

Dewenter, Ralf; Heimeshoff, Ulrich; Thomas, Tobias

**Working Paper**

## Media coverage and car manufacturers' sales

DICE Discussion Paper, No. 215

**Provided in Cooperation with:**

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

*Suggested Citation:* Dewenter, Ralf; Heimeshoff, Ulrich; Thomas, Tobias (2016) : Media coverage and car manufacturers' sales, DICE Discussion Paper, No. 215, ISBN 978-3-86304-214-1, Heinrich Heine University Düsseldorf, Düsseldorf Institute for Competition Economics (DICE), Düsseldorf

This Version is available at:

<https://hdl.handle.net/10419/129667>

**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 215

## Media Coverage and Car Manufacturers' Sales

Ralf Dewenter,  
Ulrich Heimeshoff,  
Tobias Thomas

March 2016

## 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, 2016

ISSN 2190-9938 (online) – ISBN 978-3-86304-214-1

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.

# Media Coverage and Car Manufacturers' Sales

Ralf Dewenter<sup>1</sup>

Ulrich Heimeshoff<sup>2</sup>

Tobias Thomas<sup>3</sup>

March 2016

## Abstract

A wide range of media provide information on many products based on reviews or expert opinions. The effects of such information on product sales is analyzed in a small but growing literature in economics and marketing science. However, there is much more coverage on companies and products in the media than product reviews and expert opinions. Based on a unique dataset, we test whether coverage of car manufacturers in opinion leading media have significant impact on registrations of new cars in Germany. We find that positive (or at least neutral) media coverage has statistically significant effect on the number of new cars sold by several leading manufacturers on the German car market.

---

<sup>1</sup> Helmut-Schmidt-University, Chair of Industrial Economics, Holstenhofweg 85, 22043 Hamburg, Germany, eMail: dewenter@hsu-hh.de.

<sup>2</sup> Heinrich-Heine-University Düsseldorf, Düsseldorf Institute of Competition Economics (DICE), Universitätsstraße 1, 40225 Düsseldorf, Germany, eMail: heimeshoff@dice.hhu.de

<sup>3</sup> Heinrich-Heine-University Düsseldorf, Düsseldorf Institute of Competition Economics (DICE), Universitätsstraße 1, 40225 Düsseldorf, Germany and Media Tenor International AG, Gottfried-Keller-Str. 5, 8001 Zurich, Switzerland. eMail: thomas@dice.hhu.de.

## 1 Introduction

Consumers' purchasing decisions largely depend on information provided by the media. On one hand media coverage has a significant impact on the consumer confidence in general (see, Alsem et al, 2008, or Kholodilin et al, 2015). On the other hand such information can be product related as online reviews of books and movies or reviews in car magazines or expert opinions on wines or restaurants (see, e.g., Dewenter and Heimeshoff, 2016, Reuter, 2009, or Zhu and Zhang, 2010). However, not each report in the media related to certain companies is also related to products' characteristics, qualities or prices. Especially in the news media there is very often general coverage on companies, not focused on single products but on, e.g., general strategies, management, finance or environmental, social or governmental activities of the enterprise. A recent example is the much debated scandal of German car manufacturer Volkswagen manipulating emissions of its Diesel engines on test runs. Some of the reporting related to this scandal deals with certain products, engines as well as cars, produced by Volkswagen.

The literature provides some evidence that product related coverage, for example 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). 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).

The research question of this paper is to what extend general information influences consumers' purchasing decisions as well. Testing the effects of general media reporting on firms and prices is relatively rare. One exception is the long tradition in financial economics of testing the effects of news on prices in financial markets. These tests are regularly implemented as event studies (see MacKinlay, 1997) dealing, for example, with the effects of merger announcements on asset prices. But also in political science the effects of media coverage, for example on elections, are studied extensively (see, e.g., Lawson and McCann, 2005).

Our paper intends to fill this research gap and for this reason, we analyze the impact of media coverage in opinion leading newspapers and television channels in Germany on new cars' registrations using panel data techniques by regressing the manufacturers' numbers of new registrations on measures of media coverage, which is classified as positive, negative, and neutral, as well as on some controls. The following section describes our dataset. Section 3 reports the results from our statistical analysis and section 4 concludes.

## 2 Data

We utilize a unique dataset including media coverage in German opinion leading media from Media Tenor International. In general swiss-based Media Tenor International analyzes a broad range of international opinion-leading media, including TV news programs, newspaper, magazines, business media, radio as well as social media with regard to all possible protagonists, such as persons (politicians, entrepreneurs, managers, celebrities, etc.) and institutions (political parties, companies, football clubs, etc.). Each of these news items is analyzed for instance with regard to the topic mentioned (foreign policy, HR, unemployment, business strategy, etc.) as well as with regard to the tone of the information (negative, positive or neutral).

For the analysis provided here we did concentrate on media coverage in German opinion leading media, inclusive seven TV newscasts, seven newspapers, and five weeklies and two business media (see the appendix for a detailed list), on 37 car manufacturers<sup>4</sup> from March 2001 to October 2011 (see Table 1 for descriptive statistics). Here, the tone of the information reflects if a manufacturer is mentioned in positive, neutral or negative way.

To approximate monthly car sales, we used data on new car registrations provided by the *German Federal Office of Motor Vehicles* (Kraftfahrzeugbundesamt). Additionally, to account for variations in new car registrations due to general business cycle fluctuations, we include the ifo business cycle indicator, which is published on a monthly basis by one of Germany's leading economics research institutes.

**Table 1:** Descriptive Statistics

	Mean	Std. Dev.	Min	Max
Registrations	7413.92	26812.29	0	857112
ifo	101.36	8.04	84.50	115
Reports	23.67	122.94	0	6887
Positive	5.13	19.18	0	916
Neutral	13.60	70.20	0	3883
Negative	4.94	36.86	0	2088

## 3 Results

To analyze the impact of media coverage on new car registrations we run simple fixed effects panel regressions as well as dynamic fixed effects models (see Wooldridge, 2010). We estimate dynamic models using simple fixed effects regressions. As the time dimension of our

---

<sup>4</sup> That is Alfa Romeo, Audi, BMW, Chevrolet, Chrysler, Citroen, Daihatsu, Ferrari, Fiat, Ford, Honda, Hyundai, Jaguar, Jeep, Kia, Lancia, Land Rover, Lexus, Maserati, Mazda, Mercedes Benz, Mitsubishi, Nissan, Opel, Peugeot, Porsche, Renault, Rover, Saab, Seat, Skoda, Smart, Subaru, Suzuki, Toyota, Volvo, VW.

panel is relatively large, we do not expect a significant Nickell bias when using fixed effects regression with a lagged dependent variable (see Pesaran, 2015).

As presented in Table 2, dynamic fixed effects models (FE II and FE IV) provide some evidence for a significant impact of general information on sales. Using all reports (positive, neutral and negative) as an explanatory variable, a positive and statistically significant impact on registrations can be found (FE II). Each report increases the number of new registrations by about 1.2 cars, which is quite a significant number. Using positive and neutral reports on car manufacturers instead of all reports leads to very similar results (FE IV). An additional report increases the number of registrations by about 1.6. This result seems natural as good news on manufacturers' are more likely to attract consumers to buy their products than bad news. In both regressions the model fits the data quite well.

**Table 2: Fixed Effects Regressions**

	<b>FE I</b>	<b>FE II</b>	<b>FE III</b>	<b>FE IV</b>
	<b>Reg</b>	<b>Reg</b>	<b>Reg</b>	<b>Reg</b>
Registrations <sub>t-1</sub>	-	.9460*** (0.00)	-	.9460*** (0.00)
Reports <sub>t</sub>	4.88 (0.51)	1.22 (0.00)	-	-
Postive+Neutral <sub>t</sub>	-	-	6.59 (0.19)	1.57*** (0.00)
Ifo <sub>t</sub>	-136.63 (0.34)	-20.14 (0.28)	-136.33 (0.34)	-20.08 (0.28)
Time dummies	Yes	YES	Yes	Yes
Constant	20434.53 (0.16)	1706.59 (0.30)	20395.03 (0.16)	1698.94 (0.30)
R2 (within)	0.01	0.68	0.01	0.44
F-Test	3.96 (0.00)	1299 (0.00)	3.88 (0.00)	1670 (0.00)
# of Obs	4,666	4,629	4,666	4,629
# of Groups	37	37	37	37

Note: Heteroscedasticity consistent clustered standard errors are given in parentheses. \*\*\*, \*\*, \* representing 1, 5, and 10% levels of confidence.

Our results are in line with recent news reports on sales drops related to the Volkswagen scandal. After manipulations of emissions tests were broadly covered in the U.K. media, Volkswagen sales in the U.K. dropped by 20 % in November 2015.<sup>5</sup> These anecdotal evidence shows that consumers react to general, non-product specific, media coverage on companies. Many cars produced by Volkswagen, for example all cars equipped with petrol engines, are not affected by the manipulation of Diesel engines. However, customers buying decisions are nevertheless affected by these news, whether indirectly relevant or even relevant.<sup>6</sup>

#### **4 Conclusions**

Consumers typically base their decisions on information about prices and other product characteristics. Media outlets, either in terms of advertising or as editorial content, usually provide such information. However, not every report in the media also contains information on products. Especially in the news media there is rather a general coverage of companies, focusing on general strategies, management, finance or environmental, social or governmental activities of enterprises. In order to analyze the impact of general news on consumer behavior, we run dynamic fixed effects regressions to determine the impact of media coverage on new cars' registrations. Overall, we find a positive and significant number of sales influenced by the news. An additional report per month leads to about 1.2 more registrations. In case that reports have a positive (or at least neutral) tonality, the effect is even higher. Not only product specific information but also general news therefore have a rather strong impact on consumer behavior.

---

<sup>5</sup> An analysis of 5.332 reports on automotive companies in TV-newsshows from Germany, Spain, Switzerland, UK and US (January 2012 – November 2015) provided by Media Tenor shows that in contrast to the US the UK media coverage on the VW-Dieselpgate massively exceeded the awareness threshold. After this, the VW-sales in the UK dropped massively (<http://www.theguardian.com/business/2015/dec/04/vw-sales-drop-uk-new-car-registrations>).

<sup>6</sup> The effects of irrelevant information on decision making is studied extensively in economics and psychology. See, e.g., Kahneman and Tversky (1974).



## References

- Alsem, K. J., Brakman, S., Hoogduin, L., & Kuper, G. (2008): The impact of newspapers on consumer confidence: does spin bias exist? *Applied Economics*, 40(5), 531 - 539.
- Ashenfelter, O. and G. Jones (2013): The Demand for Expert Opinion: Bordeaux Wine, in: *Journal of Wine Economics*, Vol. 8, 285-293.
- 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.
- Dewenter, R. and U. Heimeshoff (2015a): Do Expert Reviews Really Drive Demand? Evidence from a German Car Magazine, in: *Applied Economics Letters*, Vol. 22, 1-4.
- Eliashberg, J. and S. Shugan (1997): Film Critics: Influencers or Predictors?, in: *Journal of Marketing*, Vol. 61, 68-78.
- 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.
- 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.
- Kahneman, D. and A. Tversky (1974): Judgement under Uncertainty: Heuristics and Biases, in: *Science*, Vol. 185, 1124-1131.
- Kholodilin, K, C. Kolmer, T. Thomas, D. Ulbricht (2015): Asymmetric Perceptions of the Economy: Media, Firms, Consumers, and Experts, *DIW Discussion Paper No. 1490*, Deutsches Institut für Wirtschaftsforschung Berlin (DIW).
- Lawson, C. and J. McCann (2004): Television News, Mexico's 2000 Elections and Media Effects in Emerging Democracies, in: *British Journal of Political Science*, Vol. 35, 1-30.
- MacKinlay, A. C. (1997): Event Studies in Economics and Finance, in: *Journal of Economic Literature*, Vol. 35, 13-39.
- Pesaran, H. (2015), *Time Series and Panel Data Econometrics*, Oxford University Press.
- 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.
- 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.
- Zhu, F. and X. Zhang (2010): Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics, in: *Journal of Marketing*, Vol. 74, 133-148.

## Appendix

**Table A: Media Outlets**

TV	Newspaper	Weeklies	Business media
ARD Tagesschau	Bild-Zeitung	Focus	ManagerMagazin
ARD Tagesthemen	Frankfurter Allgemeine Zeitung (FAZ)	Frankfurter Allgemeine Sonntagszeitung (FAS)	Wirtschaftswoch
Pro 7 Nachrichten	Frankfurter Rundschau	Spiegel	
RTL AKTUELL	Rheinischer Merkur	Stern	
SAT.1 18:30	Süddeutsche Zeitung	Welt am Sonntag	
ZDF heute	Taz		
ZDF heute journal	Welt		

## PREVIOUS DISCUSSION PAPERS

- 215 Dewenter, Ralf, Heimeshoff, Ulrich and Thomas, Tobias, Media Coverage and Car Manufacturers' Sales, March 2016.
- 214 Dertwinkel-Kalt, Markus and Riener, Gerhard, A First Test of Focusing Theory, February 2016.
- 213 Heinz, Matthias, Normann, Hans-Theo and Rau, Holger A., How Competitiveness May Cause a Gender Wage Gap: Experimental Evidence, February 2016. Forthcoming in: European Economic Review.
- 212 Fudickar, Roman, Hottenrott, Hanna and Lawson, Cornelia, What's the Price of Consulting? Effects of Public and Private Sector Consulting on Academic Research, February 2016.
- 211 Stühmeier, Torben, Competition and Corporate Control in Partial Ownership Acquisitions, February 2016. Forthcoming in: Journal of Industry, Competition and Trade.
- 210 Muck, Johannes, Tariff-Mediated Network Effects With Incompletely Informed Consumers, January 2016.
- 209 Dertwinkel-Kalt, Markus and Wey, Christian, Structural Remedies as a Signalling Device, January 2016.
- 208 Herr, Annika and Hottenrott, Hanna, Higher Prices, Higher Quality? Evidence From German Nursing Homes, January 2016. Published in: Health Policy, 120 (2016), pp. 179-189.
- 207 Gaudin, Germain and Mantzari, Despoina, Margin Squeeze: An Above-Cost Predatory Pricing Approach, January 2016. Forthcoming in: Journal of Competition Law & Economics.
- 206 Hottenrott, Hanna, Rexhäuser, Sascha and Veugelers, Reinhilde, Organisational Change and the Productivity Effects of Green Technology Adoption, January 2016. Published in: Energy and Resource Economics, 43 (2016), pp. 172-194.
- 205 Dauth, Wolfgang, Findeisen, Sebastian and Suedekum, Jens, Adjusting to Globalization – Evidence from Worker-Establishment Matches in Germany, January 2016.
- 204 Banerjee, Deboosree, Ibañez, Marcela, Riener, Gerhard and Wollni, Meike, Volunteering to Take on Power: Experimental Evidence from Matrilineal and Patriarchal Societies in India, November 2015.
- 203 Wagner, Valentin and Riener, Gerhard, Peers or Parents? On Non-Monetary Incentives in Schools, November 2015.
- 202 Gaudin, Germain, Pass-Through, Vertical Contracts, and Bargains, November 2015. Forthcoming in: Economics Letters.
- 201 Demeulemeester, Sarah and Hottenrott, Hanna, R&D Subsidies and Firms' Cost of Debt, November 2015.
- 200 Kreckemeier, Udo and Wrona, Jens, Two-Way Migration Between Similar Countries, October 2015. Forthcoming in: World Economy.

- 199 Haucap, Justus and Stühmeier, Torben, Competition and Antitrust in Internet Markets, October 2015.  
Forthcoming in: Bauer, J. and M. Latzer (Eds.), Handbook on the Economics of the Internet, Edward Elgar: Cheltenham 2016.
- 198 Alipranti, Maria, Milliou, Chrysovalantou and Petrakis, Emmanuel, On Vertical Relations and the Timing of Technology, October 2015.  
Published in: Journal of Economic Behavior and Organization, 120 (2015), pp. 117-129.
- 197 Kellner, Christian, Reinstein, David and Riener, Gerhard, Stochastic Income and Conditional Generosity, October 2015.
- 196 Chlaß, Nadine and Riener, Gerhard, Lying, Spying, Sabotaging: Procedures and Consequences, September 2015.
- 195 Gaudin, Germain, Vertical Bargaining and Retail Competition: What Drives Countervailing Power?, September 2015.
- 194 Baumann, Florian and Friehe, Tim, Learning-by-Doing in Torts: Liability and Information About Accident Technology, September 2015.
- 193 Defever, Fabrice, Fischer, Christian and Suedekum, Jens, Relational Contracts and Supplier Turnover in the Global Economy, August 2015.
- 192 Gu, Yiquan and Wenzel, Tobias, Putting on a Tight Leash and Levelling Playing Field: An Experiment in Strategic Obfuscation and Consumer Protection, July 2015.  
Published in: International Journal of Industrial Organization, 42 (2015), pp. 120-128.
- 191 Ciani, Andrea and Bartoli, Francesca, Export Quality Upgrading under Credit Constraints, July 2015.
- 190 Hasnas, Irina and Wey, Christian, Full Versus Partial Collusion among Brands and Private Label Producers, July 2015.
- 189 Dertwinkel-Kalt, Markus and Köster, Mats, Violations of First-Order Stochastic Dominance as Salience Effects, June 2015.  
Published in: Journal of Behavioral and Experimental Economics. 59 (2015), pp. 42-46.
- 188 Kholodilin, Konstantin, Kolmer, Christian, Thomas, Tobias and Ulbricht, Dirk, Asymmetric Perceptions of the Economy: Media, Firms, Consumers, and Experts, June 2015.
- 187 Dertwinkel-Kalt, Markus and Wey, Christian, Merger Remedies in Oligopoly under a Consumer Welfare Standard, June 2015  
Published in: Journal of Law, Economics, & Organization, 32 (2016), pp. 150-179.
- 186 Dertwinkel-Kalt, Markus, Salience and Health Campaigns, May 2015  
Forthcoming in: Forum for Health Economics & Policy
- 185 Wrona, Jens, Border Effects without Borders: What Divides Japan's Internal Trade?, May 2015.
- 184 Amess, Kevin, Stiebale, Joel and Wright, Mike, The Impact of Private Equity on Firms' Innovation Activity, April 2015.  
Forthcoming in: European Economic Review.
- 183 Ibañez, Marcela, Rai, Ashok and Riener, Gerhard, Sorting Through Affirmative Action: Three Field Experiments in Colombia, April 2015.

- 182 Baumann, Florian, Friehe, Tim and Rasch, Alexander, The Influence of Product Liability on Vertical Product Differentiation, April 2015.
- 181 Baumann, Florian and Friehe, Tim, Proof beyond a Reasonable Doubt: Laboratory Evidence, March 2015.
- 180 Rasch, Alexander and Waibel, Christian, What Drives Fraud in a Credence Goods Market? – Evidence from a Field Study, March 2015.
- 179 Jeitschko, Thomas D., Incongruities of Real and Intellectual Property: Economic Concerns in Patent Policy and Practice, February 2015.  
Forthcoming in: Michigan State Law Review.
- 178 Buchwald, Achim and Hottenrott, Hanna, Women on the Board and Executive Duration – Evidence for European Listed Firms, February 2015.
- 177 Heblich, Stephan, Lameli, Alfred and Riener, Gerhard, Regional Accents on Individual Economic Behavior: A Lab Experiment on Linguistic Performance, Cognitive Ratings and Economic Decisions, February 2015  
Published in: PLoS ONE, 10 (2015), e0113475.
- 176 Herr, Annika, Nguyen, Thu-Van and Schmitz, Hendrik, Does Quality Disclosure Improve Quality? Responses to the Introduction of Nursing Home Report Cards in Germany, February 2015.
- 175 Herr, Annika and Normann, Hans-Theo, Organ Donation in the Lab: Preferences and Votes on the Priority Rule, February 2015.  
Forthcoming in: Journal of Economic Behavior and Organization.
- 174 Buchwald, Achim, Competition, Outside Directors and Executive Turnover: Implications for Corporate Governance in the EU, February 2015.
- 173 Buchwald, Achim and Thorwarth, Susanne, Outside Directors on the Board, Competition and Innovation, February 2015.
- 172 Dewenter, Ralf and Giessing, Leonie, The Effects of Elite Sports Participation on Later Job Success, February 2015.
- 171 Haucap, Justus, Heimeshoff, Ulrich and Siekmann, Manuel, Price Dispersion and Station Heterogeneity on German Retail Gasoline Markets, January 2015.
- 170 Schweinberger, Albert G. and Suedekum, Jens, De-Industrialisation and Entrepreneurship under Monopolistic Competition, January 2015  
Published in: Oxford Economic Papers, 67 (2015), pp. 1174-1185.
- 169 Nowak, Verena, Organizational Decisions in Multistage Production Processes, December 2014.
- 168 Benndorf, Volker, Kübler, Dorothea and Normann, Hans-Theo, Privacy Concerns, Voluntary Disclosure of Information, and Unraveling: An Experiment, November 2014.  
Published in: European Economic Review, 75 (2015), pp. 43-59.
- 167 Rasch, Alexander and Wenzel, Tobias, The Impact of Piracy on Prominent and Non-prominent Software Developers, November 2014.  
Published in: Telecommunications Policy, 39 (2015), pp. 735-744.
- 166 Jeitschko, Thomas D. and Tremblay, Mark J., Homogeneous Platform Competition with Endogenous Homing, November 2014.

- 165 Gu, Yiquan, Rasch, Alexander and Wenzel, Tobias, Price-sensitive Demand and Market Entry, November 2014  
Forthcoming in: Papers in Regional Science.
- 164 Caprice, Stéphane, von Schlippenbach, Vanessa and Wey, Christian, Supplier Fixed Costs and Retail Market Monopolization, October 2014.
- 163 Klein, Gordon J. and Wendel, Julia, The Impact of Local Loop and Retail Unbundling Revisited, October 2014.
- 162 Dertwinkel-Kalt, Markus, Haucap, Justus and Wey, Christian, Raising Rivals' Costs through Buyer Power, October 2014.  
Published in: Economics Letters, 126 (2015), pp.181-184.
- 161 Dertwinkel-Kalt, Markus and Köhler, Katrin, Exchange Asymmetries for Bads? Experimental Evidence, October 2014.  
Published in: European Economic Review, 82 (2016), pp. 231-241.
- 160 Behrens, Kristian, Mion, Giordano, Murata, Yasusada and Suedekum, Jens, Spatial Frictions, September 2014.
- 159 Fonseca, Miguel A. and Normann, Hans-Theo, Endogenous Cartel Formation: Experimental Evidence, August 2014.  
Published in: Economics Letters, 125 (2014), pp. 223-225.
- 158 Stiebale, Joel, Cross-Border M&As and Innovative Activity of Acquiring and Target Firms, August 2014.  
Published in: Journal of International Economics, 99 (2016), pp.1–15.
- 157 Haucap, Justus and Heimeshoff, Ulrich, The Happiness of Economists: Estimating the Causal Effect of Studying Economics on Subjective Well-Being, August 2014.  
Published in: International Review of Economics Education, 17 (2014), pp. 85-97.
- 156 Haucap, Justus, Heimeshoff, Ulrich and Lange, Mirjam R. J., The Impact of Tariff Diversity on Broadband Diffusion – An Empirical Analysis, August 2014.  
Forthcoming in: Telecommunications Policy.
- 155 Baumann, Florian and Friehe, Tim, On Discovery, Restricting Lawyers, and the Settlement Rate, August 2014.
- 154 Hottenrott, Hanna and Lopes-Bento, Cindy, R&D Partnerships and Innovation Performance: Can There be too Much of a Good Thing?, July 2014.  
Forthcoming in: Journal of Product Innovation Management.
- 153 Hottenrott, Hanna and Lawson, Cornelia, Flying the Nest: How the Home Department Shapes Researchers' Career Paths, July 2015 (First Version July 2014).  
Forthcoming in: Studies in Higher Education.
- 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.  
Published in: Applied Economics Letters, 22 (2015), pp. 1150-1153.
- 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.  
Forthcoming in: Canadian Journal of Economics.
- 147 Gaudin, Germain and White, Alexander, On the Antitrust Economics of the Electronic Books Industry, September 2014 (Previous Version 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 (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 Personal Data, April 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.  
Published in: Journal of Institutional and Theoretical Economics (JITE), 171 (2015), pp. 666-695.
- 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.  
Published in: Health Economics, 23 (2014), pp. 1036-1057.
- 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.  
Published in: Journal of Conflict Resolution, 59 (2015), pp.1273-1300.
- 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.  
Published in: Review of Economics, 65 (2014), pp. 77-94.
- 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.

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 978-3-86304-214-1