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Pedro Cosme Costa Vieira

FACULDADE DE ECONOMIA

UNIVERSIDADE DO PORTO

www.fep.up.pt

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Pedro Cosme Costa Vieira

Faculdade de Economia do Porto

R. Dr. Roberto Frias, s/n

4200-464 Porto, Portugal

E-mail: pcosme@fep.up.pt

ABSTRACT

In this paper I address four questions concerning the quality of scientific economic papers. First, I validate the *ex-ante* procedure of computing the average impact of economic papers by comparing its results with the *ex-post* values. Second, I calibrate an estimator of papers normalised impact. Third, I compute the ranking variability of journals using a bootstrap procedure. Fourth, I test the statistical hypothesis that journals' ranking did not changed over the time interval between 1980 and 2000. I concluded that this hypothesis is rejected only for the 'Quarterly Journal of Economics' and 'Econometrica', which saw their citation impact improved.

RESUMO

Neste trabalho abordo a questão da qualidade dos trabalhos científicos. Primeiro, valido o procedimento que calcula *ex-ante* o impacto médio dos trabalhos científicos comparando os seus resultados com os valores calculados ex-post. Segundo, calibro um estimador que permite o cálculo do impacto de um trabalho. Terceiro, calculo a variabilidade dos jornais usando um procedimento de re-amostragem (bootstraping). Quarto, testo a hipótese estatística de que o ranking dos jornais de economia não mudaram entre 1980 e 2000. Por fim, apresento uma actualização do ranking de Kalaitzidakis *et al* (2001).

1. INTRODUCTION

The scientific community accepts that its output must be quantified so that scarce resources may be efficiently allocated, including the evolution of investigators' career. Influenced by the long USA's tradition of using scientific journals as the main mean of knowledge exchange, all over the world it is becoming standard to use the quantity of papers published in these journals as the primary measure of output.

But scientific papers are not a homogeneous product, being necessary to take into account the quality. Given that the objective of publication is the diffusion of knowledge, it is natural that only papers with high quality will be used as base for other papers, being cited there (see, Laband and Sophocleus, 1985). Being impossible to know in the present period what will be the future impact of papers published today, one practical methodology is to assume the average quality of the journal (its impact) as a proxy for the expected papers' quality.

In 70's it emerged two procedures for quantifying the quality of scientific journals based both on counting present citation of past papers, Moore (1972), and on asking the opinion to selected economists, Hawkins *et al.* (1973).

As the impact of journal increases proportionally with its dimension, without indicating an increase in papers average quality, it is necessary to weight the impact of journals by the number of papers published each year. This procedure, performed by Liebowitz and Palmer (1984), computes the average relative impact of each paper published. In the 90's and 2000's there are numerous replications of Liebowitz and Palmer (1984) work either applied to economics (e.g., Laband and Piette, 1994, Barrett *et al*, 2000, and Kalaitzidakis *et al*., 2003) or to other disciplines (eg., Holsapple *et al*, 1994).

In this paper I intend to address four new issues related to the measure of papers quality. First, I evaluate the average impact estimation procedure of Liebowitz and Palmer (1984) by comparing the *ex-ante* results computed in Laband and Piette (1994) with the *ex-post* average papers' impact. Second, I calibrate an estimator of the impact of a single paper (it is a more accurate estimator of the papers quality than to use the journals average impact where they are published). Third, I quantify the statistical variability of journals impact on a yearly base. Fourth, I test, within a 5% confidence interval, which journals average relative impact changed over the past two decades (between 1980 and 2000).

In the computation of journals' average impact variability I use a bootstrapping procedure (Efron, 1979) implemented in Microsoft Visual Basic 6.0 (TM). Data, datasheets and computer programs will be provided upon request.

2. THE CALCULATION PROCEDURE

As explained before, when comparing scientific papers it may be assumed, as a sign of their quality, the number of times these papers are cited in other papers, especially in ones that are of high quality. Being so, the "correct" way to compute the quality of a scientific paper would be summing up the quality for all papers that cite it. Being this procedure forward looking it becomes impossible to put it into practice as the impact of today's papers is yet zero. To turn the procedure workable one has to use the same period journal average papers quality instead of the quality of future papers that cite it (excluding or not citations in the same journal). This method is halfway between the Liebowitz and Palmer's (1984) procedure and the "correct" one.

As I intend to evaluate Liebowitz and Palmer's (1984) procedure I selected the 20 top ranking economic journals of Laband and Piette's (1994, table 2, column 3). I complete the missing in the list with the 20 top ranking economic journals of Kalaitzidakis *et al* (2001, table 1, column 5), excluding 'Games and Economic Behaviour' that does not appear in 1990 ISI database. In the total, I selected 23 economic journals (Table 1, column A).

Given that the impact of a paper is computed by summing up the average impact of all journals that cite it, it is necessary to have an extended list of journals. For all journals not include in my list but that are in Kalaitzidakis *et al*'s (2001, table 1, column 5) I use these authors estimation. For the 'Journal of Finance' I use the Laband and Piette's (1994, table2, column 3) estimation, 34.1. For all other journals I use as impact 0.01, because it is better to be cited in a "low average quality" journal that not at all.

In Table 1, columns B and C contain the estimations from Laband and Piette's (1994) columns 2 and 3, respectively. Using 32 top journals of Kalaitzidakis *et al*'s (2001) I computed the ranking for the year 2000 using the same methodology - papers published since 1995 with no self-citations (Table1, column D). Although in the ISI database for the year 2000 the Journal of Economic Literature published only 5 papers, consulting the journal I corrected the number to 16 papers.

I downloaded data that is available in ISI site for the papers published in those selected 23 economic journals in the year 1990. Data was downloaded during the second half of May 2004 from the ISI Web of Knowledge at isi4.newisiknowledge.com. This resulted in 1172 papers that where cited 32435 times (on average, each paper was cited 27.7 times).

The time span of 13 years seems adequate because approximately 2/3 of all citations occur 13 years after the paper being published. I estimated the

evolution of citations measuring bibliographic citation of the 32 top ranking journals of Kalaitzidakis *et al* (2003). In a total of 46173 citations, in 2000's papers, approximately 0.20, 0.33, 0.50, 0.67, 0.80 and 0.90 of bibliographic citations where from papers published in the last 3, 5, 8, 13, 19 and 30 years, respectively. Adjusting a polynomial function of degree 3, the percentage of paper citations with age until 30 year is (otherwise, use C_t / C_∞ = 0,95):

$$100 \frac{C_t}{C_\infty} = 8{,}09 \cdot t - 0{,}252 \cdot t^2 + 0{,}00273 \cdot t^3 \,, \ (R^2 = 0.9985) \tag{1}$$

In the column E, table 1 I show each journal *ex-post* average impact per paper. Being Z_m the total number of published papers in the journal m during 1990, and $K_{m,n}$ the number of citations of those articles in other papers published in journal n (being N the total number of journals) then the average journal impact, I_m, is computed as the sum of all citations in journal n to that Z_m papers:

$$I_m = \frac{\sum_{n=1}^{N} K_{m,n} \cdot I_n}{\xi \cdot Z_m} \tag{2}$$

In this expression the parameter ξ is a scale factor that normalises average papers citation impact to 100.

As authors to whom I intend to compare my results have excluded self-citations (a paper being cited in the same journal), that is $m = n$, I use 0.01 for the citations in the same journal (as if it where cited in a "low average quality" journal). As the system (2) has $M + 1$ variables, it must be added the normalisation equation (the ranking of the top average impact journal is normalised to 100):

$$Max\{I_1,...,I_m\} = 100 \tag{3}$$

The expressions (2) and (3) represent a non-linear ($M + 1$) equation system that I compute using as Moore (1972) an iteration method implemented in a computer datasheet. Alternatively it could be used a relaxation method without loss.

Furthermore, I compute for each journal the average impact of the 20th lowest impact papers (Table 1, column F). This number is important because, more than the average impact, it measures how difficult it is to a "low quality" paper to be published.

I compute the normalised impact statistical variability using a bootstrapping procedure (Efron, 1979) implemented in Microsoft Visual Basic 6.0 (TM). Being that papers published in one year are chosen in a uniform random process from a pool of papers, the bootstrapping method computes the variability by re-sampling "volumes" with reposition of the papers. I replicate this process 1000 times by re-sampling the 1990's published papers, computing for each new re-sample the average impact of the 23 journals selected. I show, in columns G and H of Table 1, the 2.5% and the 97.5% computed ranking percentiles, respectively.

The 1990's global impact of journals (table 1, column J) is computed multiplying each paper average impact (Table 1, column E) by the number of papers published in 1990 (Table 1, column I), normalized to 100. Note that in 1990, the Journal of Economic Literature published 10 papers in spite of ISI database reported only 6.

In the column K of Table 1, I compute the journal value for money dividing the journal impact (Table1, column J) by the 2004's "institution from OCDE subscription cost" and normalising the values to 100. The subscription to Journal of Economic Literature, American Economic Review and Journal of Economic Perspective is combined. Notice that in an OCDE country the 16 top value for money economic journals cost

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approximately 4000 US$ per year, while the other 7 journals of the Table 1 cost approximately 3 times that value.

In the Table 3, I re-compute the citation impact for the 159 Kalaitzidakis *et al*'s (2003) economic journals. I use all years' citations from 120th top ranking economic journals in the period 1998:3–2002:4, sorted by average impact (no self-citations). The ranking was computed with 323786 citations. Being given the important variability of journal impact (Table 1, column G and H), the use of more journals during a larger period of time (4,5 years instead of just 1 year) decreases the estimation "error". It seems that there are some errors in the ISI information about the number of papers that I was unable to correct, which has the consequence of increasing the error of ranking estimations.

3. STATISTICAL RESULTS

The first remark is that the Laband and Piette (1994) ranking prediction of 16 journals out of 19 are inside the 95% interval of average rankings I computed (see Table 1, columns G and H). 'Journal of Business and Economic Statistics' and 'European Economic Review' prediction are outside (above) this interval. In opposite direction the impact of Bell/Rand Economics Journal was *ex-post* lower than predicted. Being acceptable that this tree journals impact evolved (notice that Journal of Business and Economic Statistics is published just since 1984 and Bell changed the name to Rand), the Liebowitz and Palmer (1984) extension of Moore (1972)'s procedure is an adequate procedure to estimate scientific papers average impact. Moreover, I conjecture that the Journal of Monetary Economics impact prediction is out of the *ex-post* interval because its papers are cited in business and finance literature that Laband and Piette (1994) take in account and I do not.

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The second remark is that the ranking variability of top cited journals is very significant. Notice that the ranking of the 5 top journals may vary approximately 50 points in a scale of 100 and for all other journals the 2.5 percentile is smaller than half the 97.5 percentile.

The third remark is that for 21 out of 23 journals, it may not be rejected the statistical hypothesis that the journals ranking did not change over the time interval between 1980 and 2000 (or between 1990 and 2000 when there is no value for 1980).

Assuming H_0 that the ranking position in years 1980, 1990 and 2000 are random extractions from the statistical variable with identical expected value and standard deviation that may be estimated by the computed percentiles, $S = (X_{97.5} - X_{2.5})/K$, it can not be reject H_0 for a significance level of 5% when

$$\frac{\left|I_{1980} - I_{2000}\right|}{\sqrt{2} \cdot (X_{97.5} - X_{2.5})/K} \leq K \Leftrightarrow \frac{\left|I_{1980} - I_{2000}\right|}{(X_{97.5} - X_{2.5})} \leq \sqrt{2} \tag{5}$$

The hypothesis H_0 is rejected only for the 'Quarterly Journal of Economics' and 'Econometrica' which improved their citation impact.

4. CALIBRATION OF THE PAPERS IMPACT ESTIMATOR

The parameter ξ in expression (2) is a scale factor that permits to normalise papers citation impact. Excluding citations from papers in the same journal, the ξ value is computed as 8.05, being otherwise 11,29 (except for 'Journal of Financial Economics' that has a large percentage of self-citations). The journal impact must yet be correct by the paper's age using expression (1). As I use a 13 years time span in the estimation of ξ, the paper impact must be estimated by the following expression:

$$I = \frac{\sum_{i=1}^{K_m} I_n}{\xi \cdot C_t / C_{13}} \qquad (4)$$

Being that, on average, in the first three years of a paper's "life" it only receives approximately 1/5 of the long term total number of citations, it seems to me inadequate to compute papers impact previous to 3 years from the date of publication (the error estimation would be very high).

5. CONCLUSION

Given that it is important to quantify papers quality, in this paper I intend to address four issues relating the relative quality (impact) of economic papers. First, I validate that, although using past information, the speculative procedure of Liebowitz and Palmer (1984) it is a good predictor of average papers impact. Second, I calibrate an estimator that turns it possible to quantify the quality (impact) of a single paper. Third, I quantify that the variability of journals impact on a year scale is very considerable. Fourth, I compute that the journals average impact varies considerably from one year to another but the long term "tendency" does not change very frequently.

As final peculiar note, although not presenting here the figures, the impact of economic papers from Portuguese authors are much lower than the journals average impact where they are published (possible exception are Sergio Rebelo, Luis Cabral, Pedro Portugal and José Mata) (see Guimarães, 2001; 2002).

BIBLIOGRAPHIC REFERENCES

Barrett, C. B., A. Olia and D. Von Bailey (2000), "Subdiscipline-specific journal rankings: whither Applied Economics?", *Applied Economics*, **32**, 239 - 52.

David N. L. and J. P. Sophocleus (1985), "Revealed preference for economics journals: Citations as dollar votes", *Public Choice*, **46**, 317-23.

Efron, B. (1979), "Bootstrap methods: Another look at the jackknife", *Annals of Statistics*, **7**, 1-26.

Guimarães, P. (2001), "The state of Portuguese research in economics: an analysis based on publications in international journals", Working Paper NIMA 15, Braga, Universidade do Minho, http://nima.eeg.uminho.pt/publications/120.pdf.

Guimarães, P. (2002), "The state of Portuguese research in economics: an analysis based on publications in international journals", *Portuguese Economics Journal*, **1**, p. 3-25.

Hawkins, R. G., L. S. Ritter and I. Walter (1973), "What Economists Think of Their Journals", *Journal of Political Economy*, **81**, 1017-32.

Holsapple, C., L. Johnson, H. Manakyan, and J. Tanner (1994), "Business Computing Research Journals: A Normalized Citation Analysis", *Journal of Management Information Systems*, **11**, 131-40.

Kalaitzidakis, P., T. P. Mamuneas and T. Stengos (2001), "Rankings of Academic Journals and Institutions in Economics", *Discussion Papers of the University of Cyprus*, **10**, pp. 1-29, http://www.econ.ucy.ac.cy/papers/0110.pdf

Kalaitzidakis, P., T. P. Mamuneas and T. Stengos (2003), "Rankings of Academic Journals and Institutions in Economics", *Journal of the European Economic Association*, **1**, 1346-66.

Laband, D. and M. Piette (1994), "The Relative Impact of Economic Journals", *Journal of Economic Literature*, **32**, 640-66.

Liebowitz, S. J., J. P. Palmer (1984), "Assessing the relative impacts of economics journals", *Journal of Economic Literature*, **22**, 77-88.

Moore, W. J. (1972), "The relative quality of economics journals: A suggested rating system", *Western Economic Journal*, **10**, 156-69.

Annex 1: Tables

Table 1: Economic journal's impact and its variability

A	B	C	D	E	F	G	H	I	J	K
				Ex-post	20's	$F(x) =$	$F(x) =$		Journal	Value
Journal	1980	1990	2000	1990	L. I. P.	2,5%	97,5%	Nm	Impact.	for $
Econometrica	31,60	78,40	94,11	100,00	14,75	55,88	100,00	59	98,95	43,04
J Pol Econ	59,12	63,00	75,04	99,38	10,91	52,18	100,00	60	100,00	76,04
J Fin Econ	62,15	100,00	6,16	85,87	70,75	53,71	100,00	22	31,68	4,53
J Econ lit	100,00	28,80	100,00	66,99	66,99	4,38	78,71	10	11,23	100,00
Rev Econ Stud	30,36	40,70	94,21	61,35	7,45	27,45	88,23	42	43,21	31,33
Q J Econ	16,17	41,60	68,79	44,21	7,54	23,17	58,23	49	36,33	35,91
J Hum Resour	13,60	4,60	15,32	41,27	17,27	14,66	60,32	24	16,61	20,07
Am Econ Rev	34,48	40,20	31,64	40,71	0,10	24,21	49,43	146	99,68	100,00
J Econ Theory	22,28	34,90	44,07	36,70	2,47	18,90	48,42	54	33,24	96,39
Economet Theor			13,54	34,27	34,27	11,52	57,82	19	10,92	5,00
J Econometrics	17,32	18,60	20,06	28,23	0,40	15,24	38,92	79	37,40	3,30
J Math econ	24,73	20,60	9,18	28,09	28,09	5,77	21,20	19	8,95	1,30
J Mon Econ	33,00	41,90	32,57	26,13	7,87	11,97	37,33	30	13,15	1,75
J Bus Econ Stat		7,90	26,24	21,84	0,13	9,18	31,91	64	23,44	37,76
J Econ Persp		23,30	32,80	21,56	2,67	11,64	27,39	49	17,72	100,00
Bell/Rand J Econ	39,45	40,20	24,53	20,73	3,68	10,41	27,27	40	13,91	15,51
J Lab Econ		15,40	18,11	20,23	5,55	8,72	26,80	36	12,21	10,79
J Inter Econ	14,12	7,60	12,34	14,09	2,39	9,02	55,46	39	9,22	1,67
Econ J	14,96	7,50	14,82	13,88	0,48	6,89	18,47	73	16,99	8,38
Inter Econ Rev	19,04	12,30	31,04	12,34	0,18	6,26	16,09	66	13,66	8,71
J Pub Econ	19,65	8,60	11,74	10,26	0,33	6,17	14,71	66	11,36	1,22
Rev Econ Stat	12,40	6,50	16,70	8,44	0,73	3,63	13,22	45	6,37	4,90
Eur Econ Rev	6,70	2,10	14,87	7,24	0,00	3,45	10,00	86	10,44	2,08

Table 2: 2004's institution from OCDE journals subscription cost

Journal	Library US$	Indiv US$	Journal	Library US$	Indiv US$
Econometrica	500	59	J Mon Econ	1634	95
J Pol Econ	286	63	J Bus Econ Stat	135	135
J Fin Econ	1522	95	J Econ Persp	*	*
J Econ Lit	270	64	Bell/Rand J Econ	195	72,5
Rev Econ Stud	300	71	J Lab Econ	246	59
Q J Econ	220	47	J Inter Econ	1201	125
J Hum Resour	180	62	Econ J	441	65
Am Econ Rev	*	*	Inter Econ Rev	341	72
J Econ Theory	75	75	J Pub Econ	2017	180
Economet Theor	475	153	Rev Econ Stat	283	53
J Econometrics	2463	160	Eur Econ Rev	1093	50
J Math econ	1493	115			

* Conjunct with J. Econ. Lit.

Table 3: Top 159 Economic Journals' impact computed with all the citations from the 120th Kalaitzidakis *et al*'s (2003) top ranking economics journals over the period 1998:3–2002:4.

Ranking	*	Journal	Average Impact	N. of Papers	Journal Impact
1	1	ECONOMETRICA	100,000	52	100,000
2	3	JOURNAL OF POLITICAL ECONOMY	91,608	41	72,229
3	8	REVIEW OF ECONOMIC STUDIES	79,886	27	41,479
4	6	QUARTERLY JOURNAL OF ECONOMICS	60,903	48	56,218
5	22	JOURNAL OF ECONOMIC LITERATURE	44,642	16	13,736
6	4	JOURNAL OF ECONOMIC THEORY	30,028	74	42,732
7	2	AMERICAN ECONOMIC REVIEW	27,445	165	87,085
8	91	BROOKINGS PAPERS ON ECONOMIC ACT	26,077	22	11,033
9	25	RAND JOURNAL OF ECONOMICS	21,259	36	14,718
10	10	JOURNAL OF MONETARY ECONOMICS	20,186	52	20,186
11	15	INTERNATIONAL ECONOMIC REVIEW	19,149	42	15,467
12	24	JOURNAL OF LABOR ECONOMICS	17,389	30	10,032
13	17	JOURNAL OF HUMAN RESOURCES	15,082	31	8,991
14	5	JOURNAL OF ECONOMETRICS	14,169	82	22,343
15	12	JOURNAL OF ECONOMIC PERSPECTIVES	13,382	52	13,382
16	47	JOURNAL OF LAW ECONOMICS AND ORGAN	12,699	20	4,884
17	11	GAMES AND ECONOMIC BEHAVIOR	12,416	65	15,520
18	26	JOURNAL OF FINANCIAL ECONOMICS	12,287	56	13,232
19	13	REVIEW OF ECONOMICS AND STATISTICS	11,829	78	17,744
20	20	JOURNAL OF PUBLIC ECONOMICS	10,669	83	17,029
21	19	ECONOMIC JOURNAL	10,305	79	15,656
22	50	JOURNAL OF LAW AND ECONOMICS	9,985	40	7,681
23	9	JOURNAL OF BUSINESS AND ECONOMIC	9,788	46	8,659
24	32	JOURNAL OF INTERNATIONAL ECONOMICS	8,685	56	9,353
25	21	JOURNAL OF APPLIED ECONOMETRICS	8,670	27	4,502
26	7	ECONOMETRIC THEORY	8,289	69	10,999
27	28	JOURNAL OF MATHEMATICAL ECONOMIC	7,736	58	8,629
28	33	INTERNAT JOURNAL OF GAME THEORY	7,291	39	5,468
29	44	ECONOMICA	7,107	39	5,330
30	16	EUROPEAN ECONOMIC REVIEW	6,171	103	12,223
31	36	ECONOMIC INQUIRY	5,895	45	5,101
32	35	JOURNAL OF RISK AND UNCERTAINTY	5,883	25	2,828
33	69	REVIEW OF INCOME AND WEALTH	5,725	12	1,321
34	52	JOURNAL OF ECONOMIC HISTORY	5,189	30	2,994
35	30	JOURNAL OF ENVIRONMENTAL ECONOMICS	5,132	30	2,961
36	49	JOURNAL OF INDUSTRIAL ECONOMICS	5,002	34	3,271
37	77	JOURNAL OF ACCOUNTING AND ECONOMIC	4,703	23	2,080
38	61	JOURNAL OF FINANCI AND QUANTIT ANAL	4,054	34	2,651
39	31	SOCIAL CHOICE AND WELFARE	4,051	43	3,350
40	23	JOURNAL OF ECONOMIC DYN AND CONTROL	4,043	89	6,920
41	72	JOURNAL OF ECONOMICS AND MANAGEMEN	4,027	22	1,704
42	46	JOURNAL OF URBAN ECONOMICS	3,899	45	3,374
43	27	SCANDINAVIAN JOURNAL OF ECONOMIC	3,884	35	2,614
44	38	JOURNAL OF DEVELOPMENT ECONOMICS	3,442	64	4,236
45	51	NATIONAL TAX JOURNAL	3,370	49	3,176

Table 3: (continue)

Ranking	*	Journal	Average Impact	N. of Papers	Journal Impact
46	67	REGIONAL SCIENCE AND URBAN ECONO	3,363	30	1,940
47	39	INTERNATIONAL MONETARY FUND STAF	3,285	29	1,832
48	42	PUBLIC CHOICE PUBLIC CHOICE	3,247	84	5,245
49	14	ECONOMIC THEORY	3,237	82	5,105
50	84	WORLD BANK RESEARCH OBSERVER	3,147	10	0,605
51	54	OXFORD ECONOMIC PAPERS-NEW SERIE	3,066	57	3,361
52	34	JOURNAL OF ECON BEHAV AND ORGANAN	2,828	92	5,003
53	29	OXFORD BULLETIN OF ECON AND STATIST	2,457	51	2,410
54	80	GENEVA PAPERS ON RISK AND INSURA	2,423	10	0,466
55	41	WORLD BANK ECONOMIC REVIEW	2,406	35	1,619
56	82	KYKLOS	2,355	15	0,679
57	71	JOURNAL OF HEALTH ECONOMICS	2,328	56	2,507
58	105	ECONOMICS OF EDUCATION REVIEW	2,254	30	1,300
59	37	THEORY AND DECISION	2,185	40	1,681
60	18	ECONOMICS LETTERS	2,076	236	9,422
61	40	CANADIAN JOURNAL OF ECONOMICS	2,043	98	3,850
62	57	JOURNAL OF POPULATION ECONOMICS	1,884	28	1,014
63	56	SOUTHERN ECONOMIC JOURNAL	1,861	75	2,684
64	95	ECONOMIC DEVEL AND CULT CHANGE	1,790	38	1,308
65	45	INTERNATIONAL JOURNAL OF INDUSTR ORG	1,695	75	2,445
66	73	ECONOMIC HISTORY REVIEW	1,683	14	0,453
67	59	EXPLORATIONS IN ECONOMIC HISTORY	1,640	35	1,104
68	58	JOURNAL OF BANKING AND FINANCE	1,541	61	1,808
69	55	LAND ECONOMICS	1,455	39	1,091
70	53	JOURNAL OF COMPARATIVE ECONOMICS	1,394	36	0,965
71	65	JOURNAL OF ECONOMICS-ZEITSCHRIFT	1,360	21	0,549
72	62	JOURNAL OF INSTIT AND THEOR ECON	1,311	39	0,983
73	89	ENERGY JOURNAL	1,293	23	0,572
74	66	OXFORD REVIEW OF ECONOMIC POLICY	1,285	38	0,939
75	85	WELTWIRTSCHAFTLICHES ARCHIV-REVI	1,246	31	0,743
76	92	RESOURCE AND ENERGY ECONOMICS	1,099	21	0,444
77	127	INTERNAT REVIEW OF LAW AND ECON	1,021	28	0,550
78	142	NEW ENGLAND ECONOMIC REVIEW	1,020	12	0,235
79	112	JOURNAL OF ECONOMIC PSYCHOLOGY	1,014	26	0,507
80	90	JOURNAL OF HOUSING ECONOMICS	0,993	11	0,210
81	114	JOURNAL OF REAL ESTATE FINANCE	0,900	29	0,502
82	70	JOURNAL OF MACROECONOMICS	0,855	32	0,526
83	81	JOURNAL OF TRANSPORT ECONOMICS POLIC	0,848	19	0,310
84	104	JOURNAL OF PRODUCTIVITY ANALYSIS	0,828	25	0,398
85	96	MANCHESTER SCHOOL	0,820	47	0,741
86	63	CONTEMPORARY ECONOMIC POLICY	0,761	35	0,512
87	86	ECONOMICS AND PHILOSOPHY	0,752	14	0,202
88	113	JOURNAL OF EVOLUTIONARY ECONOMIC	0,719	35	0,484
89	43	AMERICAN JOURNAL OF AGRICULTURAL	0,709	135	1,841
90	102	JOURNAL OF ECONOMIC EDUCATION	0,700	45	0,606
91	99	JAPAN AND THE WORLD ECONOMY	0,690	25	0,332
92	60	WORLD DEVELOPMENT	0,668	114	1,464
93	97	JOURNAL OF POLICY MODELING	0,574	35	0,386

Table 3: (continue)

Ranking	*	Journal	Average Impact	N. of Papers	Journal Impact
94	64	APPLIED ECONOMICS	0,529	138	1,404
95	121	CHINA ECONOMIC REVIEW	0,525	11	0,111
96	103	JOURNAL OF RISK AND INSURANCE	0,521	49	0,491
97	48	ECONOMIC RECORD	0,480	46	0,425
98	87	REVIEW OF INDUSTRIAL ORGANIZATIO	0,456	64	0,561
99	78	CAMBRIDGE JOURNAL OF ECONOMICS	0,446	37	0,317
100	68	SCOTTISH JOURNAL OF POLITICAL ECON	0,417	29	0,233
101	143	ENERGY ECONOMICS	0,398	27	0,207
102	101	REVIEW OF BLACK POLITICAL ECONOM	0,381	19	0,139
103	111	JOURNAL OF POST KEYNESIAN ECON	0,376	35	0,253
104	139	AMERICAN JOURNAL OF ECONOMICS	0,365	22	0,154
105	135	ECONOMIC GEOGRAPHY	0,337	15	0,097
106	138	HITOTSUBASHI JOURNAL OF ECONOMIC	0,318	16	0,098
107	79	SMALL BUSINESS ECONOMICS	0,316	31	0,188
108	116	HISTORY OF POLITICAL ECONOMY	0,311	45	0,269
109	115	REAL ESTATE ECONOMICS	0,309	21	0,125
110	137	JOURNAL OF DEVELOPING AREAS	0,292	7	0,039
111	75	WORLD ECONOMY	0,281	49	0,265
112	98	DEVELOPING ECONOMIES	0,257	13	0,064
113	107	AUSTRALIAN JOUR OF AGRICULTUR ECON	0,249	20	0,096
114	151	ECONOMIC AND SOCIAL REVIEW	0,242	23	0,107
115	106	OPEN ECONOMIES REVIEW	0,225	30	0,130
116	93	JOURNAL OF REGULATORY ECONOMICS	0,211	30	0,122
117	131	ECONOMICS OF PLANNING	0,187	11	0,040
118	100	ECONOMIC MODELLING	0,186	28	0,100
119	118	HEALTH ECONOMICS	0,151	58	0,168
120	110	JOURNAL OF AGRICULTURAL AND RESO	0,138	36	0,096
121	109	JOURNAL OF ECONOMIC ISSUES	0,135	59	0,153
122	124	JOURNAL OF AGRICULTURAL ECONOMIC	0,127	36	0,088
123	120	POST-SOVIET AFFAIRS	0,121	14	0,033
124	123	EUROPEAN REVIEW OF AGRICULTURAL	0,113	26	0,057
125	122	REVIEW OF SOCIAL ECONOMY	0,109	17	0,036
126	94	ECOLOGICAL ECONOMICS	0,094	113	0,204
127	117	CANADIAN JOUR OF AGRICULTURAL ECON	0,091	41	0,072
128	129	REVUE ECONOMIQUE	0,080	69	0,106
129	76	AUSTRALIAN ECONOMIC HISTORY REV	0,055	9	0,010
130	119	DEFENCE AND PEACE ECONOMICS	0,053	36	0,037
131	134	JOURNAL OF WORLD TRADE	0,051	79	0,077
132	154	JOURNAL OF MEDIA ECONOMICS	0,047	14	0,013
133	158	SOUTH AFRICAN JOURNAL OF ECONOMI	0,045	17	0,015
134	130	BULLETIN OF INDONESIAN ECONOMIC	0,039	21	0,016
135	152	NATIONALOKONOMISK TIDSSKRIFT	0,039	21	0,016
136	128	FOOD POLICY	0,037	37	0,026
137	141	AUSTRALIAN JOURNAL OF AGRICULT ECON	0,035	20	0,013
138	126	WORK EMPLOYMENT AND SOCIETY	0,034	34	0,022
139	136	APPLIED ECONOMICS LETTERS	0,034	210	0,137
140	145	JAPANESE ECONOMY	0,030	45	0,026
141	125	INSURANCE MATHEMATICS AND ECONOMIC	0,024	117	0,054

Table 3: (continue)

Ranking	*	Journal	Average Impact	N. of Papers	Journal Impact
142	74	EUROPE-ASIA STUDIES	0,022	49	0,021
143	156	TRIMESTRE ECONOMICO	0,022	28	0,012
144	133	POST-SOVIET GEOGRAPHY AND ECONOM	0,020	23	0,009
145	88	COMMUNIST ECON AND ECONOMIC TR	0,019	40	0,015
146	153	DESARROLLO ECONOMICO-REVISTA SOCIAL	0,019	21	0,008
147	150	ECONOMIC DEVELOPMENT QUARTERLY	0,015	27	0,008
148	144	ECONOMY AND SOCIETY	0,011	23	0,005
149	132	EASTERN EUROPEAN ECONOMICS	0,010	35	0,007
150	149	TIJDSCHRIFT VOOR ECONOMISCHE SOC GE	0,010	31	0,006
151	159	PROBLEMS OF ECONOMIC TRANSITION	0,008	31	0,005
152	140	FUTURES	0,004	56	0,004
153	108	JAHRBUCHER FUR NATIONALOKON STAT	0,002	61	0,002
154	148	JOURNAL OF TAXATION	0,002	156	0,006
155	155	BETRIEBSWIRTSCHAFTL FORSCHUN PRAX	0,002	41	0,002
156	83	JOURNAL OF THE JAPANESE AND INT ECON	0,001	17	0,000
157	146	REVUE D ETUDES COMPARATIVES EST Q	0,001	29	0,001
158	147	POLITICKA EKONOMIE	0,000	49	0,000
159	157	EKONOMICKY CASOPIS	0,000	34	0,000

*Kalaitzidakis *et al* (2003) ranking

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Editor: Prof. Aurora Teixeira (ateixeira@fep.up.pt)

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