

Dewenter, Ralf; Heimeshoff, Ulrich

**Working Paper**

## Do expert reviews really drive demand? Evidence from a German car magazine

DICE Discussion Paper, No. 151

**Provided in Cooperation with:**

Düsseldorf Institute for Competition Economics (DICE), Heinrich Heine University Düsseldorf

*Suggested Citation:* Dewenter, Ralf; Heimeshoff, Ulrich (2014) : Do expert reviews really drive demand? Evidence from a German car magazine, DICE Discussion Paper, No. 151, ISBN 978-3-86304-150-2, Heinrich Heine University Düsseldorf, Düsseldorf Institute for Competition Economics (DICE), Düsseldorf

This Version is available at:

<https://hdl.handle.net/10419/100024>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# DISCUSSION PAPER

No 151

## Do Expert Reviews Really Drive Demand? Evidence from a German Car Magazine

Ralf Dewenter,  
Ulrich Heimeshoff

July 2014

## IMPRINT

### DICE DISCUSSION PAPER

Published by

düsseldorf university press (dup) on behalf of  
Heinrich-Heine-Universität Düsseldorf, Faculty of Economics,  
Düsseldorf Institute for Competition Economics (DICE), Universitätsstraße 1,  
40225 Düsseldorf, Germany  
[www.dice.hhu.de](http://www.dice.hhu.de)

### Editor:

Prof. Dr. Hans-Theo Normann  
Düsseldorf Institute for Competition Economics (DICE)  
Phone: +49(0) 211-81-15125, e-mail: [normann@dice.hhu.de](mailto:normann@dice.hhu.de)

### DICE DISCUSSION PAPER

All rights reserved. Düsseldorf, Germany, 2014

ISSN 2190-9938 (online) – ISBN 978-3-86304-150-2

The working papers published in the Series constitute work in progress circulated to stimulate discussion and critical comments. Views expressed represent exclusively the authors' own opinions and do not necessarily reflect those of the editor.

# Do Expert Reviews Really Drive Demand? Evidence from a German Car Magazine

July 2014

Ralf Dewenter<sup>a</sup> and Ulrich Heimeshoff<sup>b</sup>

---

## Abstract:

A wide range of media provide information on many products based on reviews or expert opinions. A natural question is, whether these reviews and expert opinions have any effect on sales. A small but growing literature in economics and marketing science deals with this issue, by testing the relevance of such product information for goods such as financial instruments, wine, books and movies. However, most of these products have in common that quality is very difficult to measure. It is always also a matter of taste whether these products can be seen as high or low quality goods. Based on a unique dataset, we test whether test scores published in a major German car magazine have significant impact on registrations of new cars in Germany. We find that test scores for certain cars have statistically significant impact on the number of new cars sold by several leading manufacturers on the German car market.

Keywords: Car magazines, Test Scores, Demand

JEL classification: L150, L820

---

---

<sup>a</sup> Ralf Dewenter, Industrial Economics, Helmut-Schmidt-University of Hamburg, Holstenhofweg 85, 22043 Hamburg, Germany, dewenter@hsu-hh.de.

<sup>b</sup> Ulrich Heimeshoff, DICE, Heinrich-Heine-University of Duesseldorf, Universitaetsstr. 1, 40225 Duesseldorf, Germany, heimeshoff@dice.hhu.de.

## 1 Introduction

Consumers' decisions on purchasing certain products largely depend on technical characteristics and the quality of a product (see Lancaster, 1971). Depending on a product's complexity and its price, the difficulty to gather the relevant information varies to a great degree. Customers might try out new fast moving consumer goods frequently, but for durable goods sampling is much harder. In general, customers try to get much more information before buying expensive goods as cars. However, complex goods as cars are difficult to evaluate, as the diversity of the product's components and its longevity makes it hard to compare the characteristics of several cars which might get into the customer's decision space. To some degree a potential buyer might rely on manufacturer's information which leads firms to spend significant budgets on advertising. Consumers are generally aware of the fact that all these information is provided by manufacturers to foster their sales. Therefore, it is natural that consumers try to find other sources of information which can be considered more objective. Magazines, newspapers, and TV shows provide such information for a long time and since the diffusion of internet access went off, the information available to consumers is really hard to quantify.

It is well known that media as car magazines and cinema magazines are sold in large quantities, but the economics and marketing science literature on the effects of expert opinions and test reviews published in such media is rather new and still comparatively small. There is some evidence that expert opinions or reviews in magazines may or may not have impact on consumers' buying decisions (see e.g. Eliashberg and Shugan, 1997; Reinstein and Snyder, 2005, Sorensen and Rasmussen, 2004; and Clement et al., 2008). A different strand of the literature analyzes the effects of reviews on wine demand (see Friberg and Grönqvist, 2012; Hilger et al., 2011; Ashenfelter and Jones, 2013). However, this study differs from the other literature because it utilizes data provided for customers by public agencies which might be more trustworthy to consumers than information provided by profit oriented private entities.

Another strand of the literature deals with financial products. In magazines and newspapers dealing with financial topics, recommendations and evaluations of certain financial instruments have a long tradition. As a result, the literature on recommendations of financial products is significantly larger than on media products and food (see Sirri and Tuffano, 1996; Jain and Wu, 2000; Cronquist, 2004; and Reuter and Zitzewitz, 2006).

Possible effects of expert reviews on sales is also of interest as a growing literature shows that some content in newspapers and magazines is likely to be biased towards medias' advertising customers (see Mullainathan & Shleifer, 2005; Ellman & Germano, 2009; and Gal-Or et al., 2012 for theoretical and Boykoff & Boykoff, 2000; Reuter & Zitzewitz, 2006; and Dewenter and Heimeshoff, 2014 for empirical studies). For this reason, we analyze the impact of car re-

views on new cars' registrations using different techniques by regressing the manufacturers' numbers of new registrations on aggregated tests scores as well as on some controls.

## 2 Data

We collected monthly data on test scores for six major car manufacturers in a leading German car magazine *AutoMotor&Sport* from March 2001 to December 2007.<sup>3</sup> Our information contains data on test scores for reviews of single cars and comparison tests between cars. The following table provides some descriptive statistics of our variables.

Table 1: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min.	Max
New registrations per manufacturer	492	21,229.73	9820.62	5,519	49,210
Points per month per manufacturer	368	31.06	30.74	0	171
Number of tests per manufacturer	368	3.23	3.10	0	18
Average points per test per manufacturer	367	11.37	3.53	0	17
Ifo index of business climate	492	8612.65	3585.55	92	11,309

As *AutoMotor&Sport* is a biweekly magazine, we aggregated the points scored in car reviews on a monthly basis for every manufacturer. The main reason is the monthly publication of car registrations by the *German Federal Office of Motor Vehicles* (*Kraftfahrzeugbundesamt*). Furthermore, the number of reviews per manufacturer per month differs significantly. To cope with this problem, we calculated the average number of points per test for each manufacturer for single tests and comparisons. Additionally, we include the *ifo business cycle indicator*, which is published on a monthly basis by one of Germany's leading economic research institutes. This variable controls for variations in new car registrations due to general business cycle fluctuations.

---

<sup>3</sup> These manufacturers are Audi, BMW, Mercedes-Benz, Opel, Toyota, and Volkswagen.

### 3 Specification and Results

We present our results for different specifications to explain the effects of test scores on new car registrations in the following table. We estimate static models as well as dynamic models by OLS. Additionally, we estimate a panel fixed effects model with AR(1)-disturbances suggested by Baltagi and Wu (1999) to account for possible autocorrelation in residuals. Dynamic models are better suited to cope with persistence of new car registrations over time (see Wooldridge, 2010: 271-373 on dynamic models). The ifo index controls for general economic conditions, which might influence consumers' decisions to purchase cars. We also include dummy variables for months and years to control for seasonalities and trends. Seasonalities or fluctuations based on advertising campaigns (also referred to as "pulsing campaigns") might have significant effects on new car registrations (see Feinberg, 1992). These effects are captured by monthly dummy variables in our regressions.

Table 2: Estimation Results

New Registrations	Static OLS	Dynamic OLS	Dynamic AR(1)- Disturbances
New Registrations <sub>t-1</sub>	-	0.349 (0.061)***	0.914 (0.019)***
Points per Test	0.037 (0.020)*	0.039 (0.019)***	0.056 (0.021)***
Ifo index	0.011 (0.010)**	0.010 (0.004)*	0.009 (0.005)
Manufacturer Dummies/FE	YES	YES	FE
Month Dummies	YES	YES	YES
Year Dummies	YES	YES	YES
Cons.	9.011***	6.495***	0.348**
Obs.	365	361	355
R <sup>2</sup>	0.91	0.92	0.91

Heteroscedasticity consistent standard errors on parenthesis. \*, \*\*, \*\*\*: Statistically significant on the 10, 5, and 1% level.

We find statistically significant effects of test scores on new car registrations which hold in all specifications. Furthermore, the size of the effect is rather consistent over our specifications. A one percent increase in test scores leads to a 0.04 to 0.06 percent increase in new car registrations. Related to a mean in new car registrations in our dataset of 21,230, this is a significant number. However, compared to the overall number of new registrations for certain manufacturers the numbers are still small, but still it seems that test reviews have a significant impact on

new car registrations.

#### **4 Conclusion**

Customers seek advice for purchasing durable goods in newspapers, magazines, TV shows, and websites. The economics and marketing literature testing whether these expert reviews and tests really effect consumers' decisions is still new and comparatively small. A large portion of the literature is based in media products like books and movies, food products like wine, or financial products. All these goods have in common that their characteristics are hard to measure and their judgment is very subjective. We show that test scores in a leading German car magazine have significant impact on new car registrations. A one percentage increase in test scores leads to a 0.04 to 0.06 percentage increase in new car registrations. As a result, consumers who are interested in purchasing a car do include the new information in their decision-making processes. The major advantage of our empirical study is the use of cars as an example because it is much easier to measure the characteristics of cars than that of other products used in the economics literature so far.



## References

- Ashenfelter, O. and G. Jones (2013): The Demand for Expert Opinion: Bordeaux Wine, in: *Journal of Wine Economics*, Vol. 8, 285-293.
- Baltagi, B. and P. Wu (1999): Unequally Spaced Panel Data Regressions with AR(1) Disturbances, in: *Econometric Theory*, Vol. 15, 814-823.
- Boykoff, M. and J. Boykoff (2004): Balance as Bias: Global Warming and the US Prestige Press, in: *Global Environmental Change*, Vol. 14, 125-136.
- Clement, M., A. Hille, B. Lucke, C. Schmidt-Stölting, and F. Sambeth (2008): Der Einfluss von Rankings auf den Absatz – Eine empirische Analyse der Wirkung von Bestsellerlisten und Rangpositionen auf den Erfolg von Büchern, in: *Schmalenbach Business Review (ZfbF)*, Vol. 60, 746-777.
- Cronquist, H. (2006): Advertising and Portfolio Choice, *Working Paper*, Shanghai.
- DellaVigna, S. and E. Kaplan (2007): The Fox News Effect: Media Bias and Voting, in: *Quarterly Journal of Economics*, Vol. 122, 1187-1234.
- Dewenter, R. and U. Heimeshoff (2012): More Ads More Revs? Is there a Media Bias to be Reviewed?, in: *Review of Economics*, forthcoming.
- Eliashberg, J. and S. Shugan (1997): Film Critics: Influencers or Predictors?, in: *Journal of Marketing*, Vol. 61, 68-78.
- Ellman, M. and F. Germano (2009): What do Paper Sell?, A Model of Advertising and Media Bias, in: *Economic Journal*, Vol. 119, 680-704.
- Feinberg, F. (1992): Pulsing Policies for Aggregate Advertising Models, in: *Marketing Science*, Vol. 11, 221-234.
- Friberg, R. and E. Grönqvist (2012): Do Expert Reviews Affect the Demand for Wine?, in: *American Economic Journal: Applied Economics*, 4, 193-211.
- Gal-Or, E., T. Geylani, and T.P. Yildirim (2012): The Impact of Advertising of Media Bias, in: *Journal of Marketing Research*, Vol. 49, 92-99.
- Herman E.S. and N. Chomsky (1988): *Manufacturing Consent: The Political Economy of the Mass Media*, New York City.
- Hilger, J., G. Rafert, and S. Villas-Boas, (2011): Expert Opinion and the Demand for Experience Goods: An Experimental Approach, in: *Review of Economics and Statistics*, Vol. 93, 1289-1296.
- Jain, P. and J. Wu (2000): Truth in Mutual Fund Advertising: Evidence on Future Performance and Fund Flows, in: *Journal of Finance*, Vol. 55, 937-958.
- Jaun, P. and J. Wu (2000): Truth in Mutual Fund Advertising: Evidence on Future Performance

- and Fund Flows, in: *Journal of Finance*, Vol. 55, 937-958.
- Lancaster, K.J. (1971) *Consumer Demand: A New Approach*, New York, Columbia University Press.
- Mullainathan, S. and A. Shleifer (2005) The Market for News, in: *American Economic Review*, Vol. 95, 1031-1053.
- Reinstein, D. and C. Snyder (2005): The Influence of Expert Reviews on Consumer Demand for Experience Goods: A Case Study of Movie Critics, in: *Journal of Industrial Economics*, Vol. 53, 27-51.
- Reuter, J. (2009): Does Advertising Bias Product Reviews? Evidence From Wine Ratings, in: *Journal of Wine Economics*, Vol. 4, 125-152.
- Reuter, J. and E. Zitzewitz (2006): Do Ads Influence Editors? Advertising and Bias in the Financial Media, in: *Quarterly Journal of Economics*, Vol. 121, 197-227.
- Siegel, J. (2008): *Stocks for the Long Run*, McGraw Hill, 5. Ed.
- Sirri, E. and P. Tufano (1998): Costly Search and Mutual Fund Flows, in: *Journal of Finance*, Vol. 53, 1598-1622.
- Wooldridge, J. (2010): *Econometric Analysis of Cross Section and Panel Data*, MIT Press, 2. Ed.

## PREVIOUS DISCUSSION PAPERS

- 154 Hottenrott, Hanna and Lopes-Bento, Cindy, R&D Partnerships and Innovation Performance: Can There be too Much of a Good Thing?, July 2014.
- 153 Hottenrott, Hanna and Lawson, Cornelia, Flying the Nest: How the Home Department Shapes Researchers' Career Paths, July 2014.
- 152 Hottenrott, Hanna, Lopes-Bento, Cindy and Veugelers, Reinhilde, Direct and Cross-Scheme Effects in a Research and Development Subsidy Program, July 2014.
- 151 Dewenter, Ralf and Heimeshoff, Ulrich, Do Expert Reviews Really Drive Demand? Evidence from a German Car Magazine, July 2014.
- 150 Bataille, Marc, Steinmetz, Alexander and Thorwarth, Susanne, Screening Instruments for Monitoring Market Power in Wholesale Electricity Markets – Lessons from Applications in Germany, July 2014.
- 149 Kholodilin, Konstantin A., Thomas, Tobias and Ulbricht, Dirk, Do Media Data Help to Predict German Industrial Production?, July 2014.
- 148 Hogrefe, Jan and Wrona, Jens, Trade, Tasks, and Trading: The Effect of Offshoring on Individual Skill Upgrading, June 2014.
- 147 Gaudin, Germain and White, Alexander, On the Antitrust Economics of the Electronic Books Industry, May 2014.
- 146 Alipranti, Maria, Milliou, Chrysovalantou and Petrakis, Emmanuel, Price vs. Quantity Competition in a Vertically Related Market, May 2014.  
Published in: *Economics Letters*, 124 (1) (2014), pp.122-126.
- 145 Blanco, Mariana, Engelmann, Dirk, Koch, Alexander K., and Normann, Hans-Theo, Preferences and Beliefs in a Sequential Social Dilemma: A Within-Subjects Analysis, May 2014.  
Published in: *Games and Economic Behavior*, 87 (2014), pp.122-135.
- 144 Jeitschko, Thomas D., Jung, Yeonjei and Kim, Jaesoo, Bundling and Joint Marketing by Rival Firms, May 2014.
- 143 Benndorf, Volker and Normann, Hans-Theo, The Willingness to Sell Private Data, May 2014.
- 142 Dauth, Wolfgang and Suedekum, Jens, Globalization and Local Profiles of Economic Growth and Industrial Change, April 2014.
- 141 Nowak, Verena, Schwarz, Christian and Suedekum, Jens, Asymmetric Spiders: Supplier Heterogeneity and the Organization of Firms, April 2014.
- 140 Hasnas, Irina, A Note on Consumer Flexibility, Data Quality and Collusion, April 2014.
- 139 Baye, Irina and Hasnas, Irina, Consumer Flexibility, Data Quality and Location Choice, April 2014.
- 138 Aghadadashli, Hamid and Wey, Christian, Multi-Union Bargaining: Tariff Plurality and Tariff Competition, April 2014.

- 137 Duso, Tomaso, Herr, Annika and Suppliet, Moritz, The Welfare Impact of Parallel Imports: A Structural Approach Applied to the German Market for Oral Anti-diabetics, April 2014.  
Forthcoming in: Health Economics.
- 136 Haucap, Justus and Müller, Andrea, Why are Economists so Different? Nature, Nurture and Gender Effects in a Simple Trust Game, March 2014.
- 135 Normann, Hans-Theo and Rau, Holger A., Simultaneous and Sequential Contributions to Step-Level Public Goods: One vs. Two Provision Levels, March 2014.  
Forthcoming in: Journal of Conflict Resolution.
- 134 Bucher, Monika, Hauck, Achim and Neyer, Ulrike, Frictions in the Interbank Market and Uncertain Liquidity Needs: Implications for Monetary Policy Implementation, July 2014 (First Version March 2014).
- 133 Czarnitzki, Dirk, Hall, Bronwyn, H. and Hottenrott, Hanna, Patents as Quality Signals? The Implications for Financing Constraints on R&D?, February 2014.
- 132 Dewenter, Ralf and Heimeshoff, Ulrich, Media Bias and Advertising: Evidence from a German Car Magazine, February 2014.  
Forthcoming in: Review of Economics.
- 131 Baye, Irina and Sapi, Geza, Targeted Pricing, Consumer Myopia and Investment in Customer-Tracking Technology, February 2014.
- 130 Clemens, Georg and Rau, Holger A., Do Leniency Policies Facilitate Collusion? Experimental Evidence, January 2014.
- 129 Hottenrott, Hanna and Lawson, Cornelia, Fishing for Complementarities: Competitive Research Funding and Research Productivity, December 2013.
- 128 Hottenrott, Hanna and Rexhäuser, Sascha, Policy-Induced Environmental Technology and Inventive Efforts: Is There a Crowding Out?, December 2013.
- 127 Dauth, Wolfgang, Findeisen, Sebastian and Suedekum, Jens, The Rise of the East and the Far East: German Labor Markets and Trade Integration, December 2013.  
Forthcoming in: Journal of European Economic Association.
- 126 Wenzel, Tobias, Consumer Myopia, Competition and the Incentives to Unshroud Add-on Information, December 2013.  
Published in: Journal of Economic Behavior and Organization, 98 (2014), pp. 89-96.
- 125 Schwarz, Christian and Suedekum, Jens, Global Sourcing of Complex Production Processes, December 2013.  
Published in: Journal of International Economics, 93 (2014), pp. 123-139.
- 124 Defever, Fabrice and Suedekum, Jens, Financial Liberalization and the Relationship-Specificity of Exports, December 2013.  
Published in: Economics Letters, 122 (2014), pp. 375-379.
- 123 Bauernschuster, Stefan, Falck, Oliver, Heblich, Stephan and Suedekum, Jens, Why Are Educated and Risk-Loving Persons More Mobile Across Regions?, December 2013.  
Published in: Journal of Economic Behavior and Organization, 98 (2014), pp. 56-69.
- 122 Hottenrott, Hanna and Lopes-Bento, Cindy, Quantity or Quality? Knowledge Alliances and their Effects on Patenting, December 2013.

- 121 Hottenrott, Hanna and Lopes-Bento, Cindy, (International) R&D Collaboration and SMEs: The Effectiveness of Targeted Public R&D Support Schemes, December 2013.  
Forthcoming in: Research Policy.
- 120 Giesen, Kristian and Suedekum, Jens, City Age and City Size, November 2013.  
Forthcoming in: European Economic Review.
- 119 Trax, Michaela, Brunow, Stephan and Suedekum, Jens, Cultural Diversity and Plant-Level Productivity, November 2013.
- 118 Manasakis, Constantine and Vlassis, Minas, Downstream Mode of Competition With Upstream Market Power, November 2013.  
Published in: Research in Economics, 68 (2014), pp. 84-93.
- 117 Sapi, Geza and Suleymanova, Irina, Consumer Flexibility, Data Quality and Targeted Pricing, November 2013.
- 116 Hinlopen, Jeroen, Müller, Wieland and Normann, Hans-Theo, Output Commitment Through Product Bundling: Experimental Evidence, November 2013.  
Published in: European Economic Review 65 (2014), pp. 164-180.
- 115 Baumann, Florian, Denter, Philipp and Friehe Tim, Hide or Show? Endogenous Observability of Private Precautions Against Crime When Property Value is Private Information, November 2013.
- 114 Fan, Ying, Kühn, Kai-Uwe and Lafontaine, Francine, Financial Constraints and Moral Hazard: The Case of Franchising, November 2013.
- 113 Aguzzoni, Luca, Argentesi, Elena, Buccirossi, Paolo, Ciari, Lorenzo, Duso, Tomaso, Tognoni, Massimo and Vitale, Cristiana, They Played the Merger Game: A Retrospective Analysis in the UK Videogames Market, October 2013.  
Forthcoming in: Journal of Competition and Economics under the title: "A Retrospective Merger Analysis in the UK Videogames Market".
- 112 Myrseth, Kristian Ove R., Riener, Gerhard and Wollbrant, Conny, Tangible Temptation in the Social Dilemma: Cash, Cooperation, and Self-Control, October 2013.
- 111 Hasnas, Irina, Lambertini, Luca and Palestini, Arsen, Open Innovation in a Dynamic Cournot Duopoly, October 2013.  
Published in: Economic Modelling, 36 (2014), pp. 79-87.
- 110 Baumann, Florian and Friehe, Tim, Competitive Pressure and Corporate Crime, September 2013.
- 109 Böckers, Veit, Haucap, Justus and Heimeshoff, Ulrich, Benefits of an Integrated European Electricity Market, September 2013.
- 108 Normann, Hans-Theo and Tan, Elaine S., Effects of Different Cartel Policies: Evidence from the German Power-Cable Industry, September 2013.  
Forthcoming in: Industrial and Corporate Change.
- 107 Haucap, Justus, Heimeshoff, Ulrich, Klein, Gordon J., Rickert, Dennis and Wey, Christian, Bargaining Power in Manufacturer-Retailer Relationships, September 2013.
- 106 Baumann, Florian and Friehe, Tim, Design Standards and Technology Adoption: Welfare Effects of Increasing Environmental Fines when the Number of Firms is Endogenous, September 2013.

- 105 Jeitschko, Thomas D., NYSE Changing Hands: Antitrust and Attempted Acquisitions of an Erstwhile Monopoly, August 2013.  
Published in: Journal of Stock and Forex Trading, 2 (2) (2013), pp. 1-6.
- 104 Böckers, Veit, Giessing, Leonie and Rösch, Jürgen, The Green Game Changer: An Empirical Assessment of the Effects of Wind and Solar Power on the Merit Order, August 2013.
- 103 Haucap, Justus and Muck, Johannes, What Drives the Relevance and Reputation of Economics Journals? An Update from a Survey among Economists, August 2013.
- 102 Jovanovic, Dragan and Wey, Christian, Passive Partial Ownership, Sneaky Takeovers, and Merger Control, August 2013.  
Revised version forthcoming in: Economics Letters.
- 101 Haucap, Justus, Heimeshoff, Ulrich, Klein, Gordon J., Rickert, Dennis and Wey, Christian, Inter-Format Competition Among Retailers – The Role of Private Label Products in Market Delineation, August 2013.
- 100 Normann, Hans-Theo, Requate, Till and Waichman, Israel, Do Short-Term Laboratory Experiments Provide Valid Descriptions of Long-Term Economic Interactions? A Study of Cournot Markets, July 2013.  
Forthcoming in: Experimental Economics.
- 99 Dertwinkel-Kalt, Markus, Haucap, Justus and Wey, Christian, Input Price Discrimination (Bans), Entry and Welfare, June 2013.
- 98 Aguzzoni, Luca, Argentesi, Elena, Ciari, Lorenzo, Duso, Tomaso and Tognoni, Massimo, Ex-post Merger Evaluation in the UK Retail Market for Books, June 2013.
- 97 Caprice, Stéphane and von Schlippenbach, Vanessa, One-Stop Shopping as a Cause of Slotting Fees: A Rent-Shifting Mechanism, May 2012.  
Published in: Journal of Economics and Management Strategy, 22 (2013), pp. 468-487.
- 96 Wenzel, Tobias, Independent Service Operators in ATM Markets, June 2013.  
Published in: Scottish Journal of Political Economy, 61 (2014), pp. 26-47.
- 95 Coublucq, Daniel, Econometric Analysis of Productivity with Measurement Error: Empirical Application to the US Railroad Industry, June 2013.
- 94 Coublucq, Daniel, Demand Estimation with Selection Bias: A Dynamic Game Approach with an Application to the US Railroad Industry, June 2013.
- 93 Baumann, Florian and Friehe, Tim, Status Concerns as a Motive for Crime?, April 2013.
- 92 Jeitschko, Thomas D. and Zhang, Nanyun, Adverse Effects of Patent Pooling on Product Development and Commercialization, April 2013.  
Published in: The B. E. Journal of Theoretical Economics, 14 (1) (2014), Art. No. 2013-0038.
- 91 Baumann, Florian and Friehe, Tim, Private Protection Against Crime when Property Value is Private Information, April 2013.  
Published in: International Review of Law and Economics, 35 (2013), pp. 73-79.
- 90 Baumann, Florian and Friehe, Tim, Cheap Talk About the Detection Probability, April 2013.  
Published in: International Game Theory Review, 15 (2013), Art. No. 1350003.
- 89 Pagel, Beatrice and Wey, Christian, How to Counter Union Power? Equilibrium Mergers in International Oligopoly, April 2013.

- 88 Jovanovic, Dragan, Mergers, Managerial Incentives, and Efficiencies, April 2014 (First Version April 2013).
- 87 Heimeshoff, Ulrich and Klein Gordon J., Bargaining Power and Local Heroes, March 2013.
- 86 Bertschek, Irene, Cerquera, Daniel and Klein, Gordon J., More Bits – More Bucks? Measuring the Impact of Broadband Internet on Firm Performance, February 2013. Published in: *Information Economics and Policy*, 25 (2013), pp. 190-203.
- 85 Rasch, Alexander and Wenzel, Tobias, Piracy in a Two-Sided Software Market, February 2013. Published in: *Journal of Economic Behavior & Organization*, 88 (2013), pp. 78-89.
- 84 Bataille, Marc and Steinmetz, Alexander, Intermodal Competition on Some Routes in Transportation Networks: The Case of Inter Urban Buses and Railways, January 2013.
- 83 Haucap, Justus and Heimeshoff, Ulrich, Google, Facebook, Amazon, eBay: Is the Internet Driving Competition or Market Monopolization?, January 2013. Published in: *International Economics and Economic Policy*, 11 (2014), pp. 49-61.
- 82 Regner, Tobias and Riener, Gerhard, Voluntary Payments, Privacy and Social Pressure on the Internet: A Natural Field Experiment, December 2012.
- 81 Dertwinkel-Kalt, Markus and Wey, Christian, The Effects of Remedies on Merger Activity in Oligopoly, December 2012.
- 80 Baumann, Florian and Friehe, Tim, Optimal Damages Multipliers in Oligopolistic Markets, December 2012.
- 79 Duso, Tomaso, Röller, Lars-Hendrik and Seldeslachts, Jo, Collusion through Joint R&D: An Empirical Assessment, December 2012. Forthcoming in: *The Review of Economics and Statistics*.
- 78 Baumann, Florian and Heine, Klaus, Innovation, Tort Law, and Competition, December 2012. Published in: *Journal of Institutional and Theoretical Economics*, 169 (2013), pp. 703-719.
- 77 Coenen, Michael and Jovanovic, Dragan, Investment Behavior in a Constrained Dictator Game, November 2012.
- 76 Gu, Yiquan and Wenzel, Tobias, Strategic Obfuscation and Consumer Protection Policy in Financial Markets: Theory and Experimental Evidence, November 2012. Forthcoming in: *Journal of Industrial Economics* under the title "Strategic Obfuscation and Consumer Protection Policy".
- 75 Haucap, Justus, Heimeshoff, Ulrich and Jovanovic, Dragan, Competition in Germany's Minute Reserve Power Market: An Econometric Analysis, November 2012. Published in: *The Energy Journal*, 35 (2014), pp. 139-158.
- 74 Normann, Hans-Theo, Rösch, Jürgen and Schultz, Luis Manuel, Do Buyer Groups Facilitate Collusion?, November 2012.
- 73 Riener, Gerhard and Wiederhold, Simon, Heterogeneous Treatment Effects in Groups, November 2012. Published in: *Economics Letters*, 120 (2013), pp 408-412.

- 72 Berlemann, Michael and Haucap, Justus, Which Factors Drive the Decision to Boycott and Opt Out of Research Rankings? A Note, November 2012.
- 71 Muck, Johannes and Heimeshoff, Ulrich, First Mover Advantages in Mobile Telecommunications: Evidence from OECD Countries, October 2012.
- 70 Karaçuka, Mehmet, Çatik, A. Nazif and Haucap, Justus, Consumer Choice and Local Network Effects in Mobile Telecommunications in Turkey, October 2012.  
Published in: Telecommunications Policy, 37 (2013), pp. 334-344.
- 69 Clemens, Georg and Rau, Holger A., Rebels without a Clue? Experimental Evidence on Partial Cartels, April 2013 (First Version October 2012).
- 68 Regner, Tobias and Riener, Gerhard, Motivational Cherry Picking, September 2012.
- 67 Fonseca, Miguel A. and Normann, Hans-Theo, Excess Capacity and Pricing in Bertrand-Edgeworth Markets: Experimental Evidence, September 2012.  
Published in: Journal of Institutional and Theoretical Economics, 169 (2013), pp. 199-228.
- 66 Riener, Gerhard and Wiederhold, Simon, Team Building and Hidden Costs of Control, September 2012.
- 65 Fonseca, Miguel A. and Normann, Hans-Theo, Explicit vs. Tacit Collusion – The Impact of Communication in Oligopoly Experiments, August 2012.  
Published in: European Economic Review, 56 (2012), pp. 1759-1772.
- 64 Jovanovic, Dragan and Wey, Christian, An Equilibrium Analysis of Efficiency Gains from Mergers, July 2012.
- 63 Dewenter, Ralf, Jaschinski, Thomas and Kuchinke, Björn A., Hospital Market Concentration and Discrimination of Patients, July 2012 .  
Published in: Schmollers Jahrbuch, 133 (2013), pp. 345-374.
- 62 Von Schlippenbach, Vanessa and Teichmann, Isabel, The Strategic Use of Private Quality Standards in Food Supply Chains, May 2012.  
Published in: American Journal of Agricultural Economics, 94 (2012), pp. 1189-1201.
- 61 Sapi, Geza, Bargaining, Vertical Mergers and Entry, July 2012.
- 60 Jentzsch, Nicola, Sapi, Geza and Suleymanova, Irina, Targeted Pricing and Customer Data Sharing Among Rivals, July 2012.  
Published in: International Journal of Industrial Organization, 31 (2013), pp. 131-144.
- 59 Lambarraa, Fatima and Riener, Gerhard, On the Norms of Charitable Giving in Islam: A Field Experiment, June 2012.
- 58 Duso, Tomaso, Gugler, Klaus and Szücs, Florian, An Empirical Assessment of the 2004 EU Merger Policy Reform, June 2012.  
Published in: Economic Journal, 123 (2013), F596-F619.
- 57 Dewenter, Ralf and Heimeshoff, Ulrich, More Ads, More Revs? Is there a Media Bias in the Likelihood to be Reviewed?, June 2012.
- 56 Böckers, Veit, Heimeshoff, Ulrich and Müller Andrea, Pull-Forward Effects in the German Car Scrappage Scheme: A Time Series Approach, June 2012.
- 55 Kellner, Christian and Riener, Gerhard, The Effect of Ambiguity Aversion on Reward Scheme Choice, June 2012.



- 54 De Silva, Dakshina G., Kosmopoulou, Georgia, Pagel, Beatrice and Peeters, Ronald, The Impact of Timing on Bidding Behavior in Procurement Auctions of Contracts with Private Costs, June 2012.  
Published in: Review of Industrial Organization, 41 (2013), pp.321-343.
- 53 Benndorf, Volker and Rau, Holger A., Competition in the Workplace: An Experimental Investigation, May 2012.
- 52 Haucap, Justus and Klein, Gordon J., How Regulation Affects Network and Service Quality in Related Markets, May 2012.  
Published in: Economics Letters, 117 (2012), pp. 521-524.
- 51 Dewenter, Ralf and Heimeshoff, Ulrich, Less Pain at the Pump? The Effects of Regulatory Interventions in Retail Gasoline Markets, May 2012.
- 50 Böckers, Veit and Heimeshoff, Ulrich, The Extent of European Power Markets, April 2012.
- 49 Barth, Anne-Kathrin and Heimeshoff, Ulrich, How Large is the Magnitude of Fixed-Mobile Call Substitution? - Empirical Evidence from 16 European Countries, April 2012.  
Forthcoming in: Telecommunications Policy.
- 48 Herr, Annika and Suppliet, Moritz, Pharmaceutical Prices under Regulation: Tiered Co-payments and Reference Pricing in Germany, April 2012.
- 47 Haucap, Justus and Müller, Hans Christian, The Effects of Gasoline Price Regulations: Experimental Evidence, April 2012.
- 46 Stühmeier, Torben, Roaming and Investments in the Mobile Internet Market, March 2012.  
Published in: Telecommunications Policy, 36 (2012), pp. 595-607.
- 45 Graf, Julia, The Effects of Rebate Contracts on the Health Care System, March 2012,  
Published in: The European Journal of Health Economics, 15 (2014), pp.477-487.
- 44 Pagel, Beatrice and Wey, Christian, Unionization Structures in International Oligopoly, February 2012.  
Published in: Labour: Review of Labour Economics and Industrial Relations, 27 (2013), pp. 1-17.
- 43 Gu, Yiquan and Wenzel, Tobias, Price-Dependent Demand in Spatial Models, January 2012.  
Published in: B. E. Journal of Economic Analysis & Policy, 12 (2012), Article 6.
- 42 Barth, Anne-Kathrin and Heimeshoff, Ulrich, Does the Growth of Mobile Markets Cause the Demise of Fixed Networks? – Evidence from the European Union, January 2012.  
Forthcoming in: Telecommunications Policy.
- 41 Stühmeier, Torben and Wenzel, Tobias, Regulating Advertising in the Presence of Public Service Broadcasting, January 2012.  
Published in: Review of Network Economics, 11/2 (2012), Article 1.

Older discussion papers can be found online at:

<http://ideas.repec.org/s/zbw/dicedp.html>

**Heinrich-Heine-University of Düsseldorf**

**Düsseldorf Institute for  
Competition Economics (DICE)**

Universitätsstraße 1\_ 40225 Düsseldorf  
[www.dice.hhu.de](http://www.dice.hhu.de)

ISSN 2190-9938 (online)  
ISBN 978-3-86304-150-2