Düsseldorfer Institut
für Wettbewerbsökonomie

DISCUSSION PAPER

No 103

What Drives the Relevance and Reputation of Economics Journals? An Update from a Survey among Economists

Justus Haucap,
Johannes Muck

August 2013

HEINRICH HEINE
UNIVERSITÄT DÜSSELDORF

d|u|p düsseldorf university press

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

ISSN 2190-9938 (online) – ISBN 978-3-86304-102-1

What Drives the Relevance and Reputation of Economics Journals? An Update from a Survey among Economists*

Justus Haucap[1]
Düsseldorf Institute for Competition Economics (DICE)

Johannes Muck[2]
Düsseldorf Institute for Competition Economics (DICE)

August 2013

Abstract

This is paper analyses the interrelationship between perceived journal relevance and reputation. Based on a survey of 705 members of the German Economic Association, we find a strong interrelationship between journal reputation and relevance where a journal's perceived relevance has a stronger effect on the journal's reputation than vice versa. Moreover, past journal ratings conducted by the Handelsblatt and the German Economic Association (GEA) directly affect journals' reputation among German economists and indirectly also their perceived relevance, but the effect on reputation is more than twice as large as the effect on perceived relevance. In general, citations have a non-linear impact on perceived journal reputation and relevance. While the number of landmark articles published in a journal increases reputation, an increase in the so-called H-index even tends to decrease a journal's perceived relevance, as long as this is not simultaneously reflected in a higher Handelsblatt- and/or GEA-rating. We also identify significant differences in the views on journal relevance and reputation between different age groups.

JEL Codes: A11, A14, I23, L82

Keywords: Economic Journals, Academic Journals, Reputation, Relevance, Rigor, Economists, Fractional Response Models

* We would like to thank all economists who have participated in our survey. Moreover, we thank Elisabeth Flieger, Susanne Schäfers and Olaf Siegert (all of ZBW – Leibniz-Informationszentrum Wirtschaft) for their excellent support in conducting the survey and assembling the data. For comments and very useful discussions we thank Michael Bräuninger and Florian Heiß.

[1] Düsseldorf Institute for Competition Economics (DICE), Heinrich-Heine-University of Düsseldorf, Universitätsstr. 1, 40225 Düsseldorf Germany. Email: haucap@dice.hhu.de.

[2] Düsseldorf Institute for Competition Economics (DICE), Heinrich-Heine-University of Düsseldorf, Universitätsstr. 1, 40225 Düsseldorf Germany. Email: muck@dice.hhu.de.

1. INTRODUCTION

The great financial and economic crisis has lead to a vivid discussion, among both academic economists themselves as well as within the general public, about the proper role of economists and economics as a science (see, e.g., The Economist, 2009a, b, Colander et al., 2009, Krugman, 2009, Lucas, 2009, Besley and Hennessy, 2009, and Dow et al., 2009, to name just a few contributions). One aspect of this debate has been the revival of the old discussion on the appropriate balance between rigor and relevance in economics as a science, which has been a long lasting concern to many economists. For example, already in 1997, Marc Blaug criticized that "modern economics is sick; economics has increasingly become an intellectual game played for its own sake and not for its practical consequences for understanding the economic world. Economists have converted the subject into a sort of social mathematics in which analytical rigor is everything and practical relevance is nothing" (Blaug, 1997, p. 3). And, similarly, Gregory Mankiw (2007), in his discussion of freakonomics, put it as follows: "[M]ore young economists today are doing Levitt-style economics and fewer are studying the classic questions of economic policy. That is disconcerting, to a degree. It could be especially problematic twenty years from now, when President Chelsea Clinton looks for an economist to appoint to head the Federal Reserve, and the only thing she can find in the American Economic Association are experts on game shows and sumo wrestling."

An explanation for the potential over-emphasis of rigor and the relative under-emphasis of relevance may be that many economists can more easily judge the rigor of a paper (in terms of its mathematical model or the empirical methods applied), but may find it *relatively* more difficult to evaluate its relevance, especially if they are not experts in the very same subfield of economics or not familiar with the particular institutional environment of a country or industry. Ellison (2002) illustrated this point more elegantly and argued that the peer review process leads to an over-emphasis of rigor vis-à-vis relevance since referees tend to find it easier to evaluate and comment on models and methods rather than on a paper's relevance which is also more difficult to improve once a paper has been written. Hence, Ellison (2002) argues, more weight is put (at the margin) on articles' rigor than on their relevance.

What is missing in Ellison's (2002) model, though, is competition among journals. As the market for economics journals has seen considerable market entry by many new journals over the last decade (since (a) the supply of papers has grown due to globalization, changes in academic incentive systems, and technical progress and (b) publication costs have decreased largely due to technical progress), one wonders whether the hypothesis that journals put too much emphasis on rigor and too little on relevance can really be supported. Given that journals compete with each other for both authors and readers/library subscriptions (see, e.g., McCabe and Snyder, 2007), it is less clear that relevance of academic journals is inevitably declining over time. Against this background, it is also interesting to explore how journal relevance and reputation interact. Are journals that are considered relevant also seen as reputed and vice versa?

Our paper adds to this discussion about the market for economic journals and their articles' rigor and relevance, as we try to measure empirically how economic journals' reputation and their perceived relevance interact. While there are numerous journal rankings nowadays, which aim at measuring a journal's reputation (see, e.g., Kalaitzidakis, Mamuneas, and Stengos, 2003, Ritzberger, 2008) and which are mostly based on some measure of journal citations, and also several contributions which discuss the strengths and weaknesses of these rankings (see, e.g., Beed and Beed, 1996, Oswald, 2007, Frey and Rost, 2010), there has been comparatively little empirical analysis of the sources of journal reputation, even though publications in reputed journals are key to academic careers today (see, e.g., Graber, Launov and Wälde, 2008). Notable exemptions are papers by Danielson and Delorme (1976), Ellis and Durden (1991), Bräuninger and Haucap (2003) as well as a recent series of papers by Chang, McAleer, and Oxley (2011a, b, c).

The first paper that empirically analyzed the determinants of economic journal reputation is Danielson and Delorme (1976). Their key finding was that American economists had a bias against foreign journals, even including British journals. While volume, age, and specialization did not affect the reputation of non-American journals, volume (measured in pages) was the most important determinant for the reputation of American journals, followed by age, an orientation towards theoretical or statistical economics, and editors coming from top-level universities. Moreover, Ellis and Durden (1991) found that the scientific impact of a journal, as measured by citation frequency, and a journal's past reputation, as reflected in earlier quality

rankings, influence economists' perceptions of journal quality. Moreover, they also found a bias towards more theoretical or general journals as well as towards older, more established journals. Bräuninger and Haucap (2003) conducted the only empirical study that directly investigates the interrelationship between economic journals' reputation and their perceived relevance. They found that reputation positively affects perceived relevance and vice versa, but perceived relevance has a much stronger impact on reputation than reputation on perceived relevance. Citation frequency, as measured through the SSCI impact factor, was found to be a key factor for both journal reputation and perceived relevance, even though the effect on journal reputation was nearly twice as big as the effect on relevance. Given citation frequency, specialized journals were considered less relevant and, hence, also less reputed, although the direct effect of specialization on reputation was positive. While German-speaking economists considered domestic journals more relevant, they simultaneously rated them considerably less reputed than foreign journals. Moreover, respondents considered journals without referee process both less relevant and less reputed than refereed journals. In contrast, the number of published articles increased journals' relevance and their reputation. Finally, older journals were more reputed, whereas age hardly affected a journal's relevance.

Finally, Chang, McAleer, and Oxley (2011a, b, c) recently analyzed the interrelationship between the reputation of journals and their authors' reputation. They find that "great authors" lend their reputation to journals, while the reputation effect from journals' towards authors is much smaller, at least for established authors. This finding is consistent with Ellison's (2011) observation that authors from top universities such as Harvard enjoy greater reputation effects from being at a top university (i.e., Harvard) than from particular journal publications.

This paper builds on Bräuninger and Haucap (2003) and analyzes the results of a recent survey among German speaking economists (see Bräuninger, Haucap and Muck, 2011). More specifically, we examine the interaction between journals' relevance and their reputation as perceived by the respondents of the survey and we investigate which additional factors affect these two measures. We also compare our new results with those obtained about ten years ago by Bräuninger and Haucap (2003) in an almost identical survey among German speaking economists. This allows us to draw some conclusions about the cultural change within the academic

economics profession and the scientific community of economists within the German Economic Association.

The remainder of our paper is now organized as follows: Section 2 reflects on the factors that determine economic journals' reputation and relevance, before section 3 describes our survey and datase. Section 4 describes the econometric methodology employed, before we present and discuss the results of our estimations in section 5. Finally, section 6 concludes.

2. RELEVANCE AND REPUTATION OF ECONOMIC JOURNALS

From a reader's perspective, a scientific article is, like any information product, an experience or even a credence good. The quality of an article is ex ante unknown and can sometimes not even be properly detected without additional cost after consumption, as the recent debate about the research by Carmen Reinhart and Ken Rogoff illustrates (see, e.g., Krugman, 2013, Reinhart and Rogoff, 2013). Comparable to other experience and credence goods markets (see, e.g., Dullek and Kerschbaumer, 2006), various institutions have developed to overcome potential failures in the market for academic journals. The most obvious quality-insuring institution is the peer review process, even though its merits and efficiency have been debated for quite some time (see, e.g., Laband, 1990, Blank, 1991, Engers and Gans, 1998, Frey, 2004, 2005, Azar, 2005). In addition to peer review, reputation mechanisms can serve as a quality-assuring institution, even though journal quality is certainly a multi-dimensional concept, comprising, among other things, the articles' innovativeness, their relevance, and their rigor of methodology (see, e.g., Beed and Beed, 1996). A journal's reputation may result from its authors' reputation (see Chang, McAleer, and Oxley, 2011a, b), the reputation of the journal's editors (see, e.g., Danielsen and Delorme, 1976, Hodgson and Rothman, 1999), the publisher's brand name (see Bräuninger and Haucap, 2003), the journal's age as a proxy for successful survival of the journal (see Ellis and Durden, 1991), previous journal rankings (also Ellis and Durden, 1991) and, of course, past citations (see Ellis and Durden, 1991, Sutter and Kocher, 2001, Bräuninger and Haucap, 2003, Chang, McAleer, and Oxley, 2011a, b). With respect to past citations, a linear impact on reputation can easily be measured by the number of citations per article while a non-

linear influence can be captured through the so-called H-index.[3] While citations per article measure the average impact of a particular journal's (average) article, the H-index may be interpreted as measuring the number of "seminal papers" or "landmark articles" that a journal has published. Even if a journal has many uncited articles and, therefore, a low number of average citations per paper, the journal may enjoy a high reputation if it also published many seminal papers at the same time. In fact, since the distribution of citations among journal articles within any given journal is typically heavily skewed with some articles being heavily cited and others being widely ignored (see, e.g., Wall, 2009), average citation numbers may only imperfectly capture the sources of a journal's reputation.

Past journal rankings (which often build on past citation measures) may also affect journals' reputation, as previous studies have shown. One reason may be that rankings may be used as a proxy for quality especially for journals which are outside one's own area of expertise. In addition, a journal's place of publication has been found to affect its reputation. For example, Danielsen and Delorme (1976) empirically identified a positive home bias in favor of American journals among American economists, controlling for other factors, while Bräuninger and Haucap (2003) reported a negative home bias against German journals among German speaking economists.

A journal's relevance for academic economists can, in principle, be affected by many of the same factors. Citation measures such as the average number of citations per paper and the H-index clearly indicate that at least some of the journal's articles are relevant for at least some researchers (who have cited them). In general, we conjecture that a journal's perceived relevance is increasing in these measures. In addition, a journal's perceived relevance should be increasing in the number of articles published, as the likelihood of at least some published article(s) being relevant for a particular researcher should increase in the number of articles published. Furthermore, domestic and German-language journals may be more relevant for German economists, as these journals may put more emphasis on topics of particular interest to the German-speaking community of economists. In addition, we also conjecture that most specialized journals are less relevant than general interest journals for many economists, given the division of labor among economists.

[3] The H-index (see Hirsch, 2005) is the maximum number n of articles that have been cited at least n times.

However, expectations about the quality of a journal's articles – i.e., the journal's reputation – should, ceteris paribus, not differ between field journals and general interest journals once we control for citation rates and other factors which determine reputation. Similarly, association journals may directly affect relevance, as they are often distributed to all association members. However, we would not expect a direct affect on article quality (and, hence, journal reputation), even though an indirect effect may exist.

3. DATA DESCRIPTION

To study the determinants of journals' relevance and reputation as perceived by their readers we use survey data on 150 economics journals. The survey was conducted among German-speaking economists in April 2011 and the 150 journals included the most important economics journals listed in international journal rankings as well as most journals published in Germany, Austria, and Switzerland. With the exception of nine journals, the journal list coincides with the one used in Bräuninger and Haucap (2001, 2003).[4] To avoid potential ordering effects, the 150 journals were randomly grouped into three blocks (A, B, C) and presented randomly to the participants in one of three different orders (ABC, BCA, CAB), where respondents could decide to either rate the journals in one, two, or all three blocks. For each journal, respondents were asked to evaluate (1) the journal's relevance for them and (2) the journal's reputation on a six-point Likert scale, ranging from 0 (no relevance / reputation) to 5 (very high relevance/reputation).

The survey was sent via an individualized email-link to all 2991 individual members of the German Economic Association (GEA). Of the 909 respondents who opened the survey, 705 participants evaluated the journals in at least one block while 76 participants evaluated journals in all three blocks. On average, 478 (408) respondents evaluated a journal's relevance (reputation). For our analysis, we defined the dependent variables RELEVANCE (REPUTATION) as the weighted fraction of respondents evaluating a journal's relevance (reputation) as either four (high) or five

[4] We replaced Australian Journal of Agricultural Economics, Die Weltwirtschaft, Hamburger Jahrbuch für Wirtschafts- und Gesellschaftspolitik, Homo Oeconomicus, Jahrbuch für Neue Politische Ökonomie, Public Finance Quarterly, Public Finance, RWI-Mitteilungen, and Swedish Economic Policy Review, as most of them ceased to exist, by American Economic Journal: Applied Economics, DIW-Wochenbericht, Economics-The Open-Access Journal, ifo Schnelldienst, International Organization, Journal of the European Economic Association, Nature, Public Finance Review, and Science.

(very high). The fractions were weighted using the respondents' age groups, and the weights were set to mirror the actual age distribution of the members of the GEA as of April 2011. We did not use the average evaluation of a journal's relevance or reputation in absolute points since many journals showed only negligible differences in their average evaluations, especially towards the lower end of the scale (for details see Bräuninger, Haucap, and Muck, 2011). For instance, the difference in the average evaluation of relevance between *Empirica*, ranked 100th according to its relevance, and the *Journal of Accounting and Economics*, ranked 150th, is only 0.46 points. However, limited variation in our dependent variables would prevent us from obtaining meaningful results. For the same reason we did not utilize a journal's rank. As illustrated by the previous example, large differences in the ranks of two journals would be based on rather small differences in absolute evaluation points, thereby potentially leading to an overestimation of the effects of our independent variables. Moreover, this approach follows Bräuninger and Haucap (2003) and, therefore, allows us to compare the results.

We gathered information on various journal characteristics from different data sources as the independent variables of our analysis. From the Social Sciences Edition of the Journal Citation Report (JCR) (see Institute for Scientific Information, 2010, 2011), we collected the number of articles published by each journal in 2009 and 2010, which we averaged to create the variable VOLUME. For the journals not covered by the JCR, we manually counted the number of articles in 2009 and 2010.

We collected a journal's H-INDEX (Hirsch, 2005) as well as the average number of CITES/PAPER using the software tool Publish-or-Perish (Harzing, 2007) which processes information provided by *Google Scholar* to calculate various bibliometric statistics.

We adopted the journals' AGE from Bräuninger and Haucap (2001) and added eleven years and manually gathered the necessary information for the nine journals not included in Bräuninger and Haucap (2001).

Furthermore, we included the journal rating (HB-RATING) from the economics rankings conducted by *Handelsblatt*, Germany's leading business newspaper (see Handelsblatt, 2011) as well as the journal rating published by the German Economic Association in 2008 (Schneider and Ursprung, 2008). For its research rankings of German-speaking economists and economics departments the *Handelsblatt* assigns

a weight of 1.0, 0.6, 0.3, 0.2, 0.15, 0.1 or 0.05 to each of the more than 1500 journals listed in EconLit (see Handelsblatt, 2011), while the 2008 GEA rating only includes 281 journals rated as A^+, A, B^+, B, or C^+ (i.e, five categories). The non-numerical GEA rating was converted into the numerical variable GEA-RATING by assigning a value of 1 to journals rated A^+, 0.6 for A-journals, 0.3 for B^+ ones, 0.2 for B, and 0.1 for C^+. This coding scheme was chosen so that the values for GEA-RATING roughly compare to the ones of HB-RATING. We set the respective values of HB-RATING and GEA-RATING to 0 if a journal was not part of the respective rating.

Finally, we created several dummy variables indicating whether a journal is REFEREED, whether the majority of its editorial board is German-speaking (DOMESTIC), whether it also publishes articles in GERMAN, whether it is published by ELSEVIER, SPRINGER, or WILEY-BLACKWELL, whether it is published by an ASSOCIATION, and whether it is a SPECIAL (field-)journal, i.e., focusing on special subfields of economics (such as public finance or industrial economics) as opposed to general interest journals.

4. ESTIMATION STRATEGY

Building on our discussion in section 2, we expect that the variables H-INDEX, CITES/PAPER, VOLUME, REFEREED, DOMESTIC, and GERMAN affect both a journal's relevance and its reputation. At the same time, we expect a journal's RELEVANCE to depend on its REPUTATION and vice versa, as reported by Bräuninger and Haucap (2003). Furthermore, we hypothesize that a journal's RELEVANCE increases if it is published by an economic ASSOCIATION, while we expect its RELEVANCE to decrease if it focuses on a SPECIAL field of economics (compared to general-interest journals). Regarding journal REPUTATION, we conjecture this may be affected by its publisher (ELSEVIER, SPRINGER, or WILEY-BLACKWELL) as well as by the journal's past ratings in HB-RATING and GEA-RATING, and also its AGE (having passed the test of time).

Hence, we arrive at a system of two simultaneous equations, since we expect a journal's relevance to impact on its reputation and vice versa. More specifically, we estimate the following two equations:

(1) $$relevance = \alpha_0 + \alpha_1 reputation + \alpha_2 Hindex + \alpha_3 Cites/Paper + \alpha_4 Volume + \alpha_5 Refereed + \alpha_6 Domestic + \alpha_7 German + \alpha_8 Association + \alpha_9 Special$$

and

$$(2)\quad reputation = \beta_0 + \beta_1 relevance + \beta_2 Hindex + \beta_3 Cites/Paper + \beta_4 Volume + \beta_5 Refereed + \beta_6 Domestic + \beta_7 German + \beta_8 Elsevier + \beta_9 Springer + \beta_{10} WileyBlackwell + \beta_{11} Age + \beta_{12} HB\ Rating + \beta_{13} GEA\ Rating$$

where ELSEVIER, SPRINGER, WILEY-BLACKWELL, AGE, HB-RATING, and GEA-RATING serve as instruments for REPUTATION in equation (1) and ASSOCIATION and SPECIAL instrument RELEVANCE in equation (2).

Typically, a system of two simultaneous equations with continuous dependent variables is estimated either in a two-step approach using the two-stage least-squares (2SLS) estimator or simultaneously using the three-stage least-squares (3SLS) estimator. Albeit being continuous, the two dependent variables of our analysis are bound to the interval [0,1] since they denote the percentage of respondents rating a journal's relevance (reputation) as either "high" or "very high". However, neither the 2SLS nor the 3SLS estimator ensures that the fitted values of the dependent variables are also limited to the unit interval. Hence, it is not fully appropriate to estimate equations (1) and (2) with either 2SLS or 3SLS, just as the linear probability model is not fully appropriate to estimate models with binary dependent variables (Wooldridge, 2013, pp. 238-243).

To properly reflect the limited nature of our dependent variables, we resort to a fractional response model (FRM) which uses a Bernoulli Quasi Maximum Likelihood Estimator and ensures that the fitted values also lie within the unit interval (see Papke and Wooldridge, 1996). Moreover, to account for the endogeneity of RELEVANCE and REPUTATION in the system of two equations, we employ the control function approach as suggested by Wooldridge (2010, 2012) which proceeds in three steps. In the first step, each endogenous variable (REPUTATION in equation (1) and RELEVANCE in equation (2)) is regressed on its instruments and the other independent variables to obtain the fitted residuals. Since both endogenous variables are also limited to the unit interval and do not take on the boundary values of 0 and 1 in our data, we follow Wooldridge's (2010, p. 754) recommendation and use the log-odds transformation before obtaining the fitted values.[5] In the second step, we estimate equations (1) and (2) separately using a fractional probit model (Ramalho, Ramalho,

[5] The log-odds transformation for a variable x is defined as log [x/(1-x)].

and Murteira, 2011; Ramalho, Ramalho, and Henriques, 2010) with the fitted residuals of the respective endogenous variable added as an additional regressor. In the third step, we compute the average marginal effects to facilitate a convenient interpretation of the estimated coefficients.

Additionally, we also estimated equations (1) and (2) by 2SLS to enable computation of standard tests of instrument exogeneity and instrument strength which are not (yet) available for fractional probit models. We did not estimate the system of two equations simultaneously because the 3SLS estimator is only more efficient than the 2SLS estimator if the homoskedasticity assumption holds (Statalist, 2010). However, this assumption is usually violated in the case of fractional response models (Papke and Wooldridge, 1996, p. 621).

5. DRIVERS OF JOURNALS' PERCEIVED RELEVANCE AND REPUTATION

5.1 Descriptive Statistics

Table 1 shows the descriptive statistics of all variables used in the analysis as well as the respective values from the survey of Bräuninger and Haucap (2001, 2003). On average, 10% of the respondents evaluate a journal's relevance as either high or very high, which is a slight increase as compared to the survey from 2000. On the other hand, the average fraction of respondents evaluating a journal's reputation as high or very high dropped from 25% in 2000 to 19% in 2011. At least this particular finding does not support Ellison's (2002) hypothesis that journals become ever less relevant. Also note that due (a) to the software developed by Harzing (2007) and (b) new journal ratings we are able to include some more informative (explanatory) variables than Bräuninger and Haucap (2003).

Compared to the survey statistics of 2000, several independent variables remain constant. This is the case for the fraction of refereed journals (92%), the fraction of journals also publishing German articles (13%), the fraction of journals with a predominantly German-speaking editorial board (22%), and the age-composition of the 150 journals. The fraction of journals published by an economic association increases by two percentage points to 23%, while the fraction of specialized journals in our list decreases to 61%. Interestingly, the average number of articles published by each journal has increased significantly from about 46 in 2000 to almost 70

articles per year in 2011. This steep increase is, however, partly due to the fact that we have also included *Nature* and *Science* in our current survey. Each of these two journals publishes more than 800 articles per year which is more than twice as much as the number of articles published by *Applied Economics Letters*, which has the third highest volume with 331.5 articles per year. Once we exclude *Nature* and *Science*, the average volume falls to about 59 articles per year, which still is a significant increase from 46 though.

Table 1: Descriptive Statistics

	2011			2000		
	N	Mean	Std. Dev	N[a]	Mean	Std. Dev.
Relevance	150	0.10	0.08	141	0.08	0.09
Reputation	150	0.19	0.21	141	0.25	0.21
Age	150	51.79	33.03	141	40.79	31.99
Refereed	150	0.92	0.27	141	0.92	0.27
Volume	149	69.72	107.58	141	45.82	35.25
German	150	0.13	0.34	141	0.13	0.31
Domestic	150	0.22	0.42	141	0.22	0.42
Association	150	0.23	0.42	141	0.21	0.41
Special	150	0.61	0.49	141	0.66	0.48
Elsevier	150	0.22	0.42	141	0.18	0.39
Springer	150	0.13	0.34	-	-	-
Wiley-Blackwell[b]	150	0.19	0.39	141	0.17	0.38
H-Index	150	90.23	105.43	-	-	-
Cites/Paper	150	23.18	42.56	-	-	-
HB-Rating	150	0.26	0.26	-	-	-
GEA-Rating	150	0.23	0.26	-	-	-

[a] Note that we replaced nine journals from the 2000 survey by new ones.
[b] In 2000, Wiley and Blackwell had not merged yet, only Blackwell was used as a dummy variable.

The three largest publishers of economics journals, *Elsevier*, *Springer*, and *Wiley-Blackwell*, jointly account for 54% of all journals in our list. On average, each journal has approximately 90 articles that have been cited at least 90 times, and each article is cited 23.2 times. The average score of a journal in the Handelsblatt rating is 0.26 and it is 0.23 in the GEA rating.

The correlation coefficients among the independent variables mostly show low to moderate values (see Table 3 in the Appendix). Notable exceptions are the

correlations between the variables REFEREED, GERMAN, and DOMESTIC, taking on values of -0.68, -0.56, and 0.74 respectively. The two citation measures, namely H-INDEX and CITES/PAPER, are not only highly correlated with each other (0.92), but also with VOLUME (0.77 and 0.80) as well as HB-RATING (0.71 and 0.61). Unsurprisingly, HB-RATING and GEA-RATING are also highly correlated, with a coefficient of 0.80.

5.2 Results of the 2SLS Estimation

Estimating equation (1) with 2SLS, the Sargan-Hansen-Test for instrument exogeneity is rejected which indicates that at least one instrument for reputation is endogenous in (1). Careful scrutinizing of the instruments for reputation reveals that the three publisher dummies ELSEVIER, SPRINGER, and WILEY-BLACKWELL are the source of instrument endogeneity. After including these three variables as explanatory variables in both equations (1) and (2), the test for instrument exogeneity can no longer be rejected. Hence, the variables AGE, HB-RATING, and GEA-RATING can serve as reliable instruments for Reputation.

Table 2 shows the results of both the 2SLS and the fractional probit estimation of equations (1) and (2), where all t-tests are based on heteroskedasticity-robust standard errors. For the FRM models, we report the average marginal effects for the continuous variables and the effect of a discrete change from 0 to 1 for the dummy variables. Both 2SLS models show a very high overall fit. Our models explain 84% of the variation in a journal's relevance and even 93% of the variation in a journal's reputation. Furthermore, the Sargan-Hansen-Test fails to reject the null-hypothesis of instrument exogeneity for both equations with p-values of 0.44 and 0.77, respectively.

Table 2: Estimation Results

	Relevance		Reputation	
	2SLS	FRM	2SLS	FRM
Reputation	0.3946 ***	0.2708 ***		
Relevance			1.3051 ***	0.5586 ***
H-Index	-0.0002 **	-0.0001 ***	0.0004 **	0.0003 ***
Cites/Paper	0.0000	-0.0001	-0.0000	-0.0002
Volume	0.0000	0.0000	0.0001	0.0001 ***
Refereed[a]	0.0059	0.0048	0.0105	0.0256
Domestic[a]	-0.0106	-0.0035	0.0050	-0.0059
German[a]	0.0303 *	0.0344 *	-0.0248	-0.0147
Elsevier[a]	0.0129 *	0.0224 ***	-0.0247 *	-0.0143
Springer[a]	0.0184 **	0.0208 **	-0.0325 ***	-0.0373 ***
Wiley-Blackwell[a]	-0.0009	0.0081	-0.0231 *	-0.0193 *
Association[a]	0.0158 *	0.0089		
Special[a]	-0.0323 ***	-0.0258 ***		
Age			-0.0001	-0.0001
HB-Rating			0.1818 **	0.1444 ***
GEA-Rating			0.1321 **	0.1701 ***
Constant	0.0469 ***		-0.0407	
N	149	149	149	149
adj. R^2	0.84		0.93	
p of Hansen's J	0.44		0.77	
Kleibergen-Paap F	30.3		8.7	

* p<0.1, ** p<0.05, *** p<0.01.

[a] For the dummy variables, reported results for the FRM models denote the average effect of a discrete change from 0 to 1.

However, the F-value of the Kleibergen-Paap rk statistic (Kleibergen and Paap, 2006) is only 8.7 for equation (2) while it is 30.3 for equation (1). This indicates that the instruments for RELEVANCE in (2) might be weak, thereby possibly leading to a weak instruments bias. To test whether this is indeed the case, we used SPECIAL as the sole instrument for RELEVANCE and included ASSOCIATION as an independent variable in both equations. As a result, the Kleibergen-Paap rk statistic increases to 16.7, which is well above the conventional rule of thumb of ten for the first-stage F-value (Staiger and Stock, 1997), while the significance levels of the variables in equation (1) remain unchanged and only marginal changes occur in the estimated coefficients of both the 2SLS and fractional probit model. Hence, the results for

equation (2) should not be biased due to weak instruments if we use both SPECIAL and ASSOCIATION as instruments for relevance. Moreover, tests for instrument exogeneity can only be computed if the model is over-identified and there is no reason to believe that, from a theoretical perspective, ASSOCIATION should directly affect REPUTATION. Taken together, this leads us to decide to keep ASSOCIATION excluded from equation (2) and use it as an instrument for RELEVANCE.

Let us now first report the results of the 2SLS estimations, before we report the results of the fractional response model in the subsequent section and then discuss our results in section 5.4.

First of all, a journal's reputation has a positive and significant direct effect on perceived relevance and vice versa. Secondly, a journal's H-Index has a negative direct effect on its perceived relevance, but a positive direct effect on reputation. Neither the number of cites per paper nor the number of articles published (VOLUME) have additional explanatory power once we account for the H-index. Thirdly, journals containing German articles are directly considered more relevant, while the journal's reputation remains, ceteris paribus, unaffected. We do not find any additional "home bias" in the sense that journals with a majority of domestic editors would either benefit or suffer from editors being German-speaking. Fourthly, journals published by Elsevier, Springer, or an economic association are considered more relevant, but not more reputed. Quite on the contrary, Elsevier, Springer, and Wiley-Backwell journals are, ceteris paribus, considered less reputed. While our survey participants consider specialized journals less relevant, we find higher Handelsblatt and/or GEA ratings to be associated with higher reputation.

Before we discuss these results in section 5.4, we should note, though, that the coefficients listed in Table 2 only measure each exogenous variable's *direct* effect on the journals' perceived relevance and reputation, holding everything else constant. However, the coefficients do not measure the *total effect* (including *indirect* effects) that a variable has on reputation and relevance. Due to the simultaneity of equations (1) and (2), all variables (except for the instruments) additionally have an indirect effect. Put differently, due to the strong interrelationship between the two endogenous variables (RELEVANCE and REPUTATION), the estimated coefficients for the exogenous variables only show partial effects, as there are direct and indirect effects. For example, the H-Index has a negative *direct* effect on a journal's perceived relevance, but also a positive *indirect* effect, due to its positive influence on

a journal's reputation which, in turn, positively affects a journal's relevance. Therefore, we additionally calculate the total effects for each variable by plugging (2) into (1) (and vice versa) and solving the resulting equation for each independent variable to obtain its effect on journals' relevance and reputation. The resulting total effects are displayed in Table 3.

Table 3: Estimated Total Effects of 2SLS Models

	Relevance		Reputation	
H-Index	-0.0002		0.0002	
Cites/Paper	0.0001		0.0000	
Volume	0.0000		0.0001	
Refereed	0.0207		0.0374	*
Domestic	-0.0179		-0.0183	
German	0.0422	**	0.0302	*
Elsevier	0.0066		-0.0160	
Springer	0.0114		-0.0177	
Wiley-Blackwell	-0.0206		-0.0500	*
Association	0.0325	**	0.0424	*
Special	-0.0665	***	-0.0868	***
Age	-0.0001		-0.0002	
HB-Rating	0.1479	**	0.3748	***
GEA-Rating	0.1075	**	0.2724	**

* p<0.1, **p<0.05, *** p<0.01

At first sight, the comparison of the direct effects with the calculated total effects shows that the effects of H-INDEX, ELSEVIER, and SPRINGER cancel out when accounting for the simultaneous relationship between perceived relevance and reputation. The effects of other variables remain statistically significant though. According to Table 3, the fraction of economists rating the respective journal's relevance as high or very high will increase by 4.2 percentage points if a journal also publishes articles in German. Similarly, if a journal is published by an economic association, an additional 3.3 (4.2) percentage points will consider its relevance (reputation) as high or very high. On the other hand, 5.0 percentage points fewer economists rate journals published by *Wiley-Blackwell* as highly reputed. Furthermore, specialized journals are perceived both less relevant and less reputed, with the fraction of respondents evaluating the relevance (reputation) as high or very high being approximately 6.7 (8.7) percentage points lower than for general interest journals. Interestingly, we find that for both a journal's relevance and its reputation, the total effects of a journal's rating by the Handelsblatt are larger than the effects of

the rating by the GEA. If a journal's Handelsblatt rating increases by 0.1 the percentage of economists ascribing a high or very high relevance (reputation) to the respective journal will increase by 1.5 (3.7) percentage points. However, a comparable increase in the GEA rating from B to B+ will only lead to 1.1 (2.7) percentage points more economists evaluating the respective journal's relevance (reputation) as high or very high. It is interesting to note, though, that the effects of these two ratings on a journal's reputation are more than twice as large as the effect on perceived journal relevance.

5.3. Results of the FRM Estimation

Columns 3 and 5 of Table 2 show the results of the FRM estimations. For the continuous variables, we report average marginal effects whereas for the dummy variables the coefficients denote the effect of a discrete change from 0 to 1. Overall, the results for the FRM estimation mostly confirm our findings from the 2SLS estimation.[6] Consistent with our results from the 2SLS estimation, we find again that a journal's reputation positively influences its perceived relevance and vice versa. Also consistent with our 2SLS estimation, an increase in a journal's H-Index decreases its perceived relevance, but increases reputation, with cites per paper not having any additional effect. Again we obtain a positive effect on relevance for journals also containing German articles and for those published by Elsevier or Springer (with a negative effect on reputation for Springer and Wiley-Blackwell), whereas specialized journals are considered less relevant. However, in contrast to our results from the 2SLS estimation, we do not find a significant effect of ASSOCIATION on RELEVANCE.. Finally, a journal's Handelsblatt and GEA rating positively affect perceived reputation. While confirms our findings from the 2SLS model, our FRM results now indicate that the effect of a journal's GEA rating is larger than the effect of the Handelsblatt rating. Moreover, the average number of articles

[6] Note that the coefficients reported only represent the direct effect of each independent variable on RELEVANCE or REPUTATION. However, as already explained in the case of the 2SLS estimation, calculating the total effects would involve plugging equation (1) in equation (2) (and vice versa) and successively solving for each variable. In the context of the FRM model, this implies plugging a normal density function into the exponential part of another normal density function. However, in this paper, we refrained from calculating the total effects for the FRM model for two reasons. First, solving the resulting equations for each variable is analytically not tractable anymore. Second, due to the nonlinear nature of the estimation equation, the total effect of each variable would still depend on the value of all other independent variables which, in turn, impedes a meaningful interpretation of the total effects.

published appears to have a significantly positive reputation effect in the FRM estimation, while the effect was insignificant in the 2SLS estimation.

It must be noted though that the effect of the continuous variables on journals' relevance and reputation is not constant in the FRM estimation, but rather depends on (1) the value of all other explanatory variables and (2) the current value of the respective variable. This implies that for each continuous variable the average marginal effect reported in columns 3 and 5 of Table 2 also changes with the current level of the respective variable. Therefore, Figures 1 to 7 show the average marginal effects of the variables REPUTATION, RELEVANCE, H-INDEX, VOLUME, HB-RATING, and GEA-RATING over the sample range. Moreover, each figure additionally contains a histogram of the respective independent variable to relate the magnitude of each marginal effect to the likelihood of its occurrence in our sample. The interpretation of the average marginal effects plotted in Figures 1 to 7 is as follows. Suppose that the current value of a journal's reputation is 0.1, i.e., 10% of all respondents in our sample rate the journal's reputation as high or very high. According to Figure 1, in this situation an increase of the journal's reputation by 1% will result in a 0.2% increase of the fraction of economists evaluating the journal's relevance as high or very high. On the other hand, if the journal's current reputation is 0.4, then a 1% increase of the perceived reputation will lead to a 0.4% increase in the perceived relevance.

Figure 1: Average Marginal Effect of Reputation on Relevance

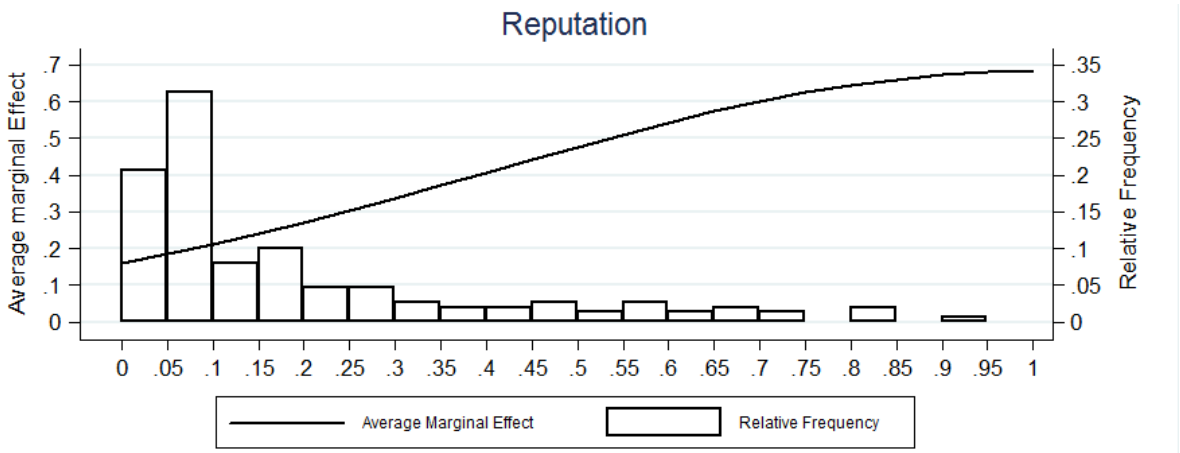
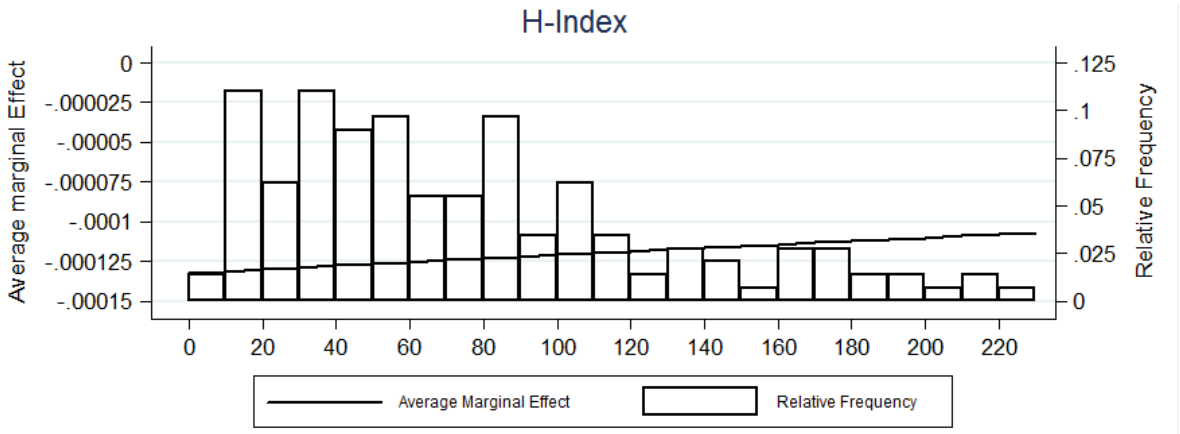
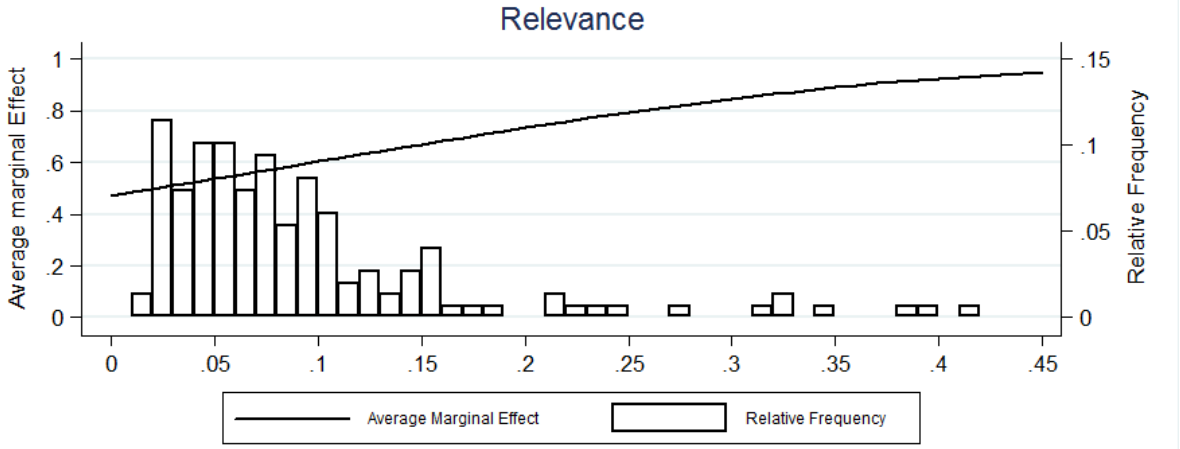


Figure 2: Average Marginal Effect of H-Index on Relevance



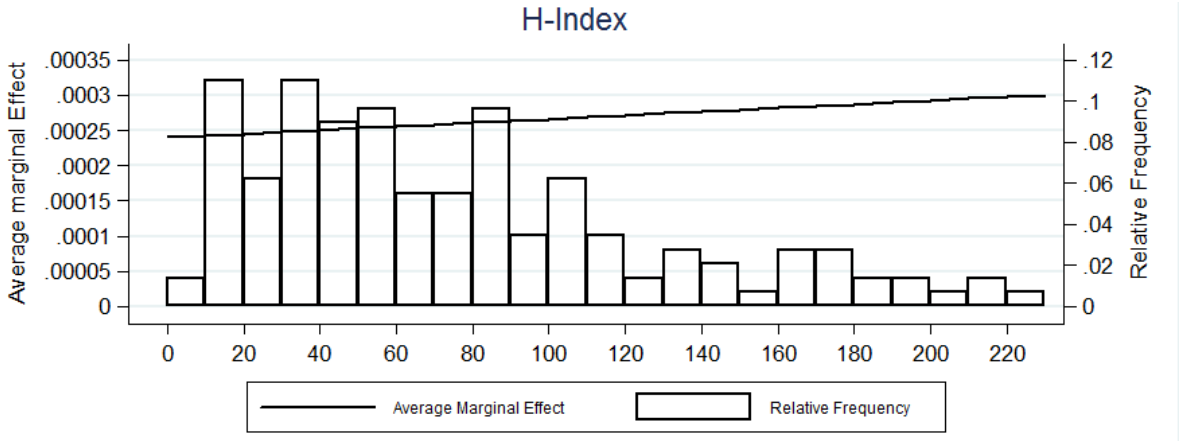
Note: Five journals with H-Index > 230 have been omitted to improve the visual representation.

Figure 3: Average Marginal Effect of Relevance on Reputation



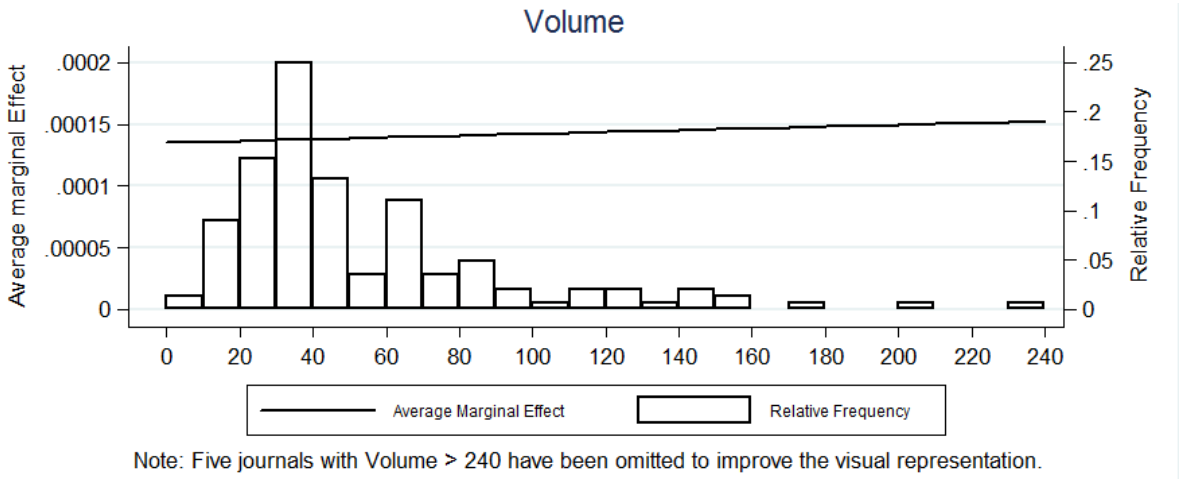
Note: One journal with Relevance > 0.42 has been omitted to improve the visual representation.

Figure 4: Average Marginal Effect of H-Index on Reputation



Note: Five journals with H-Index > 230 have been omitted to improve the visual representation.

Figure 5: Average Marginal Effect of Volume on Reputation



Note: Five journals with Volume > 240 have been omitted to improve the visual representation.

Figure 6: Average Marginal Effect of HB-Rating on Reputation

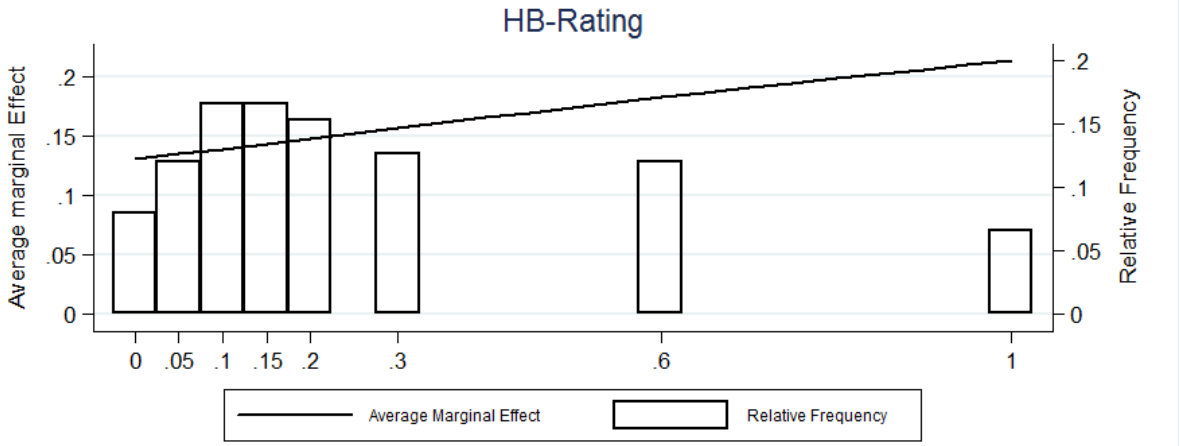
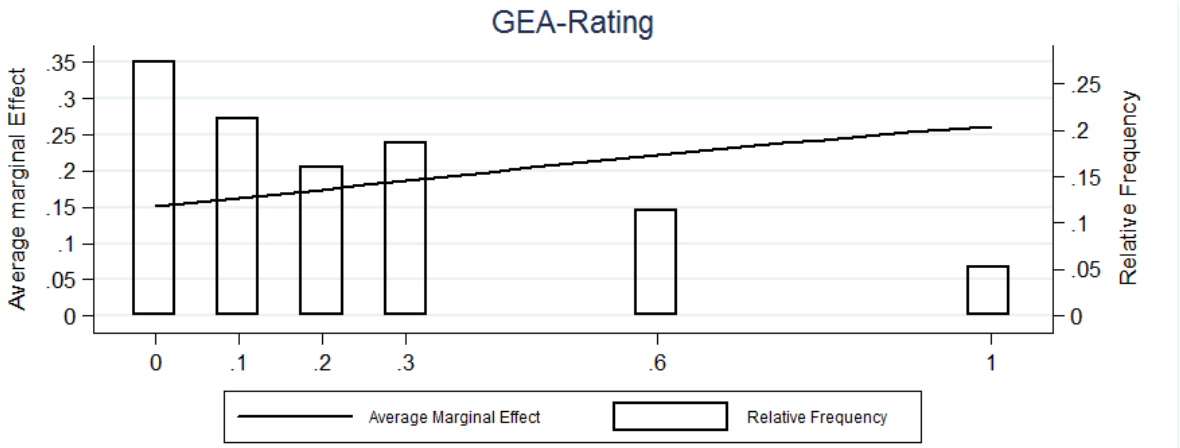


Figure 7: Average Marginal Effect of GEA-Rating on Reputation



As Figures 1 to 7 indicate, the slopes of the marginal effects differ between the different variables. While the marginal effects of REPUTATION on RELEVANCE and of RELEVANCE on REPUTATION have a positive but decreasing slope, the marginal effects of HB-RATING and GEA-RATING are almost linearly increasing. On the other hand, the marginal effects of H-INDEX on both REPUTATION and RELEVANCE as well as the effect of VOLUME on REPUTATION are almost constant over their entire sample range.

5.4 Discussion

While some of our findings were to be expected, others are less obvious. Among the findings that we expected is certainly the result that journal relevance and reputation reinforce each other within the scientific community of economists. As Bräuninger and Haucap (2003) already reported 10 years ago, relevance has a much stronger impact on reputation than reputation has on relevance. More precisely, a 1% increase in the fraction of economists who find a journal relevant adds about 1.3%, to the proportion that attach a high reputation to this journal, while an additional 1% of economists that attach a high reputation to a journal only leads to an increase of 0.4% in the fraction of economists also find that journal highly relevant. It may be noted though that ten years ago the difference between the two effects was even larger, as the corresponding figures were 1.95% and 0.2% (see Bräuninger and Haucap, 2003, p. 185). This may be regarded as (weak) support for Ellison's (2002) hypothesis mentioned above, as relevance adds less to a journal's reputation than it did ten years ago.

Our finding that specialized field journals are perceived less relevant than their general-interest counterparts is also hardly surprising. Since these journals focus on specific fields of economics, such as labor economics, monetary economics, industrial organization, etc., they are less relevant for researchers who are not active in these fields but specialize in other areas. In a similar vein, it is rather intuitive that journals affiliated with economic associations are, on average, considered more relevant by economists.

In our view, a more interesting result is the complex relationship between various citation measures and journal reputation and relevance. Once we control for a journal's GEA and Handelsblatt rating, neither the H-Index nor the number of average citations per paper have an additional (total) effect on a journal's reputation

or relevance. This may be little surprising as the two ratings are already largely based on citation measures, such as the SSCI impact factor. A more detailed analysis, however, reveals that there are two countervailing forces at work through which the H-Index affects journal reputation and relevance. While reputation is positively affected by an increase in the H-Index, holding the average cites per paper constant, the journal's relevance is negatively affected.

As we were puzzled by the finding that German economists consider journals with a high H-index less relevant for their daily work, we conducted some additional tests. In search for an explanation of this finding, we re-estimated the regression models while excluding *Nature* and *Science*, both of which have very high H-Indices while receiving below-average ratings in terms of relevance. We also interacted H-INDEX with a dummy variable indicating whether or not the journal primarily focuses on statistics and econometrics. Here our underlying rationale was to test whether the negative effect of the H-Index can be attributed to econometric journals which have a high H-Index due to the publication of methodological landmark articles (such as for instance White's (1980) work on robust standard errors), but which might otherwise not be very relevant for many economists' day-to-day work. However, in both cases, the negative coefficient estimate for H-INDEX persisted. A plausible explanation may be that a journal's relevance is more determined by the quality of the *average* article, which is captured by the number of cites per paper and, accordingly, by the two ratings used (GEA and Handelsblatt). Hence, holding the ratings and the number of cites per paper constant and considering the fact that the distribution of cites is already heavily skewed as mentioned above, an increase in the H-Index implies an increase in quality variation, but not an increase in *average* quality which appears to be more important for a journal's relevance. In contrast, a journal's reputation appears to be more dependent on the number of truly seminal landmark papers that receive many cites and not so much on the average article. The fact that CITES/PAPER does not have an additional effect on reputation beyond what is captured by H-INDEX, HB-RATING, and GEA-RATING may not only suggest that perceived reputation is affected by a comparably small set of heavily-cited landmark papers rather than by a broad basis of articles that receive medium numbers of citations, but may also indicate that the two ratings unfold a stronger effect on perceived reputation than the more precise bibliometric statistics on which journal rankings and ratings are typically based. In this context, it may be interesting to note that Bräuninger and Haucap (2003, p. 185) did not find any direct effect of the SSCI

impact factor (which only captures the average citations received immediately in the two calendar years following a journal's publication) on journal reputation, but only on journal relevance.[7] Interestingly enough, Bräuninger and Haucap (2003, p. 185) found that the impact factor's total effect on reputation (working through journal relevance) was about twice as high as the effect on relevance. This compares well with our finding that the two ratings' total effect on journal reputation is at least twice as high as on journal relevance.

Furthermore, the positive impact of GERMAN on RELEVANCE indicates that German-speaking economists also value German-language publications for their work. While these journals often have a comparatively small number of citations per paper and are not rated highly in typical journal rankings, they frequently include debates on economic policy issues or country-specific analyses which may not be of interest to an international readership, but only to economists within the German Economic Association. While this confirms the previous findings of Bräuninger and Haucap (2003) regarding the relevance of German-language publications for members of the German Economic Association, we do not find a negative home bias against German-language journals in terms of their reputation anymore. In this context, it may also be interesting to note that, in contrast to Bräuninger and Haucap (2003), we do not find any effects of a journal's AGE on its reputation anymore either. A possible reason for the latter finding may be that we have now been able to use the H-index as an explanatory variable which naturally increases with a journal's age. Put differently, in Bräuninger and Haucap (2003) age may have been a rather crude measure for the number of a journal's landmark articles, which we can now account for more directly by using the H-index.

In further contrast to Bräuninger and Haucap (2003), our results indicate that publishers affect journal reputation and perceived relevance. More precisely, we estimate positive direct effects of ELSEVIER and SPRINGER on RELEVANCE and negative direct effects of ELSEVIER, SPRINGER, and WILEY-BLACKWELL on REPUTATION. Accounting for these countervailing effects, only WILEY-BLACKWELL's effect on REPUTATION is statistically significant (and negative). The positive relationship between ELSEVIER and SPRINGER and journal relevance suggests that these publishers publish important economic journals which are considered especially

[7] Note that neither the Handelsblatt- nor the GEA-rating were available when Bräuninger and Haucap conducted their survey. Also the H-Index was only invented in 2005 (see Hirsch, 2005).

relevant. As we conjecture that relevance should be a stronger driver for library subscriptions than reputation, publishing relevant journals should be a successful business strategy for publishers. In that sense ELSEVIER and SPRINGER may have managed to acquire the "right" journals over the last years.

In addition, the fact that ELSEVIER and SPRINGER typically market their journals to universities in bundles may affect the journals' perceived relevance, as most of their journals should be available at the survey participants' respective home institutions. It is also interesting to note though that, in accordance with Bräuninger and Haucap (2003), there is no umbrella branding effect on journal reputation. We only find a negative reputation effect of WILEY-BLACKWELL which may potentially reflect a home bias, as WILEY-BLACKWELL is a US-based publisher with more non-European journals in its portfolio than other publishers.

5.5 Estimation Results for Different Age Groups

To investigate how journals' relevance and reputation depend on the respondents' age, we have additionally calculated journals' RELEVANCE and REPUTATION based on the evaluation of respondents from five different age groups (<36, 36-45, 46-55, 56-65, >65). In doing so, we again resort to the fraction of respondents that evaluate a journal's relevance and/or reputation as high or very high. Tables 5 and 6 in the appendix show the determinants of journals' relevance and reputation for both the 2SLS and the FRM estimations. As before, we report the average marginal effects for the FRM models, whereby the coefficients of the dummy variables denote the effects of a discrete change from zero to one of the respective variable.

For the five 2SLS estimations of journal's perceived relevance (in Table 5), we cannot reject the test of instrument exogeneity at conventional significance levels, and the first stage F-values exceed the critical threshold of 10 in all five estimations. In contrast, the rather low first-stage F-values may indicate that the regression results for REPUTATION suffer from a weak instruments bias. As already explained in section 5.2, the low first-stage F-values are caused by the variable ASSOCIATION, which is a rather weak instrument for RELEVANCE. After eliminating ASSOCIATION as an instrument for RELEVANCE, the first-stage F-values exceed the critical value of 10 in four of the five age cohorts in Table 6 and lie between 12.2 and 20.5. Only for the 2SLS estimation for economists between 46 and 55 the F-value slightly undercuts

the critical threshold of 10 with a value of 9.2. All results remain qualitatively unchanged, though, when using SPECIAL as the sole instrument for RELEVANCE in the REPUTATION regressions. Hence, we are confident that the results reported in Table 6 are not subject to a weak instruments bias.

A first interesting insight from Tables 5 and 6 is that our models better explain the views of respondents aged 45 and younger than the views of respondents aged 46 and above, especially concerning journals' relevance (Table 5). Moreover, the models are much better in explaining reputation than relevance. The finding that the fraction of explained variance decreases with the respondents' age may possibly be explained by a greater degree of homogeneity among younger economists when compared to their older colleagues. This could partly reflect the growing internationalization among younger economists as well as their allegedly less ideological approach, which has been heavily debated within Germany in recent times. Alternatively, older economists' views may have already formed some time ago and, therefore, be less affected by recent ratings and citation patterns.

Secondly, a journal's H-Index only has a direct impact on both reputation and relevance for respondents aged 55 and younger, whereas for respondents above the age of 55 a journal's H-Index does neither explain RELEVANCE nor REPUTATION. Similarly, the HB-RATING is only (positively) associated with journal reputation among respondents aged 65 and younger, while it does appear to explain older economists' views on journal reputation. In contrast, the GEA-RATING explains reputation across all age groups. Also note that, while both the GEA-RATING's direct and total effect on journal reputation are fairly similar across all age groups, the Handelsblatt rating's impact is declining with age, especially in the FRM regression. The age-specific regressions also reveal that for younger economists the Handelsblatt rating has a much stronger impact than the GEA rating, while for older economists exactly the opposite is true. Hence, the finding that the Handelsblatt has a larger total impact than the GEA rating is largely driven by younger economists' perception of journals.

Note that the differences in journal perceptions between economists that are older than 55 and those aged 55 and younger have been noted before by Bräuninger, Haucap, and Muck (2011) and also by Bräuninger and Haucap (2001, 2003) more than ten years ago. Moreover, forty years ago Hawkins, Ritter, and Walter (1973) already reported on differences in journal perceptions across age groups. One reason for this rather persistent finding may be changing career concerns, as

economists older than 55 are typically on fixed salaries in Germany and very unlikely to be still active in the job market. Another reason may be that younger economists tend to be more internationally oriented than their older colleagues and that this international orientation is relatively well mirrored in HB-RATING. On a side note it is interesting to point out that, while the Handelsblatt ranking of economists has been much less controversial than its ranking of business scholars, the recently initiated boycott of the Handelsblatt ranking among business scholars was largely driven by older scholars (see Berlemann and Haucap, 2012). This may reflect a more general tendency that older scholars have been more critical about the Handelsblatt ranking than their younger colleagues. Against this background it is less surprising that the Handelsblatt rating adds to the explanation of journal reputation for younger economists, but not for older ones.

Somewhat related, we only find significant effects of GERMAN on RELEVANCE and REPUTATION for economists older than 45, but not for economists aged 45 and younger. An explanation may be that older economists become increasingly interested in debates about economic policy (which are, at least partly, reflected in German-language publications), whereas younger economists are more interested in theory and methodology where advancements are typically published in English. Another explanation may be, again, the increasing international orientation among younger economists. In this vein, our finding may again mirror the shift within the German-speaking economics profession from a predominantly national focus to an international one in the recent past.

To quantify the overall (direct and indirect) effect of each independent variable, we again calculated the total effect of each variable based on the results of the 2SLS models (see Table 7). The variable GERMAN still has a (statistically significant) positive effect on a journal's relevance solely for respondents who are older than 45 years, while we find that journals published by an association are perceived more relevant and more reputed by economists aged 45 and younger and especially by those between 36 and 45 (see Tables 5 and 7). An explanation may be that during this period of academic economists' careers most tenure decisions are made so that exposure to association journals that are widely read may become more important than in later career stages.

The results of the FRM estimations for different age groups confirm the findings from the 2SLS models, by and large.

6. CONCLUSION

Based on a survey of 705 members of the German Economic Association, we have analyzed the interrelationship between perceived journal reputation and relevance. To this end, we rely on 2SLS and Fractional Response Models (FRM) to estimate a system of two simultaneous equations which relate journal relevance and reputation to various journal characteristics. In accordance with earlier findings by Bräuninger and Haucap (2003) we have found a strong interrelationship between journal reputation and relevance. A journal's perceived relevance has a much stronger impact on the journal's reputation though than reputation on relevance. While a 1% increase in the fraction of economists who consider a journal's relevance as "high" or "very high" leads to an increase in the fraction of economists who consider the journal well highly or very highly reputed by 1.3%, the corresponding number for the reverse effect is only a 0.4% increase if we rely on our 2SLS regression analysis. While the numbers for our FRM estimation are somewhat lower, qualitatively the results are similar.

We also have also found that past journal ratings conducted by the Handelsblatt and the German Economic Association (GEA) directly affect journals' reputation among German economists and indirectly also its perceived relevance. However, the effect on reputation is more than twice as large as the effect on perceived relevance. In general, citations appear to have a non-linear impact on perceived journal reputation and relevance. While the number of landmark articles published in a journal, reflected by the H-Index, appears to increase journals' reputation, an increase in the so-called H-index even tends to decrease a journal's perceived relevance as long as this is not simultaneously reflected in a higher Handelsblatt or GEA rating.

In addition, our analysis has revealed that Elsevier and Springer have a positive impact on a journal's relevance. However, there is a countervailing effect on reputation, given a journal's relevance. In total, the two effects cancel out so that, in total, journals published by Elsevier and Springer are, ceteris paribus, not more reputed or more relevant than other publishers' journals.

We have also found that German-speaking economists consider German-language publications, ceteris paribus, more relevant. A more fine-grained analysis of various age groups has revealed that this is largely driven by economists who are older than 45. In contrast, a journal's Handelsblatt only positively influences a journal's

reputation for economists aged 55 and younger. While younger economists' views can be better explained by HB-RATING, the GEA-RATING has a stronger impact on older economists' views.

Quite generally, we have found significant differences in the views on journal relevance and reputation between different age groups where our regression analysis show a better fit for the younger survey respondents. One potential reason could be that younger economists might be more homogeneous in their views about their journals than their older colleagues. Another reasons may be that older economists' views are less affected by recent citation numbers and patterns. Interestingly, the models are also better in explaining journal reputation than relevance, implying that views about journal reputation may be less heterogeneous than views about journals' relevance.

Finally, there are some good news for the flagship journal of the German Economic Association, namely the *German Economic Review*: In contrast to the findings of Bräuninger and Haucap (2003) from the 2001 survey, (1) domestic journals are no longer considered less reputed by members of the German Economic Association, while (2) age does not add to a journal's reputation in any statistically significant way anymore. Furthermore, journals published by economic associations are considered more relevant and, therefore, also more reputed than other journals, and general-interest journals carry a higher reputation and relevance than specialized field journals.

REFERENCES

Azar, O.H. (2005), 'The Review Process in Economics: Is it Too Fast?', *Southern Economic Journal* 72, 481-491.

Beed, C. and C. Beed (1996), 'Measuring the Quality of Academic Journals: The Case of Economics', *Journal of Post-Keynesian Economics* 18, 369-396.

Berlemann, M. and J. Haucap (2012), 'Which Factors Drive the Decision to Boycott and Opt out of Research Rankings?', CESifo Working Paper No. 3997.

Besley, T. and P. Hennessy (2009), *Letter to the Queen*, dated 22 July 2009, online at: http://www.ft.com/intl/cms/3e3b6ca8-7a08-11de-b86f-00144feabdc0.pdf

Blank, R.M. (1991), 'The Effects of Double-Blind versus Single-Blind Reviewing: Experimental Evidence from the American Economic Review', *American Economic Review* 81, 1041-1067.

Blaug, M. (1997), 'Ugly Currents in Modern Economics', *Policy Options* (September 1997), 3-8.

Bräuninger, M. and J. Haucap (2001), ‚Was Ökonomen lesen und schätzen', *Perspektiven der Wirtschaftspolitik* 2, 185-210.

Bräuninger, M. and J. Haucap (2003), 'Reputation and Relevance of Economics Journals', *Kyklos* 56, 175-198.

Bräuninger, M., J. Haucap and J. Muck (2011), ‚Was schätzen und lesen deutschsprachige Ökonomen heute?', *Perspektiven der Wirtschaftspolitik* 12, 339-371.

Chang, C.-L., M. McAleer and L. Oxley (2011a), 'What Makes a Great Journal in Economics? The Singer, not the Song', *Journal of Economic Surveys* 25, 326-361.

Chang, C.-L., M. McAleer and L. Oxley (2011b), 'What Makes a Great Journal Great in Sciences? Which Came First, the Chicken or the Egg?', *Scientometrics* 87(1), 17-40.

Chang, C.-L., M. McAleer and L. Oxley (2011c), 'Great Expectatrics: Great Papers, Great Journals, Great Econometrics', *Econometric Reviews* 30, 583-619.

Colander, D., M. Goldberg, A. Haas, K. Juselius, A. Kirman, T. Lux and B. Sloth (2009), 'The Financial Crisis and the Systemic Failure of the Economics Profession', *Critical Review* 21(2), 249-267.

Danielson, A. and C. D. Delorme (1976), Some Empirical Evidence on the Variables Associated with the Ranking of Economics Journals, *Southern Economic Journal* 43, 1149-1160.

Dow, S.C., P.E. Earl, J. Foster, G.C. Harcourt, G.M. Hodgson, J.S. Metcalfe, P. Ormerod, B. Rosewell, M.C. Sawyer and A. Tylecote (2009), 'The GFC and University Economics Education: An Open Letter to the Queen', *Journal of Australian Political Economy* 64, 233-235.

Dulleck, U. and R. Kerschbamer (2006), *'*On Doctors, Mechanics and Computer Specialists: The Economics of Credence Goods'*, Journal of Economic Literature* 44, 5-42.

Ellis, L.V. and G.C. Durden (1991), 'Why Economists Rank Their Journals the Way They Do', *Journal of Economics and Business* 43, 265-270.

Ellison, G. (2002), 'Evolving Standards for Academic Publishing: A q-r-Theory', *Journal of Political Economy* 110, 994-1034.

Ellison, G. (2011), 'Is Peer-Review in Decline?', *Economic Inquiry* 49, 635-657.

Engers, M. and J.S. Gans (1998), 'Why Referees Are Not Paid (Enough)', *American Economic Review* 88, 1341-1349.

Frey, B.S. (2004), ‚Publizieren als Prostitution?', *Perspektiven der Wirtschaftspolitik* 5, 333-336.

Frey, B.S. (2005), 'Problems with Publishing: Existing State and Solutions', *European Journal of Law and Economics* 19, 173-190.

Frey, B.S. and K. Rost (2010), 'Do Rankings Reflect Research Quality?', *Journal of Applied Economics* 13, 1-38.

Graber, M., A. Launov and L. Wälde (2008), 'Publish or Perish? The Increasing Importance of Publications for Prospective Economics Professors in Austria, Germany and Switzerland', *German Economic Review* 9, 457-472.

Handelsblatt (2011), 'So funktioniert das VWL-Ranking', online at: http://www.handelsblatt.com/politik/oekonomie/vwl-ranking/methodik-so-funktioniert-das-vwl-ranking/4575334.html

Harzing, A.W. (2007), *Publish or Perish*, online at: http://www.harzing.com/pop.htm.

Hawkins, R.G.; L.S. Ritter and I. Walter (1973), 'What Economists Think of Their Journals', *Journal of Political Economy* 81, 1017-1032.

Hirsch, J.E. (2005), 'An Index to Quantify an Individual's Scientific Research Output', *Proceedings of the National Academy of Sciences of the United States of America* 102 (46), 16569-16572.

Hodgson, G.M. and H. Rothman (1999), 'The Editors and Authors of Economics Journals: A Case of Institutional Oligopoly?', *Economic Journal* 109, F165-F186.

Institute for Scientific Information (2010), *Journal Citation Report 2009*, Institute for Scientific Information, Philadelphia.

Institute for Scientific Information (2011), *Journal Citation Report 2010*, Institute for Scientific Information, Philadelphia.

Kalaitzidakis, P., T. Mamuneas and T. Stengos (2003), 'Rankings of Academic Journals and Institutions in Economics', *Journal of the European Economic Association* 1, 1346-1366.

Kleibergen, F. and R. Paap (2006), 'Generalized Reduced Rank Tests Using the Singularvalue Decomposition', *Journal of Econometrics* 127, 97-126.

Krugman, P. (2009), 'How Did Economists Get It So Wrong?', *New York Times Online*, 02 September 2009, online at: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html.

Krugman, P. (2013), 'How the Case for Austerity has Crumbled', *The New York Review of Books*, 6 June 2013, online at: http://www.nybooks.com/articles/archives/2013/jun/06/how-case-austerity-has-crumbled/

Laband, D.N. (1990), 'Is There Value-Added from the Review Process in Economics? Preliminary Evidence from Authors', *Quarterly Journal of Economics* 105, 341-353.

Lucas, R.E. (2009), 'In Defence of the Dismal Science', *The Economist* 392(8643), 67.

Mankiw, G. (2007), 'Is Steve Levitt Ruining Economics?', *Greg Mankiw's Blog* of 27 April 2007, online at: http://gregmankiw.blogspot.com/2007/04/is-steve-levitt-ruining-economics.html.

McCabe, M. and C. Snyder (2007), 'Academic Journal Prices in a Digital Age: A Two-Sided Market Approach', *The B.E. Journal of Economic Analysis & Policy* 7(1): (Contributions), Article 2.

Oswald, A.J. (2007), 'An Examination of the Reliability of Prestigious Scholarly Journals: Evidence and Implications for Decision-Makers', *Economica* 74, 21-31.

Papke, L.W. and J.M. Wooldridge (1996), 'Econometric Methods for Fractional Response Variables with an Application to 401 (K) Plan Participation Rates', *Journal of Applied Econometrics* 11, 619-632.

Ramalho, E.A., J.J.S. Ramalho and J.M.R. Murteira (2011), 'Alternative Estimating and Testing Empirical Strategies for Fractional Regression Models', *Journal of Economic Surveys* 25, 19-68.

Ramalho, E.A., J.J.S. Ramalho and P.D. Henriques (2010), 'Fractional Regression Models for Second Stage DEA Efficiency Analyses', *Journal of Productivity Analysis* 34, 239-255.

Reinhart, C. and K. Rogoff (2013), 'Open Letter to Paul Krugman', 25. Mai 2013, online at: http://www.carmenreinhart.com/letter-to-pk/

Ritzberger, K. (2008), 'A Ranking of Journals in Economics and Related Fields', *German Economic Review* 9, 402-430.

Schneider, F. and H.W. Ursprung (2008), 'The 2008 GEA Journal Ranking for the Economics Profession', *German Economic Review* 9, 532-538.

Staiger, D., and J.H. Stock (1997), 'Instrumental Variables Regression with Weak Instruments', *Econometrica* 65, 557-586.

Statalist (2010), *Discussion on "reg3 option –robust-"*, online at: http://statalist.1588530.n2.nabble.com/reg3-option-robust-td5647547.html.

Sutter, M. and M. Kocher (2001), 'Tools for Evaluating Research Output: Are Citation-Based Rankings of Economics Journals Stable?', *Evaluation Review* 25, 555-566.

The Economist (2009a), 'What Went Wrong with Economics?', *The Economist* 392(8640), 16 July 2009, 11-12.

The Economist (2009b), 'The Other-wordly Philosophers', *The Economist* 392(8640), 16 July 2009, 65-67.

Wall, H.J. (2009), 'Don't Get Skewed over by Journal Rankings', *B.E. Journal of Economic Analysis and Policy* 9 (1), Article 34.

White, H. (1980), 'A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity', *Econometrica* 48, 817-838.

Wooldridge, J.M. (2010), *Econometric Analysis of Cross Section and Panel Data*, 2nd edition, MIT Press, Cambridge MA.

Wooldridge, J.M. (2012), 'Quasi-Maximum Likelihood Estimation and Testing for Nonlinear Models with Endogenous Explanatory Variables', mimeo.

Wooldridge, J.M. (2013) *Introductory Econometrics – A Modern Approach*, 5th edition, South-Western, Florence.

APPENDIX

Table 4: Table of Correlations

	Rel	Rep	Age	Ref	Volume	German	Domestic	Assoc	Special	Elsevier	Springer	Wiley-B	H-Index	Cit/Pap	HB-Rat
Reputation	0.85***														
Age	0.16**	0.21**													
Refereed	0.06	0.21**	-0.01												
Volume	0.07	0.33***	0.19**	0.03											
German	-0.07	-0.26***	0.14*	-0.68***	-0.09										
Domestic	-0.14*	-0.33***	0.30***	-0.56***	-0.15*	0.74***									
Association	0.20**	0.14*	0.08	0.10	-0.09	-0.02	-0.02								
Special	-0.26***	-0.09	-0.27***	0.32***	-0.03	-0.25***	-0.33***	-0.02							
Elsevier	0.03	0.11	-0.28***	0.16*	0.09	-0.21**	-0.28***	-0.17**	0.36***						
Springer	-0.14*	-0.20**	-0.12	-0.03	-0.10	-0.04	0.17**	-0.07	0.16*	-0.21**					
Wiley-Blackw.	-0.04	-0.05	0.02	0.14*	-0.11	-0.14*	-0.13	0.11	-0.17**	-0.25***	-0.19**				
H-Index	0.24***	0.59***	0.29***	0.21**	0.77***	-0.26***	-0.32***	0.00	0.05	0.11	-0.15*	-0.03			
Cites/Paper	0.20**	0.51***	0.25***	0.14*	0.80***	-0.18**	-0.22***	-0.01	-0.01	0.02	-0.09	-0.08	0.92***		
HB-Rating	0.57***	0.84***	0.20**	0.28***	0.39***	-0.35***	-0.42***	0.09	0.11	0.21**	-0.19**	-0.06	0.71***	0.61***	
GEA-Rating	0.57***	0.73***	0.06	0.26***	-0.01	-0.34***	-0.41***	0.07	0.13	0.21**	-0.12	0.06	0.31***	0.20***	0.80***

* p<0.1, ** p<0.05, *** p<0.01

Table 5: Determinants of Relevance for Different Age Groups

	<36		36-45		46-55		56-65		>65	
	2SLS	FRM	2SLS	FRM	2SLS	FRM	2SLS	FRM	2SLS	FRM
Reputation	0.4834 ***	0.2919 ***	0.4208 ***	0.2813 ***	0.2764 ***	0.2189 ***	0.2892 ***	0.3139 ***	0.3543 ***	0.2902 ***
H-Index	-0.0004 ***	-0.0002 ***	-0.0002 **	-0.0001 **	-0.0003 **	-0.0002 ***	0.0000	-0.0001	-0.0001	-0.0001
Cites/Paper	0.0000	-0.0001	-0.0001	-0.0002	0.0005 *	0.0003 *	0.0000	-0.0001	-0.0002	-0.0002
Volume	0.0000	0.0001 **	-0.0000	0.0000	-0.0001	-0.0001	-0.0001	-0.0000	0.0000	0.0000
Refereed	0.0076	0.0113	0.0108	0.0175	-0.0085	-0.0118	0.0135	0.0050	0.0095	0.0035
Domestic	-0.0137	-0.0112	-0.0149	-0.0117	-0.0118	-0.0062	-0.0227	-0.0054	0.0068	0.0175
German	0.0082	0.0008	0.0162	0.0206	0.0403 **	0.0489 *	0.0557 **	0.0599 **	0.0657 *	0.0556 *
Elsevier	0.0170 *	0.0266 ***	0.0133	0.0275 ***	0.0092	0.0178 **	0.0152	0.0173	0.0094	0.0243
Springer	0.0075	0.0083	0.0179 *	0.0235 *	0.0236 **	0.0280 **	0.0264 **	0.0332 **	0.0226	0.0207
Wiley-Blackwell	-0.0006	0.0016	0.0017	0.0149 *	0.0002	0.0103	-0.0068	0.0056	-0.0067	0.0051
Association	0.0106	0.0060	0.0262 ***	0.0216 ***	0.0077	0.0024	0.0070	-0.0051	0.0209	0.0195
Special	-0.0236 ***	-0.0211 ***	-0.0271 ***	-0.0199 ***	-0.0257 **	-0.0182 ***	-0.0484 ***	-0.0280 **	-0.0618 ***	-0.0576 ***
Constant	0.0341 ***		0.0382 **		0.0647 ***		0.0673 **		0.0665	
N	149	149	149	149	149	149	149	149	149	149
adj. R^2	0.88		0.85		0.68		0.54		0.60	
p of Hansen's J	0.40		0.51		0.54		0.76		0.23	
Kleibergen-Paap F	41.2		40.6		23.4		11.4		10.7	

* p<0.1, ** p<0.05, *** p<0.01

Table 6: Determinants of Reputation for Different Age Groups

	<36		36-45		46-55		56-65		>65	
	2SLS	FRM	2SLS	FRM	2SLS	FRM	2SLS	FRM	2SLS	FRM
Relevance	1.3398 ***	0.5357 ***	1.2169 ***	0.5806 ***	1.7416 ***	0.7547 ***	1.2292 ***	0.7775 ***	1.0703 ***	0.6832 ***
H-Index	0.0005 ***	0.0003 **	0.0004 *	0.0002 **	0.0006 ***	0.0004 ***	0.0001	0.0002	0.0003	0.0002
Cites/Paper	-0.0002	-0.0004	0.0002	0.0001	-0.0009 **	-0.0007 **	0.0001	-0.0002	0.0007	0.0004
Volume	0.0001	0.0002 ***	0.0000	0.0001	0.0002 *	0.0002 ***	0.0002 ***	0.0002 ***	-0.0000	-0.0000
Refereed	0.0075	0.0371 **	-0.0021	0.0261	0.0318	0.0159	0.0076	0.0194	0.0251	0.0231
Domestic	0.0209	0.0210	0.0122	-0.0144	-0.0042	-0.0488 **	-0.0062	-0.0070	0.0004	0.0128
German	-0.0034	-0.0399 *	-0.0038	0.0031	-0.0576 *	-0.0575 **	-0.0577 **	-0.0506 **	-0.0378	-0.0161
Elsevier	-0.0329 **	-0.0268 ***	-0.0282 *	-0.0039	-0.0218	-0.0098	-0.0214	-0.0137	-0.0150	-0.0020
Springer	-0.0148	-0.0321 **	-0.0333 **	-0.0244 *	-0.0540 ***	-0.0437 ***	-0.0263	-0.0204	-0.0453 **	-0.0542 ***
Wiley-Blackwell	-0.0170	-0.0339 ***	-0.0267 **	-0.0141	-0.0280	-0.0192	-0.0242	-0.0183	-0.0176	-0.0074
Age	-0.0002	-0.0003 *	-0.0002	-0.0001	-0.0002	-0.0001	0.0003	0.0001	0.0001	0.0002
HB-Rating	0.1674 **	0.1621 ***	0.2515 **	0.1398 ***	0.1824 *	0.1275 **	0.1390 *	0.0762	0.0918	0.0772
GEA-Rating	0.0993 *	0.1501 ***	0.1223 *	0.1795 ***	0.1484 **	0.1817 ***	0.1466 **	0.1537 ***	0.1573 **	0.1505 **
Constant	-0.0419 **		-0.0325		-0.0764		-0.0341		-0.0270	
N	149	149	149	149	149	149	149	149	149	149
adj. R^2	0.93		0.93		0.87		0.81		0.75	
p of Hansen's J	0.94		0.21		0.59		0.92		0.94	
Kleibergen-Paap F	8.3		6.3		5.5		8.6		10.5	

* p<0.1, ** p<0.05, *** p<0.01

Table 7: Estimated Total Effects of 2SLS Models for Different Age Groups

	<36		36-45		46-55		56-65		>65	
	Relevance	Reputation	Relevance	Reputation	Relevance	Reputation	Relevance	Reputation	Relevance	Reputation
H-Index	-0.0003	0.0002	-0.0002	0.0001	-0.0002	0.0004	0.0000	0.0001	-0.0001	0.0002
Cites/Paper	-0.0001	-0.0003	-0.0000	0.0002	0.0004	-0.0003	0.0000	0.0001	-0.0000	0.0006
Volume	0.0001	0.0003	0.0000	0.0001	-0.0001	0.0001	-0.0001	0.0001	-0.0000	-0.0000
Refereed	0.0318 **	0.0501 *	0.0203	0.0226	0.0006	0.0328	0.0244	0.0377	0.0295	0.0567
Domestic	-0.0101	0.0074	-0.0200	-0.0122	-0.0250	-0.0477	-0.0380	-0.0530	0.0112	0.0125
German	0.0188	0.0218	0.0300	0.0327	0.0470 **	0.0242	0.0605 **	0.0166	0.0844 **	0.0525
Elsevier	0.0032	-0.0286	0.0029	-0.0247	0.0062	-0.0111	0.0140	-0.0042	0.0066	-0.0078
Springer	0.0011	-0.0133	0.0079	-0.0237	0.0167	-0.0250	0.0291 *	0.0094	0.0105	-0.0341
Wiley-Blackwell	-0.0249	-0.0503 *	-0.0196	-0.0506 *	-0.0146	-0.0534 *	-0.0214	-0.0504	-0.0209	-0.0399
Association	0.0301 *	0.0403	0.0537 ***	0.0654 **	0.0148	0.0257	0.0108	0.0133	0.0337	0.0360
Special	-0.0671 ***	-0.0899 ***	-0.0556 ***	-0.0677 ***	-0.0496 ***	-0.0864 ***	-0.0751 ***	-0.0923 ***	-0.0995 ***	-0.1065 ***
Age	-0.0003	-0.0006	-0.0002	-0.0005	-0.0001	-0.0003	0.0001	0.0005	0.0001	0.0002
HB-Rating	0.2297 **	0.4751 ***	0.2169 ***	0.5155 ***	0.0972 **	0.3516 **	0.0624	0.2157 *	0.0524	0.1478
GEA-Rating	0.1362 **	0.2818 **	0.1055 *	0.2507 *	0.0791 **	0.2862 **	0.0658 *	0.2275 **	0.0898	0.2534 **

* p<0.1, ** p<0.05, *** p<0.01

PREVIOUS DISCUSSION PAPERS

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.

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.
Forthcoming in: Scottish Journal of Political Economy.

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.

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.
Forthcoming in: International Game Theory Review.

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 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.
Forthcoming in: Information Economics and Policy.

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.
Forthcoming in: International Economics and Economic Policy.

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.
Forthcoming in: Journal of Institutional and Theoretical Economics.

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.
Forthcoming in: The Energy Journal.

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.

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.

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.
Forthcoming in: Economic Journal.

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.

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,
Forthcoming in: The European Journal of Health Economics.

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.

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.

40 Müller, Hans Christian, Forecast Errors in Undisclosed Management Sales Forecasts: The Disappearance of the Overoptimism Bias, December 2011.

39 Gu, Yiquan and Wenzel, Tobias, Transparency, Entry, and Productivity, November 2011.
Published in: Economics Letters, 115 (2012), pp. 7-10.

38 Christin, Clémence, Entry Deterrence Through Cooperative R&D Over-Investment, November 2011.
Forthcoming in: Louvain Economic Review.

37 Haucap, Justus, Herr, Annika and Frank, Björn, In Vino Veritas: Theory and Evidence on Social Drinking, November 2011.
In a modified version forthcoming in: European Journal of Law and Economics.

36 Barth, Anne-Kathrin and Graf, Julia, Irrationality Rings! – Experimental Evidence on Mobile Tariff Choices, November 2011.

35 Jeitschko, Thomas D. and Normann, Hans-Theo, Signaling in Deterministic and Stochastic Settings, November 2011.
Published in: Journal of Economic Behavior and Organization, 82 (2012), pp.39-55.

34 Christin, Cémence, Nicolai, Jean-Philippe and Pouyet, Jerome, The Role of Abatement Technologies for Allocating Free Allowances, October 2011.

33 Keser, Claudia, Suleymanova, Irina and Wey, Christian, Technology Adoption in Markets with Network Effects: Theory and Experimental Evidence, October 2011.
Published in: Information Economics and Policy, 24 (2012), pp. 262-276.

32 Çatik, A. Nazif and Karaçuka, Mehmet, The Bank Lending Channel in Turkey: Has it Changed after the Low Inflation Regime?, September 2011.
Published in: Applied Economics Letters, 19 (2012), pp. 1237-1242.

31 Hauck, Achim, Neyer, Ulrike and Vieten, Thomas, Reestablishing Stability and Avoiding a Credit Crunch: Comparing Different Bad Bank Schemes, August 2011.

30 Suleymanova, Irina and Wey, Christian, Bertrand Competition in Markets with Network Effects and Switching Costs, August 2011.
Published in: B. E. Journal of Economic Analysis & Policy, 11 (2011), Article 56.

29 Stühmeier, Torben, Access Regulation with Asymmetric Termination Costs, July 2011.
Published in: Journal of Regulatory Economics, 43 (2013), pp. 60-89.

28 Dewenter, Ralf, Haucap, Justus and Wenzel, Tobias, On File Sharing with Indirect Network Effects Between Concert Ticket Sales and Music Recordings, July 2011.
Published in: Journal of Media Economics, 25 (2012), pp. 168-178.

27 Von Schlippenbach, Vanessa and Wey, Christian, One-Stop Shopping Behavior, Buyer Power, and Upstream Merger Incentives, June 2011.

26 Balsmeier, Benjamin, Buchwald, Achim and Peters, Heiko, Outside Board Memberships of CEOs: Expertise or Entrenchment?, June 2011.

25 Clougherty, Joseph A. and Duso, Tomaso, Using Rival Effects to Identify Synergies and Improve Merger Typologies, June 2011.
Published in: Strategic Organization, 9 (2011), pp. 310-335.

24 Heinz, Matthias, Juranek, Steffen and Rau, Holger A., Do Women Behave More Reciprocally than Men? Gender Differences in Real Effort Dictator Games, June 2011.
Published in: Journal of Economic Behavior and Organization, 83 (2012), pp. 105-110.

23 Sapi, Geza and Suleymanova, Irina, Technology Licensing by Advertising Supported Media Platforms: An Application to Internet Search Engines, June 2011.
Published in: B. E. Journal of Economic Analysis & Policy, 11 (2011), Article 37.

22 Buccirossi, Paolo, Ciari, Lorenzo, Duso, Tomaso, Spagnolo Giancarlo and Vitale, Cristiana, Competition Policy and Productivity Growth: An Empirical Assessment, May 2011.
Forthcoming in: The Review of Economics and Statistics.

21 Karaçuka, Mehmet and Çatik, A. Nazif, A Spatial Approach to Measure Productivity Spillovers of Foreign Affiliated Firms in Turkish Manufacturing Industries, May 2011.
Published in: The Journal of Developing Areas, 46 (2012), pp. 65-83.

20 Çatik, A. Nazif and Karaçuka, Mehmet, A Comparative Analysis of Alternative Univariate Time Series Models in Forecasting Turkish Inflation, May 2011.
Published in: Journal of Business Economics and Management, 13 (2012), pp. 275-293.

19 Normann, Hans-Theo and Wallace, Brian, The Impact of the Termination Rule on Cooperation in a Prisoner's Dilemma Experiment, May 2011.
Published in: International Journal of Game Theory, 41 (2012), pp. 707-718.

18 Baake, Pio and von Schlippenbach, Vanessa, Distortions in Vertical Relations, April 2011.
Published in: Journal of Economics, 103 (2011), pp. 149-169.

17 Haucap, Justus and Schwalbe, Ulrich, Economic Principles of State Aid Control, April 2011.
Forthcoming in: F. Montag & F. J. Säcker (eds.), European State Aid Law: Article by Article Commentary, Beck: München 2012.

16 Haucap, Justus and Heimeshoff, Ulrich, Consumer Behavior towards On-net/Off-net Price Differentiation, January 2011.
Published in: Telecommunication Policy, 35 (2011), pp. 325-332.

15 Duso, Tomaso, Gugler, Klaus and Yurtoglu, Burcin B., How Effective is European Merger Control? January 2011.
Published in: European Economic Review, 55 (2011), pp. 980-1006.

14 Haigner, Stefan D., Jenewein, Stefan, Müller, Hans Christian and Wakolbinger, Florian, The First shall be Last: Serial Position Effects in the Case Contestants evaluate Each Other, December 2010.
Published in: Economics Bulletin, 30 (2010), pp. 3170-3176.

13 Suleymanova, Irina and Wey, Christian, On the Role of Consumer Expectations in Markets with Network Effects, November 2010.
Published in: Journal of Economics, 105 (2012), pp. 101-127.

12 Haucap, Justus, Heimeshoff, Ulrich and Karaçuka, Mehmet, Competition in the Turkish Mobile Telecommunications Market: Price Elasticities and Network Substitution, November 2010.
Published in: Telecommunications Policy, 35 (2011), pp. 202-210.

11 Dewenter, Ralf, Haucap, Justus and Wenzel, Tobias, Semi-Collusion in Media Markets, November 2010.
Published in: International Review of Law and Economics, 31 (2011), pp. 92-98.

10 Dewenter, Ralf and Kruse, Jörn, Calling Party Pays or Receiving Party Pays? The Diffusion of Mobile Telephony with Endogenous Regulation, October 2010.
Published in: Information Economics and Policy, 23 (2011), pp. 107-117.

09 Hauck, Achim and Neyer, Ulrike, The Euro Area Interbank Market and the Liquidity Management of the Eurosystem in the Financial Crisis, September 2010.

08 Haucap, Justus, Heimeshoff, Ulrich and Schultz, Luis Manuel, Legal and Illegal Cartels in Germany between 1958 and 2004, September 2010.
Published in: H. J. Ramser & M. Stadler (eds.), Marktmacht. Wirtschaftswissenschaftliches Seminar Ottobeuren, Volume 39, Mohr Siebeck: Tübingen 2010, pp. 71-94.

07 Herr, Annika, Quality and Welfare in a Mixed Duopoly with Regulated Prices: The Case of a Public and a Private Hospital, September 2010.
Published in: German Economic Review, 12 (2011), pp. 422-437.

06 Blanco, Mariana, Engelmann, Dirk and Normann, Hans-Theo, A Within-Subject Analysis of Other-Regarding Preferences, September 2010.
Published in: Games and Economic Behavior, 72 (2011), pp. 321-338.

05 Normann, Hans-Theo, Vertical Mergers, Foreclosure and Raising Rivals' Costs – Experimental Evidence, September 2010.
Published in: The Journal of Industrial Economics, 59 (2011), pp. 506-527.

04 Gu, Yiquan and Wenzel, Tobias, Transparency, Price-Dependent Demand and Product Variety, September 2010.
Published in: Economics Letters, 110 (2011), pp. 216-219.

03 Wenzel, Tobias, Deregulation of Shopping Hours: The Impact on Independent Retailers and Chain Stores, September 2010.
Published in: Scandinavian Journal of Economics, 113 (2011), pp. 145-166.

02 Stühmeier, Torben and Wenzel, Tobias, Getting Beer During Commercials: Adverse Effects of Ad-Avoidance, September 2010.
Published in: Information Economics and Policy, 23 (2011), pp. 98-106.

01 Inderst, Roman and Wey, Christian, Countervailing Power and Dynamic Efficiency, September 2010.
Published in: Journal of the European Economic Association, 9 (2011), pp. 702-720.

Heinrich-Heine-University of Düsseldorf

Düsseldorf Institute for Competition Economics (DICE)

Universitätsstraße 1 _ 40225 Düsseldorf
www.dice.hhu.de

ISSN 2190-9938 (online)
ISBN 978-3-86304-102-1