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**Working Paper**

## The World Cup of Economics Journals: A Ranking by a Tournament Method

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MŰHELYTANULMÁNYOK

DISCUSSION PAPERS

MT-DP – 2010/18

# **The World Cup of Economics Journals: A Ranking by a Tournament Method**

LÁSZLÓ Á. KÓCZY - MARTIN STROBEL

Discussion papers  
MT-DP – 2010/18  
Institute of Economics, Hungarian Academy of Sciences

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The World Cup of Economics Journals: A Ranking by a Tournament Method

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# The World Cup of Economics Journals: A Ranking by a Tournament Method

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## Abstract

A ranking of journals is manipulable if a particular journal's position can be improved by making additional citations to other journals. We introduce a simple ranking method that is not manipulable and is invariant to citation intensities, journal scaling and article-splitting. The ranking of economics journals is presented and is compared to rankings by alternative methods in the recent years.

**Keywords:** journal ranking, incomplete tournaments, manipulation, invariance, scientometrics

**JEL:** A1, C8, D72, Y1

# **Tudományos folyóirat VB: Egy bajnokság alapú rangsor**

Kóczy Á. László - Martin Strobel

## **Összefoglaló**

A tudományos folyóiratok hivatkozási adatok alapján előállított minőségi rangsorát vizsgáljuk. Azt mondjuk, hogy egy ilyen rangsor manipulálható, ha egy folyóirat javíthat pozícióján más folyóiratokban megjelent cikkekre mutató további hivatkozások elhelyezésével. Bemutatunk egy igen egyszerű nem manipulálható módszert, amely teljesít egy sor invariancia-tulajdonságot is: független a hivatkozási intenzitásoktól, a folyóiratok terjedelmétől, illetve a folyóiratokban közölt cikkek hosszától. A módszert az SSCI közgazdasági folyóiratain mutatjuk be, az eredményt összevetjük az irodalomban ismert egyéb rangsorokkal.

**Tárgyszavak:** tudományos folyóiratok rangsorolása, hiányos bajnokságok, manipuláció, invariancia, tudománymetria

**JEL:** A1, C8, D72, Y1

# The World Cup of Economics Journals: A Ranking by a Tournament Method \*

László Á. Kóczy<sup>†</sup> and Martin Strobel<sup>‡</sup>

## Abstract

A ranking of journals is manipulable if a particular journal's position can be improved by making additional citations to other journals. We introduce a simple ranking method that is not not manipulable and is invariant to citation intensities, journal scaling and article-splitting. The ranking of economics journals is presented and is compared to rankings by alternative methods in the recent years.

## 1 Introduction

In fundamental research hire, tenure and funding decisions provide the mechanisms corresponding to the “survival of the fittest” principle of evolution:

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If these mechanisms work well the “fittest” theories and models are selected out. Over the years it has become the standard to evaluate research quality by the quality (and quantity) of publications, or rather, the quality of research outlets.

A few decades ago a single economist could judge the quality of most economics journals. As in the last decades we saw an explosion in the number of periodicals, increasing specialisation with diverging subdisciplines (Stigler et al., 1995) and more and more inter- and multidisciplinary research, today a formal approach using citation analysis is necessary. Numerous citation-based quality measures have been suggested, but with surprisingly little motivation or explanation. The invariant method (Pinski and Narin, 1976) is a notable exception: it measures quality only while being invariant to citation intensities (the main difference in citation patterns across fields) – hence the name. Further, Palacios-Huerta and Volij (2004) have provided a complete characterisation of this method establishing it as a unique ranking method satisfying a set of independent axioms, a method often used in economic theory.

While the invariance property is, without doubt, desirable, other axioms are less well motivated. For the method we introduce here we do not provide a complete characterisation, but a set of desirable properties that distinguish it from existing ranking methods. Our method is based on the pairwise comparison of journals; we define a citation tournament and provide a solution to it. Unfortunately, even for complete tournaments (which ours is not) there is a whole list of methods to select the winner, none of which is considered faultless (Laslier, 1997). In the absence of a single best our method stands out with its simplicity.

The structure of our paper is as follows: First we discuss ranking methods

and introduce the tournament method. We show that existing methods are not invariant and/or not monotonic, while the tournament method is both, moreover it satisfies a number of interesting properties. We close with a ranking of economics journals based on the tournament method.

## 2 The model

Of the two main schools of journal ranking methods we take a formal approach based on citation analysis.

Let  $J$  be a finite set of journals and  $C = \{c_{ij}\}_{i,j \in J} \in \mathbb{R}_+^{J \times J}$  denote their citation matrix,<sup>1</sup> where  $c_{ij}$  represents the number of references *made* in journal  $j$  to papers in journal  $i$ . Let  $c_j = \sum_{i \in J} c_{ij}$ , the total number of cites made by  $j$  and let  $a_j$  denote the number of articles published in  $j$ . We say that journal  $i$  is cited by  $j$ , if  $c_{ij} > 0$ ;  $i$  and  $j$  are neighbours if  $i$  is cited by  $j$  or if  $j$  is cited by  $i$ .

A *ranking problem* is a triple  $(J, a, C)$  consisting of a set of journals  $J$  a vector of numbers of articles  $a$  and a citation matrix  $C$ . A valuation  $\tau \in \mathbb{R}^J$  assigns a real value  $\tau_j$  to each journal. A ranking method ranks journals according to their valuations. Examples of such valuations include the following:

- The *impact factor* (Garfield, 1955, 1972) singles out as the most used –and most criticised– method. For  $j \in J$   $IF_j = \frac{\hat{r}_j}{\hat{a}_j}$ , where  $\hat{a}_j$  is the number of articles published in the preceding two years, and  $\hat{r}_j$  is the number of cites to these, including self-cites. The IF of thousands of journals is published each year in the Journal Citation Reports (Thomson Scientific, 2005).

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<sup>1</sup> $0 \in \mathbb{R}_+$ . Using  $\mathbb{R}_+$  instead of  $\mathbb{N}_0$  is convenient when discussing invariance properties.

- The *LP-method* (Liebowitz and Palmer, 1984) *weights citations* by the value of the citing journal: in- or excluding a journal of marginal importance will have marginal effect on the ranking. Formally, the valuation of journal  $i$  solves

$$v_i = \frac{\sum_{j \in J} \frac{c_{ij}}{a_i} v_j}{\sum_{j, k \in J} \frac{c_{kj}}{a_k} v_j}.$$

The same model has been used for two influential rankings of economics journals by Laband and Piette (1994) and Kalaitzidakis et al. (2003).

- The *invariant method* (Pinski and Narin, 1976; Palacios-Huerta and Volij, 2004) ranks by the unique normalised vector  $v$  satisfying

$$v_i = \sum_{j \in J} \frac{c_{ij}}{a_i} \frac{a_j}{c_j} v_j.$$

The invariant is the unique method that satisfies anonymity, invariance to citation intensity, weak homogeneity, weak consistency and invariance to splitting of journals (Palacios-Huerta and Volij, 2004). Google's PageRank (Brin and Page, 1998) is a variant of this method.

- The *export score* (Stigler et al., 1995) is a journal's propensity to attract citations. The difference of export scores of journals  $i$  and  $j$  is the log odds that a citation involving the pair has  $j$  citing  $i$  rather than vice versa. Unfortunately, for heterogeneous or larger groups of journals the model suffers from lack of fit and becomes uninformative (Liner and Amin, 2006).
- The H-index (Hirsch, 2004; Braun et al., 2005, 2006), originally defined for researchers, is the largest integer  $h$  such that the journal has  $h$  papers having  $h$  citations each (excluding self-citations). The H-index

combines quality and quantity; its simplicity made it instantaneously popular.

Our method is based on pairwise comparisons. Journals play citation matches against each other. A journal  $i$  *wins* against another journal  $j$  if  $i$  is cited more often by  $j$  than  $j$  is cited by  $i$  ( $c_{ij} > c_{ji}$ ).

**Definition 2.1.** The *tournament method* is based on a citation tournament of journals. The valuation of a journal is the share of matches it wins with points for draws shared. Formally,

$$\tau_i = \frac{|\{j \in J, c_{ij} > c_{ji}\}| + \frac{1}{2} |\{j \in J, c_{ij} = c_{ji} > 0\}|}{|\{j \in J, c_{ij} + c_{ji} > 0\}|}. \quad (2.1)$$

### 3 Properties

We focus on a quality ranking of the journals a ranking that is not influenced by descriptive characteristics, such as the number or type of articles published. An ideal ranking method allows a journal to progress only by publishing the finest research. In particular, altering the journal profile, disrupting the natural pattern of citations must not be rewarded. In the following we formalise these requirements first addressing invariance and monotonicity properties, then some additional, interesting features of the tournament method.

#### 3.1 Invariance

Palacios-Huerta and Volij (2004) introduced two invariance properties: invariance with respect to splitting journals and invariance with respect to reference intensity. In the following we slightly modify these properties.

Invariance with respect to reference intensity states that the ranking is unaffected when a journal *unilaterally* changes its reference intensity. Such unilateral steps are not very likely. Moreover, the property has been introduced to be able to compare (sub)fields of different reference intensities at the first place. This is captured by the following property:

**Definition 3.1.** Consider the ranking problem  $(J, a, C)$  and a subset of journals  $F \subset J$  constituting a *field*. Now consider a modified problem  $(J, a, C')$  where the reference intensity has increased by  $\mu$  within  $F$ , that is,  $c'_{ij} = \mu c_{ij}$  if  $i, j \in F$  and  $c'_{ij} = c_{ij}$  otherwise. Then the ranking method  $\phi$  is *invariant with respect to communication intensity* if for any  $i, j \in J$

$$\phi_i(J, a, C') > \phi_j(J, a, C') \quad \text{iff} \quad \phi_i(J, a, C) > \phi_j(J, a, C). \quad (3.1)$$

Journal splits are rare and never result in journals of equal quality. It is more common that a journal changes its footprint. There is one crucial difference between a shrunk and a split journal: in the first case the set of journals remains the same.

Consider a ranking problem  $(J, a, C)$ . A journal scaling is a footprint change with the articles, citations made and received scaled by the same factor  $\mu_j > 0$ . With a slight abuse of notation we denote resulting journal by  $\mu_j j$ . Let  $\mu = \{\mu_j\}_{j \in J}$ ; then  $a_{\mu_j j} = \mu_j a_j$  and  $c_{\mu_i i, \mu_j j} = \mu_i \mu_j c_{ij}$ .

**Definition 3.2.** Consider the ranking problem  $(J, a, C)$  and its modification  $(J, a', C')$  given by the scaling  $\mu$ . Then the ranking method  $\phi$  is *invariant to journal scaling* if for any  $i, j \in J$

$$\phi_{\mu_i i}(J, a', C') > \phi_{\mu_j j}(J, a', C') \quad \text{iff} \quad \phi_i(J, a, C) > \phi_j(J, a, C). \quad (3.2)$$

Splitting is, however, natural to consider at the paper level. Paper splits do not affect the set of journals or the number of citations between them,

but only the numbers of articles  $a$ . Let  $\Lambda$  be a diagonal matrix such that  $\Lambda_{jj} = \lambda_j$  for all  $j \in J$  where articles in  $j$  split by a factor of  $\lambda$ .

**Definition 3.3.** Consider the ranking problem  $(J, a, C)$  and its modification  $(J, a', C)$  given by the article split  $a' = \Lambda a$  where  $\Lambda \in \mathbb{R}_{++}^J$ . A ranking method  $\phi$  is *invariant to paper splitting* if for every  $i, j \in J$

$$\phi_i(J, a', C) > \phi_j(J, a', C) \quad \text{iff} \quad \phi_i(J, a, C) > \phi_j(J, a, C). \quad (3.3)$$

A ranking method that is invariant to journal scaling and paper splitting is invariant to journal size and paper length, respectively. Paper splitting is not in terms of pages, but citations thus Definition 3.3 is actually a version of invariance to citation intensities. Unlike in the definition of (Palacios-Huerta and Volij, 2004) where a change in citation intensities is an isolated unilateral step of one journal, here it is given for each pair of journals: the citation intensity is particular to a discussion.

Of the known ranking methods the impact factor (and derived methods), the invariant and LP methods and the H-index fail invariance to article splitting (Kóczy et al., 2010). The H-index is also not invariant to journal scaling.

**Proposition 3.4.** *The tournament method is invariant to journal scaling and article splitting.*

*Proof.* Journal scaling: Since the result of a match between two journals depends only on the relative size of citations, scaling them by the same positive factor does not affect the score nor the ranking of either journals.

Article splitting only affects the number of articles, but not the number of citations and therefore, from the point of view of the tournament method, the two problems remain identical.  $\square$

## 3.2 Monotonicity

The fundamental idea of citation analysis is that when a paper contains non-original parts, it acknowledges its sources. So when a paper or journal is cited, it is recognised as the source of a useful idea, on the other hand if cites it admits being less original.

We consider a ranking problem monotonic if an additional citation does not improve the citing journal's rank and does not worsen the cited journal's rank. Formally:

**Definition 3.5.** Consider the ranking problem  $(J, a, C)$  and its modification  $(J, a, C')$ , such that  $c'_{ij} > c_{ij}$  for some  $i, j \in J$ , but  $c'_{ml} = c_{ml}$  otherwise. A ranking method  $\phi$  is *monotonic in received citations* if for all  $k \in J$

$$\phi_i(J, a, C') > \phi_k(J, a, C') \quad \text{if} \quad \phi_i(J, a, C) > \phi_k(J, a, C) \quad (3.4)$$

A ranking method  $\phi$  is *monotonic in sent citations* if for all  $k \in J$

$$\phi_j(J, a, C') < \phi_k(J, a, C') \quad \text{if} \quad \phi_j(J, a, C) < \phi_k(J, a, C) \quad (3.5)$$

A ranking method is *monotonic* if it is monotonic in sent and received citations.

When and if a ranking satisfies these properties, there are incentives to omit citations. Indeed, not citing other journals is the dominant strategy, but we believe the practice of a systematic omission of references would be swiftly rejected by the scientific community.

On the other hand, were the second property false, editors/publishers could boost the ranking of their journal simply by strategically placing additional, otherwise unnecessary citations. Such a *manipulation* is possible

even if we ignore self-citations. Observe that a ranking method where manipulation is possible gives incentives to distort the source data for citation analysis, introducing an error that cannot be corrected by other methods. It is therefore very unfortunate that, as we will see, most currently used methods are subject to such manipulation. Discussions on *gratuitous citations* suggest that the problem is already present and known in the literature (Smith, 1997), but is typically “solved” by simply ignoring self-cites in the analysis.

**Proposition 3.6.** *The tournament method is monotonic.*

*Proof.* Self-citations do not play any role in our ranking and therefore also do not influence it. For any other citation: An additional citation from journal  $i$  to  $j$  will only affect our ranking by possibly affecting the relation between  $i$  and  $j$ . This relation can be (i)  $i$  wins (ii) draw (iii)  $i$  loses. Observe that the additional cite can turn a win into a draw or a draw into a loss. The first possibility reduces  $i$ 's score, the latter increases  $j$ 's. Other journals' scores are unaffected. Therefore  $i$ 's position cannot improve by the additional cite it makes and  $j$ 's position cannot worsen due to the additional citation it receives.  $\square$

**Proposition 3.7.** *The  $H$ -index is monotonic.*

*Proof.* Citations made do not play a role in determining the  $H$ -index. Received citations do not reduce the number of highly cited papers nor their number of citations.  $\square$

**Proposition 3.8.** *The impact factor is not monotonic in sent citations.*

*Proof.* The numerator in the calculation of the IF contains all citations. Including self-cites obviously inflates the IF. Consider the example with

$J = \{1, 2\}, (2, 2),$

$$C = \begin{pmatrix} 0 & 2 \\ 1 & 0 \end{pmatrix} \quad \text{and let} \quad C' = \begin{pmatrix} 0 & 2 \\ 1 & 2 \end{pmatrix}. \quad (3.6)$$

Here we have  $\text{IF}(J, a, C) = (1, \frac{1}{2})$  and  $\text{IF}(J, a, C') = (1, \frac{3}{2})$ .  $\square$

The following proposition extends the result of Kóczy and Strobel (2009).

**Proposition 3.9.** *The rankings based on the LP and invariant methods are not monotonic in sent citations.*

*Proof.* Consider an example with journals  $\{1, 2, 3, 4\}$  each publishing 2 articles ( $a_1 = a_2 = a_3 = a_4 = 2$ ) and a citation matrix given by

$$C = \begin{pmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 0 & 2 \\ 1 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 \end{pmatrix}. \quad (3.7)$$

The *LP-method* gives about  $v_{LP} = (0.29, 0.28, 0.23, 0.21)$ . Now assume that Journal 4 makes 5 additional citations to Journal 3, resulting

$$C' = \begin{pmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 0 & 2 \\ 1 & 1 & 0 & 5 \\ 1 & 0 & 1 & 0 \end{pmatrix}. \quad (3.8)$$

The modified ranking vector is given by  $v'_{LP} = (0.23, 0.18, 0.40, 0.19)$ . While –due to the normalisation– the score of Journal 4 has not increased, it is now ranked 3rd overtaking the former number 2.

	IF	Invariant-m.	LP-m	H-index	Tournament-m.
journal scaling	✓	✓	✗	✗	✓
article splitting	✗	✗	✗	✗	✓
monotonicity	✗	✗	✗	✓	✓
calculation	easy	hard	hard	easy	easy

Table 1: A summary of ranking properties

The *invariant method* gives  $v = (30, 24, 22, 21) / 97$  for the original example ranking journal 4 the lowest. Now suppose this journal makes 2 additional citations to journal 1. The citation matrix is modified as follows:

$$C' = \begin{pmatrix} 0 & 1 & 1 & 3 \\ 1 & 0 & 0 & 2 \\ 1 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 \end{pmatrix}, \quad (3.9)$$

and the corresponding invariant vector is given by  $v' = (54, 32, 34, 35) / 155$ . In the ranking based on the new invariant vector journal 4 is ranked second, overtaking journals 2 and 3.  $\square$

### 3.3 Other properties

The tournament method exhibits a few additional features worth noting.

Some authors spend much effort in defining fields: here each journal is measured against its own neighbourhood putting the journal in the centre. Thus no more journals on the periphery (See Bardhan, 2003).

The tournament method relies on citations only. Citations are easy to count, and are “undisputable” avoiding discussions like whether letters to the editor should be included in the number of articles, etc.

As the valuation of a journal uses local data only an enthusiastic editor who keeps track of the citations to his journal can quickly calculate a lower bound to the valuation of his journal (lower bound as the editor knows all the cites made, but may or may not know all those received).

Finally, the tournament method is simple and applies an idea that is well accepted in other rankings of quality, such as in sports.

## 4 A ranking of economics journals

In this section we present a ranking of economics journals<sup>2</sup> based on data from the last 12 issues of Journal Citation Reports.

The scores of journals with missing data in the last six years (including journals that were introduced after 2000) as well as those of (almost) non-citing journals making less than 150 citations per year<sup>3</sup> are not reported. This mostly affects journals that have a non- or semi-academic profile or those with sparse data.

As rankings in a particular year would be topped by journals with perfect scores coming from small fields it is more interesting to define a ranking based on the whole series of data. We chose to include past data with a geometric decay function so that the total score is

$$T = \frac{1 - \delta}{1 - \delta^K} \sum_{k=1}^K \delta^{K-k} \tau_k,$$

where  $K$  is the length of the dataset,  $\tau_k$  is the score in year  $k$  and  $\delta$  is the decay parameter, which we chose to be  $\frac{1}{2}$ . The rankings will naturally be

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<sup>2</sup>The reported “overall” ranks refer to the ranking of all 5420 academic journals meeting our criteria.

<sup>3</sup>With a median value of citations per year around 900 for economics journals, and 750 for journals in general journals with less than 20% of this value are non-academic.

different with a different parameter, but for small variations the changes are rarely dramatic. A much smaller value, however, would make the score too volatile, while for much larger values the effect of the most recent years diminishes. The ranking itself is presented without comment.

	overall		weighted
rank	rank	journal name	average
1	5	Journal of Political Economy	0.974
2	8	Econometrica	0.967
3	12	Quarterly Journal of Economics	0.956
4	28	American Economic Review	0.939
5	31	Review of Economic Studies	0.936
6	45	Brookings Papers on Economic Activity	0.915
7	50	Journal of Economic Theory	0.91
8	54	Journal of Financial Economics	0.906
9	71	Journal of Law & Economics	0.889
10	72	Rand Journal of Economics	0.889
11	74	Review of Economics and Statistics	0.887
12	96	Journal of Economic Perspectives	0.871
13	138	Journal of Economic Literature	0.842
14	146	The Economic Journal	0.836
15	148	Journal of Monetary Economics	0.835
16	152	International Economic Review	0.834
17	167	Journal of Human Resources	0.826
18	181	Journal of Econometrics	0.818
19	189	Journal of Industrial Economics	0.815
20	191	European Economic Review	0.814
21	242	Journal of International Economics	0.788

	overall		weighted
rank	rank	journal name	average
22	248	Journal of Labor Economics	0.785
23	269	Journal of Law Economics & Organization	0.776
24	277	Economica	0.773
25	307	Journal of Business & Economic Statistics	0.766
26	358	Journal of Financial and Quantitative Analysis	0.748
27	366	Economy and Society	0.745
28	401	World Bank Economic Review	0.733
29	402	Journal of Public Economics	0.733
30	502	Journal of Economic History	0.704
31	546	Journal of Economic Growth	0.695
32	548	Economics Letters	0.695
33	601	Journal of Accounting & Economics	0.686
34	640	International Journal of Game Theory	0.678
35	656	Economic Policy	0.674
36	676	National Tax Journal	0.669
37	695	Oxford Bulletin of Economics and Statistics	0.664
38	745	Journal of Applied Econometrics	0.654
39	756	Economic Inquiry	0.653
40	770	Oxford Economic Papers–New Series	0.65
41	780	American Journal of Agricultural Economics	0.647
42	788	Journal of Health Economics	0.645
43	794	Journal of Development Economics	0.644
44	819	Land Economics	0.638

	overall		weighted
rank	rank	journal name	average
45	854	Canadian Journal of Economics- <i>Revue canadienne d'économique</i>	0.632
46	856	Journal of Environmental Economics and Management	0.632
47	904	Journal of Risk and Uncertainty	0.624
48	948	World Development	0.615
49	977	Journal of Urban Economics	0.61
50	1078	Economic Development and Cultural Change	0.594
51	1084	Games and Economic Behavior	0.593
52	1297	Regional Science and Urban Economics	0.561
53	1350	Scandinavian Journal of Economics	0.555
54	1397	International Journal of Industrial Organization	0.55
55	1403	Econometric Theory	0.549
56	1432	Journal of Economic Behavior & Organization	0.545
57	1448	Journal of Economic Dynamics & Control	0.542
58	1458	Journal of Mathematical Economics	0.541
59	1535	Public Choice	0.532
60	1595	Economic Geography	0.525
61	1601	Annals of the American Academy of Political and Social Science	0.524
62	1627	International Social Science Journal	0.522
63	1773	Social Science Quarterly	0.503
64	1787	Review of Income and Wealth	0.502

	overall		weighted
rank	rank	journal name	average
65	1808	Health Economics	0.499
66	1838	Economic History Review	0.493
67	1980	Work Employment and Society	0.478
68	2032	Journal of Productivity Analysis	0.472
69	2076	Journal of Banking & Finance	0.468
70	2097	Journal of Economic Education	0.466
71	2105	International Review of Law and Economics	0.465
72	2108	Oxford Review of Economic Policy	0.465
73	2130	Journal of Agricultural Economics	0.463
74	2219	Kyklos	0.453
75	2237	Futures	0.451
76	2256	Journal of Economics & Management Strat- egy	0.449
77	2278	Explorations in Economic History	0.447
78	2353	Journal of Transport Economics and Policy	0.44
79	2377	Journal of The Japanese and International Economies	0.437
80	2550	Cambridge Journal of Economics	0.417
81	2584	Economics of Education Review	0.413
82	2586	Resource and Energy Economics	0.413
83	2609	Journal of Institutional and Theoretical Economics—Zeitschrift für die Gesa	0.411
84	2693	Journal of Comparative Economics	0.402
85	2718	Social Science Research	0.399
86	2792	Developing Economies	0.392

	overall		weighted
rank	rank	journal name	average
87	2874	Ecological Economics	0.384
88	3052	Journal of Post-Keynesian Economics	0.367
89	3078	Journal of Housing Economics	0.364
90	3079	Agricultural Economics	0.364
91	3105	Pharmacoeconomics	0.362
92	3134	World Economy	0.36
93	3179	Economics of Transition	0.356
94	3208	Food Policy	0.353
95	3214	Mathematical Social Sciences	0.353
96	3253	Theory and Decision	0.35
97	3302	Open Economies Review	0.345
98	3382	Journal of Agricultural and Resource Economics	0.338
99	3420	Journal of Population Economics	0.334
100	3430	Insurance Mathematics & Economics	0.334
101	3508	Journal of Regulatory Economics	0.326
102	3519	European Review of Agricultural Economics	0.325
103	3557	Europe-Asia Studies	0.321
104	3644	Economic Theory	0.314
105	3645	Canadian Journal of Agricultural Economics- <i>Revue canadienne d'agroéconomie</i>	0.314
106	3673	Journal of Evolutionary Economics	0.311
107	3693	Social Science Computer Review	0.309

	overall		weighted
rank	rank	journal name	average
108	3730	Journal of Real Estate Finance and Economics	0.305
109	3750	American Journal of Economics and Sociology	0.304
110	3760	Applied Economics	0.303
111	3768	Review of Industrial Organization	0.302
112	3788	Journal of Macroeconomics	0.301
113	3855	Scottish Journal of Political Economy	0.294
114	3868	Economic Record	0.293
115	3878	Journal of Economic Psychology	0.292
116	3926	Environmental & Resource Economics	0.288
117	3997	Real Estate Economics	0.28
118	4047	Australian Journal of Agricultural and Resource Economics	0.274
119	4053	Journal of Risk and Insurance	0.274
120	4069	International Journal of Production Economics	0.272
121	4109	International Journal of Finance & Economics	0.268
122	4193	Journal of Economic Issues	0.259
123	4228	Review of International Political Economy	0.255
124	4287	Small Business Economics	0.248
125	4301	Manchester School	0.246
126	4314	Japanese Economic Review	0.245
127	4331	Japan and The World Economy	0.243

	overall		weighted
rank	rank	journal name	average
128	4349	Journal of Policy Modeling	0.242
129	4390	South African Journal of Economics	0.237
130	4435	Social Choice and Welfare	0.231
131	4457	Jahrbücher für Nationalökonomie und Statistik	0.229
132	4458	University of Pennsylvania Journal of International Economic Law	0.229
133	4548	Journal of African Economies	0.219
134	4575	Energy Economics	0.216
135	4585	Journal of Economics–Zeitschrift für Nationalökonomie	0.214
136	4702	Contemporary Economic Policy	0.199
137	4827	Tijdschrift voor economische en sociale geografie	0.183
138	4830	Studies in Nonlinear Dynamics and Econometrics	0.182
139	4878	Macroeconomic Dynamics	0.176
140	4890	Social Science Journal	0.175
141	4905	Economic Modelling	0.172
142	4972	Applied Economics Letters	0.164
143	5123	Trimestre Economico	0.137

Finally we present a comparison of three recent rankings of economics journals (the impact factor published by Thomson Scientific (2005) – IF, and rankings of Palacios-Huerta and Volij (2004) – PHV and Kalaitzidakis et al.

(2003) – KMS) with our ranking. Overall our results do not disagree with earlier rankings. Interdisciplinary journals, such as the Review of Economics and Statistics or the Journal of Financial Economics, previously ranked by their quality in economics only, fare apparently better in their own playing field.

Journal name	ours	IF (2005)	PHV (2004)	KMS (2003)
Journal of Political Economy	1	6	5	3
Econometrica	2	4	1	2
Quarterly Journal of Economics	3	1	2	5
American Economic Review	4	9	4	1
Review of Economic Studies	5	8	6	8
Journal of Economic Theory	6	23	8	4
Journal of Financial Economics	7	5	21	28
Rand Journal of Economics	8	18	12	26
Review of Economics and Statistics	9	14	16	13
Journal of Economic Perspectives	10	3	10	12
Journal of Economic Literature	11	2	3	20
The Economic Journal	12	15	28	18
Journal of Monetary Economics	13	11	7	10
International Economic Review	14	16	20	15
Journal of Human Resources	15	20	15	17
Journal of Econometrics	16	12	11	6
European Economic Review	17	22	23	14
Journal of International Economics	18	10	29	30
Journal of Labor Economics	19	17	14	24

Journal name	ours	IF (2005)	PHV (2004)	KMS (2003)
Journal of Business & Economic Statistics	20	21	22	9
Journal of Public Economics	21	19	17	19
Economics Letters	22	34	35	21
International Journal of Game Theory	23	36	25	33
Oxford Bulletin of Economics & Statistics	24	30	36	29
Journal of Applied Econometrics	25	24	24	22
Economic Inquiry	26	28	32	34
Journal of Environmental Economics and Management	27	13	27	25
Journal of Risk and Uncertainty	28	7	19	35
Games and Economic Behavior	29	26	9	11
Scandinavian Journal of Economics	30	31	34	27
Econometric Theory	31	27	18	7
Journal of Economic Behavior & Organization	32	25	33	31
Journal of Economic Dynamics & Control	33	29	30	23
Journal of Mathematical Economics	34	33	31	36
Economic Theory	35	32	13	16
Social Choice and Welfare	36	35	26	32

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- TARJÁN Tamás: Jánossy elmélete az új növekedésmélet tükrében. MT-DP 2010/2
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