelos (2008)

- However, this is in contrast to concentration indices (HHI). **In asymmetric markets, concentration is higher** *ceteris paribus*

Experimental evidence on the 3 → 2 merger

Fonseca and Normann (2008) experiment: Bertrand-Edgeworth
competition with inelastic demand and constant marginal cost

Market	HHI in the experiment	predicted Nash price	observed average price	minimum discount factor
symmetric 3 firms	3333	32.0	62.1 (18.3)	0.33
asymmetric 3 firms	3417	47.9	42.4 (19.2)	0.40
symmetric 2 firms	5000	66.0	77.9 (12.0)	0.50
asymmetric 2 firms	5555	83.0	73.9 (12.3)	0.67

5. Objections against experiments

1. Possible objections against *this* experiment:

– no buyers present in the experiment

– how severe are the capacity constraints in the CRT market?

2. Mainly students as participants

– no professional experience → professionals do not play differently

– low monetary incentives → high incentives do not change much

– little time to familiarize with the framework
→ learning effects should be checked

3. Too simplistic: the experiments does not account for the
richness of the market in the field → simplicity is a key advantage

4. Too much emphasis on irrationality and fairness
→ not so much in market games

6. Conclusions

- **Davies and Olczak's (2008)** study of DG COMP's merger decisions found much consistency with experimental results, and confirms the decision of the Bundeskartellamt (FCO)

- Experimental methods provide a **reliable, easy, cheap and (relatively) fast data generating method for policy cases**, specifically when there is a lack of experience in a market and if (unambiguous) economic predictions are absent

- With the growth in experimental research and the increased teaching of experimental economics, trust in this method's use in policy cases will rise