

Haucap, Justus; Thomas, Tobias; Wohlrabe, Klaus

Working Paper

Publication performance vs. influence: On the questionable value of quality weighted publication rankings

DICE Discussion Paper, No. 277

Provided in Cooperation with:

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

Suggested Citation: Haucap, Justus; Thomas, Tobias; Wohlrabe, Klaus (2017) : Publication performance vs. influence: On the questionable value of quality weighted publication rankings, DICE Discussion Paper, No. 277, ISBN 978-3-86304-276-9, Heinrich Heine University Düsseldorf, Düsseldorf Institute for Competition Economics (DICE), Düsseldorf

This Version is available at:

<https://hdl.handle.net/10419/172207>

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 277

Publication Performance vs. Influence: On the Questionable Value of Quality Weighted Publication Rankings

Justus Haucap,
Tobias Thomas,
Klaus Wohlrabe

December 2017

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

Editor:

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

DICE DISCUSSION PAPER

All rights reserved. Düsseldorf, Germany, 2017

ISSN 2190-9938 (online) – ISBN 978-3-86304-276-9

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.

Publication Performance vs. Influence: On the Questionable Value of Quality Weighted Publication Rankings

Justus Haucap*

Tobias Thomas[†]

Klaus Wohlrabe[‡]

December 2017

Abstract

In broad parts of the scientific community the position in publication performance rankings, based on journal quality ratings is seen as highly reputational for the scientist. This contribution provides evidence that, at least in economics, such publication performance measures can not always be reconciled with measures for academic influence such as citation-based measures. We analyze data from the Scopus database as well as from the prestigious German-based Handelsblatt ranking for 100 renowned economists (lifetime achievement). Scholarly influence is proxied by various bibliometric indicators such as the number of citations, the h -index, the citations of the most cited paper as well as the hardly honorable Pi-Beta-score (“Publications Ignored, By Even The Author(s)”). We argue that publication performance measures based on journal ratings, such as the Handelsblatt rankings, are not good proxies for an economist’s impact within the scientific community. From this perspective the value of publication performance rankings based on journal quality ratings is questionable.

JEL Code: A12, A14

Keywords: economics, academic reputation, academic rankings, influence, citations, Scopus, Handelsblatt ranking, academic journals

*Düsseldorf Institute for Competition Economics (DICE), haucap@dice.hhu.de

[†]EcoAustria - Institute for Economic Research, tobias.thomas@ecoaustria.ac.at and Düsseldorf Institute for Competition Economics (DICE), thomas@dice.hhu.de

[‡]ifo Institute for Economic Research at the University of Munich, wohlrabe@ifo.de

1 Introduction

The evaluation of university departments as well as scientists based on their publication record has become standard in many scientific fields (see, e.g., Graber *et al.* (2008); Schulze *et al.* (2008), Fitzenberger and Schulze (2014)), even though academics have also been critical about various rankings of journals, departments, and individual scientists (see, e.g., Oswald (2007); Frey and Rost (2010)). In Germany, the public evaluation of scientists based on publication records is a relatively recent phenomenon though, especially in social sciences. Traditionally, there has been relatively little systematic evaluation of researchers, and the rare occasions where evaluations have taken place have traditionally been based on opinions by valued colleagues. Relatedly, social scientists in the German speaking community (Austria, Germany, Switzerland) have only started in the past two decades to increasingly publish in English-language journals on a large scale instead of contributing to collected volumes or writing books (Krapf and Schlöpfer (2012)).

In 2007 the Handelsblatt - the leading business daily in Germany - started to regularly rank individual economists as well as economics departments based on their publication performance. The rankings explicitly focus on the scientific contributions of both individual researchers and faculties. The original ranking approach was modified after some criticism (Hofmeister and Ursprung (2008)), but remained in its current form since 2010. In order to construct these rankings, journal articles are weighed firstly by the number of authors (by $1/n$, where n is the number of authors) and secondly by a quality weight p which depends on the publication outlet. Hence, every author obtains a score of p/n for every journal article to which (s)he has contributed.

The journal quality was based on a analyses in Combes and Linnemer (2010). The authors use bibliometric information from Thompson Scientific (Impact Factor) and Google Scholar to derive a continuous score for each journal. Then they summarized these scores into six groups with weights of 1.00, 0.67, 0.50, 0.33, 0.17 and 0.08. The Handelsblatt modified the weights and added some statistics journals. Over the years the journal ranking remained unchanged; only new journals were added. For the 2015 ranking, there have been 1,632 journals classified into seven quality groups or ratings (weight, number of journals): A+ (1.00; 10), A (0.6; 24), B+ (0.3; 46), B (0.15; 75), C+ (0.1; 110), C (0.1; 165), D (0.05; 1,202).¹ Books, contributions to books and articles in journals that are not listed are not counted, in general due to a lack of an external screening procedure of these publication outlets by independent and anonymous referees. The journal weighting has been criticized due to its lack of actuality and arbitrariness (see Butz and Wohlrabe (2016)) and the list of journals and their rating is now has been updated in September 2017.²

Based on these quality-weighted publication records Handelsblatt regularly publishes three different rankings for economics every two years³

1. The top 250 academic economists, based on their lifetime publication achievement,

¹The current journal list can found at www.forschungsmonitoring.org.

²Sturm and Ursprung (2017) show that using the new journal weights yield a similar economists ranking compared to the 2015 weights.

³There is also an ranking for business scholars which follows, by and large, the same methodology and which was last published in 2014. The rankings are, however, much more controversial among business scholars than the corresponding economist rankings are among economists (see, e.g., Berlemann and Haucap (2015)).

2. The top 100 academic economists, based on journal articles published within the last five years,
3. The top 100 academic economists under the age of 40.

Overall, the Handelsblatt-Ranking plays an important role at least in Germany (see, e.g., Schlöpfer and Schneider (2010); Münch, 2015). While there are, unlike the case of British research evaluation exercises, no direct funding implications based on the Handelsblatt rankings, the rankings are important for individual careers, as the rankings are regularly used to evaluate candidates in hiring decisions (Schlöpfer and Schneider (2010)). As in huge parts of the scientific community the Handelsblatt-Ranking became a signal for the reputation of a scientist, many economists list their personal Handelsblatt ranking as part of their CV. The rankings are financially supported by the German Economic Association and have been a regular topic for discussion at the annual meeting of the German Economic Association. The Handelsblatt ranking is intended to be a *research performance* ranking, i.e. it is silent about the actual *influence* or *impact* of an economist within or even outside the profession.⁴ The ranking's key idea is to measure the economist's research performance by the quality of the journals in which the economist under consideration publishes. The understanding is that the more articles an economist has published in high-quality journals, the higher is the economist's research performance. Hence, an economist's research performance is proxied by the "quality" of the journals in which he or she publishes, whereas the "quality" is connected to the average impact an article in the journal achieves (Oswald (2007)).

In contrast, it appears to be, by large, common sense within the scientific community that the influence or impact of a scientist can typically be measured by the number of citations he or she receives.⁵ Schlöpfer and Schneider (2010) demonstrated for the 2010 lifetime achievement ranking, that only 29 percent of an economist's Handelsblatt score can be explained by received citations. The authors used citation data from the Web of Science for the year 2009. This only reflected the *recent* not the *overall* influence of economists though. We expand the research by Schlöpfer and Schneider (2010) by contrasting the overall citation count of economists with the lifetime achievement reflected in the Handelsblatt-Ranking. We furthermore investigate the relationship to other bibliometric influence measures such as the *h*-index and the single most cited paper. We also take a look at the downside of reputation. For this purpose, we consider the so-called Pi-Beta ("Publications Ignored, By Even The Author(s)") score, introduced by Chang *et al.* (2011), which counts the number of published articles that have received not a single citation so far.

Taking all results into account we investigate the impact of publication performance rankings based on journal quality ratings on the relevance of scientific contributions.

The rest of the paper is now organized as follows: In section 2, we present the data used in our work, followed by section 3, where we investigate how publication performance rankings affect the relevance or impact of the contributions. Section 4 concludes.

⁴In contrast, in 2013 a new economist ranking was introduced in Germany published in the Frankfurter Allgemeine Zeitung. The ranking focuses on the impact of economists on research (measured as citations) as well as in the public and political sphere (see Haucap *et al.* (2014), Haucap *et al.* (2015) as well as Haucap and Thomas (2014)).

⁵However, the citation measures are also subject of criticism, see Posner (2000).

2 The data

We gathered our bibliometric scores from Scopus. Similar to Web of Science, Scopus is also a subscription-based database, which is multi-disciplinary and includes citations. It was launched in 2004 and is owned by the publishing house Elsevier. In addition to journals, Scopus covers books, book series, and conference proceedings (Wouters *et al.* (2015)). The database is updated daily and includes publications from more than 14,000 journals and references cited therein since 1969.⁶ According to the Expert Panel on Science Performance and Research Funding (2012), “Scopus and Web of Science have both been extensively used and tested in bibliometric analyses, and are sufficiently transparent in terms of their content and coverage to be generally useful in assessments of research performance at the field level” (p. 60).

We extracted for top 100 ranked economists in the 2015 Handelsblatt Ranking from the lifetime publication achievement ranking. We excluded four economists because we were not able to determine their age.⁷ For all authors we obtained the following metrics from Scopus

- number of publications (P)
- overall citations (C)
- h -index
- the top cited paper (Top-1-paper)
- Papers Ignored - By Even The Authors (Pi-Beta):

$$Pi - Beta = \frac{\text{Number journal articles with zero received citations}}{\text{Total number of published journal articles}}$$

A lower Pi-Beta would be preferred to higher.⁸

In Table 1 we provide corresponding descriptive statistics for the lifetime measures for the complete sample. The citation distribution across authors is skewed to the left. The mean is mainly driven by Ernst Fehr, who has an outstanding citation count of 22 127. The descriptive statistics show that we have a quite heterogeneous sample of economists.

Table 1: Descriptive Statistics

$N = 96$)		Publication Performance		Influence			
	Age	Publications	Handelsblatt score	Citations	h -index	Top-1-paper	Pi-Beta-score
Mean	53	62	10.9	1627	17	305	0.179
Median	52	53	9.6	949	16	139	0.171
Std	7	40	4.3	2660	8	501	0.088
Min	40	9	6.9	108	5	18	0.000
Max	74	246	29.7	22127	59	2792	0.475

⁶See Mongeon and Paul-Hus (2016) or <https://www.elsevier.com/solutions/scopus/content>

⁷These authors are Richard Baldwin, Christian Dustmann, Urban Jermann, and Gabriele Camera.

⁸Chang *et al.* (2011) argue in case of zero citations of a paper it reflects on the quality of a journal by exposing incorrect decision of the members of the editorial board of a journal; or opportunities of papers that might have been cited if they had not been rejected by the journal.

3 Publication performance vs. influence

Before we turn to the regression analysis we take a look at the correlations between the reputation and influence scores in Table 2. On the first look the correlations between the publication performance indications, number of publications and Handelsblatt score is with 0.618 relatively high. Hence, it is reasonable to test both in separate models in the following. With respect to scientific influence of all economists, both publication performance measures show the highest correlation with the h -index 0.654 (publications) and 0.482 (Handelsblatt score) respectively. The relatively high correlation with the h -index is hardly surprising, as number of publications is one of the two sub-measures of the h -index. However, the lower correlation of the Handelsblatt score with the h -index gives a first hint on the questionable impact of the quality-weights of the publication performance-based Handelsblatt ranking. A similar result shows up, between the publication performance measures and the second highest correlation (citations). Here, the correlation are 0.461 (publications) and 0.375 (Handelsblatt score). Again, the quality-weighted publication performance measure shows the lower correlation on the influence measured by citations. The correlations between the influence scores are rather high, especially between the citation count and the h -index (0.849) and the Top-1-paper (0.799) respectively. This points towards the potential need to estimate the models sequentially to obtain reliable results. The correlation between publications and the Pi-Beta-score is relatively high (0.421).

Table 2: Correlations between publication performance and influence scores

		Publication Performance		Influence			
		Publications	HB score	Citations	h -index	Top-1-paper	Pi-Beta
Age	1.000						
Publications	0.396	1.000					
HB score	0.410	0.618	1.000				
Citations	0.140	0.461	0.375	1.000			
h -index	0.162	0.654	0.482	0.849	1.000		
Top-1-paper	0.102	0.241	0.186	0.799	0.486	1.000	
Pi-Beta-score	0.274	0.421	0.124	-0.118	-0.073	-0.107	1

To address the question about the relationship between publication performance and influence we estimate all influence indicators separately by successively introducing the independent variables Handelsblatt score, age and publications in the estimation equation. In Table 4 we report the results. As shown in specification (2), (3), (6) and (7) the number of publications has a significant influence on the number of citations. Only in the specifications without publications (4) and (5) the Handelsblatt score seems to have some explanatory power on a lower significance level. This can be caused by the fact that the Handelsblatt score is beside the journal quality-weights calculated by the number of publications. However, in all specifications concerning the number of publications the influence of the Handelsblatt score disappears. Across all specifications the highest explanatory power is provided by specification (7) with an R^2 of 0.233.

A similar interpretation applies when focusing on the h -index as dependent variable. Over all specifications the predictive power of quality-weighted publication performance is limited. Again, only in the specifications without number of publications we see some significant results for the Handelsblatt score. In all specifications including the number of publications the

influence disappears. In comparison to the explanation of the citation the significance level is now higher. This is hardly surprising, as the h -index is beside the number of citations calculated by the number of publications. The highest explanatory power is again provided by specification (7) with an R^2 of 0.455. Interestingly, in this specification beside the number of publications, now the age has a significant and negative influence on the h -index: this can be seen as an indicator for the existence of quality-ensuring competition and/or institutions among the younger scholars. This also indicates that there is no Matthew effect present, i.e. older and well-known economists gather citations just because they are well-known (Birkmaier and Wohlrabe (2014)).

Focusing on the Pi-Beta-score in specifications (2), (3), (6) and (7) the number of publications has a small but significant influence, i.e. the higher the number of publications, the higher the share of absolute irrelevant papers. Here, the influence of the Handelsblatt score remains significant and negative after controlling for age and the number of publications - a first hint on a useful impact of the Handelsblatt score, as it reduces the share of absolute irrelevant paper. In addition, now age has a small but significant positive influence in the specifications (1), (5) and (7): the higher the age, the higher the share of irrelevant papers. This is an additional empirical fact contradicting the existence of a Matthew effect. The highest explanatory power is again provided by specification (7) with an R^2 of 0.233.

None of our explanatory variables is able to explain the citations of the Top-1-paper.

4 Conclusion

In broad parts of the scientific community the position in publication performance rankings, based on journal quality ratings are seen as highly reputational for the scientist. This contribution provides evidence that, at least in economics, such publication performance measures can hardly be reconciled with measures for academic influence such as citation-based measures. We analyze data from the Scopus database as well as from the prestigious German-based Handelsblatt ranking for 100 renowned economists (lifetime achievement). Scholarly influence is proxied by various bibliometric indicators such as the number of citations, the h -index, the citations of the most cited paper as well as the hardly honorable Pi-Beta-score ("Publications Ignored, By Even The Author(s)"). To address the question about the relationship between publication performance vs. scientific influence we estimate all influence indicators separately by successively introducing the independent variables age, publications and Handelsblatt score in the estimation equation.

With respect to the lifetime achievement the specifications with the highest explanatory power only show a significant influence of the number of publications on the influence measured by number of citations. Neither age nor the Handelsblatt score has a significant influence. Additionally, we find some evidence that age as well as the number of publications have a significant positive impact on the Pi-Beta score. The bigger the number of publications and the higher the age, the bigger the share of absolute irrelevant papers. This hints on the existence of more quality ensuring competition and / or institutions among the younger. In addition, here, the influence of the Handelsblatt score is significant and negative. The only hint we could find on a potential useful impact of the Handelsblatt score, as it reduces the share of absolute irrelevant papers.

As a result, publication performance measures based on journal ratings, such as the Han-

delsblatt rankings, are not at all good proxies for an economist's impact within the scientific community. The fact that the influence of the Handelsblatt score disappears in all specifications with the number of publications, sheds some light on the highly questionable value of the quality weights used to calculate the Handelsblatt score.

Table 3: Relationship between publication performance and influence: Lifetime achievement

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variable: Citations							
Age	51.50		-19.64		-6.81		-31.84
Publications		30.56 **	31.93 **			24.51 **	25.82 **
Handelsblatt score				233.39 *	237.99 *	91.46	105.34
R^2	0.019	0.214	0.216	0.142	0.176	0.227	0.233
Dependent Variable: h -index							
Age	0.17		-0.12		-0.05		-0.16 *
Publications		0.12 ***	0.13 ***			0.11 ***	0.11 ***
Handelsblatt score				0.85 ***	0.88 ***	0.22	0.29
R^2	0.026	0.428	0.439	0.233	0.235	0.438	0.455
Dependent Variable: Top-1-paper							
Publications		3.01	2.99			7.38	2.54
Handelsblatt score				22.00	20.66	2.53	7.59
R^2	0.010	0.058	0.059	0.036	0.036	0.061	0.061
Dependent Variable: Pi-Beta-score							
Age	0.00 **		0.00		0.03 **		0.00 *
Publications		0.00 ***	0.00 ***			0.00 ***	0.00 ***
Handelsblatt score				0.03	0.00	0.00 **	-0.05 **
R^2	0.075	0.177	0.191	0.015	0.075	0.207	0.233

This table reports regression coefficients. In each panel we report the results for a different influence score (citations, h -index, Top-1-paper, Pi-Beta-score). A constant is always included but not reported. $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

References

- BERLEMANN, M. and HAUCAP, J. (2015). Which factors drive the decision to opt out of individual research rankings? An empirical study of academic resistance to change. *Research Policy*, **44** (5), 1108–1115.
- BIRKMAIER, D. and WOHLRABE, K. (2014). The matthew effect in economics reconsidered. *Journal of Informetrics*, **8** (4), 880–889.
- BUTZ, A. and WOHLRABE, K. (2016). *Die Ökonomen-Rankings 2015 von Handelsblatt, FAZ und RePEc: Methodik, Ergebnisse, Kritik und Vergleich*. Ifo Working Paper Series 212, Ifo Institute - Leibniz Institute for Economic Research at the University of Munich.
- CHANG, C., MCALEER, M. and OXLEY, L. (2011). Great expectatrics: Great papers, great journals, great econometrics. *Econometric Reviews*, **30** (6), 583–619.
- COMBES, P.-P. and LINNEMER, L. (2010). *Inferring Missing Citations: A Quantitative Multi-Criteria Ranking of all Journals in Economics*. Working Papers halshs-00520325, HAL.
- EXPERT PANEL ON SCIENCE PERFORMANCE AND RESEARCH FUNDING (2012). *Informing research choices: Indicators and judgment*. Ottawa, Canada: Council of Canadian Academies.
- FITZENBERGER, B. and SCHULZE, U. (2014). Up or Out: Research Incentives and Career Prospects of Postdocs in Germany. *German Economic Review*, **15** (2), 287–328.
- FREY, B. S. and ROST, K. (2010). Do rankings reflect research quality? *Journal of Applied Economics*, **13**, 1–38.
- GRABER, M., LAUNOV, A. and WÄLDE, K. (2008). Publish or Perish? The Increasing Importance of Publications for Prospective Economics Professors in Austria, Germany and Switzerland. *German Economic Review*, **9**, 457–472.
- HAUCAP, J. and THOMAS, T. (2014). Wissenschaftliche politikberatung: Erreicht der rat von ökonomen politik und öffentlichkeit? *Wirtschaftsdienst*, **94** (3), 180–186.
- , — and WAGNER, G. G. (2014). Zu wenig einfluss des ökonomischen sachverstands? empirische befunde zum einfluss von ökonomen und anderen wissenschaftlern auf die wirtschaftspolitik. **40** (4), 422–436.
- , — and — (2015). Welchen einfluss haben wissenschaftler in medien und auf die wirtschaftspolitik? *Wirtschaftsdienst*, **95** (1), 68–75.
- HOFMEISTER, R. and URSPRUNG, H. W. (2008). Das Handelsblatt Ökonomen-Ranking 2007: Eine kritische Beurteilung. *Perspektiven der Wirtschaftspolitik*, **9** (3), 254–266.
- KRAPF, M. and SCHLÄPFER, J. (2012). How Nobel Laureates Would Perform In The Handelsblatt Ranking. *Regional and Sectoral Economic Studies*, **12** (3), 47–56.
- MONGEON, P. and PAUL-HUS, A. (2016). The journal coverage of web of science and scopus: a comparative analysis. *Scientometrics*, **106** (1), 213–228.

- OSWALD, A. J. (2007). An Examination of the Reliability of Prestigious Scholarly Journals: Evidence and Implications for Decision-Makers. *Economica*, **74** (293), 21–31.
- POSNER, R. (2000). An economic analysis of the use of citations in the law. *American Law and Economics Review*, **2** (2), 381–406.
- SCHLÄPFER, F. and SCHNEIDER, F. (2010). Messung der akademischen Forschungsleistung in den Wirtschaftswissenschaften: Reputation vs. Zitierhäufigkeiten. *Perspektiven der Wirtschaftspolitik*, **11** (4), 325–339.
- SCHULZE, G. G., WARNING, S. and WIERMANN, C. (2008). What and How Long Does It Take to Get Tenure? The Case of Economics and Business Administration in Austria, Germany and Switzerland. *German Economic Review*, **9** (4), 473–505.
- STURM, J.-E. and URSPRUNG, H. W. (2017). The handelsblatt rankings 2.0: Research rankings for the economics profession in austria, germany and switzerland. *German Economic Review*, **18** (4), 492–515.
- WOUTERS, P., THELWALL, M., KOUSHA, K., WALTMAN, L., DE RIJCKE, S., RUSHFORTH, A. and FRANSSEN, T. (2015). *The metric tide: Literature review (Supplementary report I to the independent review of the role of metrics in research assessment and management)*. The Higher Education Funding Council for England.

PREVIOUS DISCUSSION PAPERS

- 277 Haucap, Justus, Thomas, Tobias and Wohlrabe, Klaus, Publication Performance vs. Influence: On the Questionable Value of Quality Weighted Publication Rankings, December 2017.
- 276 Haucap, Justus, The Rule of Law and the Emergence of Market Exchange: A New Institutional Economic Perspective, December 2017.
Published in: von Alemann, U., D. Briesen & L. Q. Khanh (eds.), The State of Law: Comparative Perspectives on the Rule of Law, Düsseldorf University Press: Düsseldorf 2017, pp. 143-172.
- 275 Neyer, Ulrike and Sterzel, André, Capital Requirements for Government Bonds – Implications for Bank Behaviour and Financial Stability, December 2017.
- 274 Deckers, Thomas, Falk, Armin, Kosse, Fabian, Pinger, Pia and Schildberg-Hörisch, Hannah, Socio-Economic Status and Inequalities in Children's IQ and Economic Preferences, November 2017.
- 273 Defever, Fabrice, Fischer, Christian and Suedekum, Jens, Supplier Search and Re-matching in Global Sourcing – Theory and Evidence from China, November 2017.
- 272 Thomas, Tobias, Heß, Moritz and Wagner, Gert G., Reluctant to Reform? A Note on Risk-Loving Politicians and Bureaucrats, October 2017.
- 271 Caprice, Stéphane and Shekhar, Shiva, Negative Consumer Value and Loss Leading, October 2017.
- 270 Emch, Eric, Jeitschko, Thomas D. and Zhou, Arthur, What Past U.S. Agency Actions Say About Complexity in Merger Remedies, With an Application to Generic Drug Divestitures, October 2017.
- 269 Goeddeke, Anna, Haucap, Justus, Herr, Annika and Wey, Christian, Flexibility in Wage Setting Under the Threat of Relocation, September 2017.
Forthcoming in: Labour: Review of Labour Economics and Industrial Relations.
- 268 Haucap, Justus, Merger Effects on Innovation: A Rationale for Stricter Merger Control?, September 2017.
Forthcoming in: Concurrences: Competition Law Review.
- 267 Brunner, Daniel, Heiss, Florian, Romahn, André and Weiser, Constantin, Reliable Estimation of Random Coefficient Logit Demand Models, September 2017.
- 266 Kosse, Fabian, Deckers, Thomas, Schildberg-Hörisch, Hannah and Falk, Armin, The Formation of Prosociality: Causal Evidence on the Role of Social Environment, July 2017.
- 265 Friehe, Tim and Schildberg-Hörisch, Hannah, Predicting Norm Enforcement: The Individual and Joint Predictive Power of Economic Preferences, Personality, and Self-Control, July 2017.
- 264 Friehe, Tim and Schildberg-Hörisch, Hannah, Self-Control and Crime Revisited: Disentangling the Effect of Self-Control on Risk Taking and Antisocial Behavior, July 2017.
- 263 Golsteyn, Bart and Schildberg-Hörisch, Hannah, Challenges in Research on Preferences and Personality Traits: Measurement, Stability, and Inference, July 2017.

- 262 Lange, Mirjam R.J., Tariff Diversity and Competition Policy – Drivers for Broadband Adoption in the European Union, July 2017.
- 261 Reisinger, Markus and Thomes, Tim Paul, Manufacturer Collusion: Strategic Implications of the Channel Structure, July 2017.
- 260 Shekhar, Shiva and Wey, Christian, Uncertain Merger Synergies, Passive Partial Ownership, and Merger Control, July 2017.
- 259 Link, Thomas and Neyer, Ulrike, Friction-Induced Interbank Rate Volatility under Alternative Interest Corridor Systems, July 2017.
- 258 Diermeier, Matthias, Goecke, Henry, Niehues, Judith and Thomas, Tobias, Impact of Inequality-Related Media Coverage on the Concerns of the Citizens, July 2017.
- 257 Stiebale, Joel and Wößner, Nicole, M&As, Investment and Financing Constraints, July 2017.
- 256 Wellmann, Nicolas, OTT-Messaging and Mobile Telecommunication: A Joint Market? – An Empirical Approach, July 2017.
- 255 Ciani, Andrea and Imbruno, Michele, Microeconomic Mechanisms Behind Export Spillovers from FDI: Evidence from Bulgaria, June 2017.
Forthcoming in: Review of World Economics.
- 254 Hunold, Matthias and Muthers, Johannes, Capacity Constraints, Price Discrimination, Inefficient Competition and Subcontracting, June 2017.
- 253 Dertwinkel-Kalt, Markus and Köster, Mats, Salient Compromises in the Newsvendor Game, June 2017.
Published in: Journal of Economic Behavior and Organization, 141 (2017), pp. 301-315.
- 252 Siekmann, Manuel, Characteristics, Causes, and Price Effects: Empirical Evidence of Intraday Edgeworth Cycles, May, 2017.
- 251 Benndorf, Volker, Moellers, Claudia and Normann, Hans-Theo, Experienced vs. Inexperienced Participants in the Lab: Do they Behave Differently?, May 2017.
Forthcoming in: Journal of the Economic Science Association.
- 250 Hunold, Matthias, Backward Ownership, Uniform Pricing and Entry Deterrence, May 2017.
- 249 Kreickemeier, Udo and Wrona, Jens, Industrialisation and the Big Push in a Global Economy, May 2017.
- 248 Dertwinkel-Kalt, Markus and Köster, Mats, Local Thinking and Skewness Preferences, April 2017.
- 247 Shekhar, Shiva, Homing Choice and Platform Pricing Strategy, March 2017.
- 246 Manasakis, Constantine, Mitrokostas, Evangelos and Petrakis, Emmanuel, Strategic Corporate Social Responsibility by a Multinational Firm, March 2017.
- 245 Ciani, Andrea, Income Inequality and the Quality of Imports, March 2017.
- 244 Bonnet, Céline and Schain, Jan Philip, An Empirical Analysis of Mergers: Efficiency Gains and Impact on Consumer Prices, February 2017.

- 243 Benndorf, Volker and Martinez-Martinez, Ismael, Perturbed Best Response Dynamics in a Hawk-Dove Game, January 2017.
Published in: Economics Letters, 153 (2017), pp. 61-64.
- 242 Dauth, Wolfgang, Findeisen, Sebastian and Suedekum, Jens, Trade and Manufacturing Jobs in Germany, January 2017.
Forthcoming in: American Economic Review, Papers & Proceedings.
- 241 Borrs, Linda and Knauth, Florian, The Impact of Trade and Technology on Wage Components, December 2016.
- 240 Haucap, Justus, Heimeshoff, Ulrich and Siekmann, Manuel, Selling Gasoline as a By-Product: The Impact of Market Structure on Local Prices, December 2016.
- 239 Herr, Annika and Normann, Hans-Theo, How Much Priority Bonus Should be Given to Registered Organ Donors? An Experimental Analysis, November 2016.
- 238 Steffen, Nico, Optimal Tariffs and Firm Technology Choice: An Environmental Approach, November 2016.
- 237 Behrens, Kristian, Mion, Giordano, Murata, Yasusada and Suedekum, Jens, Distorted Monopolistic Competition, November 2016.
- 236 Beckmann, Klaus, Dewenter, Ralf and Thomas, Tobias, Can News Draw Blood? The Impact of Media Coverage on the Number and Severity of Terror Attacks, November 2016.
Forthcoming in: Peace Economics, Peace Science and Public Policy.
- 235 Dewenter, Ralf, Dulleck, Uwe and Thomas, Tobias, Does the 4th Estate Deliver? Towards a More Direct Measure of Political Media Bias, November 2016.
- 234 Egger, Hartmut, Kreickemeier, Udo, Moser, Christoph and Wrona, Jens, Offshoring and Job Polarisation Between Firms, November 2016.
- 233 Moellers, Claudia, Stühmeier, Torben and Wenzel, Tobias, Search Costs in Concentrated Markets – An Experimental Analysis, October 2016.
- 232 Moellers, Claudia, Reputation and Foreclosure with Vertical Integration – Experimental Evidence, October 2016.
- 231 Alipranti, Maria, Mitrokostas, Evangelos and Petrakis, Emmanuel, Non-comparative and Comparative Advertising in Oligopolistic Markets, October 2016.
Forthcoming in: The Manchester School.
- 230 Jeitschko, Thomas D., Liu, Ting and Wang, Tao, Information Acquisition, Signaling and Learning in Duopoly, October 2016.
- 229 Stiebale, Joel and Vencappa, Dev, Acquisitions, Markups, Efficiency, and Product Quality: Evidence from India, October 2016.
- 228 Dewenter, Ralf and Heimeshoff, Ulrich, Predicting Advertising Volumes: A Structural Time Series Approach, October 2016.
Published in: Economics Bulletin, 37 (2017), Volume 3.
- 227 Wagner, Valentin, Seeking Risk or Answering Smart? Framing in Elementary Schools, October 2016.
- 226 Moellers, Claudia, Normann, Hans-Theo and Snyder, Christopher M., Communication in Vertical Markets: Experimental Evidence, July 2016.
Published in: International Journal of Industrial Organization, 50 (2017), pp. 214-258.

- 225 Argentesi, Elena, Buccirosi, Paolo, Cervone, Roberto, Duso, Tomaso and Marrazzo, Alessia, The Effect of Retail Mergers on Prices and Variety: An Ex-post Evaluation, June 2016.
- 224 Aghadadashli, Hamid, Dertwinkel-Kalt, Markus and Wey, Christian, The Nash Bargaining Solution in Vertical Relations With Linear Input Prices, June 2016. Published in: *Economics Letters*, 145 (2016), pp. 291-294.
- 223 Fan, Ying, Kühn, Kai-Uwe and Lafontaine, Francine, Financial Constraints and Moral Hazard: The Case of Franchising, June 2016. Forthcoming in: *Journal of Political Economy*.
- 222 Benndorf, Volker, Martinez-Martinez, Ismael and Normann, Hans-Theo, Equilibrium Selection with Coupled Populations in Hawk-Dove Games: Theory and Experiment in Continuous Time, June 2016. Published in: *Journal of Economic Theory*, 165 (2016), pp. 472-486.
- 221 Lange, Mirjam R. J. and Saric, Amela, Substitution between Fixed, Mobile, and Voice over IP Telephony – Evidence from the European Union, May 2016. Published in: *Telecommunications Policy*, 40 (2016), pp. 1007-1019.
- 220 Dewenter, Ralf, Heimeshoff, Ulrich and Lüth, Hendrik, The Impact of the Market Transparency Unit for Fuels on Gasoline Prices in Germany, May 2016. Published in: *Applied Economics Letters*, 24 (2017), pp. 302-305.
- 219 Schain, Jan Philip and Stiebale, Joel, Innovation, Institutional Ownership, and Financial Constraints, April 2016.
- 218 Haucap, Justus and Stiebale, Joel, How Mergers Affect Innovation: Theory and Evidence from the Pharmaceutical Industry, April 2016.
- 217 Dertwinkel-Kalt, Markus and Wey, Christian, Evidence Production in Merger Control: The Role of Remedies, March 2016.
- 216 Dertwinkel-Kalt, Markus, Köhler, Katrin, Lange, Mirjam R. J. and Wenzel, Tobias, Demand Shifts Due to Salience Effects: Experimental Evidence, March 2016. Published in: *Journal of the European Economic Association*, 15 (2017), pp. 626-653.
- 215 Dewenter, Ralf, Heimeshoff, Ulrich and Thomas, Tobias, Media Coverage and Car Manufacturers' Sales, March 2016. Published in: *Economics Bulletin*, 36 (2016), pp. 976-982.
- 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*, 90 (2016), pp. 336-349.
- 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. Published in: *Journal of Industry, Competition and Trade*, 16 (2016), pp. 297-308.
- 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.
Published in: Information Economics and Policy, 35 (2016), pp. 1-6.
- 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.
Published in: Journal of Competition Law & Economics, 12 (2016), pp. 151-179.
- 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, Debosree, 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.
Published in: Economics Letters, 139 (2016), pp. 1-4.
- 201 Demeulemeester, Sarah and Hottenrott, Hanna, R&D Subsidies and Firms' Cost of Debt, November 2015.
- 200 Kreickemeier, 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.
Published in: Bauer, J. and M. Latzer (Eds.), Handbook on the Economics of the Internet, Edward Elgar: Cheltenham 2016, pp. 183-210.
- 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?, May 2017 (First Version September 2015).
Forthcoming in: The Economic Journal.
- 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.
Published in: Journal of International Economics, 103 (2016), pp. 147-165.
- 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.
Published in: Forum for Health Economics & Policy, 19 (2016), pp. 1-22.
- 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.
Published in: European Economic Review, 86 (2016), pp. 147-160.
- 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.
Published in: Economics Letters, 147 (2016), pp. 55-58 under the title "Why Product Liability May Lower Product Safety".
- 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.
Published in: Health Policy, 120 (2016), pp.1162-1170.
- 175 Herr, Annika and Normann, Hans-Theo, Organ Donation in the Lab: Preferences and Votes on the Priority Rule, February 2015.
Published in: Journal of Economic Behavior and Organization, 131 Part B (2016), pp. 139-149.
- 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.
Forthcoming in: The Energy Journal.
- 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.

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