UNIVERSITY OF SUSSEX | BUSINESS SCHOOL

ECONOMICS

Working Paper Series

No. 01-2022

Confidence Intervals for Recursive Journal Impact Factors

Johannes König
International Center for Higher Education Research (INCHER) and
Department of Economics, Economic Policy, Innovation and Entrepreneurship, University of Kassel, Germany
Koenig@uni-kassel.de

David I. Stern
Arndt-Corden Department of Economics, Crawford School of Public Policy, The Australian National University, 132 Lennox Crossing, Acton, ACT 2601, Australia
david.stern@anu.edu.au

Richard S.J. Tol
Department of Economics, University of Sussex, BN1 9SL Falmer, United Kingdom
Institute for Environmental Studies, Vrije Universiteit Amsterdam, The Netherlands
Department of Spatial Economics, Vrije Universiteit Amsterdam, The Netherlands Tinbergen Institute, Amsterdam, The Netherlands
gCESifo, Munich, Germany
Payne Institute for Public Policy, Colorado School of Mines, Golden, CO, USA
r.tol@sussex.ac.uk

Abstract: We compute confidence intervals for recursive impact factors, that take into account that some citations are more prestigious than others, as well as for the associated ranks of journals, applying the methods to the population of economics journals. The Quarterly Journal of Economics is clearly the journal with greatest impact, the confidence interval for its rank only includes one. Based on the simple bootstrap, the remainder of the "Top-5" journals are in the top 6 together with the Journal of Finance, while the Xie et al. (2009), and Mogstad et al. (2022) methods generally broaden estimated confidence intervals, particularly for mid-ranking journals. All methods agree that most apparent differences in journal quality are, in fact, mostly insignicant.

JEL codes: A14 C15 C46

Key words: Bibliometrics, citation analysis, publishing, bootstrapping

Confidence Intervals for Recursive Journal Impact Factors

Johannes König[a], David I. Stern[b], and Richard S.J. Tol[c d e f g h]

[a]International Center for Higher Education Research (INCHER) and Department of Economics, Economic Policy, Innovation and Entrepreneurship, University of Kassel, Germany
[b]Arndt-Corden Department of Economics, Crawford School of Public Policy, The Australian National University, 132 Lennox Crossing, Acton, ACT 2601, Australia, david.stern@anu.edu.au
[c]Department of Economics, University of Sussex, BN1 9SL Falmer, United Kingdom, r.tol@sussex.ac.uk
[d]Institute for Environmental Studies, Vrije Universiteit Amsterdam, The Netherlands
[e]Department of Spatial Economics, Vrije Universiteit Amsterdam, The Netherlands
[f]Tinbergen Institute, Amsterdam, The Netherlands
[g]CESifo, Munich, Germany
[h]Payne Institute for Public Policy, Colorado School of Mines, Golden, CO, USA

May 31, 2022

Abstract

We compute confidence intervals for recursive impact factors, that take into account that some citations are more prestigious than others, as well as for the associated ranks of journals, applying the methods to the population of economics journals. The *Quarterly Journal of Economics* is clearly the journal with greatest impact, the confidence interval for its rank only includes one. Based on the simple bootstrap, the remainder of the "Top-5" journals are in the top 6 together with the *Journal of Finance*, while the Xie et al. (2009), and Mogstad et al. (2022) methods generally broaden estimated confidence intervals, particularly for mid-ranking journals. All methods agree that most apparent differences in journal quality are, in fact, mostly insignificant.

JEL Classification: A14 C15 C46
Keywords: Bibliometrics, citation analysis, publishing, bootstrapping
Acknowledgements: We thank Carl Bergstrom for sending us information on the Eigenfactor metrics and Daniel Wilhelm for help with the ranks bootstrapping. Johannes König gratefully acknowledges support from the German Federal Ministry of Education and Research (BMBF) under grant number 16PU17007A and from Deutsche Forschungsgemeinschaft (DFG) (FOR 5234).

1 Introduction

Academics are all too human in their love of pecking orders. Ranking journals is a popular pastime and a key step towards ranking researchers and departments. Unfortunately, as impact factors are stochastic measures of underlying journal quality (Stern, 2013), journal rankings create an unwarranted sense of precision. Therefore, it is important to understand when distinctions between journals may be reliably made and when they cannot. Stern (2013) computed confidence intervals and other statistics for *simple* journal impact factors (IFs) for all economics journals included in the *Web of Science*. In this paper, we propose a method to compute the standard errors of Pinski and Narin (1976) *recursive* impact factors [1] and their ranks, which we apply it to the population of economics journals.

Recursive impact factors reflect not only how many times a publication has been cited but also where it was cited, with greater weight placed on citations in outlets that are themselves highly cited. Where the simple impact factor assumes that all citations are created equal, the recursive impact factor acknowledges that some citations are more prestigious than others. Recursive IFs better reflect journal prestige, while simple IFs reflect popularity (Bollen et al., 2009). Because economists tend to evaluate the research of other economists based more on where their work was published rather than how many citations it has received, the most popular journal rankings in economics use recursive or iterative impact factors (Liebowitz and Palmer, 1984; Laband and Piette, 1994; Kalaitzidakis et al., 2003; Kodrzycki and Yu, 2006; Palacios-Huerta and Volij, 2004; Zimmermann, 2013; Ham et al., 2021), though there is evidence that total citation numbers best predict salaries (Hamermesh, 2018) and the distribution of economists across institutions (Stern and Tol, 2021).

Stern (2013, 188-189) notes that "simple IFs may not be the most appropriate measure of journal quality and recursive indicators are more popular in economics journal ranking studies. However, there is no simple way to construct uncertainty measures for these iterative indicators. It seems likely that the level of uncertainty concerning rankings revealed here would also attend rankings produced using more sophisticated indicators." While simple impact factors are means, the recursive impact factors are an eigenvector. We, therefore, use bootstrapping to compute confidence intervals and standard errors for recursive journal IFs. We also compute confidence intervals for the journals' ranks. Inference on ranks is complicated too, as the distribution of a rank is distinctly non-normal and the distributions of ranks are not at all independent.[2] We use a simple bootstrap, as suggested by Goldstein and Spiegelhalter (1996),[3] and adapt the methods of Xie et al. (2009), and Mogstad et al. (2022) to directly use our article level data. The results are similar to those for simple IFs reported by Stern (2013): *The Quarterly Journal of Economics* is clearly the top ranked journal. Based on the simple bootstrap, the remainder of the "Top-5" journals are in the top 6 together with the *Journal of Finance*, while the Xie et al. (2009), and Mogstad et al. (2022) methods generally broaden estimated confidence intervals. All methods agree that most apparent differences in journal quality are, in fact, mostly insignificant.

Stern (2013) uses the standard error of the mean to compute the standard error for simple IFs, as the simple IF is a mean: The average number of citations in the year that we compute the impact factor for —the "citation year" —to each article published by the journal in question in the "publication window" we are assessing. Its standard error is the standard deviation of the number of citations received in the citation year divided by the square root of the number

[1] This method is also known as the "invariant method" for recursive IFs. Palacios-Huerta and Volij (2004) show that the Pinski and Narin (1976) method is axiomatically the best recursive impact factor method.

[2] Mogstad et al. (2022) compute confidence intervals for the ranks of economics journals using Stern's data. Horrace and Parmeter (2017) use the same data to assign journals to best and second-best "clubs" while controlling for multiple comparisons.

[3] While Goldstein and Spiegelhalter (1996) suggest using bootstrapping to derive confidence intervals for ranks of different populations, they do not actually use this approach in their paper. Hall and Miller (2009) simply state that bootstrapping ranks is popular and convenient. Nevertheless, we refer to this as the Goldstein method in many places.

of articles published in the publication window. So, for example, to compute the 2019 5-year IF, we compute the average citations received in 2019 by articles published in a given journal in 2014-18. To compute the IF's standard error, we use the same list of the number of times each of the 2014-18 articles was cited in 2019.

If instead we used bootstrapping to compute this standard error, we would analogously resample with replacement from the list of 2014-18 articles and each time compute the IF for that new sample. The standard deviation of this IF is the estimated standard error. This approach follows logically because this is the standard way to compute a bootstrapped standard error, we sample from the observed data used to construct the statistic in question. We do not construct a counterfactual where the numbers for the observations change. The latter would be the case, if instead we re-sampled the citing articles so that the number of citations each article received changed.

Recursive IFs are based on a matrix of how many times each journal was cited by each other journal in the citation year —the "journal cross-citation matrix". Underlying this matrix is a matrix of how many times each article published in the publication window was cited by each journal in the citation year. For example, each row could be an article published in 2014-18 and each column list how many times each of those articles was cited by a particular journal in 2019.

We propose to bootstrap recursive IFs in a similar way to the simple IF:

1. Reesample with replacement from the list of all articles published in the publication window but make sure to sample the same number of articles from each journal as there are in the observed data.

2. Compute the matrix of how many times each journal cited each other journal, the cross-citation matrix, from this.

3. Compute the recursive impact factors from this and associated matrices.

4. Use the distribution of values from repeated runs to construct the standard errors, confidence intervals etc. for each journal.

We also construct confidence intervals for journal ranks by computing the ranks of the journals in each run and by combining this bootstrapping approach with the Xie et al. (2009) and Mogstad et al. (2022) methods for computing the confidence intervals of ranks.

Lyhagen and Ahlgren (2020) is the only previous research on this topic that we are aware of. They use a bootstrapping method to compute confidence intervals for the Pinski and Narin recursive IFs. Their method only uses the journal cross-citation matrix and so does not resample articles. They redistribute the references in one of the journals to the others randomly using the probabilities represented by the entries of the cross-citation matrix and then recalculate all the ranks. Using these changes in ranks, they estimate confidence intervals for the recursive IFs. Therefore, their method misses the variation of citations *within* journals, which is likely greater than the variation of citation *across* journals (Oswald, 2007; Wall, 2009). In our sample, in a regression of citation counts of articles on journal fixed effects, the fixed effects only explain 16% of the variation in the number of times articles are cited. On the other hand, our analysis (in common with Lyhagen and Ahlgren (2020)) misses citations to and from journals in other disciplines. Aistleitner et al. (2019) show that the top 5 journals in economics tend to cite each other more than those in other social science disciplines do. Assuming this extends to economics journals in general, it is more reasonable to limit our analysis to only economics journals than it would be if we were examining, for example, sociology journals—but this choice does, of course, disproportionately affect journals positioned at the boundaries of economics.

The original purpose of computing journal citation metrics was to inform librarians about which journals they should subscribe to (Garfield, 1972). Given that most citations were to a small subset of all journals, subscriptions could focus on these. However, journal level citation metrics are often used to evaluate individual research papers and individual researchers. There

has been much criticism of this use of journal level citation metrics (Waltman and Traag, 2020) culminating in the San Francisco Declaration on Research Assessment. As the distribution of citations to the articles in any journal is usually very dispersed and skewed (Seglen, 1992), the correlation between journal impact factors and the citations received by individual articles is necessarily low. Oswald (2007) finds that the best article in an issue of a good to medium-quality journal routinely goes on to have much more citation impact than a 'poor' article published in an issue of a more prestigious journal. However, this does not mean that there is no correlation between impact factors and paper citations (Lozano et al., 2012) and there is also a strong negative correlation between IFs and journals' acceptance rates, which measure journal selectivity and, therefore, are a proxy for quality (Aarssen et al., 2008).

Waltman and Traag (2020) develop a model where researchers try to submit their paper to the most prestigious journal in terms of its impact factor, but citations are an imprecise measure of underlying paper quality, and the review process is also stochastic. Then depending on the relative variances of the review and citation processes, journal impact factors can be a better measure of the underlying quality of a paper than the actual number of citations a paper receives. More generally, journal citation metrics are useful for assessing recently published and forthcoming papers, which have not yet had time to receive many citations (Abramo et al., 2010; Levitt and Thelwall, 2011; Stern, 2014). However, because of the high variance of citations to articles in individual journals a measure of the uncertainty of impact factors is essential.

The paper continues as follows. Section 2 presents the data (2.1), reviews alternative approaches to computing recursive IFs (2.2), and discusses how to carry out bootstrapping (2.3), compute the recursive impact factors in practice (2.4), and methods for computing confidence intervals for ranks (2.5). Section 3 presents the results and Section 4 concludes.

2 Data and Methods

2.1 Data

Our initial sample includes all 323 journals in the economics category in the *Journal Citation Reports* that have citable items in all of the years 2014, 2015, 2016, 2017, 2018, and 2019.[4] We obtain the number of citations in each of the 323 journals in 2019 to the citable items published in each journal in the five year period, 2014-2018 via our access to the Clarivate database. The Clarivate database drives the well-known *Web of Science*, which includes papers published in a "rigorously selected core of journals" and their forward and backward citations. We include articles and reviews only, as the sum of these corresponds to the number of citable items in the *Journal Citation Reports*. This difference between citable items and total items is greatest for the journal *Value in Health*, where the most common publication type is meeting abstracts.

We dropped the following journals that gave a low number of citations in 2019 to articles published in 2014-18 in the other journals. As a result, it was possible to select no articles from these journals which referenced other journals in the bootstrapping. In that case, the matrix D in (1) is non-invertible and our algorithm crashes.

- *Australian Journal of Political Economy* (ISSN: 0156-5826), which gave only 11 citations in 2019 to articles published in 2014-18 in the other journals.
- *CEPAL Review* (ISSN: 0251-2920), which gave only 7 citations in 2019 to articles published in 2014-18 in the other journals.
- *Revue d'Etudes Comparatives Est-Ouest* (ISSN: 0339-0599), which gave only 4 citations in 2019 to articles published in 2014-18 in the other journals.

[4] Unlike Ham et al. (2021), we do not attempt to identify which of these are really economics journals and which are not.

- *Journal of Competition Law and Economics* (ISSN: 1744-6414), which gave only 7 citations in 2019 to articles published in 2014-18 in the other journals.

There are 319 journals and 88,928 articles in total in the remaining dataset.

We sorted the data in Excel by the ISSN of the cited journal and then by cited article to make the subsequent computation easier. The data files that we use in our analysis consist of the list of the details of the articles, including the journal in which they were published, a file containing the number of articles published in each journal, and a matrix of the number of times each article was cited by each journal. We wrote programs in RATS and Matlab to carry out the computations. The output data from the bootstrapping consist of a vector for each journal of the value of the recursive IF in each of the 1000 iterations from which we compute the results in Table 1. These vectors are numbered in order of ISSN.

2.2 Recursive Impact Factors

Palacios-Huerta and Volij (2004) show that the Pinski and Narin (1976) "invariant" method is axiomatically the best recursive impact factor method. It obtains the impact factors as the positive eigenvector (Perron–Frobenius theorem), v, of the following matrix:

$$A^{-1}CD^{-1}A \tag{1}$$

where C is the journal cross-citation matrix of entries C_{ij}, which denotes the citations received by journal i from journal j. D is a diagonal matrix with $C_j = \sum_i C_{ij}$, the total citations that journal j gave to other journals (or the sum of its references), on its diagonal. A is a diagonal matrix with the number of articles published in each journal, A_i, in the publication window on its diagonal. Each of these matrices has dimensions $J \times J$, where J is the number of journals.

Underlying C is a matrix P $(K \times J)$ of the number of times each article published in the publication window was cited by each journal in the citation year. K is the total number of articles published in all journals in the publication window including articles with no citations. Each row of the matrix is for an article published in the publication window and each column is for a citing journal. So $P_{k,j}$ is the number of times journal j cited article k in the citation year. Matrix Q $(J \times K)$ has a row for each cited journal and a column for each article and an entry of one for $Q_{i,k}$ indicates that article k was published in journal i. Then:

$$C = QP \tag{2}$$

Note that $A^{-1}C$ is the average number of citations that an article in journal i got in journal j as each of its entries is C_{ij}/A_i. The sum of each row of $A^{-1}C$ is, therefore, the simple IF of journal i, C_i/A_i, where $C_i = \sum_j C_{ij}$. The entries of DA^{-1} are C_j/A_j, where A_j is the number of articles in the citing journal, which can be called the reference intensity of journal j, the average number of references in each paper. Therefore, Equation (1) normalizes C_{ij}/A_i—the impact of journal i on journal j—by C_j/A_j —the reference intensity of journal j. This normalization is important. Some journals insist on extensive literature reviews. Other journals impose strict limits on the number of words and references. To be included in a short reference list is more impressive than to be included in a long one.

By contrast, Liebowitz and Palmer (1984) compute the positive eigenvector of $A^{-1}C$ and so do not adjust for the reference intensity of the citing journals. Kalaitzidakis et al. (2003), Laband and Piette (1994), and Kalaitzidakis et al. (2011) use the Liebowitz and Palmer (1984) method in their rankings of economics journals and departments. On the other hand, Kodrzycki and Yu (2006), Bao et al. (2010), Lo and Bao (2016), Lyhagen and Ahlgren (2020), and Ham et al. (2021) use the Pinski and Narin method.

Alternatives to the invariant index have been proposed in order to provide various appealing properties (Koczy and Nichifor, 2013; Demange, 2014). Palacios-Huerta and Volij (2014) show

that the handicap method (Demange, 2014) satisfies a different set of axioms than satisfied by the invariant method. It is unclear whether one is better than the other. The modified invariant method of Koczy and Nichifor (2013) replaces the matrix A with D in order to address the potential for journals to manipulate rankings by publishing fewer articles, as they argue that both the Liebowitz and Palmer and invariant method are biased against "article splitting", Note that the fewer articles a journal publishes the wider its confidence interval will be, *ceteris paribus*.

The *Scimago Journal Rank* (González-Pereira et al., 2010) uses an iterative approach. González-Pereira et al. (2010, p. 380) argue that Pinski and Narin's method "presented problems that were essentially related to the topological structure of the citation network". First, each journal is assigned the same initial prestige value $1/J$, where J is the number of journals in the database. Then the iterative procedure begins. Each iteration assigns new prestige values to each journal in accordance with three criteria: (1) a minimum prestige value from simply being included in the database; (2) a publication prestige given by the journal's share in the number of papers included in the database; and (3) a citation prestige given by the number and "importance" of the citations received from other journals. This size-dependent measure is then normalized to give a size-independent metric, the SJR indicator. In order to prevent excessive journal self-citation, the number of references that a journal may direct to itself is limited to a maximum 33% of its total references. These rules are *ad hoc* and lack the elegance and axiomatic justification of the method of Pinski and Narin (1976).

The Eigenfactor metrics of Bergstrom et al. (2008) start with the matrix C, setting the diagonal to zero to eliminate self-references and then normalizing the columns to sum to one. The article vector, a, is the shares of each journal in total articles. They replace any zero columns of the normalized C by this. Call the resulting matrix H. Then they find the positive eigenvector, π, of

$$E = \varrho H + (1 - \varrho) a \mathbf{1}' \tag{3}$$

where $\mathbf{1}$ is the unit vector. They then compute $H\pi$ and normalize the resulting vector to sum to one. This is theorized to give the percentage of time a random-walking reader would spend at each journal. It is analogous to the "Google matrix" that Google uses to compute the PageRank scores of websites. The stochastic process can be interpreted as follows: for a fraction ϱ of their time, the random walker follows citations and for a fraction $1 - \varrho$ of their time the random walker "teleports" to a random article chosen at a frequency proportional to the number of articles published. The Article Influence score, reported in the Journal Citation Reports, divides this fraction by the number of articles a journal published in the publication window.

Gleich (2009) examines the sensitivity of PageRank to the parameter ϱ. Writing the PageRank vector as a function of ϱ allows him to take a derivative with respect to ϱ as a simple sensitivity measure. Gleich found that PageRank is very sensitive to the choice of ϱ and yet there is no obvious way to choose ϱ, *a priori*. Of course, this source of uncertainty does not appear in the Pinski and Narin formulation.

2.3 Bootstrapping

The bootstrapping procedure iterates the following steps $B = 1000$ times:

1. For journal $i = 1$ to $i = J$, compute A_i random integers between 1 and A_i, where A_i is the number of papers published in journal i, using a uniform distribution and place in vector r.

2. Select articles from the sample with replacement by forming the matrices P_b and Q_b, analogous to the empirical P and Q, and setting $P_{b,k,j} = P_{r_k,j}$ and $Q_{b,i,k} = Q_{i,r_k}$.

3. Compute $C_b = Q_b P_b$. This takes the bulk of the computation time of each iteration. We also compute a new version of the normalization matrix, D_b. The article matrix, A, does not change using the cluster bootstrap.

4. Compute v_b as the positive eigenvector of $A^{-1}C_b{D_b}^{-1}A$.

5. Save v_b.

We then use the distribution of the v_b's to estimate the distribution of v and its associated statistics.

We use a cluster bootstrap, as in Efron and Tibshirani (1986, Section 5), by separately resampling from the data for each journal. That is because each journal has its own distribution of citations, so that not only the mean number of citations —the simple impact factor—varies across journals but also the variance of citations and the higher moments vary. This also ensures that the number of articles in each journal in each draw is the same as in the empirical data. However, this makes the assumption that the data drawn from each journal is an independent random sample and that samples from each journal are independent of each other. In essence, individual draws in the bootstrap procedure ask what would happen to the recursive impact factor if papers with particular citation profiles had not been published and other papers with other citation profiles had been published twice or more. The assumption of independence between journals disregards that if a paper had not been published in, say, *Econometrica*, it would probably have been published in the *Journal of Econometrics*. However, as we only have anecdotal information on submission histories, we cannot estimate the dependence between journals and that correlation would not be invariant to paper quality.

Alternatively, we could resample with replacement from the whole set of articles in all journals, which assumes that all articles are drawn from a single distribution. However, this means that the number of articles in a journal is not constant across draws. We tested these two approaches on a pilot sample of the top five journals only and it made no discernible difference to the results.[5]

2.4 Computing the recursive impact factors

We use the power iteration method to find the positive eigenvector. To estimate the empirical recursive impact factors, we initialize the process using the vector of simple impact factors $v_0 = A^{-1}C\mathbf{1}$, where $\mathbf{1}$ is a vector of all ones, which sums the rows of C. Each iteration t then follows:

$$v_t = \frac{Vv_{t-1}}{|Vv_{t-1}|} \tag{4}$$

where $V = A^{-1}CD^{-1}A$. Dividing by the Euclidean length of the vector ensures that $|v_t| = 1$ and so the final vector of recursive IFs, v, has length one. We found that 20 iterations were sufficient for the vector of recursive impact factors to converge from the simple IFs.

To estimate the recursive impact factors from the bootstrapped data, we initiate the process using the empirical recursive IFs and substituting C_b and D_b for C and D in (4). We found that 10 iterations were sufficient for convergence from the empirical recursive IFs to the recursive IFs for the bootstrapped sample.

[5] A more radical alternative is as follows. In our proposed bootstrap, we randomly draw from the set of *cited* articles, assessing what would have happened to the recursive impact factor had a slightly different set of papers been published. There is another source of variation —we could have drawn from the set of *citing* articles instead. Then the data set would consist of the number of times each citing article cited each cited journal. This moves the uncertainty away from the journal for which we estimate the recursive impact factor to all journals. This is conceptually awkward if we see the recursive impact factor as an input into the decision of authors about where to submit their paper—surely, authors do not submit to a journal in order to boost the impact of other journals. Similarly, editors decide to publish a paper if they think it is suitable for their journal, not because of the papers it cites. Numerically, sampling from *citing* articles would lead to variation in citation numbers for the *cited* articles that is smaller than for sampling from *cited* articles.

2.5 Confidence intervals for ranks

In addition to computing confidence intervals, standard errors, and other quantiles for the recursive IFs, we compute confidence intervals for the ranks of each journal using three alternative methods (plus two variants). First, we use the rankings in each realization of the bootstrap to construct a 95% confidence interval of the rank, as proposed by Goldstein and Spiegelhalter (1996). This is straightforward: For each realization of the bootstrap, we rank journals. Across realizations, we find the 2.5 and 97.5 percentiles of the ranks for each journal.

Xie et al. (2009) show that computing confidence intervals for ranks by simply computing the ranks of each journal on each iteration and compiling the distribution of ranks for each journal across all iterations leads to misleading inference when values of the statistic of interest for different journals are tied or close to tied. Confidence intervals based on the simple bootstrap are too narrow, as rankings are overconfident. To see this, note that the rank R_i of journal i can be computed as

$$R_i = 1 + \sum_{j \neq i} I_{v_j > v_i} + 0.5 \sum_{j \neq i} I_{v_j = v_i} \tag{5}$$

where v_i is the estimate of the recursive impact factor of journal i and v_j of journal, and I is the indicator function equal to one if the subscripted condition is true and zero otherwise. Xie et al. (2009) propose to replace the indicator function in Equation (5) by a symmetric, standardized cumulative distribution function, such as the standard Normal distribution, F

$$R_i^X = 1 + \sum_{j \neq i} F\left(\frac{v_j - v_i}{\tau_{i,j}}\right) \tag{6}$$

where $\tau_{i,j}$ is the "bandwidth". If v_i and v_j are far apart, F assigns 0 or 1, and if $v_i = v_j$ F assigns 0.5, just like the indicator function does. However, Equation (6) avoids spurious precision when v_i and v_j are close but not the same. "Close" is defined by the bandwidth $\tau_{i,j}$. If $\tau_{i,j} \to 0$, $R^X \to R$. Following Xie et al. (2009), we set $\tau_{i,j} = \gamma \hat{\sigma}_{i,j}^{\beta}$ where γ is the interquartile range of the original data that we are ranking and $\beta = 0.5$. However, Xie et al. (2009) set $\tau_{i,j} = \tau_i$ independent of j. Departing from Xie et al. (2009), we instead use $\tau_{i,j} = \hat{\sigma}_{i-j}$, the bootstrap standard deviation of the *difference* in the recursive impact factors of journals i and j —the measure of distance used by Mogstad et al. (2022)—rather than just the standard deviation of v_i.

Xie et al. (2009, Theorem 2.1) show that the bootstrap confidence interval of the smoothed rank is a consistent estimator of the true confidence interval in the presence of ties. Xie et al. (2009, Theorem 2.3) shows in the presence of near ties that the confidence interval based on bootstraps of Equation (5) is inconsistent, essentially because the indicator function is discontinuous. They further show that a consistent estimator of the confidence interval of the rank, based on Equation (5), widens the bootstrap confidence interval (of the smoothed ranks) by

$$T_i = \sum_{i \neq j} f\left(\frac{v_j - v_i}{\tau_{i,j}}\right) \tag{7}$$

where f is a kernel function, e.g. the standard Normal density. $0.5T_i$ is subtracted from the lower bound and added to the upper bound of the bootstrap confidence interval.[6]

Thirdly, we use the approach of Mogstad et al. (2020, 2022) to construct marginal confidence sets for the ranks. Unlike the methods proposed by Xie et al. (2009) and Hall and Miller (2009),[7]

[6] There is a problem with Equation (7): If $\tau \to 0$, $f \to \infty$. We therefore set $f \leq 1$, so that any tie counts as no more than one tie.

[7] Hall and Miller (2009) propose using an "m out of n" bootstrap where the resample size, m, is smaller than the original sample size of the data, n. In our case, this would lead to more journals in the resampled data not citing any other journals in the sample, and, so, we did not pursue this approach.

that of Mogstad et al. (2020) does not require the estimation or choice of tuning parameters. First, we construct the following confidence set for each difference between pairs of recursive IFs:

$$S_{i,j} \equiv [v_i - v_j \pm \hat{\sigma}_{i,j} s_i^{0.95}] \tag{8}$$

where $\hat{\sigma}_{ij}$ is the estimated standard error of the difference between the recursive IFs, which we estimate as the standard deviation of the difference in the bootstrapped data. $s_i^{0.95}$ is the 0.95 quantile of

$$\max_{j:j\neq i} \frac{|v_{i,b} - v_{j,b} - (\bar{v}_i - \bar{v}_j)|}{\hat{\sigma}_{i,j}} \tag{9}$$

where the b indexes bootstrap iterations. We approximate the true difference between the recursive impact factors with the bootstrap mean difference $\bar{v}_i - \bar{v}_j$. In other words, for each bootstrap iteration we find the journal with the greatest absolute standardized difference in recursive IF to journal i and select that value. Then we find the 95% quantile $s_i^{0.95}$ of the values across all bootstrap iterations and use this in Equation (8).

We use two calculations of $\hat{\sigma}_{i,j}$. First, we use $\hat{\sigma}_{i-j} = \sqrt{\hat{\sigma}_i^2 + \hat{\sigma}_j^2}$ as in Mogstad et al. (2022). This is a reasonable assumption for the application in Mogstad et al. (2022) to the journal impact factors, which are independent by definition. However, the *recursive* impact factor of journal i depends on the recursive impact factors of all other journals, including journal j. We, therefore, also use $\hat{\sigma}_{i-j} = \sqrt{\hat{\sigma}_i^2 - 2\hat{\sigma}_{i,j} + \hat{\sigma}_j^2}$, where $\hat{\sigma}_i$, $\hat{\sigma}_j$, and $\hat{\sigma}_{i,j}$ are the standard deviations of $v_{i,b}$ and $v_{j,b}$ and the covariance of $v_{i,b}$ and $v_{j,b}$.

Then we count the number of journals, J_i^-, whose differences with i have a confidence set, $S_{i,j}$, that lies entirely below zero and the number of journals, J_i^+, whose differences with i have a confidence set that lies entirely above zero. The set

$$R_i^M \equiv \{J_i^- + 1, ..., J - J_i^+\} \tag{10}$$

where J is the total number of journals, covers the true rank of the journal with probability no less than $1 - \alpha = 0.95$ (Mogstad et al., 2022). That is, the Mogstad confidence interval is not narrower than the true confidence interval, but may be wider.

3 Results

Table 1 presents the observed recursive IF, the standard error, and the 95% confidence intervals for all journals. For the top ranked journals these confidence intervals are quite symmetric and closely match a classical confidence interval constructed using plus and minus 1.96 times the standard errors. However, as we go down the ranks the confidence intervals become increasingly asymmetric. Importantly, by construction, none of our estimated confidence intervals include negative numbers.

Our confidence intervals are much wider than those reported by Lyhagen and Ahlgren (2020). This is not surprising, as Lyhagen and Ahlgren (2020) ignore the within journal variance. For example, for the *American Economic Review* the upper value of their 95% confidence interval is 102.7% of their lower value. By contrast, our upper value is 122.8% of our lower value. The relative sizes of our confidence intervals are similar to those estimated by Stern (2013) for the simple IFs. For the *American Economic Review* he estimated an upper value that is 118.8% of the lower value.

Figure 1 presents the confidence intervals for all 319 journals. Clearly, the top ranked journal—the *Quarterly Journal of Economics*—stands alone above all others. All other confidence intervals overlap. Figure 1 presents the same data with a logarithmic scale so as to show detail for lower ranked journals.

Table 1 further shows the journal ranks based on the recursive impact factor and its 95% confidence interval based on two alternative methods, the Goldstein and Spiegelhalter (1996) method and the Mogstad et al. (2022) method using $\hat{\sigma}_{i-j} = \sqrt{\hat{\sigma}_i^2 - 2\hat{\sigma}_{i,j} + \hat{\sigma}_j^2}$.. Table A2 also presents the confidence intervals using two variations of the Xie et al. (2009) method and two further forms of the Mogstad et al. (2022) method.

Figure 2 shows these confidence intervals. The journals are ordered according to their empirical rank. The bootstrap confidence intervals are the narrowest. Mogstad's method yields the widest confidence intervals. Xie's approach lies in between.

The observed rank of five journals is outside the Goldstein and Spiegelhalter (1996) confidence interval, specifically they rank higher empirically than the confidence interval suggests they should. These journals are all in the field of transportation and tend to cite each other. The most cited article published by these journals has 31 citations, 29 of which came from the 5 transportation journals. Dropping this article from some bootstrap samples probably generates this result.

The large standard errors notwithstanding, there is a clear ranking. Based on the narrower Goldstein and Spiegelhalter (1996) bootstrap intervals, the four "Top 5" journals apart from the *Quarterly Journal of Economics* are always ranked in the top 6, with the *Journal of Finance* ranked between 3rd and 7th place. According to the widest Mogstad intervals, the "Top 5" are always in the top 8, with the *AEJ Applied Economics* and the *Journal of Labor Economics* perhaps in the top 5 too. Hamermesh (2018) found that citations to the *Review of Economic Studies* have fallen over time compared to the other top-5 economics journals. This suggests that now maybe there is a top-4 group of economics journals. Our results do not support this. We find that the *Review of Economic Studies* has a similar confidence interval for its rank as the *American Economic Review*.

Mid-rank, the uncertainty is larger. It is largest for the *Annals of Economics and Finance* (Goldstein intervals) and *Economic Development and Cultural Change* (Mogstad intervals), which rank between 96th and 311st and between 20th and 319th, respectively. The uncertainty again narrows at the bottom. Using the Goldstein (Mogstad) intervals, the *Korean Economic Review* (the *Journal of Korea Trade*) never ranks higher than 316th (107th), out of 319.

The narrowing of the confidence intervals at the top and bottom of the rank order is a mechanical effect of the ranking process. At the top (bottom), a higher (lower) recursive impact factor does not lead to a higher (lower) rank. The two-sided uncertainty about the score translates into one-sided uncertainty about the rank.

Table A2 shows the confidence intervals for all six methods. The average width of the 95% confidence interval for the Goldstein and Spiegelhalter (1996) method is 53.4. Using the method of Xie et al. (2009, Theorem 2.3) to resolve near-ties leads to considerably wider confidence intervals, with an average of 97.6 ranks. The pairwise method of Mogstad et al. (2022) leads to even wider confidence intervals, on average 193.3.[8] If we correct their method for the correlation between journals (as shown in Table 1), the average confidence interval widens slightly to 193.7.

The Xie confidence intervals are almost as wide, 182.8 on average, as the Mogstad confidence intervals if we use Mogstad's bandwidth (the standard deviation of the difference in scores) with Xie's method. However, using Xie's bandwidth (the interquartile range of scores times the square root of the standard deviation of the score of the journal of interest) with Mogstad's method widens Mogstad's confidence intervals to an average of 251.1. Both Xie et al. (2009) and Mogstad et al. (2022) have chosen their bandwidth to reduce type II errors.

[8] Note that for 8 journals, all in the top 15, Xie's lower bound falls below Mogstad's.

4 Conclusions

Journal rankings are often interpreted as if the underlying performance indicators are measured with great precision. This is not the case. We present here confidence intervals for the recursive impact factor and the associated rank for 319 economics journals. The recursive impact factor improves on the journal impact factor as it puts more weight on citations in more prestigious journals. This recursivity makes it harder to compute confidence intervals. The methods proposed here improve on the earlier proposal by Lyhagen and Ahlgren (2020) in that we account for within journal variation in citations and we use estimates of confidence intervals for ranks that allow for the effect of ties and close ties. The resulting confidence intervals are wide: Using the narrowest confidence intervals produced by the Goldstein and Spiegelhalter (1996) method, mid-ranking journals could just as well have ranked 25 places higher or lower, while using the much broader confidence intervals produced by the Mogstad et al. (2022) method, such journals could rank more than 90 places higher or lower. However, confidence intervals on top and bottom journals are much narrower. The *Quarterly Journal of Economics* is indisputably the most influential journal, followed by the rest of the traditional Top 5 and the *Journal of Finance*.

We also show that there are considerable differences in the results of the various methods for constructing confidence intervals for ranks. The simple bootstrap proposed by Goldstein and Spiegelhalter (1996) may appeal because of its simplicity and small-sample properties, but ties and near-ties between journal imply that the confidence intervals are too narrow. Mogstad et al. (2022) propose a method to correct for this that does not require additional parametric assumptions but their confidence intervals may be too wide by construction. The correction proposed by Xie et al. (2009) is a consistent estimator of the confidence intervals, but relies on assumptions about kernel functions and bandwidths.

The journal ranking presented here should be interpreted with caution. Not just because any ranking should, and not just because the confidence intervals are wide, but also because we only consider citations from and to journals *within* the discipline of economics. Economics journals that are frequently cited in journals of cognate disciplines are, therefore, discounted. This particularly affects economics journals on the boundaries with law, psychology, policy, or the environment.

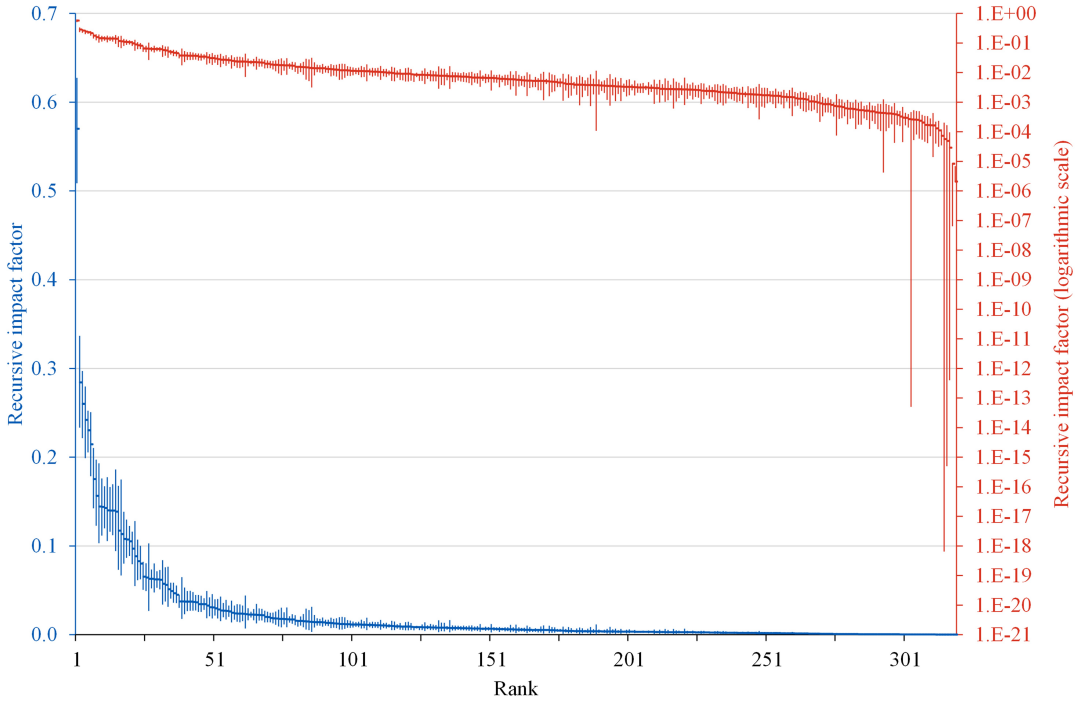

Figure 1: 95% confidence intervals of the recursive impact factor, arithmetic scale (left axis) and logarithmic scale (right axis)

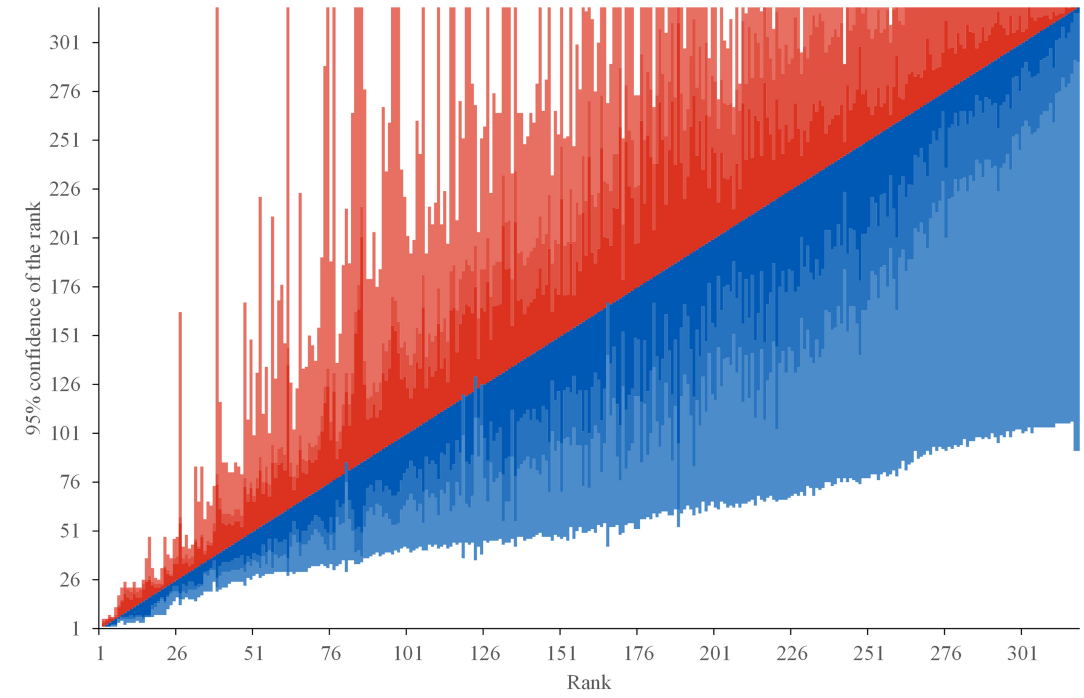

Figure 2: 95% confidence intervals of the rank based on the recursive impact factor. The inner intervals are based on Goldstein's bootstrap method, the middle intervals use Xie's correction to the bootstrap, and the outer intervals follow Mogstad's pairwise comparison.

Table 1: Key statistics for the recursive impact factor of economics journals.

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
1	QUARTERLY JOURNAL OF ECONOMICS	0033-5533	0.570030	0.031130	0.508630	0.627330	1	1	1	1
2	ECONOMETRICA	0012-9682	0.284210	0.026560	0.233370	0.336640	2	4	2	6
3	JOURNAL OF POLITICAL ECONOMY	0022-3808	0.259970	0.019550	0.221500	0.297050	2	5	2	6
4	REVIEW OF ECONOMIC STUDIES	0034-6527	0.241850	0.020320	0.198920	0.279650	2	6	2	8
5	AMERICAN ECONOMIC REVIEW	0002-8282	0.230140	0.012040	0.205480	0.252330	3	6	2	7
6	JOURNAL OF FINANCE	0022-1082	0.214530	0.018870	0.178490	0.250840	3	7	2	12
7	AMERICAN ECONOMIC JOURNAL APPLIED ECONOMICS	1945-7782	0.175250	0.017230	0.142440	0.210250	6	12	4	18
8	JOURNAL OF LABOR ECONOMICS	0734-306X	0.156380	0.018680	0.122640	0.197190	7	15	5	22
9	ANNUAL REVIEW OF ECONOMICS	1941-1383	0.144250	0.022860	0.102980	0.193120	7	19	6	25
10	JOURNAL OF ECONOMIC PERSPECTIVES	0895-3309	0.143950	0.016620	0.111620	0.176100	7	17	6	22
11	AMERICAN ECONOMIC JOURNAL ECONOMIC POLICY	1945-7731	0.142720	0.012080	0.119800	0.167320	8	16	6	22
12	AMERICAN ECONOMIC JOURNAL MACROECONOMICS	1945-7707	0.139860	0.018170	0.105510	0.177530	7	19	6	25
13	REVIEW OF FINANCIAL STUDIES	0893-9454	0.139700	0.013170	0.115890	0.166450	8	17	7	22
14	JOURNAL OF FINANCIAL ECONOMICS	0304-405X	0.139650	0.014640	0.112020	0.169480	8	17	7	22
15	JOURNAL OF ECONOMIC LITERATURE	0022-0515	0.138510	0.023860	0.094200	0.186070	7	21	6	26
16	BROOKINGS PAPERS ON ECONOMIC ACTIVITY	0007-2303	0.117110	0.024270	0.073100	0.167630	8	25	7	37
17	JOURNAL OF HUMAN RESOURCES	0022-166X	0.113300	0.027880	0.066610	0.174860	8	26	7	48
18	THEORETICAL ECONOMICS	1555-7561	0.107750	0.014600	0.079960	0.138530	13	23	7	32
19	JOURNAL OF THE EUROPEAN ECONOMIC ASSOCIATION	1542-4766	0.107120	0.010790	0.086530	0.129690	14	22	8	27
20	REVIEW OF ECONOMICS AND STATISTICS	0034-6535	0.105110	0.008640	0.088710	0.122580	15	22	8	26
21	JOURNAL OF MONETARY ECONOMICS	0304-3932	0.096940	0.009300	0.079440	0.116130	17	23	8	32
22	JOURNAL OF ECONOMIC GROWTH	1381-4338	0.088340	0.018760	0.054890	0.128100	15	32	8	48
23	QUANTITATIVE ECONOMICS	1759-7323	0.082660	0.011550	0.061280	0.107060	18	29	11	39
24	AMERICAN ECONOMIC JOURNAL MICROECONOMICS	1945-7669	0.080040	0.009400	0.062340	0.100090	20	28	13	37
25	JOURNAL OF INTERNATIONAL ECONOMICS	0022-1996	0.065360	0.008170	0.050410	0.082010	23	34	15	47
26	RAND JOURNAL OF ECONOMICS	0741-6261	0.064170	0.008090	0.049120	0.080500	23	34	17	48
27	WORLD BANK RESEARCH OBSERVER	0257-3032	0.062910	0.019330	0.026700	0.102780	19	55	13	163
28	JOURNAL OF ECONOMIC THEORY	0022-0531	0.062820	0.005570	0.052210	0.073430	24	34	16	43
29	REVIEW OF ECONOMIC DYNAMICS	1094-2025	0.062240	0.008020	0.047680	0.080270	23	35	17	49
30	ECONOMIC JOURNAL	0013-0133	0.062120	0.004770	0.052820	0.071460	25	33	16	42
31	JOURNAL OF PUBLIC ECONOMICS	0047-2727	0.061720	0.005320	0.051190	0.072800	25	34	16	44
32	ECONOMIC POLICY	0266-4658	0.057360	0.012720	0.033820	0.083870	23	46	15	84

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
33	IMF ECONOMIC REVIEW	2041-4161	0.056020	0.010040	0.037400	0.076020	24	42	17	66
34	ANNUAL REVIEW OF FINANCIAL ECONOMICS	1941-1367	0.051090	0.011370	0.031480	0.076490	24	48	18	84
35	JOURNAL OF DEVELOPMENT ECONOMICS	0304-3878	0.048980	0.004700	0.040660	0.058550	30	39	20	57
36	INTERNATIONAL ECONOMIC REVIEW	0020-6598	0.046570	0.005910	0.035960	0.058570	31	44	20	66
37	JOURNAL OF ECONOMETRICS	0304-4076	0.045060	0.005370	0.035440	0.055490	32	44	20	64
38	GAMES AND ECONOMIC BEHAVIOR	0899-8256	0.037400	0.003760	0.030290	0.044880	36	51	25	74
39	ECONOMIC DEVELOPMENT AND CULTURAL CHANGE	0013-0079	0.037380	0.012490	0.017650	0.064850	27	75	20	319
40	JOURNAL OF POLICY ANALYSIS AND MANAGEMENT	0276-8739	0.037220	0.007790	0.022970	0.053230	33	62	21	117
41	EXPERIMENTAL ECONOMICS	1386-4157	0.037180	0.005830	0.026580	0.049330	35	55	22	86
42	JOURNAL OF BUSINESS & ECONOMIC STATISTICS	0735-0015	0.037130	0.005990	0.026830	0.049520	35	54	22	86
43	JOURNAL OF HEALTH ECONOMICS	0167-6296	0.036780	0.005070	0.027170	0.047960	35	55	24	81
44	JOURNAL OF URBAN ECONOMICS	0094-1190	0.036250	0.004470	0.027310	0.044810	36	54	25	81
45	JOURNAL OF APPLIED ECONOMETRICS	0883-7252	0.034370	0.005010	0.025740	0.044670	37	56	25	86
46	REVIEW OF FINANCE	1572-3097	0.034290	0.004630	0.025590	0.043930	37	56	25	84
47	EUROPEAN ECONOMIC REVIEW	0014-2921	0.034230	0.003460	0.027970	0.041160	39	53	25	80
48	REVIEW OF ENVIRONMENTAL ECONOMICS AND POLICY	1750-6816	0.032700	0.008080	0.018590	0.049210	34	74	23	168
49	JOURNAL OF INDUSTRIAL ECONOMICS	0022-1821	0.030840	0.005400	0.020730	0.042150	38	66	27	108
50	JOURNAL OF ECONOMIC HISTORY	0022-0507	0.030640	0.006940	0.018280	0.045750	37	73	26	149
51	JOURNAL OF MONEY CREDIT AND BANKING	0022-2879	0.029610	0.004700	0.021660	0.039790	40	66	28	100
52	JOURNAL OF LAW & ECONOMICS	0022-2186	0.028370	0.005970	0.018260	0.040170	39	73	29	132
53	ECONOMICA	0013-0427	0.027060	0.007220	0.015290	0.042930	38	82	27	222
54	ECONOMETRIC THEORY	0266-4666	0.026870	0.004200	0.019740	0.035710	44	70	28	111
55	EXPLORATIONS IN ECONOMIC HISTORY	0014-4983	0.026670	0.005590	0.016970	0.039210	40	76	29	135
56	JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS	0022-1090	0.026080	0.003360	0.020110	0.032900	47	69	29	101
57	ECONOMETRICS JOURNAL	1368-4221	0.024710	0.006330	0.013780	0.038480	40	86	29	212
58	ECONOMIC THEORY	0938-2259	0.023770	0.004240	0.016810	0.032820	47	78	30	129
59	JOURNAL OF ACCOUNTING & ECONOMICS	0165-4101	0.023620	0.005190	0.014550	0.034300	45	85	30	169
60	ANNUAL REVIEW OF RESOURCE ECONOMICS	1941-1340	0.023620	0.005290	0.014070	0.034190	46	86	30	177
61	JOURNAL OF RISK AND UNCERTAINTY	0895-5646	0.023520	0.004470	0.015290	0.032800	47	82	30	147
62	QME-QUANTITATIVE MARKETING AND ECONOMICS	1570-7156	0.023080	0.009590	0.007090	0.044040	37	136	28	319
63	ECONOMICS OF EDUCATION REVIEW	0272-7757	0.022640	0.003440	0.016310	0.029760	50	79	30	127
64	JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION	0167-2681	0.022530	0.001740	0.019230	0.025980	56	72	29	103
65	JOURNAL OF ENVIRONMENTAL ECONOMICS AND MANAGEMENT	0095-0696	0.022480	0.003190	0.016330	0.028980	52	78	30	124
66	JOURNAL OF FINANCIAL ECONOMETRICS	1479-8409	0.022200	0.005600	0.012660	0.034660	45	93	30	224
67	JOURNAL OF POPULATION ECONOMICS	0933-1433	0.021980	0.003610	0.015750	0.029550	51	81	30	134
68	LABOUR ECONOMICS	0927-5371	0.021700	0.003500	0.016070	0.029260	51	80	30	135

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
69	CANADIAN JOURNAL OF ECONOMICS REVUE CANADIENNE D ECONOMIQUE	0008-4085	0.019850	0.003510	0.013830	0.027090	54	88	32	151
70	SCANDINAVIAN JOURNAL OF ECONOMICS	0347-0520	0.019700	0.003060	0.014070	0.025860	56	86	33	146
71	INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION	0167-7187	0.018800	0.002700	0.014000	0.024720	59	88	33	138
72	WORLD BANK ECONOMIC REVIEW	0258-6770	0.018280	0.003110	0.012750	0.024950	58	93	33	155
73	JOURNAL OF ECONOMICS & MANAGEMENT STRATEGY	1058-6407	0.018150	0.003870	0.011070	0.025990	56	102	34	191
74	JOURNAL OF HUMAN CAPITAL	1932-8575	0.017710	0.004870	0.009310	0.028100	52	117	33	289
75	FISCAL STUDIES	0143-5671	0.017690	0.005820	0.008260	0.030410	50	125	32	319
76	JOURNAL OF ECONOMIC SURVEYS	0950-0804	0.017400	0.003520	0.011480	0.025320	58	98	34	189
77	AMERICAN LAW AND ECONOMICS REVIEW	1465-7252	0.017330	0.005820	0.008500	0.030520	50	123	31	319
78	JOURNAL OF ECONOMIC DYNAMICS & CONTROL	0165-1889	0.017100	0.001800	0.013600	0.020730	67	88	33	137
79	AMERICAN JOURNAL OF AGRICULTURAL ECONOMICS	0002-9092	0.017060	0.002620	0.012390	0.023090	63	93	34	152
80	THEORY AND DECISION	0040-5833	0.015670	0.002910	0.010680	0.022060	65	105	36	187
81	TRANSPORTATION RESEARCH PART B METHODOLOGICAL	0191-2615	0.015500	0.001310	0.009080	0.014210	86	117	30	211
82	JOURNAL OF ECONOMIC GEOGRAPHY	1468-2702	0.015390	0.002690	0.010380	0.020650	67	105	36	188
83	REVIEW OF INCOME AND WEALTH	0034-6586	0.015040	0.003810	0.008470	0.023130	62	121	36	265
84	REVIEW OF INTERNATIONAL ORGANIZATIONS	1559-7431	0.014890	0.006060	0.005800	0.029390	52	152	34	319
85	GENEVA RISK AND INSURANCE REVIEW	1554-964X	0.014360	0.005890	0.005120	0.027790	53	165	34	319
86	REVIEW OF ECONOMIC DESIGN	1434-4742	0.014190	0.007190	0.003150	0.031400	50	202	35	319
87	REAL ESTATE ECONOMICS	1080-8620	0.013960	0.003680	0.007990	0.022180	64	126	37	277
88	JOURNAL OF MATHEMATICAL ECONOMICS	0304-4068	0.013950	0.002120	0.010310	0.018490	73	108	37	180
89	REGIONAL SCIENCE AND URBAN ECONOMICS	0166-0462	0.013930	0.002070	0.010100	0.017980	75	109	38	180
90	OXFORD BULLETIN OF ECONOMICS AND STATISTICS	0305-9049	0.013840	0.002630	0.009130	0.019410	71	116	39	204
91	ECONOMIC INQUIRY	0095-2583	0.013260	0.001720	0.010010	0.016820	77	109	40	176
92	HEALTH ECONOMICS	1057-9230	0.013070	0.001810	0.009580	0.016920	77	113	38	185
93	JOURNAL OF LAW ECONOMICS & ORGANIZATION	8756-6222	0.012880	0.003060	0.007480	0.019160	71	132	39	268
94	JOURNAL OF ECONOMIC INEQUALITY	1569-1721	0.012510	0.002610	0.007870	0.017950	74	128	40	235
95	REVIEW OF ECONOMICS OF THE HOUSEHOLD	1569-5239	0.012380	0.002950	0.007340	0.018570	72	134	40	260
96	OXFORD REVIEW OF ECONOMIC POLICY	0266-903X	0.011970	0.003560	0.005680	0.019650	69	156	39	319
97	ECONOMICS & POLITICS	0954-1985	0.011870	0.003560	0.005820	0.020130	69	154	41	319
98	EUROPEAN REVIEW OF ECONOMIC HISTORY	1361-4916	0.011810	0.003300	0.006620	0.019610	71	142	40	319
99	INTERNATIONAL TAX AND PUBLIC FINANCE	0927-5940	0.011750	0.002360	0.007790	0.016390	77	129	42	236
100	JOURNAL OF COMPARATIVE ECONOMICS	0147-5967	0.011340	0.002070	0.007620	0.015850	81	130	43	222
101	JOURNAL OF ECONOMIC PSYCHOLOGY	0167-4870	0.011340	0.001690	0.008120	0.014850	83	124	42	202
102	WORLD DEVELOPMENT	0305-750X	0.011250	0.001410	0.008820	0.014210	87	119	40	193

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
103	SOCIAL CHOICE AND WELFARE	0176-1714	0.011230	0.001670	0.008380	0.014680	84	124	41	200
104	INTERNATIONAL JOURNAL OF GAME THEORY	0020-7276	0.011180	0.002490	0.006970	0.016800	78	138	42	261
105	ECONOMIC GEOGRAPHY	0013-0095	0.011120	0.002120	0.007160	0.015270	83	134	43	244
106	JOURNAL OF AFRICAN ECONOMIES	0963-8024	0.011000	0.003510	0.005100	0.019040	71	166	41	319
107	FOOD POLICY	0306-9192	0.010810	0.001380	0.008140	0.013760	89	124	41	193
108	OXFORD ECONOMIC PAPERS-NEW SERIES	0030-7653	0.010640	0.001830	0.007360	0.014510	85	135	44	217
109	INTERNATIONAL JOURNAL OF FORECASTING	0169-2070	0.010590	0.001650	0.007830	0.014170	87	130	43	208
110	ECONOMETRIC REVIEWS	0747-4938	0.010530	0.001900	0.007380	0.014480	85	133	44	219
111	JOURNAL OF RISK AND INSURANCE	0022-4367	0.010320	0.002840	0.005650	0.016630	78	157	42	319
112	EUROPEAN JOURNAL OF POLITICAL ECONOMY	0176-2680	0.010220	0.001520	0.007430	0.013140	91	134	43	208
113	JOURNAL OF FINANCIAL STABILITY	1572-3089	0.009860	0.001620	0.006990	0.013360	90	140	44	225
114	JOURNAL OF BANKING & FINANCE	0378-4266	0.009840	0.001020	0.008030	0.011880	96	127	42	198
115	ECONOMIC HISTORY REVIEW	0013-0117	0.009650	0.002690	0.005260	0.015710	82	164	43	319
116	SOCIO-ECONOMIC REVIEW	1475-1461	0.009230	0.002500	0.005070	0.014710	85	165	45	319
117	MACROECONOMIC DYNAMICS	1365-1005	0.009220	0.001300	0.006710	0.011790	98	143	44	210
118	REVIEW OF INTERNATIONAL POLITICAL ECONOMY	0969-2290	0.009110	0.001890	0.005630	0.013170	91	157	45	271
119	JOURNAL OF TRANSPORT GEOGRAPHY	0966-6923	0.009060	0.000793	0.005440	0.008600	121	160	37	250
120	REVIEW OF WORLD ECONOMICS	1610-2878	0.009040	0.002360	0.005040	0.014160	87	167	45	319
121	KYKLOS	0023-5962	0.009030	0.002460	0.005000	0.014650	85	166	44	319
122	MATHEMATICAL SOCIAL SCIENCES	0165-4896	0.008660	0.002010	0.005320	0.013120	90	163	45	280
123	TRANSPORTATION RESEARCH PART E LOGISTICS AND TRANSPORTATION REVIEW	1366-5545	0.008470	0.000717	0.004880	0.007720	130	169	36	262
124	ECONOMICS LETTERS	0165-1765	0.008400	0.000737	0.007040	0.009870	109	139	43	204
125	TRANSPORTATION RESEARCH PART A POLICY AND PRACTICE	0965-8564	0.008370	0.000734	0.005240	0.008060	126	164	39	251
126	JOURNAL OF PUBLIC ECONOMIC THEORY	1097-3923	0.008290	0.001610	0.005240	0.011500	99	164	46	258
127	CLIOMETRICA	1863-2505	0.008280	0.002520	0.004120	0.013940	87	179	45	319
128	ENVIRONMENTAL & RESOURCE ECONOMICS	0924-6460	0.008170	0.001120	0.006140	0.010440	107	149	46	224
129	SOUTHERN ECONOMIC JOURNAL	0038-4038	0.008050	0.001760	0.005090	0.012080	97	166	46	275
130	ECONOMICS & HUMAN BIOLOGY	1570-677X	0.007970	0.001580	0.005090	0.011360	101	167	46	265
131	RESOURCE AND ENERGY ECONOMICS	0928-7655	0.007880	0.001530	0.005070	0.010900	104	167	47	265
132	JOURNAL OF PENSION ECONOMICS & FINANCE	1474-7472	0.007810	0.003550	0.002830	0.016150	80	207	44	319
133	JOURNAL OF HOUSING ECONOMICS	1051-1377	0.007800	0.002510	0.003830	0.013660	88	185	45	319
134	GERMAN ECONOMIC REVIEW	1465-6485	0.007770	0.002650	0.003720	0.013430	89	186	45	319
135	AGRICULTURAL ECONOMICS	0169-5150	0.007560	0.001060	0.005550	0.009630	113	156	47	234
136	REVIEW OF INTERNATIONAL ECONOMICS	0965-7576	0.007470	0.003710	0.002800	0.016510	79	209	43	319
137	CESIFO ECONOMIC STUDIES	1610-241X	0.007450	0.001450	0.004780	0.010520	107	169	48	265
138	LAND ECONOMICS	0023-7639	0.007430	0.001410	0.004730	0.010190	109	170	48	265
139	SMALL BUSINESS ECONOMICS	0921-898X	0.007390	0.001190	0.005390	0.010100	111	162	46	249

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
140	REGIONAL STUDIES	0034-3404	0.007250	0.001160	0.005030	0.009580	113	166	47	253
141	APPLIED ECONOMIC PERSPECTIVES AND POLICY	2040-5790	0.007240	0.001410	0.004870	0.010360	108	168	47	265
142	JOURNAL OF REGIONAL SCIENCE	0022-4146	0.007100	0.001240	0.004670	0.009590	114	170	48	260
143	CHINA ECONOMIC REVIEW	1043-951X	0.006920	0.001500	0.004400	0.010220	108	175	49	280
144	REVIEW OF INDUSTRIAL ORGANIZATION	0889-938X	0.006790	0.001770	0.003790	0.010570	107	186	50	319
145	JOURNAL OF EMPIRICAL FINANCE	0927-5398	0.006780	0.001220	0.004590	0.009330	115	172	48	266
146	JOURNAL OF BEHAVIORAL AND EXPERIMENTAL ECONOMICS	2214-8043	0.006770	0.001400	0.004230	0.009620	113	177	48	282
147	MATHEMATICAL FINANCE	0960-1627	0.006620	0.002160	0.003320	0.011860	97	196	48	319
148	ENERGY ECONOMICS	0140-9883	0.006610	0.000685	0.005250	0.007960	128	163	46	233
149	CAMBRIDGE JOURNAL OF REGIONS ECONOMY AND SOCIETY	1752-1378	0.006580	0.001190	0.004420	0.009090	118	175	49	266
150	EUROPEAN REVIEW OF AGRICULTURAL ECONOMICS	0165-1587	0.006530	0.001030	0.004650	0.008650	123	172	48	254
151	SERIES-JOURNAL OF THE SPANISH ECONOMIC ASSOCIATION	1869-4187	0.006530	0.002470	0.002460	0.011900	96	221	47	319
152	JOURNAL OF AGRICULTURAL ECONOMICS	0021-857X	0.006450	0.000985	0.004570	0.008410	123	172	48	252
153	PUBLIC CHOICE	0048-5829	0.006240	0.000941	0.004550	0.008340	125	172	46	253
154	JOURNAL OF CHOICE MODELLING	1755-5345	0.006100	0.001360	0.003200	0.008570	122	198	53	319
155	JOURNAL OF DEVELOPMENT STUDIES	0022-0388	0.006090	0.000786	0.004720	0.007790	131	172	47	248
156	VALUE IN HEALTH	1098-3015	0.006000	0.001260	0.003630	0.008510	121	189	51	300
157	FEMINIST ECONOMICS	1354-5701	0.005970	0.001210	0.003830	0.008500	123	184	53	277
158	JOURNAL OF REAL ESTATE FINANCE AND ECONOMICS	0895-5638	0.005940	0.002200	0.002700	0.011020	102	214	50	319
159	PHARMACOECONOMICS	1170-7690	0.005840	0.001280	0.003480	0.008520	123	192	50	317
160	INFORMATION ECONOMICS AND POLICY	0167-6245	0.005650	0.002520	0.001660	0.011230	101	243	51	319
161	CONTEMPORARY ECONOMIC POLICY	1074-3529	0.005620	0.001280	0.003360	0.008420	125	194	52	313
162	WORLD ECONOMY	0378-5920	0.005480	0.001030	0.003640	0.007550	132	188	50	276
163	JOURNAL OF PRODUCTIVITY ANALYSIS	0895-562X	0.005340	0.001170	0.003290	0.007810	129	196	54	301
164	JAPANESE ECONOMIC REVIEW	1352-4739	0.005320	0.002250	0.001610	0.010200	108	247	53	319
165	MARINE RESOURCE ECONOMICS	0738-1360	0.005290	0.001380	0.003020	0.008700	124	202	55	319
166	TRANSPORT POLICY	0967-070X	0.005220	0.000436	0.003200	0.004950	168	199	43	268
167	NEW POLITICAL ECONOMY	1356-3467	0.005220	0.001000	0.003220	0.007180	137	197	53	290
168	JOURNAL OF TRANSPORT ECONOMICS AND POLICY	0022-5258	0.005210	0.001020	0.002540	0.006470	146	217	53	319
169	INTERNATIONAL REVIEW OF LAW AND ECONOMICS	0144-8188	0.005210	0.001760	0.002530	0.009190	116	216	54	319
170	JOURNAL OF NEUROSCIENCE PSYCHOLOGY AND ECONOMICS	1937-321X	0.005170	0.002490	0.001160	0.010590	105	258	49	319
171	ECOLOGICAL ECONOMICS	0921-8009	0.005110	0.000512	0.004080	0.006140	153	180	50	252
172	FEDERAL RESERVE BANK OF ST LOUIS REVIEW	0014-9187	0.004940	0.002150	0.001600	0.010040	113	250	54	319
173	B E JOURNAL OF ECONOMIC ANALYSIS & POLICY	1935-1682	0.004890	0.001640	0.002160	0.008670	121	228	55	319

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
174	OPEN ECONOMIES REVIEW	0923-7992	0.004770	0.001540	0.002320	0.008250	124	222	55	319
175	ENERGY JOURNAL	0195-6574	0.004630	0.000779	0.003220	0.006320	150	198	52	274
176	JOURNAL OF MACROECONOMICS	0164-0704	0.004610	0.000788	0.003220	0.006340	149	199	52	274
177	ECONOMICS AND PHILOSOPHY	0266-2671	0.004290	0.002110	0.001120	0.009060	117	261	57	319
178	JOURNAL OF FORECASTING	0277-6693	0.004130	0.001040	0.002470	0.006320	149	219	57	319
179	STUDIES IN NONLINEAR DYNAMICS AND ECONOMETRICS	1081-1826	0.004090	0.002040	0.001400	0.008650	123	254	58	319
180	JOURNAL OF THE JAPANESE AND INTERNATIONAL ECONOMIES	0889-1583	0.004060	0.001460	0.001660	0.007440	133	243	57	319
181	JOURNAL OF INTERNATIONAL FINANCIAL MARKETS INSTITUTIONS & MONEY	1042-4431	0.003890	0.000500	0.002900	0.004880	168	205	60	268
182	MANCHESTER SCHOOL	1463-6786	0.003890	0.001370	0.001770	0.006950	141	239	58	319
183	ASIAN ECONOMIC POLICY REVIEW	1832-8105	0.003890	0.001890	0.000782	0.008000	128	271	60	319
184	B E JOURNAL OF MACROECONOMICS	1935-1690	0.003810	0.001500	0.001470	0.007180	139	251	61	319
185	CAMBRIDGE JOURNAL OF ECONOMICS	0309-166X	0.003780	0.000761	0.002450	0.005420	162	218	61	306
186	JOURNAL OF ECONOMIC INTERACTION AND COORDINATION	1860-711X	0.003770	0.001330	0.001610	0.006720	144	246	59	319
187	JOURNAL OF CONSUMER AFFAIRS	0022-0078	0.003760	0.002060	0.000736	0.008670	121	271	59	319
188	JOURNAL OF CULTURAL ECONOMICS	0885-2545	0.003740	0.001180	0.001830	0.006230	149	239	62	319
189	ANNALS OF ECONOMICS AND FINANCE	1529-7373	0.003720	0.003370	0.000107	0.011500	96	311	53	319
190	INTERNATIONAL FINANCE	1367-0271	0.003670	0.001070	0.001800	0.005870	155	240	60	319
191	EMERGING MARKETS REVIEW	1566-0141	0.003590	0.000683	0.002400	0.005040	167	221	62	298
192	JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS	0162-1912	0.003570	0.000890	0.002040	0.005490	161	233	64	319
193	WORK EMPLOYMENT AND SOCIETY	0950-0170	0.003500	0.001460	0.001200	0.006590	144	258	62	319
194	LATIN AMERICAN ECONOMIC REVIEW	2198-3526	0.003490	0.002210	0.000760	0.008780	120	274	59	319
195	JOURNAL OF AGRARIAN CHANGE	1471-0358	0.003450	0.001120	0.001710	0.006020	154	243	63	319
196	JOURNAL OF APPLIED ECONOMICS	1514-0326	0.003390	0.001510	0.001090	0.006800	141	261	60	319
197	ECONOMIC SYSTEMS RESEARCH	0953-5314	0.003360	0.000818	0.001880	0.005110	166	236	66	319
198	B E JOURNAL OF THEORETICAL ECONOMICS	1935-1704	0.003300	0.001380	0.001090	0.006510	148	264	61	319
199	PAPERS IN REGIONAL SCIENCE	1056-8190	0.003280	0.000552	0.002220	0.004220	178	227	64	293
200	REVISTA DE HISTORIA ECONOMICA	0212-6109	0.003260	0.001060	0.001570	0.005620	158	248	66	319
201	JOURNAL OF INSTITUTIONAL ECONOMICS	1744-1374	0.003260	0.001120	0.001710	0.005960	155	245	63	319
202	INTERNATIONAL REVIEW OF ECONOMICS & FINANCE	1059-0560	0.003220	0.000394	0.002490	0.004010	182	219	62	272
203	JOURNAL OF ECONOMICS	0931-8658	0.003180	0.000912	0.001670	0.005390	164	245	66	319
204	EUROPEAN JOURNAL OF HEALTH ECONOMICS	1618-7598	0.003150	0.000582	0.002070	0.004260	176	232	65	302
205	INDUSTRIAL AND CORPORATE CHANGE	0960-6491	0.003140	0.000572	0.002040	0.004270	177	231	63	298

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
206	QUANTITATIVE FINANCE	1469-7688	0.003140	0.000635	0.002060	0.004460	174	233	64	313
207	ECONOMIC MODELLING	0264-9993	0.003120	0.000264	0.002570	0.003590	189	216	63	268
208	JCMS-JOURNAL OF COMMON MARKET STUDIES	0021-9886	0.003070	0.000739	0.001770	0.004710	170	239	65	319
209	EMPIRICAL ECONOMICS	0377-7332	0.003030	0.000445	0.002220	0.003940	184	226	63	280
210	ECONOMIST-NETHERLANDS	0013-063X	0.002970	0.001240	0.000874	0.005780	157	270	65	319
211	SPATIAL ECONOMIC ANALYSIS	1742-1772	0.002970	0.000598	0.001770	0.004140	180	241	65	316
212	JOURNAL OF INTERNATIONAL TRADE & ECONOMIC DEVELOPMENT	0963-8199	0.002820	0.001230	0.000965	0.005650	160	267	66	319
213	JOURNAL OF SPORTS ECONOMICS	1527-0025	0.002820	0.000603	0.001700	0.004050	182	242	67	319
214	REVIEW OF KEYNESIAN ECONOMICS	2049-5323	0.002770	0.001360	0.001030	0.006340	149	264	64	319
215	ECONOMICS OF TRANSITION	0967-0750	0.002760	0.001130	0.001160	0.005330	163	261	69	319
216	AUSTRALIAN JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS	1364-985X	0.002760	0.000572	0.001680	0.003870	184	243	67	317
217	REVIEW OF NETWORK ECONOMICS	2194-5993	0.002730	0.001500	0.000604	0.006400	148	281	66	319
218	FINANZARCHIV	0015-2218	0.002720	0.001060	0.001060	0.004970	167	263	68	319
219	ECONOMIC RECORD	0013-0249	0.002710	0.000814	0.001370	0.004540	173	254	69	319
220	JOURNAL OF POLICY MODELING	0161-8938	0.002690	0.000506	0.001750	0.003740	188	241	67	308
221	HISTORY OF POLITICAL ECONOMY	0018-2702	0.002680	0.001570	0.000806	0.006700	146	272	66	319
222	COMPUTATIONAL ECONOMICS	0927-7099	0.002660	0.000812	0.001290	0.004270	176	257	67	319
223	INSURANCE MATHEMATICS & ECONOMICS	0167-6687	0.002650	0.000583	0.001650	0.003960	184	244	67	319
224	PACIFIC ECONOMIC REVIEW	1361-374X	0.002600	0.000885	0.001230	0.004600	173	259	67	319
225	CANADIAN JOURNAL OF AGRICULTURAL ECONOMICS REVUE CANADIENNE D AGROECONOMIE	0008-3976	0.002570	0.000592	0.001500	0.003740	185	250	68	319
226	ECONOMIC SYSTEMS	0939-3625	0.002540	0.000624	0.001410	0.003860	184	252	69	319
227	JOURNAL OF ECONOMIC EDUCATION	0022-0485	0.002430	0.000905	0.000863	0.004410	174	270	70	319
228	METROECONOMICA	0026-1386	0.002410	0.000767	0.001270	0.004310	176	257	69	319
229	ANNALS OF REGIONAL SCIENCE	0570-1864	0.002410	0.000358	0.001700	0.003130	202	243	71	296
230	ASTIN BULLETIN	0515-0361	0.002350	0.000627	0.001310	0.003700	186	256	69	319
231	JOURNAL OF EVOLUTIONARY ECONOMICS	0936-9937	0.002350	0.000481	0.001450	0.003290	197	250	74	319
232	ECONOMY AND SOCIETY	0308-5147	0.002310	0.000726	0.001100	0.004020	183	261	73	319
233	INTERNATIONAL JOURNAL OF ECONOMIC THEORY	1742-7355	0.002210	0.000841	0.000850	0.004060	180	270	69	319
234	JOURNAL OF ECONOMIC POLICY REFORM	1748-7870	0.002160	0.000641	0.000968	0.003600	190	266	73	319
235	JAHRBUCHER FUR NATIONALOKONOMIE UND STATISTIK	0021-4027	0.002130	0.000874	0.000772	0.004100	182	272	72	319
236	JOURNAL OF INSTITUTIONAL AND THEORETICAL ECONOMICS—ZEITSCHRIFT FUR DIE GESAMTE STAATSWISSENSCHAFT	0932-4569	0.002100	0.000728	0.000916	0.003690	185	269	73	319
237	REVIEW OF DEVELOPMENT ECONOMICS	1363-6669	0.002090	0.000424	0.001330	0.002990	205	255	76	319
238	AGRIBUSINESS	0742-4477	0.002040	0.000455	0.001250	0.003000	205	259	76	319

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
239	DEFENCE AND PEACE ECONOMICS	1024-2694	0.002040	0.000554	0.001120	0.003260	195	262	74	319
240	INTERNATIONAL ENVIRONMENTAL AGREEMENTS POLITICS LAW AND ECONOMICS	1567-9764	0.001940	0.000595	0.000988	0.003320	197	264	75	319
241	JOURNAL OF REGULATORY ECONOMICS	0922-680X	0.001920	0.000469	0.001090	0.002870	208	264	78	319
242	CHINA & WORLD ECONOMY	1671-2234	0.001880	0.000645	0.000890	0.003330	197	269	76	319
243	APPLIED ECONOMICS	0003-6846	0.001870	0.000196	0.001490	0.002260	225	250	78	287
244	DEVELOPING ECONOMIES	0012-1533	0.001870	0.000740	0.000635	0.003450	193	279	76	319
245	JAPAN AND THE WORLD ECONOMY	0922-1425	0.001840	0.000520	0.000945	0.002940	206	267	78	319
246	ECONOMICS OF GOVERNANCE	1435-6104	0.001800	0.000548	0.000874	0.002970	205	270	77	319
247	ASIAN ECONOMIC JOURNAL	1351-3958	0.001770	0.000697	0.000662	0.003320	195	277	76	319
248	GLOBAL ECONOMIC REVIEW	1226-508X	0.001760	0.001010	0.000263	0.004120	179	299	75	319
249	SOUTH AFRICAN JOURNAL OF ECONOMICS	0038-2280	0.001710	0.000593	0.000713	0.003030	203	275	78	319
250	WORLD TRADE REVIEW	1474-7456	0.001710	0.000626	0.000652	0.003110	203	277	78	319
251	EUROPEAN JOURNAL OF LAW AND ECONOMICS	0929-1261	0.001700	0.000508	0.000915	0.002990	207	268	78	319
252	EMPIRICA	0340-8744	0.001650	0.000335	0.001010	0.002350	222	264	80	319
253	INTERNATIONAL LABOUR REVIEW	0020-7780	0.001630	0.000405	0.000866	0.002400	219	269	80	319
254	POST-SOVIET AFFAIRS	1060-586X	0.001630	0.000573	0.000635	0.002870	207	278	77	319
255	INDUSTRY AND INNOVATION	1366-2716	0.001610	0.000371	0.000920	0.002310	223	268	80	319
256	FUTURES	0016-3287	0.001530	0.000384	0.000841	0.002280	224	270	81	319
257	ECONOMIC AND SOCIAL REVIEW	0012-9984	0.001510	0.000517	0.000624	0.002620	212	279	79	319
258	APPLIED ECONOMICS LETTERS	1350-4851	0.001490	0.000257	0.001050	0.002020	233	264	80	310
259	ECONOMIC DEVELOPMENT QUARTERLY	0891-2424	0.001480	0.000494	0.000614	0.002580	216	279	82	319
260	AUSTRALIAN ECONOMIC HISTORY REVIEW	0004-8992	0.001450	0.000729	0.000341	0.003110	201	294	79	319
261	JOURNAL OF POST KEYNESIAN ECONOMICS	0160-3477	0.001340	0.000385	0.000731	0.002230	228	273	83	319
262	CHINA AGRICULTURAL ECONOMIC REVIEW	1756-137X	0.001310	0.000318	0.000762	0.002030	233	272	87	319
263	JOURNAL OF BEHAVIORAL FINANCE	1542-7560	0.001300	0.000435	0.000596	0.002290	222	280	82	319
264	ASIAN ECONOMIC PAPERS	1535-3516	0.001260	0.000428	0.000497	0.002120	229	285	85	319
265	SCOTTISH JOURNAL OF POLITICAL ECONOMY	0036-9292	0.001220	0.000443	0.000462	0.002160	228	286	86	319
266	REVIEW OF RADICAL POLITICAL ECONOMICS	0486-6134	0.001050	0.000295	0.000531	0.001700	244	284	92	319
267	ECONOMIA POLITICA	1120-2890	0.001050	0.000321	0.000495	0.001710	242	285	88	319
268	JOURNAL OF THE ASIA PACIFIC ECONOMY	1354-7860	0.001020	0.000269	0.000553	0.001610	247	283	89	319
269	AUSTRALIAN ECONOMIC REVIEW	0004-9018	0.000974	0.000361	0.000434	0.001810	240	287	90	319
270	REVISTA DE HISTORIA INDUSTRIAL	1132-7200	0.000907	0.000484	0.000215	0.002050	233	303	92	319
271	ZEITSCHRIFT FUR WIRTSCHAFTSGEOGRAPHIE	0044-3751	0.000855	0.000305	0.000333	0.001510	249	295	90	319
272	JOURNAL OF ECONOMIC ISSUES	0021-3624	0.000850	0.000234	0.000453	0.001330	256	287	94	319
273	JOURNAL OF FOREST ECONOMICS	1104-6899	0.000847	0.000260	0.000448	0.001440	251	288	92	319
274	BULLETIN OF ECONOMIC RESEARCH	0307-3378	0.000802	0.000211	0.000433	0.001250	257	289	94	319
275	TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE	0040-747X	0.000741	0.000168	0.000331	0.000977	266	296	93	319

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
276	HITOTSUBASHI JOURNAL OF ECONOMICS	0018-280X	0.000717	0.000463	0.000075	0.001870	237	312	92	319
277	JOURNAL OF WORLD TRADE	1011-6702	0.000708	0.000263	0.000270	0.001290	258	298	94	319
278	AUSTRALIAN ECONOMIC PAPERS	0004-900X	0.000677	0.000242	0.000286	0.001230	259	299	93	319
279	ECONOMICS-THE OPEN ACCESS OPEN-ASSESSMENT E-JOURNAL	1864-6042	0.000617	0.000165	0.000334	0.000961	265	296	95	319
280	ECONOMIC AND LABOUR RELATIONS REVIEW	1035-3046	0.000597	0.000263	0.000178	0.001190	258	306	94	319
281	ASIA-PACIFIC JOURNAL OF ACCOUNTING & ECONOMICS	1608-1625	0.000597	0.000191	0.000276	0.001000	266	300	95	319
282	POST-COMMUNIST ECONOMIES	1463-1377	0.000584	0.000174	0.000286	0.000974	266	298	98	319
283	BALTIC JOURNAL OF ECONOMICS	1406-099X	0.000556	0.000276	0.000124	0.001210	259	310	94	319
284	ASIAN-PACIFIC ECONOMIC LITERATURE	0818-9935	0.000531	0.000203	0.000174	0.000957	266	307	97	319
285	ACTA OECONOMICA	0001-6373	0.000530	0.000232	0.000173	0.001060	263	306	97	319
286	TOURISM ECONOMICS	1354-8166	0.000515	0.000119	0.000284	0.000745	274	298	99	319
287	PANOECONOMICUS	1452-595X	0.000511	0.000145	0.000247	0.000792	271	301	99	319
288	PORTUGUESE ECONOMIC JOURNAL	1617-982X	0.000482	0.000229	0.000124	0.001000	265	309	98	319
289	EASTERN EUROPEAN ECONOMICS	0012-8775	0.000480	0.000140	0.000232	0.000766	273	302	99	319
290	EUROPE-ASIA STUDIES	0966-8136	0.000447	0.000152	0.000185	0.000755	272	305	98	319
291	SINGAPORE ECONOMIC REVIEW	0217-5908	0.000440	0.000203	0.000122	0.000883	269	309	101	319
292	E & M EKONOMIE A MANAGEMENT	1212-3609	0.000429	0.000202	0.000106	0.000859	270	311	99	319
293	ESTUDIOS DE ECONOMIA	0718-5286	0.000423	0.000350	0.000004	0.001250	257	317	96	319
294	HACIENDA PUBLICA ESPANOLA REVIEW OF PUBLIC ECONOMICS	0210-1173	0.000415	0.000197	0.000105	0.000874	269	310	100	319
295	INDEPENDENT REVIEW	1086-1653	0.000411	0.000170	0.000135	0.000806	271	309	99	319
296	ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA	1331-677X	0.000402	0.000140	0.000180	0.000714	275	305	102	319
297	REVIEW OF DERIVATIVES RESEARCH	1380-6645	0.000383	0.000224	0.000042	0.000944	267	315	99	319
298	TECHNOLOGICAL AND ECONOMIC DEVELOPMENT OF ECONOMY	2029-4913	0.000365	0.000091	0.000171	0.000517	283	306	102	319
299	AGRICULTURAL ECONOMICS ZEMEDELSKA EKONOMIKA	0139-570X	0.000323	0.000091	0.000155	0.000505	284	308	103	319
300	ECON JOURNAL WATCH	1933-527X	0.000300	0.000168	0.000045	0.000686	276	315	103	319
301	JOURNAL OF BUSINESS ECONOMICS AND MANAGEMENT	1611-1699	0.000295	0.000071	0.000164	0.000440	288	307	101	319
302	PRAGUE ECONOMIC PAPERS	1210-0455	0.000266	0.000063	0.000138	0.000395	291	308	102	319
303	INTERNATIONAL JOURNAL OF TRANSPORT ECONOMICS	0391-8440	0.000258	0.000121	0.000000	0.000462	286	319	104	319
304	TRIMESTRE ECONOMICO	0041-3011	0.000255	0.000123	0.000052	0.000531	283	314	101	319
305	ROMANIAN JOURNAL OF ECONOMIC FORECASTING	1582-6163	0.000252	0.000115	0.000081	0.000505	284	312	104	319

Continued on next page

Table 1 – continued from previous page

Rank	Journal	ISSN	Recursive impact factor				Goldstein		Mogstad	
			Mean	S.E.	lower	upper	lower	upper	lower	upper
306	SOUTH AFRICAN JOURNAL OF ECONOMIC AND MANAGEMENT SCIENCES	2222-3436	0.000233	0.000116	0.000058	0.000494	285	314	104	319
307	REVISTA DE ECONOMIA MUNDIAL	1576-0162	0.000203	0.000084	0.000054	0.000377	292	314	104	319
308	AMERICAN JOURNAL OF ECONOMICS AND SOCIOLOGY	0002-9246	0.000169	0.000077	0.000046	0.000343	293	315	104	319
309	ASIAN JOURNAL OF TECHNOLOGY INNOVATION	1976-1597	0.000166	0.000077	0.000041	0.000341	294	315	104	319
310	TRANSFORMATIONS IN BUSINESS & ECONOMICS	1648-4460	0.000165	0.000054	0.000071	0.000284	298	313	104	319
311	POLITICKA EKONOMIE	0032-3233	0.000163	0.000116	0.000014	0.000429	288	317	104	319
312	ECONOMIC COMPUTATION AND ECONOMIC CYBERNETICS STUDIES AND RESEARCH	0424-267X	0.000129	0.000047	0.000040	0.000219	302	315	106	319
313	EKONOMICKY CASOPIS	0013-3035	0.000110	0.000050	0.000031	0.000235	303	316	106	319
314	INZINERINE EKONOMIKA-ENGINEERING ECONOMICS	1392-2785	0.000072	0.000022	0.000034	0.000121	309	316	106	319
315	INVESTIGACION ECONOMICA	0185-1667	0.000056	0.000058	0.000000	0.000205	303	319	106	319
316	ARGUMENTA OECONOMICA	1233-5835	0.000049	0.000048	0.000000	0.000168	306	319	106	319
317	JOURNAL OF KOREA TRADE	1229-828X	0.000029	0.000030	0.000000	0.000096	311	319	107	319
318	CUSTOS E AGRONEGOCIO ON LINE	1808-2882	0.000008	0.000000	0.000000	0.000001	316	319	92	319
319	KOREAN ECONOMIC REVIEW	0254-3737	0.000002	0.000002	0.000000	0.000007	316	319	92	319

References

Lonnie W. Aarssen, Tom Tregenza, A. E. Budden, Christopher J. Lortie, Julia Koricheva, and Roosa Leimu. Bang for your buck: rejection rates and impact factors in ecological journals. *The Open Ecology Journal*, 1(1), 2008.

Giovanni Abramo, Ciriaco A. D'Angelo, and Flavia Di Costa. Citations versus journal impact factor as proxy of quality: could the latter ever be preferable? *Scientometrics*, 84(3):821–833, 2010.

Matthias Aistleitner, Jakob Kapeller, and Stefan Steinerberger. Citation patterns in economics and beyond. *Science in Context*, 32(4):361–380, 2019.

Yong Bao, Melody Lo, and Franklin G. Mixon Jr. General-interest versus specialty journals: Using intellectual influence of econometrics research to rank economics journals and articles. *Journal of Applied Econometrics*, 25(2):345–353, 2010.

Carl T. Bergstrom, Jevin D. West, and Marc A. Wiseman. The eigenfactor™ metrics. *Journal of Neuroscience*, 28(45):11433–11434, 2008. ISSN 0270-6474. doi: 10.1523/JNEUROSCI.0003-08.2008. URL https://www.jneurosci.org/content/28/45/11433.

Johan Bollen, Herbert Van de Sompel, Aric Hagberg, and Ryan Chute. A principal component analysis of 39 scientific impact measures. *PloS One*, 4(6):e6022, 2009.

Gabrielle Demange. A ranking method based on handicaps. *Theoretical Economics*, 9(3):915–942, 2014.

Bradley Efron and Robert J. Tibshirani. Bootstrap methods for standard errors, confidence intervals, and other measures of statistical accuracy. *Statistical Science*, 1(1):54–75, 1986. ISSN 08834237. URL http://www.jstor.org/stable/2245500.

Eugene Garfield. Citation analysis as a tool in journal evaluation. *Science*, 178(4060):471–479, 1972. doi: 10.1126/science.178.4060.471.

David F. Gleich. *Models and Algorithms for Pagerank Sensitivity*. Stanford University Stanford, CA, 2009.

Harvey Goldstein and David J. Spiegelhalter. League tables and their limitations: Statistical issues in comparisons of institutional performance. *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 159(3):385–443, 1996. doi: 10.2307/2983325.

Borja González-Pereira, Vicente P. Guerrero-Bote, and Félix Moya-Anegón. A new approach to the metric of journals' scientific prestige: The SJR indicator. *Journal of Informetrics*, 4(3):379–391, 2010.

Peter Hall and Hugh Miller. Using the bootstrap to quantify the authority of an empirical ranking. *The Annals of Statistics*, pages 3929–3959, 2009.

John C. Ham, Julian Wright, and Ziqiu Ye. New rankings of economics journals: Documenting and explaining the rise of the new society journals. *Available at SSRN*, 2021.

Daniel S. Hamermesh. Citations in economics: Measurement, uses, and impacts. *Journal of Economic Literature*, 56(1):115–56, March 2018. URL http://www.aeaweb.org/articles?id=10.1257/jel.20161326.

William C. Horrace and Christopher F. Parmeter. Accounting for multiplicity in inference on economics journal rankings. *Southern Economic Journal*, 84(1):337–347, 2017.

Pantelis Kalaitzidakis, Thanasis Stengos, and Theofanis P. Mamuneas. Rankings of academic journals and institutions in economics. *Journal of the European Economic Association*, 1(6): 1346–1366, 2003. doi: 10.1162/154247603322752566.

Pantelis Kalaitzidakis, Theofanis P. Mamuneas, and Thanasis Stengos. An updated ranking of academic journals in economics. *Canadian Journal of Economics*, 44(4):1525–1538, 2011.

Laszlo A. Koczy and Alexandru Nichifor. The intellectual influence of economic journals: quality versus quantity. *Economic Theory*, 52(3):863–884, 2013.

Yolanda K. Kodrzycki and Pingkang Yu. New approaches to ranking economics journals. *The BE Journal of Economic Analysis & Policy*, 5(1), 2006.

David N. Laband and Michael J. Piette. The relative impacts of economics journals: 1970-1990. *Journal of economic Literature*, 32(2):640–666, 1994.

Jonathan M. Levitt and Mike Thelwall. A combined bibliometric indicator to predict article impact. *Information Processing & Management*, 47(2):300–308, 2011.

Stanley J. Liebowitz and John P. Palmer. Assessing the relative impacts of economics journals. *Journal of Economic Literature*, 22(1):77–88, 1984.

Melody Lo and Yong Bao. Are overall journal rankings a good mapping for article quality in specialty fields? *Journal of Business & Economic Statistics*, 34(1):62–67, 2016.

George A. Lozano, Vincent Larivière, and Yves Gingras. The weakening relationship between the impact factor and papers' citations in the digital age. *Journal of the American Society for Information Science and Technology*, 63(11):2140–2145, 2012.

Johan Lyhagen and Per Ahlgren. Uncertainty and the ranking of economics journals. *Scientometrics*, 125(3):2545–2560, 2020.

Magne Mogstad, Joseph P. Romano, Azeem M. Shaikh, and Daniel Wilhelm. Inference for ranks with applications to mobility across neighborhoods and academic achievement across countries. *National Bureau of Economic Research Working Papers*, 26883, 2020.

Magne Mogstad, Joseph P. Romano, Azeem M. Shaikh, and Daniel Wilhelm. Statistical uncertainty in the ranking of journals and universities. *American Economic Association, Papers and Proceedings*, 2022.

Andrew J. Oswald. An examination of the reliability of prestigious scholarly journals: evidence and implications for decision-makers. *Economica*, 74(293):21–31, 2007.

Ignacio Palacios-Huerta and Oscar Volij. The measurement of intellectual influence. *Econometrica*, 72(3):963–977, 2004.

Ignacio Palacios-Huerta and Oscar Volij. Axiomatic measures of intellectual influence. *International Journal of Industrial Organization*, 34:85–90, 2014.

Gabriel Pinski and Francis Narin. Citation influence for journal aggregates of scientific publications: Theory, with application to the literature of physics. *Information Processing & Management*, 12(5):297–312, 1976.

Per O. Seglen. The skewness of science. *Journal of the American Society for Information Science*, 43(9):628–638, 1992.

David I. Stern. Uncertainty measures for economics journal impact factors. *Journal of Economic Literature*, 51(1):173–189, 2013. doi: 10.1257/jel.51.1.173.

David I. Stern. High-ranked social science journal articles can be identified from early citation information. *PloS One*, 9(11):e112520, 2014.

David I. Stern and Richard S. J. Tol. Depth and breadth relevance in citation metrics. *Economic Inquiry*, 59(3):961–977, 2021. URL https://onlinelibrary.wiley.com/doi/abs/10.1111/ecin.12994.

Howard J. Wall. Don't Get Skewed Over by Journal Rankings. *The B.E. Journal of Economic Analysis & Policy*, 9(1):1–12, August 2009. doi: 10.2202/1935-1682.2280.

Ludo Waltman and Vincent A. Traag. Use of the journal impact factor for assessing individual articles need not be statistically wrong. *F1000Research*, 9(366):366, 2020.

Minge Xie, Kesar Singh, and Cun-Hui Zhang. Confidence intervals for population ranks in the presence of ties and near ties. *Journal of the American Statistical Association*, 104(486): 775–788, 2009.

Christian Zimmermann. Academic rankings with RePEc. *Econometrics*, 1(3):249–280, 2013.

Symbol	Description	Dimension
A	Total number of papers published by journal	$J \times J$ (diagonal)
B	Number of bootstraps	1
b	Index for bootstrap	1
C	Journal by journal citation matrix	$J \times J$
D	Total number of citations received by journal	$J \times J$ (diagonal)
F	Cumulative distribution function	1
f	Probability density function	1
i	Index for cited journal of interest	1
J	Number of journals	1
j	Index for citing journal	1
K	Number of papers	1
k	Index for paper	1
P	Paper by journal citation matrix	$K \times J$
Q	Journal by paper concordance tables	$J \times K$
R	Journal rank	$J \times 1$
T	Number of ties	$J \times 1$
v	Recursive impact factor	$J \times 1$
τ	Bandwidth	$J \times 1$ or $J \times J$
$\hat{\sigma}$	Estimated standard deviation	$J \times 1$ or $J \times J$
s^{α}	Critical value for confidence level α	$J \times 1$

Table A1: Notation

Table A2: Alternative confidence intervals for the rankings on the recursive impact factor of economics journals.

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
1	QUARTERLY JOURNAL OF ECONOMICS	1	1	1	1	1	2	1	1	1	1	1	1
2	ECONOMETRICA	2	4	2	5	1	7	2	6	2	6	2	6
3	JOURNAL OF POLITICAL ECONOMY	2	5	2	6	1	8	2	6	2	6	2	6
4	REVIEW OF ECONOMIC STUDIES	2	6	2	7	1	9	2	8	2	8	2	8
5	AMERICAN ECONOMIC REVIEW	3	6	3	7	1	9	2	7	2	7	2	7
6	JOURNAL OF FINANCE	3	7	3	8	1	12	2	12	2	12	2	15
7	AMERICAN ECONOMIC JOURNAL APPLIED ECONOMICS	6	12	6	13	1	19	4	18	4	18	4	20
8	JOURNAL OF LABOR ECONOMICS	7	15	6	16	1	23	5	22	5	22	5	22
9	ANNUAL REVIEW OF ECONOMICS	7	19	3	22	1	29	6	25	6	25	6	27
10	JOURNAL OF ECONOMIC PERSPECTIVES	7	17	4	21	1	25	6	23	6	22	6	24
11	AMERICAN ECONOMIC JOURNAL ECONOMIC POLICY	8	16	4	20	1	23	6	22	6	22	6	23
12	AMERICAN ECONOMIC JOURNAL MACROECONOMICS	7	19	4	22	1	27	6	25	6	25	6	25
13	REVIEW OF FINANCIAL STUDIES	8	17	5	20	1	24	7	22	7	22	6	24
14	JOURNAL OF FINANCIAL ECONOMICS	8	17	4	21	1	25	7	22	7	22	6	25
15	JOURNAL OF ECONOMIC LITERATURE	7	21	4	24	1	31	6	27	6	26	6	33
16	BROOKINGS PAPERS ON ECONOMIC ACTIVITY	8	25	7	26	1	43	7	38	7	37	7	48
17	JOURNAL OF HUMAN RESOURCES	8	26	7	28	1	54	7	48	7	48	7	61
18	THEORETICAL ECONOMICS	13	23	11	25	1	35	7	34	7	32	7	35
19	JOURNAL OF THE EUROPEAN ECONOMIC ASSOCIATION	14	22	12	24	5	31	8	28	8	27	7	34
20	REVIEW OF ECONOMICS AND STATISTICS	15	22	14	24	6	30	8	26	8	26	8	34
21	JOURNAL OF MONETARY ECONOMICS	17	23	16	24	7	33	8	32	8	32	8	35
22	JOURNAL OF ECONOMIC GROWTH	15	32	14	33	1	55	8	50	8	48	8	69
23	QUANTITATIVE ECONOMICS	18	29	17	31	6	42	11	38	11	39	9	53
24	AMERICAN ECONOMIC JOURNAL MICROECONOMICS	20	28	19	29	9	40	13	37	13	37	11	49
25	JOURNAL OF INTERNATIONAL ECONOMICS	23	34	20	37	10	47	15	47	15	47	15	67
26	RAND JOURNAL OF ECONOMICS	23	34	20	38	10	48	16	49	17	48	16	68
27	WORLD BANK RESEARCH OBSERVER	19	55	16	58	1	154	13	168	13	163	13	319
28	JOURNAL OF ECONOMIC THEORY	24	34	20	37	14	44	16	43	16	43	16	61
29	REVIEW OF ECONOMIC DYNAMICS	23	35	19	39	10	50	17	50	17	49	16	74
30	ECONOMIC JOURNAL	25	33	21	37	15	43	17	42	16	42	16	60
31	JOURNAL OF PUBLIC ECONOMICS	25	34	21	38	14	44	17	44	16	44	16	63
32	ECONOMIC POLICY	23	46	21	47	1	81	15	84	15	84	16	239

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
33	IMF ECONOMIC REVIEW	24	42	22	43	3	67	17	67	17	66	16	125
34	ANNUAL REVIEW OF FINANCIAL ECONOMICS	24	48	23	49	1	86	18	85	18	84	16	304
35	JOURNAL OF DEVELOPMENT ECONOMICS	30	39	29	41	13	57	20	57	20	57	20	85
36	INTERNATIONAL ECONOMIC REVIEW	31	44	28	46	11	65	20	64	20	66	20	112
37	JOURNAL OF ECONOMETRICS	32	44	31	45	12	63	20	66	20	64	21	108
38	GAMES AND ECONOMIC BEHAVIOR	36	51	31	55	16	72	25	76	25	74	21	126
39	ECONOMIC DEVELOPMENT AND CULTURAL CHANGE	27	75	22	80	1	225	20	319	20	319	19	319
40	JOURNAL OF POLICY ANALYSIS AND MANAGEMENT	33	62	28	68	1	106	21	117	21	117	21	319
41	EXPERIMENTAL ECONOMICS	35	55	30	60	7	85	22	86	22	86	21	229
42	JOURNAL OF BUSINESS & ECONOMIC STATISTICS	35	54	30	60	7	85	22	86	22	86	21	250
43	JOURNAL OF HEALTH ECONOMICS	35	55	30	60	10	81	23	82	24	81	21	187
44	JOURNAL OF URBAN ECONOMICS	36	54	31	59	13	79	25	81	25	81	21	178
45	JOURNAL OF APPLIED ECONOMETRICS	37	56	31	62	10	85	25	86	25	86	21	252
46	REVIEW OF FINANCE	37	56	31	62	12	84	25	85	25	84	21	221
47	EUROPEAN ECONOMIC REVIEW	39	53	32	59	16	77	25	80	25	80	23	149
48	REVIEW OF ENVIRONMENTAL ECONOMICS AND POLICY	34	74	30	78	1	144	23	166	23	168	22	319
49	JOURNAL OF INDUSTRIAL ECONOMICS	38	66	35	70	5	104	26	109	27	108	23	319
50	JOURNAL OF ECONOMIC HISTORY	37	73	33	76	1	131	26	145	26	149	22	319
51	JOURNAL OF MONEY CREDIT AND BANKING	40	66	36	69	8	99	27	100	28	100	24	319
52	JOURNAL OF LAW & ECONOMICS	39	73	35	78	1	127	29	133	29	132	24	319
53	ECONOMICA	38	82	32	89	1	178	28	215	27	222	24	319
54	ECONOMETRIC THEORY	44	70	38	76	10	106	29	113	28	111	24	319
55	EXPLORATIONS IN ECONOMIC HISTORY	40	76	34	84	1	133	29	135	29	135	24	319
56	JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS	47	69	41	75	16	101	30	101	29	101	26	319
57	ECONOMETRICS JOURNAL	40	86	32	95	1	180	29	199	29	212	25	319
58	ECONOMIC THEORY	47	78	39	86	2	126	30	128	30	129	28	319
59	JOURNAL OF ACCOUNTING & ECONOMICS	45	85	37	93	1	155	30	169	30	169	24	319
60	ANNUAL REVIEW OF RESOURCE ECONOMICS	46	86	38	94	1	157	30	177	30	177	25	319
61	JOURNAL OF RISK AND UNCERTAINTY	47	82	39	90	1	137	30	148	30	147	27	319
62	QME-QUANTITATIVE MARKETING AND ECONOMICS	37	136	30	145	1	316	28	319	28	319	24	319
63	ECONOMICS OF EDUCATION REVIEW	50	79	43	86	10	122	30	126	30	127	28	319
64	JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION	56	72	49	79	27	101	29	104	29	103	30	217
65	JOURNAL OF ENVIRONMENTAL ECONOMICS AND MANAGEMENT	52	78	45	85	14	118	30	125	30	124	29	319
66	JOURNAL OF FINANCIAL ECONOMETRICS	45	93	38	100	1	187	30	219	30	224	26	319
67	JOURNAL OF POPULATION ECONOMICS	51	81	44	88	6	128	30	134	30	134	30	319
68	LABOUR ECONOMICS	51	80	44	87	7	126	30	134	30	135	30	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
69	CANADIAN JOURNAL OF ECONOMICS REVUE CANADIENNE D ECONOMIQUE	54	88	46	96	2	145	32	153	32	151	30	319
70	SCANDINAVIAN JOURNAL OF ECONOMICS	56	86	49	94	10	136	32	146	33	146	31	319
71	INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION	59	88	52	95	14	134	33	139	33	138	31	319
72	WORLD BANK ECONOMIC REVIEW	58	93	50	100	5	150	33	156	33	155	31	319
73	JOURNAL OF ECONOMICS & MANAGEMENT STRATEGY	56	102	48	110	1	179	33	194	34	191	31	319
74	JOURNAL OF HUMAN CAPITAL	52	117	44	125	1	238	33	285	33	289	31	319
75	FISCAL STUDIES	50	125	41	134	1	284	31	319	32	319	30	319
76	JOURNAL OF ECONOMIC SURVEYS	58	98	49	107	1	170	34	190	34	189	31	319
77	AMERICAN LAW AND ECONOMICS REVIEW	50	123	41	132	1	285	31	319	31	319	30	319
78	JOURNAL OF ECONOMIC DYNAMICS & CONTROL	67	88	58	97	26	130	34	138	33	137	31	319
79	AMERICAN JOURNAL OF AGRICULTURAL ECONOMICS	63	93	54	102	13	146	34	157	34	152	31	319
80	THEORY AND DECISION	65	105	55	116	1	175	37	185	36	187	31	319
81	TRANSPORTATION RESEARCH PART B METHODOLOGICAL	86	117	76	127	45	160	32	212	30	211	32	319
82	JOURNAL OF ECONOMIC GEOGRAPHY	67	105	57	116	6	171	37	189	36	188	32	319
83	REVIEW OF INCOME AND WEALTH	62	121	51	132	1	228	36	262	36	265	31	319
84	REVIEW OF INTERNATIONAL ORGANIZATIONS	52	152	40	163	1	316	34	319	34	319	31	319
85	GENEVA RISK AND INSURANCE REVIEW	53	165	41	177	1	319	34	319	34	319	31	319
86	REVIEW OF ECONOMIC DESIGN	50	202	38	217	1	319	35	319	35	319	30	319
87	REAL ESTATE ECONOMICS	64	126	53	138	1	244	38	275	37	277	31	319
88	JOURNAL OF MATHEMATICAL ECONOMICS	73	108	61	119	12	171	38	180	37	180	32	319
89	REGIONAL SCIENCE AND URBAN ECONOMICS	75	109	63	120	16	170	39	180	38	180	32	319
90	OXFORD BULLETIN OF ECONOMICS AND STATISTICS	71	116	59	127	1	190	38	204	39	204	32	319
91	ECONOMIC INQUIRY	77	109	65	122	21	167	38	176	40	176	32	319
92	HEALTH ECONOMICS	77	113	64	127	18	173	38	182	38	185	32	319
93	JOURNAL OF LAW ECONOMICS & ORGANIZATION	71	132	58	147	1	234	39	265	39	268	32	319
94	JOURNAL OF ECONOMIC INEQUALITY	74	128	60	143	1	215	40	237	40	235	32	319
95	REVIEW OF ECONOMICS OF THE HOUSEHOLD	72	134	57	149	1	237	41	260	40	260	32	319
96	OXFORD REVIEW OF ECONOMIC POLICY	69	156	54	171	1	294	40	319	39	319	32	319
97	ECONOMICS & POLITICS	69	154	54	169	1	292	40	319	41	319	32	319
98	EUROPEAN REVIEW OF ECONOMIC HISTORY	71	142	55	158	1	268	40	319	40	319	32	319
99	INTERNATIONAL TAX AND PUBLIC FINANCE	77	129	62	145	1	212	42	233	42	236	32	319
100	JOURNAL OF COMPARATIVE ECONOMICS	81	130	64	148	7	208	43	222	43	222	32	319
101	JOURNAL OF ECONOMIC PSYCHOLOGY	83	124	67	141	17	194	43	201	42	202	32	319
102	WORLD DEVELOPMENT	87	119	70	136	25	182	41	192	40	193	32	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
103	SOCIAL CHOICE AND WELFARE	84	124	67	142	18	192	42	201	41	200	32	319
104	INTERNATIONAL JOURNAL OF GAME THEORY	78	138	61	155	1	233	42	260	42	261	32	319
105	ECONOMIC GEOGRAPHY	83	134	65	152	6	216	43	241	43	244	32	319
106	JOURNAL OF AFRICAN ECONOMIES	71	166	55	182	1	313	42	319	41	319	32	319
107	FOOD POLICY	89	124	72	140	25	189	43	194	41	193	34	319
108	OXFORD ECONOMIC PAPERS-NEW SERIES	85	135	68	152	12	211	43	217	44	217	35	319
109	INTERNATIONAL JOURNAL OF FORECASTING	87	130	70	148	18	200	43	208	43	208	34	319
110	ECONOMETRIC REVIEWS	85	133	68	151	10	212	44	222	44	219	34	319
111	JOURNAL OF RISK AND INSURANCE	78	157	59	175	1	282	42	319	42	319	32	319
112	EUROPEAN JOURNAL OF POLITICAL ECONOMY	91	134	72	153	22	204	44	208	43	208	35	319
113	JOURNAL OF FINANCIAL STABILITY	90	140	70	160	17	215	44	221	44	225	35	319
114	JOURNAL OF BANKING & FINANCE	96	127	76	148	35	190	43	197	42	198	35	319
115	ECONOMIC HISTORY REVIEW	82	164	61	184	1	290	43	319	43	319	35	319
116	SOCIO-ECONOMIC REVIEW	85	165	64	187	1	288	45	319	45	319	35	319
117	MACROECONOMIC DYNAMICS	98	143	76	164	30	213	43	213	44	210	35	319
118	REVIEW OF INTERNATIONAL POLITICAL ECONOMY	91	157	69	180	2	249	45	270	45	271	35	319
119	JOURNAL OF TRANSPORT GEOGRAPHY	121	160	100	182	60	220	36	252	37	250	36	319
120	REVIEW OF WORLD ECONOMICS	87	167	65	190	1	286	45	319	45	319	35	319
121	KYKLOS	85	166	63	187	1	288	44	319	44	319	35	319
122	MATHEMATICAL SOCIAL SCIENCES	90	163	69	184	1	266	45	275	45	280	35	319
123	TRANSPORTATION RESEARCH PART E LOGISTICS AND TRANSPORTATION REVIEW	130	169	109	190	67	230	36	260	36	262	37	319
124	ECONOMICS LETTERS	109	139	89	160	46	202	42	204	43	204	36	319
125	TRANSPORTATION RESEARCH PART A POLICY AND PRACTICE	126	164	105	184	63	226	39	252	39	251	37	319
126	JOURNAL OF PUBLIC ECONOMIC THEORY	99	164	78	185	13	251	46	259	46	258	36	319
127	CLIOMETRICA	87	179	66	201	1	318	45	319	45	319	35	319
128	ENVIRONMENTAL & RESOURCE ECONOMICS	107	149	86	171	36	221	44	226	46	224	36	319
129	SOUTHERN ECONOMIC JOURNAL	97	166	76	187	2	263	46	275	46	275	36	319
130	ECONOMICS & HUMAN BIOLOGY	101	167	78	189	13	256	46	265	46	265	36	319
131	RESOURCE AND ENERGY ECONOMICS	104	167	81	189	17	256	47	263	47	265	36	319
132	JOURNAL OF PENSION ECONOMICS & FINANCE	80	207	56	233	1	319	42	319	44	319	35	319
133	JOURNAL OF HOUSING ECONOMICS	88	185	66	209	1	319	45	319	45	319	35	319
134	GERMAN ECONOMIC REVIEW	89	186	66	210	1	319	46	319	45	319	35	319
135	AGRICULTURAL ECONOMICS	113	156	89	180	40	229	47	234	47	234	36	319
136	REVIEW OF INTERNATIONAL ECONOMICS	79	209	56	235	1	319	42	319	43	319	35	319
137	CESIFO ECONOMIC STUDIES	107	169	83	193	19	259	47	265	48	265	36	319
138	LAND ECONOMICS	109	170	85	194	23	257	48	265	48	265	36	319
139	SMALL BUSINESS ECONOMICS	111	162	87	187	33	240	47	249	46	249	36	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
140	REGIONAL STUDIES	113	166	89	191	34	246	49	252	47	253	36	319
141	APPLIED ECONOMIC PERSPECTIVES AND POLICY	108	168	83	194	20	258	49	265	47	265	36	319
142	JOURNAL OF REGIONAL SCIENCE	114	170	88	196	29	257	48	260	48	260	36	319
143	CHINA ECONOMIC REVIEW	108	175	82	201	12	275	49	277	49	280	36	319
144	REVIEW OF INDUSTRIAL ORGANIZATION	107	186	80	212	1	303	48	319	50	319	36	319
145	JOURNAL OF EMPIRICAL FINANCE	115	172	90	198	27	262	50	264	48	266	36	319
146	JOURNAL OF BEHAVIORAL AND EXPERIMENTAL ECONOMICS	113	177	87	203	19	275	49	277	48	282	36	319
147	MATHEMATICAL FINANCE	97	196	71	223	1	319	48	319	48	319	36	319
148	ENERGY ECONOMICS	128	163	102	188	58	231	46	233	46	233	37	319
149	CAMBRIDGE JOURNAL OF REGIONS ECONOMY AND SOCIETY	118	175	92	200	31	264	50	266	49	266	37	319
150	EUROPEAN REVIEW OF AGRICULTURAL ECONOMICS	123	172	97	198	40	254	49	253	48	254	37	319
151	SERIES-JOURNAL OF THE SPANISH ECONOMIC ASSOCIATION	96	221	71	248	1	319	47	319	47	319	36	319
152	JOURNAL OF AGRICULTURAL ECONOMICS	123	172	98	197	43	253	49	252	48	252	37	319
153	PUBLIC CHOICE	125	172	99	199	42	255	49	252	46	253	37	319
154	JOURNAL OF CHOICE MODELLING	122	198	95	226	22	303	53	319	53	319	37	319
155	JOURNAL OF DEVELOPMENT STUDIES	131	172	104	199	54	247	49	249	47	248	37	319
156	VALUE IN HEALTH	121	189	95	219	27	290	52	297	51	300	37	319
157	FEMINIST ECONOMICS	123	184	95	213	30	282	51	276	53	277	37	319
158	JOURNAL OF REAL ESTATE FINANCE AND ECONOMICS	102	214	74	243	1	319	49	319	50	319	36	319
159	PHARMACOECONOMICS	123	192	95	220	26	293	52	307	50	317	37	319
160	INFORMATION ECONOMICS AND POLICY	101	243	73	271	1	319	51	319	51	319	37	319
161	CONTEMPORARY ECONOMIC POLICY	125	194	98	223	25	299	52	309	52	313	37	319
162	WORLD ECONOMY	132	188	105	217	42	281	54	275	50	276	38	319
163	JOURNAL OF PRODUCTIVITY ANALYSIS	129	196	101	224	32	296	54	299	54	301	38	319
164	JAPANESE ECONOMIC REVIEW	108	247	81	274	1	319	51	319	53	319	36	319
165	MARINE RESOURCE ECONOMICS	124	202	96	230	12	318	54	319	55	319	37	319
166	TRANSPORT POLICY	168	199	141	227	94	270	42	268	43	268	40	319
167	NEW POLITICAL ECONOMY	137	197	110	225	46	291	53	289	53	290	39	319
168	JOURNAL OF TRANSPORT ECONOMICS AND POLICY	146	217	119	244	53	309	55	319	53	319	39	319
169	INTERNATIONAL REVIEW OF LAW AND ECONOMICS	116	216	89	244	1	319	55	319	54	319	38	319
170	JOURNAL OF NEUROSCIENCE PSYCHOLOGY AND ECONOMICS	105	258	77	288	1	319	50	319	49	319	36	319
171	ECOLOGICAL ECONOMICS	153	180	125	208	78	253	51	252	50	252	39	319
172	FEDERAL RESERVE BANK OF ST LOUIS REVIEW	113	250	83	279	1	319	54	319	54	319	38	319
173	B E JOURNAL OF ECONOMIC ANALYSIS & POLICY	121	228	92	256	1	319	54	319	55	319	38	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
174	OPEN ECONOMIES REVIEW	124	222	96	251	5	319	54	319	55	319	38	319
175	ENERGY JOURNAL	150	198	120	227	61	285	52	274	52	274	39	319
176	JOURNAL OF MACROECONOMICS	149	199	120	228	61	285	53	274	52	274	39	319
177	ECONOMICS AND PHILOSOPHY	117	261	86	295	1	319	58	319	57	319	39	319
178	JOURNAL OF FORECASTING	149	219	116	251	41	319	57	319	57	319	40	319
179	STUDIES IN NONLINEAR DYNAMICS AND ECONOMETRICS	123	254	90	286	2	319	58	319	58	319	38	319
180	JOURNAL OF THE JAPANESE AND INTERNATIONAL ECONOMIES	133	243	101	277	15	319	56	319	57	319	40	319
181	JOURNAL OF INTERNATIONAL FINANCIAL MARKETS INSTITUTIONS & MONEY	168	205	135	239	87	284	59	269	60	268	40	319
182	MANCHESTER SCHOOL	141	239	107	274	23	319	56	319	58	319	40	319
183	ASIAN ECONOMIC POLICY REVIEW	128	271	94	308	8	319	61	319	60	319	39	319
184	B E JOURNAL OF MACROECONOMICS	139	251	105	285	20	319	61	319	61	319	39	319
185	CAMBRIDGE JOURNAL OF ECONOMICS	162	218	127	253	70	306	60	305	61	306	40	319
186	JOURNAL OF ECONOMIC INTERACTION AND COORDINATION	144	246	109	281	25	319	59	319	59	319	40	319
187	JOURNAL OF CONSUMER AFFAIRS	121	271	87	311	3	319	58	319	59	319	39	319
188	JOURNAL OF CULTURAL ECONOMICS	149	239	115	273	33	319	60	319	62	319	40	319
189	ANNALS OF ECONOMICS AND FINANCE	96	311	62	319	1	319	53	319	53	319	37	319
190	INTERNATIONAL FINANCE	155	240	120	275	39	319	61	319	60	319	40	319
191	EMERGING MARKETS REVIEW	167	221	131	256	77	307	62	298	62	298	40	319
192	JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS	161	233	126	267	56	319	65	319	64	319	40	319
193	WORK EMPLOYMENT AND SOCIETY	144	258	110	294	28	319	62	319	62	319	40	319
194	LATIN AMERICAN ECONOMIC REVIEW	120	274	84	313	2	319	59	319	59	319	39	319
195	JOURNAL OF AGRARIAN CHANGE	154	243	118	278	39	319	61	319	63	319	40	319
196	JOURNAL OF APPLIED ECONOMICS	141	261	105	299	24	319	60	319	60	319	40	319
197	ECONOMIC SYSTEMS RESEARCH	166	236	130	272	63	319	66	319	66	319	41	319
198	B E JOURNAL OF THEORETICAL ECONOMICS	148	264	112	301	33	319	61	319	61	319	40	319
199	PAPERS IN REGIONAL SCIENCE	178	227	142	263	94	308	66	287	64	293	42	319
200	REVISTA DE HISTORIA ECONOMICA	158	248	121	284	45	319	65	319	66	319	40	319
201	JOURNAL OF INSTITUTIONAL ECONOMICS	155	245	118	281	42	319	62	319	63	319	41	319
202	INTERNATIONAL REVIEW OF ECONOMICS & FINANCE	182	219	145	257	101	297	62	272	62	272	43	319
203	JOURNAL OF ECONOMICS	164	245	125	282	51	319	66	319	66	319	42	319
204	EUROPEAN JOURNAL OF HEALTH ECONOMICS	176	232	139	270	90	315	66	298	65	302	42	319
205	INDUSTRIAL AND CORPORATE CHANGE	177	231	140	269	91	314	64	298	63	298	43	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
206	QUANTITATIVE FINANCE	174	233	136	270	83	319	65	311	64	313	42	319
207	ECONOMIC MODELLING	189	216	152	254	113	290	62	269	63	268	43	319
208	JCMS-JOURNAL OF COMMON MARKET STUDIES	170	239	132	277	70	319	66	319	65	319	42	319
209	EMPIRICAL ECONOMICS	184	226	145	266	101	306	65	280	63	280	43	319
210	ECONOMIST-NETHERLANDS	157	270	117	312	44	319	65	319	65	319	42	319
211	SPATIAL ECONOMIC ANALYSIS	180	241	141	280	90	319	68	313	65	316	43	319
212	JOURNAL OF INTERNATIONAL TRADE & ECONOMIC DEVELOPMENT	160	267	119	309	47	319	66	319	66	319	42	319
213	JOURNAL OF SPORTS ECONOMICS	182	242	142	283	87	319	66	319	67	319	43	319
214	REVIEW OF KEYNESIAN ECONOMICS	149	264	109	306	37	319	64	319	64	319	42	319
215	ECONOMICS OF TRANSITION	163	261	123	301	52	319	67	319	69	319	42	319
216	AUSTRALIAN JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS	184	243	144	283	92	319	68	316	67	317	44	319
217	REVIEW OF NETWORK ECONOMICS	148	281	108	319	35	319	67	319	66	319	41	319
218	FINANZARCHIV	167	263	128	304	58	319	67	319	68	319	42	319
219	ECONOMIC RECORD	173	254	132	293	64	319	70	319	69	319	43	319
220	JOURNAL OF POLICY MODELING	188	241	148	282	100	319	67	306	67	308	44	319
221	HISTORY OF POLITICAL ECONOMY	146	272	103	317	29	319	65	319	66	319	41	319
222	COMPUTATIONAL ECONOMICS	176	257	137	298	69	319	69	319	67	319	44	319
223	INSURANCE MATHEMATICS & ECONOMICS	184	244	143	285	86	319	68	319	67	319	43	319
224	PACIFIC ECONOMIC REVIEW	173	259	132	300	66	319	66	319	67	319	42	319
225	CANADIAN JOURNAL OF AGRICULTURAL ECONOMICS REVUE CANADIENNE D AGROECONOMIE	185	250	145	290	90	319	68	319	68	319	44	319
226	ECONOMIC SYSTEMS	184	252	143	293	83	319	68	319	69	319	43	319
227	JOURNAL OF ECONOMIC EDUCATION	174	270	132	314	67	319	70	319	70	319	42	319
228	METROECONOMICA	176	257	135	298	72	319	69	319	69	319	44	319
229	ANNALS OF REGIONAL SCIENCE	202	243	160	285	122	316	74	292	71	296	44	319
230	ASTIN BULLETIN	186	256	144	299	83	319	70	319	69	319	44	319
231	JOURNAL OF EVOLUTIONARY ECONOMICS	197	250	154	293	107	319	74	317	74	319	44	319
232	ECONOMY AND SOCIETY	183	261	140	305	79	319	74	319	73	319	44	319
233	INTERNATIONAL JOURNAL OF ECONOMIC THEORY	180	270	137	315	75	319	69	319	69	319	44	319
234	JOURNAL OF ECONOMIC POLICY REFORM	190	266	149	309	90	319	74	319	73	319	45	319
235	JAHRBUCHER FUR NATIONALOKONOMIE UND STATISTIK	182	272	140	316	78	319	73	319	72	319	44	319
236	JOURNAL OF INSTITUTIONAL AND THEORETICAL ECONOMICS—ZEITSCHRIFT FUR DIE GESAMTE STAATSWISSENSCHAFT	185	269	144	312	84	319	73	319	73	319	45	319
237	REVIEW OF DEVELOPMENT ECONOMICS	205	255	164	296	116	319	75	317	76	319	45	319
238	AGRIBUSINESS	205	259	163	300	112	319	75	319	76	319	45	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
239	DEFENCE AND PEACE ECONOMICS	195	262	154	304	97	319	74	319	74	319	45	319
240	INTERNATIONAL ENVIRONMENTAL AGREEMENTS POLITICS LAW AND ECONOMICS	197	264	155	308	97	319	77	319	75	319	46	319
241	JOURNAL OF REGULATORY ECONOMICS	208	264	166	304	111	319	78	319	78	319	46	319
242	CHINA & WORLD ECONOMY	197	269	157	311	98	319	77	319	76	319	46	319
243	APPLIED ECONOMICS	225	250	185	290	147	319	78	288	78	287	46	319
244	DEVELOPING ECONOMIES	193	279	153	319	94	319	76	319	76	319	46	319
245	JAPAN AND THE WORLD ECONOMY	206	267	166	307	107	319	78	319	78	319	46	319
246	ECONOMICS OF GOVERNANCE	205	270	166	310	107	319	77	319	77	319	46	319
247	ASIAN ECONOMIC JOURNAL	195	277	157	319	98	319	77	319	76	319	46	319
248	GLOBAL ECONOMIC REVIEW	179	299	141	319	76	319	76	319	75	319	45	319
249	SOUTH AFRICAN JOURNAL OF ECONOMICS	203	275	164	316	105	319	78	319	78	319	46	319
250	WORLD TRADE REVIEW	203	277	164	319	104	319	81	319	78	319	46	319
251	EUROPEAN JOURNAL OF LAW AND ECONOMICS	207	268	169	308	109	319	78	319	78	319	46	319
252	EMPIRICA	222	264	184	303	135	319	81	319	80	319	46	319
253	INTERNATIONAL LABOUR REVIEW	219	269	182	308	124	319	81	319	80	319	46	319
254	POST-SOVIET AFFAIRS	207	278	170	318	110	319	79	319	77	319	46	319
255	INDUSTRY AND INNOVATION	223	268	186	306	130	319	80	319	80	319	46	319
256	FUTURES	224	270	187	308	130	319	82	319	81	319	46	319
257	ECONOMIC AND SOCIAL REVIEW	212	279	176	318	116	319	80	319	79	319	46	319
258	APPLIED ECONOMICS LETTERS	233	264	196	301	148	319	81	310	80	310	46	319
259	ECONOMIC DEVELOPMENT QUARTERLY	216	279	180	318	119	319	82	319	82	319	46	319
260	AUSTRALIAN ECONOMIC HISTORY REVIEW	201	294	164	319	104	319	80	319	79	319	46	319
261	JOURNAL OF POST KEYNESIAN ECONOMICS	228	273	191	312	133	319	85	319	83	319	46	319
262	CHINA AGRICULTURAL ECONOMIC REVIEW	233	272	195	310	141	319	87	319	87	319	46	319
263	JOURNAL OF BEHAVIORAL FINANCE	222	280	184	319	127	319	82	319	82	319	46	319
264	ASIAN ECONOMIC PAPERS	229	285	190	319	134	319	86	319	85	319	46	319
265	SCOTTISH JOURNAL OF POLITICAL ECONOMY	228	286	190	319	134	319	85	319	86	319	46	319
266	REVIEW OF RADICAL POLITICAL ECONOMICS	244	284	206	319	153	319	91	319	92	319	46	319
267	ECONOMIA POLITICA	242	285	204	319	150	319	87	319	88	319	46	319
268	JOURNAL OF THE ASIA PACIFIC ECONOMY	247	283	209	319	155	319	92	319	89	319	46	319
269	AUSTRALIAN ECONOMIC REVIEW	240	287	203	319	148	319	90	319	90	319	46	319
270	REVISTA DE HISTORIA INDUSTRIAL	233	303	196	319	141	319	92	319	92	319	46	319
271	ZEITSCHRIFT FUR WIRTSCHAFTSGEOGRAPHIE	249	295	211	319	158	319	93	319	90	319	46	319
272	JOURNAL OF ECONOMIC ISSUES	256	287	219	319	166	319	93	319	94	319	46	319
273	JOURNAL OF FOREST ECONOMICS	251	288	214	319	161	319	92	319	92	319	46	319
274	BULLETIN OF ECONOMIC RESEARCH	257	289	220	319	169	319	94	319	94	319	46	319
275	TIJDSCHRIFT VOOR ECONOMISCHE EN SOCIALE GEOGRAFIE	266	296	230	319	181	319	94	319	93	319	46	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
276	HITOTSUBASHI JOURNAL OF ECONOMICS	237	312	201	319	148	319	92	319	92	319	46	319
277	JOURNAL OF WORLD TRADE	258	298	221	319	169	319	94	319	94	319	46	319
278	AUSTRALIAN ECONOMIC PAPERS	259	299	222	319	171	319	93	319	93	319	46	319
279	ECONOMICS-THE OPEN ACCESS OPEN-ASSESSMENT E-JOURNAL	265	296	231	319	181	319	94	319	95	319	46	319
280	ECONOMIC AND LABOUR RELATIONS REVIEW	258	306	225	319	173	319	94	319	94	319	46	319
281	ASIA-PACIFIC JOURNAL OF ACCOUNTING & ECONOMICS	266	300	231	319	180	319	96	319	95	319	46	319
282	POST-COMMUNIST ECONOMIES	266	298	232	319	181	319	96	319	98	319	46	319
283	BALTIC JOURNAL OF ECONOMICS	259	310	225	319	173	319	95	319	94	319	46	319
284	ASIAN-PACIFIC ECONOMIC LITERATURE	266	307	233	319	182	319	97	319	97	319	46	319
285	ACTA OECONOMICA	263	306	230	319	179	319	96	319	97	319	46	319
286	TOURISM ECONOMICS	274	298	241	319	192	319	99	319	99	319	46	319
287	PANOECONOMICUS	271	301	239	319	189	319	100	319	99	319	46	319
288	PORTUGUESE ECONOMIC JOURNAL	265	309	232	319	182	319	98	319	98	319	46	319
289	EASTERN EUROPEAN ECONOMICS	273	302	241	319	191	319	100	319	99	319	46	319
290	EUROPE-ASIA STUDIES	272	305	241	319	191	319	99	319	98	319	46	319
291	SINGAPORE ECONOMIC REVIEW	269	309	237	319	186	319	101	319	101	319	46	319
292	E & M EKONOMIE A MANAGEMENT	270	311	238	319	187	319	100	319	99	319	46	319
293	ESTUDIOS DE ECONOMIA	257	317	225	319	172	319	95	319	96	319	46	319
294	HACIENDA PUBLICA ESPANOLA REVIEW OF PUBLIC ECONOMICS	269	310	237	319	187	319	100	319	100	319	46	319
295	INDEPENDENT REVIEW	271	309	239	319	189	319	99	319	99	319	46	319
296	ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA	275	305	244	319	194	319	101	319	102	319	46	319
297	REVIEW OF DERIVATIVES RESEARCH	267	315	236	319	184	319	100	319	99	319	46	319
298	TECHNOLOGICAL AND ECONOMIC DEVELOPMENT OF ECONOMY	283	306	253	319	204	319	101	319	102	319	46	319
299	AGRICULTURAL ECONOMICS ZEMEDELSKA EKONOMIKA	284	308	254	319	206	319	103	319	103	319	46	319
300	ECON JOURNAL WATCH	276	315	246	319	197	319	103	319	103	319	46	319
301	JOURNAL OF BUSINESS ECONOMICS AND MANAGEMENT	288	307	258	319	211	319	102	319	101	319	46	319
302	PRAGUE ECONOMIC PAPERS	291	308	261	319	214	319	103	319	102	319	46	319
303	INTERNATIONAL JOURNAL OF TRANSPORT ECONOMICS	286	319	258	319	209	319	104	319	104	319	46	319
304	TRIMESTRE ECONOMICO	283	314	254	319	207	319	103	319	101	319	46	319
305	ROMANIAN JOURNAL OF ECONOMIC FORECASTING	284	312	255	319	207	319	103	319	104	319	46	319

Continued on next page

Table A2 – continued from previous page

	Journal	Goldstein		Xie		Xie/M		Mogstad		Mogstad+		Mogstad/X	
		low	high	low	high	low	high	low	high	low	high	low	high
306	SOUTH AFRICAN JOURNAL OF ECONOMIC AND MANAGEMENT SCIENCES	285	314	257	319	208	319	103	319	104	319	46	319
307	REVISTA DE ECONOMIA MUNDIAL	292	314	264	319	216	319	104	319	104	319	46	319
308	AMERICAN JOURNAL OF ECONOMICS AND SOCIOLOGY	293	315	266	319	218	319	104	319	104	319	46	319
309	ASIAN JOURNAL OF TECHNOLOGY INNOVATION	294	315	266	319	218	319	104	319	104	319	46	319
310	TRANSFORMATIONS IN BUSINESS & ECONOMICS	298	313	270	319	222	319	104	319	104	319	46	319
311	POLITICKA EKONOMIE	288	317	260	319	212	319	104	319	104	319	46	319
312	ECONOMIC COMPUTATION AND ECONOMIC CYBERNETICS STUDIES AND RESEARCH	302	315	275	319	226	319	106	319	106	319	46	319
313	EKONOMICKY CASOPIS	303	316	276	319	227	319	106	319	106	319	46	319
314	INZINERINE EKONOMIKA-ENGINEERING ECONOMICS	309	316	283	319	235	319	106	319	106	319	46	319
315	INVESTIGACION ECONOMICA	303	319	278	319	230	319	106	319	106	319	47	319
316	ARGUMENTA OECONOMICA	306	319	280	319	232	319	106	319	106	319	47	319
317	JOURNAL OF KOREA TRADE	311	319	285	319	237	319	107	319	107	319	47	319
318	CUSTOS E AGRONEGOCIO ON LINE	316	319	292	319	244	319	92	319	92	319	47	319
319	KOREAN ECONOMIC REVIEW	316	319	291	319	244	319	92	319	92	319	47	319

Notes: Journals are ordered by their recursive impact factor. The columns "Goldstein" show the bootstrap confidence intervals of the ranks. The columns "Xie" use the correction of the bootstrap confidence intervals proposed by Xie et al. (2009). The columns "Xie/M" use the same correction, but with Mogstad's bandwidth instead. The columns "Mogstad" use the method proposed by Mogstad et al. (2020) to compute confidence intervals. The columns "Mogstad+" use the same method corrected for correlations between recursive impact factors. The columns "Mogstad/X" use the same method again but using Xie's bandwidth instead. Columns "Goldstein" and "Mogstad+" are also shown in Table 1.