

# Most Cited Articles Published in Brazilian Journals of Economics: Google Scholar Rankings

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## Abstract

This paper examines the rankings of the most cited papers published in Brazilian journals of economics since 1990, according to Google Scholar [GS]. Quality research published in Brazil, as measured by academic impact, is mainly done by authors affiliated with international institutions. Half of the articles are co-authored, 7% are authored by graduate students, and women appear to be underrepresented. There is little overlap between authors publishing in domestic journals and authors publishing in international journals. The areas of research more frequently cited by GS and domestic journals are macroeconomics, labor economics, and industrial organization. The most cited articles in international journals are of econometrics, game theory, and development economics. *Revista de Economia Política* is the top Brazilian journal for the general public, and *Revista de Econometria* is the top Brazilian journal for academia. GS citations are not a good indicator of journal citations.

*Keywords:* Rankings of Articles, Economists and Departments, Role of Economists

*JEL Classification:* H54, D24

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## Resumo

Examinamos os rankings dos artigos mais citados publicados nas principais revistas de economia do Brasil desde 1990, de acordo com o Google Scholar [GS]. Pesquisa de qualidade publicada no Brasil, medida pelo impacto acadêmico, é feita principalmente por autores afiliados a instituições estrangeiras. Metade dos artigos são co-autorados, 7% são autorados por estudantes de pós-graduação, e as mulheres aparentemente estão sub-representadas. Poucos autores publicando em revistas nacionais publicam em revistas internacionais. As áreas de pesquisa mais frequentemente citadas no GS e em revistas domésticas são macroeconomia, economia do trabalho, e organização industrial. Os artigos mais citados em revistas internacionais são de econometria, teoria dos jogos, e desenvolvimento econômico. *Revista de Economia Política* é a revista top do Brasil para o público geral, e a *Revista de Econometria* é a revista top para a academia. Citações no GS não são um bom indicador para citações em revistas acadêmicas.

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## 1. Introduction

Rankings of journals, departments, and scholars are an objective, efficient and low cost way to evaluate academia. They help research agencies to allocate resources, students to choose universities and programs, and faculty to evaluate their performance, potential, and to set and plan their career path.

Over the past decade there has been an explosion of rankings production, particularly in economics. This trend is accentuated in countries with no tradition of objective academic evaluations [e.g., Jin and Yau (1999), Barrett and Lucey (2003), Gregor and Schneider (2005), Cokgezen (2006), Mirucki (2007), Ramos et al. (2007)]. Brazil is no exception and studies on Brazilian academia mushroomed as fast as in any other country since the pioneering work of Gonçalves and David (1982) and Azzoni (1998, 2000, 2001) [see, among others, Faria (2000, 2004), Issler and Pillar (2002), Rocha and Machado (2003), Issler and Ferreira (2004), Faria et al. (2007a,b), Novaes (2008), Silva (2009)].

In economics, traditional rankings rank journals (Diamond Jr. 1989; Burton and Phimister 1995), departments (Dusansky and Vernon 1998), and economists (Coupé 2003) either by assessing the number of citations or the number of publications. In Brazil, Azzoni (1998) listed the classic articles published in Brazilian domestic journals of economics. This paper does a similar job, however we analyze the most cited articles published from 1990 onwards, and we use the citations captured by Google Scholar [GS]. We analyze the top 10 most cited papers published by each of the main Brazilian economics journals: *Economia Aplicada* [EA], *Estudos Econômicos* [EE], *Pesquisa e Planejamento Econômico* [PPE], *Revista Brasileira de Economia* [RBE], *Revista de Econometria* [RE], and *Revista de Economia Política* [REP].<sup>1</sup>

This paper has a number of objectives. It shows the most cited papers published in Brazilian journals of economics, according to Google Scholar. The analysis of the most cited papers allows us to identify patterns of publications, such as co-authorship, and areas of greater impact of economics research in Brazil. It also allows us to investigate whether there are authors with multiple most cited papers, and the departments to which the most cited authors are affiliated with. Overall, it allows us to picture the research in economics in Brazil. Last, but not least, the paper aims at examining whether Google Scholar is a good indicator for journals citations in other academic journals.

The paper is organized as follows. Section 2 presents the methodology and discusses Google Scholar. In Section 3 we present and describe the rankings of

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<sup>1</sup> There is one top journal of Economics in Brazil that was not included in this study; it is *Revista EconomiA*, published by Anpec. It was not included because it was launched in 2000.

most cited papers. Section 4 analyzes the rankings. A discussion is carried out in Section 5. Concluding Remarks appear in Section 6.

## 2. Google Citations and Methodology

We access Google Scholar [GS] through POP (Harzing's "Publish or Perish") to rank the articles. POP is a program that makes the access of Google Scholar quite simple and straightforward. In POP we search for the Brazilian journals of economics. POP yields the most cited papers in order of citations captured by GS. With the list of articles we search for each article individually in GS. We look for citations in academic journals, domestic and international. Most of the information is displayed in the Tables in this paper. However, the names of the citing articles in academic journals are not showed.

Google Scholar captures different types of citations, which include citations in academic journals, working papers, books, and in many other venues such as conference papers, magazines, government reports, etc. Therefore it provides evidence of a general public impact of a given article rather than the particular impact in academia or in a narrow field of research as captured by citations in peer reviewed academic journals. Google Scholar [GS] captures citations of the paper, rather than the specific publication of the paper, for example, if an article appeared first as a working paper and is cited in journals as such, it is captured by GS. Actually, GS captures all citations no matter in what form the paper appeared, thus the rankings presented below are not exactly rankings of the papers as cited from the Brazilian journals, they are citations of the papers themselves, rather than of the journals. However, we attach all these citations to the journals because a journal publication is ultimately the final citation of any given academic paper.

Google Scholar has some shortcomings. It repeats the same information frequently, for example, the same paper citing a reference is captured many times. Some of the links are broken, which makes one wonder whether the cited paper is actually there. The most serious problem we found with GS is that one of the papers analyzed was cited by *Econometrica* in 2008, – which is a top international journal in economics – this citation, however, was not shown by GS. GS captured the citation in a link to SSRN [Social Science Research Network], and by opening the SSRN page we saw the citing paper as forthcoming in *Econometrica*. Only by searching at *Econometrica* itself we confirmed that the citing paper was already published. This example shows that GS may fail to capture citations even for one of the most well-known academic journals.

This paper analyzes the top 10 most cited papers since 1990 of the top 6 Brazilian journals of economics. Given the problems with GS exposed above there may be some errors with the data besides errors in its collection and registration. Moreover, all inferences made in this paper over a sample of 60 papers may not hold for the whole universe of papers published by these journals since 1990.

### 3. The Most Cited Articles

The first 6 Tables [Tables 1 to 6] show the top ten most cited articles, according to Google Scholar, of *Economia Aplicada* [EA], *Estudos Econômicos* [EE], *Pesquisa e Planejamento Econômico* [PPE], *Revista Brasileira de Economia* [RBE], *Revista de Econometria* [RE], and *Revista de Economia Política* [REP], respectively. These Tables have the same structure. The first column shows the title [sometimes incomplete] of the article. The second column displays the year, volume and pages of the article. The next column shows the name[s] of the author[s]. The fourth column gives the affiliation of the author[s]. The fifth column displays the number of citations according to Google Scholar. Column 6 presents the number of citations in academic journals. Column 7 presents the self citations in journals and the next column the net citations in journals, which is the difference between Columns 6 and 7. Columns 9, 10, and 11 show the number of international journal citations, self citations in international journals, and international journals citations of journals published in languages other than English, respectively. Finally the last Column shows the number of citations made by articles published in the same journal as the one considered.

What patterns emerge from Tables 1-6? The majority of the most cited papers were published in the 1990's. The only exception is *Economia Aplicada*, because it started publication in 1996. The areas of research in economics more frequently cited are macroeconomics, labor economics, industrial organization, economic growth and political economy. About  $\frac{1}{4}$  of the most cited papers published in the top Brazilian journals of economics are written in English. About half of the papers are co-authored, and around 10% are authored by more than 2 co-authors. 15% of the papers were authored or co-authored by females. The institutions that have the greater number of most cited papers in GS published by its members are: USP with 10 articles, FGV-RJ with 8, IPEA with 6, UFRJ with 5, FGV-SP, UnB, UFMG, with 4, and IBMEC-RJ, PUC-RJ, UCB, and Unicamp, with 3 articles.

The articles most cited in academic journals, without self citation, are: Franco [REP, 1998] with 31 citations; Ericsson et al. [RE, 1990], and Bonelli and Fonseca [PPE, 1998] with 28 citations each; Bresser-Pereira and Nakano [REP, 2002] with 21 citations; and with 18 citations are Tan and Werlang [RBE, 1992], and Abramovay [EA, 2000].

The articles most cited in international journals, without self citation, are: Ericsson et al. [RE, 1990] with 28 citations, Tan and Werlang [RBE, 1992] with 17 citations, Brillinger [RE, 1996] with 13 citations, Ferreira et al. [RBE, 2003] with 8 citations, and with 6 citations each Nakane [EE, 2002], Simonsen and Werlang [RE, 1991]. It is important to stress that among the authors of these papers, the majority is affiliated with non-Brazilian institutions, and all papers are written in English.

Table 1. ECONOMIA APLICADA

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	EA
O CAPITAL SOCIAL DOS TERRITÓRIOS	2000, 4, 379-397	ABRAMOVAY, R.	USP	266	20	2	18	0	0	2	1
AGLOMERAÇÕES INDUSTRIAIS	2001, 5, 698-717	SUZIGAN, W., J. FURTADO, R. GARCIA, S. SAMPAIO	UNICAMP, ARARAQ., USP, UFPR	90	17	2	15	0	0	0	1
ESTIMAÇÃO DA MATRIZ INSUMO-PRODUTO	2005, 9, 1-22	GUILHOTO, J., U. SESSO FO.	USP, LONDRINA	61	15	6	11	4	1	0	2
HOSPITAIS UNIVERSITÁRIOS	2000, 4, 315-342	MARINHO, A., L. FAÇANHA	IPEA, UFRJ	43	8	3	5	1	0	0	2
REGIONAL INCOME CONVERGENCE*	1998, 2, 383-411	ZINI JR., A.	USP	41	7	0	7	2	0	0	0
REELEIÇÃO E POLÍTICA FISCAL	2001, 5, 600-622	MENEGUIN, F., M. BUGARIN	UnB [DOUT], UnB	30	8	2	6	0	0	0	4
ASCENSÃO E DECLÍNIO MERCADO DE CAPITAIS	2000, 4, 595-632	CARVALHO, A.	FGV-SP	28	2	1	1	0	0	0	0
GENDER DISCRIMINATION AND SEGMENTATION*	1998, 2, 243-269	KASSOUF, A.	ESALQ	28	6	0	6	1	0	0	1
METAS DE INFLAÇÃO	2001, 5, 129-158	MENDONÇA, H.	UFF	23	5	4	1	0	0	0	1
DISCRIMINAÇÃO NO MERCADO DE TRABALHO	2001, 5, 519-545	LOUREIRO, P., F. CARNEIRO	UCB, UCB	23	7	1	6	1	0	0	1

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, EA=ECONOMIA APLICADA.

Table 2. ESTUDOS ECONÔMICOS

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	EE
A TEST OF COMPETITION IN BRAZILIAN BANKING*	2002, 32, 203-224	NAKANE, M.	BACEN	65	12	0	12	6	0	0	0
CONCENTRAÇÃO REGIONAL E DISPERSÃO DAS RENDAS	1997, 27, 341-393	AZZONI, C.	USP	64	8	1	7	1	1	0	2
CLUSTERS INDUSTRIAIS, COMPETITIVIDADE E DES.	2000, 30, 233-265	LINS, H.	UFSC	49	7	2	5	0	0	0	1
PROBLEMAS DA TRANSIÇÃO AGRICULTURA SUSTENTÁVEL	1994, 24, 9-29	VEIGA, J.	USP	41	5	0	5	0	0	0	1
CLUSTERS INDUSTRIAIS NA ECONOMIA BRASILEIRA	2002, 32, 71-102	BRITTO, J., E. ALBUQUERQUE	UFF, UFMG	40	5	0	5	0	0	0	1
MERCADO DE TRABALHO E INFORMALIDADE	1997, 27, 65-84	DEDECCA, C., P. BALTAR	UNICAMP, UNICAMP	38	5	2	3	1	0	1	0
CONCENTRAÇÃO REGIONAL E DISPERSÃO DAS RENDAS	1999, 29, 47-63	FERREIRA, A.	UFMG	35	5	0	5	1	0	0	3
NOTAS SOBRE OS DETERMINANTES TECNOLÓGICOS	1997, 27, 220-253	ALBUQUERQUE, E.	UFMG	33	6	5	1	1	1	0	0
A NOVA CONFIGURAÇÃO REGIONAL BRAS.	2003, 33, 665-700	LEMOS, M., C. DINIZ, L. GUERRA, S. MORO	UFMG, UFMG, PREF. BH, UFMG	33	4	2	2	0	0	0	1
ÍNDICE DE CUSTO DE VIDA COMPARATIVA	2000, 30, 165-186	AZZONI, C., H. CARMO, T. MENEZES	USP, USP, USP	32	10	2	8	2	1	0	1

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, EE=ESTUDOS ECONÔMICOS.

Table 3. PESQUISA E PLANEJAMENTO ECONÔMICO

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	P
GANHOS DE PRODUTIVIDADE E DE EFICIÊNCIA	1998, 28, 273-314	BONELLI, R., R. FONSECA	IPEA, CNI	155	30	2	28	3	1	0	6
A EVOLUÇÃO DO SISTEMA TRIBUTÁRIO BRAS.	1997, 27, 1-40	VARSAÑO, R.	IPEA	80	10	0	10	3	0	1	0
EVOLUÇÃO DA PRODUTIVIDADE INDUSTRIAL BRAS.	1999, 29, 1-36	ROSSI, J., P. FERREIRA	IPEA, FGV-RJ	76	19	1	18	1	0	0	4
EVOLUÇÃO DA PRODUTIVIDADE TOTAL DOS FATORES	2003, 33, 389-434	GOMES, V., S.PESSOA, F. VELOSO	UCB, FGV-RJ, IBMEC-RJ	60	8	2	6	0	0	0	1
DO CONSUMO OBSERVADO A LINHA DE POBREZA	1997, 27, 313-352	ROCHA, S.	IPEA	53	8	3	5	2	0	0	1
IMPACTOS MICROECONÔMICOS DA PRIVATIZAÇÃO NO BRASIL	1996, 26, 357-398	PINHEIRO, A.	UFRJ	52	10	0	10	3	0	1	0
DESCONCENTRAÇÃO INDUSTRIAL NO BRASIL	2000, 30, 69-116	SABOIA, J.	UFRJ	48	8	2	6	0	0	0	0
UMA AVALIAÇÃO DAS EXPORTAÇÕES INTRAFIRMA DO BRASIL	1993, 23, 487-512	BAUMANN, R.	UnB	47	4	0	4	1	0	1	0
QUALIDADE E EQUIDADE NO ENSINO FUNDAMENTAL BRASILEIRO	2002, 32, 453-476	ALBERNAZ, A., F. FERREIRA, C. FRANCO	PUC-RJ, PUC-RJ, PUC-RJ	45	10	1	9	1	0	1	1
ABERTURA COMERCIAL: CRIANDO OU EXPORTANDO EMPREGOS?	1998, 28, 371-398	MOREIRA, M., S. NAJBERG	BNDDES, BNDDES	41	11	1	10	2	1	0	3

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, P=PESQUISA E PLANEJAMENTO ECONÔMICO.

Table 4. REVISTA BRASILEIRA DE ECONOMIA

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	R
A ROBUST POVERTY PROFILE FOR BRAZIL*	2003, 57, 59–92	FERREIRA, F., P. LANJOUW, M. NERI	PUC-RJ, WB, FGV-RJ	75	18	7	11	13	5	2	0
LONG-RUN LIMITS ON THE BRAZILIAN GOVERNMENT DEBT*	1997, 51, 447–470	ROCHA, F.	USP	61	20	4	16	4	0	1	1
BUSINESS CYCLE FLUCTUATIONS IN BRAZIL*	2002, 56, 269–308	ELLERY JR., R., V. GOMES, A. SACHSIDA	IPEA, UnB[DOUT], UCB	61	19	4	15	0	0	0	6
LIBERALIZAÇÃO COMERCIAL ESTRUTURAS DE EMPREGO	2004, 58, 485–505	ARBACHE, J., C. CORSEUIL	UnB, IPEA	50	7	1	6	1	1	0	2
ON AUMANN'S NOTION OF COMMON KNOWLEDGE*	1992, 46, 151–166	TAN, T., S. WERLANG	ILLINOIS, FGV-RJ	41	18	0	18	17	0	2	0
O PRÊMIO DE RISCO DA TAXA DE CÂMBIO NO BRASIL	2001, 55, 485–505	GARCIA, M., G. OLIVARES	PUC-RJ, OPPORTUNITY	40	7	1	6	0	0	0	1
A NEW WHOLESALE PRICE INDEX FOR BRAZIL*	1992, 46, 519–533	CATÃO, L.	IMF	39	9	0	9	4	0	0	2
REFORMA TRIBUTÁRIA, EFEITOS ALOCATIVOS E IMPACTOS	1999, 53, 133–166	ARAÚJO, C., P. FERREIRA	BACEN, FGV-RJ	38	11	1	10	0	0	0	3
PRODUTIVIDADE E EMPREGO INDUSTRIAL NO BRASIL	1997, 51, 77–91	CACCIAMALI, M., L. BEZERRA	USP	38	5	1	4	0	0	0	0
MONETARY POLICY AND INFLATION IN BRAZIL	2003, 57, 605–635	MINELLA, A.	BACEN	37	6	0	6	1	0	0	1

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, R=REVISTA BRASILEIRA DE ECONOMIA.



Table 5. REVISTA DE ECONOMETRIA/BRAZILIAN REVIEW OF ECONOMETRICS

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	RE
PC-GIVE AND DAVID HENDRY'S ECONOMETRIC METHODOLOGY*	1990, 10, 7-117	ERICSSON, N., J. CAMPOS, H. TRAN	FED, FED, FED	71	36	8	28	36	8	1	
REMARKS CONCERNING GRAPHICAL MODELS FOR TIME SERIES*	1996, 16, 1-23	BRILLINGER, D.	BERKELEY	58	13	0	13	13	0	0	0
CONVERGÊNCIA ENTRE A RENDA PER CAPITA DOS ESTADOS BRASILEIROS	1996, 16, 88-103	FERREIRA, P., R. ELLERY JR.	FGV-RJ, PENN[DOUT]	53	14	1	13	2	0	1	0
INTERGENERATIONAL MOBILITY OF WAGES IN BRAZIL	2006, 26, 181-211	FERREIRA, S., F. VELOSO	IBMEC-RJ, IBMEC-RJ	52	8	0	8	5	0	0	0
DÉFICIT PÚBLICO, A SUSTENTABILIDADE DO CRESCIMENTO DAS DÍVIDAS INTERNA	1994, 14, 177-234	PASTORE, A.	USP	49	17	1	16	2	0	0	0
ESTIMATING RELATIVE RISK AVERSION	2000, 20, 201-239	ISSLER, J., N. PIQUEIRA	FGV-RJ, FGV-RJ	38	17	1	16	4	0	1	1
THE WAGE RATE ESTIMATION USING THE HECKMAN PROCEDURE*	1994, 14, 89-107	KASSOUF, A.	ESALQ	29	7	1	6	1	1	0	0
SUBADDITIVE PROBABILITIES AND PORTFOLIO INERTIA*	1991, 11, 1-19	SIMONSEN, M., S. WERLANG	FGV-RJ, FGV-RJ	27	7	0	7	6	0	0	0
GENERALIZED HYPERBOLIC DISTRIBUTIONS	2004, 24, 249-271	FAJARDO, J., A. FARIAS	IBMEC-RJ, BACEN	27	11	6	5	5	2	0	2
MONTHLY INDICATOR OF BRAZILIAN GDP	2001, 21, 1-48	CHAUVET, M.	RIVERSIDE	25	7	4	3	3	3	0	0

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, RE=REVISTA DE ECONOMETRIA/BRAZILIAN REVIEW OF ECONOMETRICS.

Table 6. REVISTA DE ECONOMIA POLÍTICA

TITLE	Y,V,P	AUTHOR	A	G	C	SC	OC	I	IS	NE	P
A INSERÇÃO EXTERNA E O DESENVOLVIMENTO	1998, 18, 121-147	FRANCO, G.	BACEN	204	31	0	31	3	0	2	3
UMA ESTRATÉGIA DE DESENVOLVIMENTO COM ESTABILIDADE	2002, 22, 146-180	BRESSER-PEREIRA, L., Y.NAKANO	FGV-SP, FGV-SP	131	29	8	21	7	3	4	10
AValiação DO PROCESSO DE REESTRUTURAÇÃO INDUSTRIAL	1997, 17, 11-31	BARROS, J., L. GOLDENSTEIN	MIN. FAZ., BNDES	80	10	0	10	2	0	1	1
O FISCO E A INFLAÇÃO: UMA INTERPRETAÇÃO DO CASO BRASILEIRO	1994, 14, 5-17	BACHA, E.	MIN. FAZ.	74	12	0	12	2	0	1	2
ESTRATÉGIA E ESTRUTURA PARA UM NOVO ESTADO	1997, 17, 24- 38	BRESSER-PEREIRA, L.	FGV-SP	73	10	2	8	1	0	0	1
AGLOMERAÇÕES INDUSTRIAIS COMO FOCOS DE POLÍTICA	2001, 21, 27- 39	SUZIGAN, W.	UNICAMP	71	9	1	8	0	0	0	1
CONTROVÉRSIAS RECENTES SOBRE CONTROLES DE CAPITAIS	2004, 24, 163-184	CARVALHO, F., J.SICSU	UFRJ, UFRJ	66	16	2	14	5	1	2	2
CRESCIMENTO ECONÔMICO COM POUPANÇA EXTERNA?	2003, 22, 3-27	BRESSER-PEREIRA, L., Y.NAKANO	FGV-SP, FGV-SP	64	20	9	11	6	4	4	6
POR UMA MOEDA PLENAMENTE CONVERSÍVEL	2003, 23, 151-154	ARIDA, P.	NO AFFILIATION	61	8	0	8	1	0	1	5
POLÍTICA INDUSTRIAL: TEORIA E PRÁTICA NO BRASIL E NA OCDE	1997, 17, 32-60	ERBER, F., J. CASSIOLATO	UFRJ, UFRJ	58	4	0	4	0	0	0	0

Y=YEAR, V=VOLUME, P=PAGES, A=AFILIATION, G=GOOGLE SCHOLAR, C=CITATIONS, SC=SELF CITATIONS, OC=OTHER CITATIONS, I=INTERNATIONAL CITATIONS, IS=SELF INT. CITATIONS, NE=INT. CITATIONS NON-ENGLISH, P=REVISTA DE ECONOMIA POLÍTICA.

Although the top article, according to GS citations, of every journal ranking is also the most cited article in journals [without self citation], with the exception of RBE, the GS rankings are not consistent with the journal citation rankings. For every journal, the rankings would be different if citations in academic journals are taken into account. Regarding citations in international journals, around 70% of the papers in these rankings are cited in international journals. In terms of self citation, approximately 65% of the articles are cited by at least one of their authors.

The authors that published more than one article in the rankings are: Luis Bresser-Pereira, FGV-SP, and Pedro Ferreira, FGV-RJ, with 3 papers each. The authors with 2 papers are: Roberto Ellery and Victor Gomes, both from UnB, Eduardo Albuquerque, UFMG, Carlos Azzoni, USP, Francisco Ferreira, PUC-RJ, Ana Lúcia Kassouf, ESALQ, Yoshiaki Nakano, FGV-SP, Wilson Suzigan, Unicamp, Fernando Veloso, IBMEC-RJ, and Sérgio Werlang, FGV-RJ. From all these authors only Ana Lúcia Kassouf authored papers without co-authors. Sérgio Werlang is the only author that also appears as the most cited in journals and in international journals. More remarkable, both his papers are the only ones that are cited by the top journals of the economic profession. Half of these 12 authors have their Ph.Ds abroad, 4 in the USA and 2 in the UK. The ones with Brazilian Ph.Ds are 3 from USP, 2 from UnB and one from UFRJ.

#### 4. Rank Analysis

Tables 7 to 12 show the ratios of several measures that appear in Tables 1 to 6. Tables 7 to 12 have the same structure. The first column shows the name of the author(s) of the article. The second column displays the number of journal citations divided by Google Scholar [GS] citations, which gives an idea of literature penetration, since it informs the percentage of total GS citations that actually became used in academia through academic journals. The next column shows the number of journal citations, without self citations, divided by GS citations, which captures the net penetration of a paper in the literature, since it shows the number of GS citations that end up in academic journals made by other scholars. The fourth column displays the number of citations in international journals divided by GS citations; this percentage indicates the penetration of an article in the international literature. Finally, the last column presents the number of citations in international academic journals less self citation in international journals divided by the number of journal citations without self citation; this percentage captures the net impact of a paper published in Brazil in the international literature, which signals the quality of the paper.

The ratios for *Economia Aplicada* [EA] appear in Table 7. The last row of Table 7 shows the average of the ratios. Approximately 20% of the GS citations are in the form of journal citations. Without self citation, this number drops to 15%. When citations in international academic journals are taken into consideration, the percentage of GS citations that are in the form of international citations is only

2%. The net impact of a top paper published in EA in the international literature is 10%.

Table 7

## ECONOMIA APLICADA

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
ABRAMOVAY, R.	0.08	0.07	0	0
SUZIGAN, W., J. FURTADO, R. GARCIA, S. SAMPAIO	0.18	0.17	0	0
GUILHOTO, J., U. SESSO FILHO	0.24	0.18	0.06	0.27
MARINHO, A., L. FAÇANHA	0.18	0.12	0.02	0.2
ZINI JR., A.	0.17	0.17	0.05	0.28
MENEGUIN, F., M. BUGARIN	0.27	0.2	0	0
CARVALHO, A.	0.07	0.035	0	0
KASSOUF, A.	0.21	0.22	0.04	0.16
MENDONÇA, H.	0.22	0.043	0	0
LOUREIRO, P., F. CARNEIRO	0.3	0.26	0.04	0.16
EA TOTAL	1.92	1.468	0.21	1.07
EA AVERAGE	0.19	0.15	0.02	0.1

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS = SELF CITATION INT.

The most cited paper published by EA has 266 hits; it is clearly an outlier, since it has more than double of citations of the second article in the list [90], and has over ten times the number of citations of the tenth article in the ranking, which has 23. It is also the most cited paper, among all journals, according to GS. One wonders whether it is an outlier academically, i.e., whether this paper has made an outstanding mark in the literature. The answer is no. Only 8% of the GS citations of this paper are actually in the form of academic journals citations, which is below EA's average. In addition, there is no reference to this paper in international journals. This surprising result begs an explanation, how come such successful paper has such dismal academic performance? One possible explanation is that the paper itself is a presentation of general ideas that appeal to a vast audience, not necessarily an academic one. Actually the paper appears to be a pioneering paper in Brazil to disseminate the concepts of social capital and territorial dimension of development. Although these concepts may be popular in other social sciences or for political purposes, they are not very often used in economic analysis.

There are two papers among the top ten most cited papers in EA that deserve further attention. The articles by Zini Jr. (1998) and Guilhoto and Sesso Filho (2005) have more than one quarter of their citations in academic journals made in international journals. Zini Jr. article is written in English, and deals with a subject that at the time was very popular among economic growth specialists,

which help explain its performance. However, Guilhoto and Sesso Filho article is written in Portuguese. Probably its relative international success is due to the application of input-output technique, which suggests that some techniques attract attention of the international academic community. These papers are cited by articles published in international journals such as Energy Economics, Annals of Regional Science, Regional Science Review, Studies in Regional Science, and Population and Environment.

The ratios for Estudos Econômicos [EE] appear in Table 8. The last row of Table 8 shows the average of the ratios for EE. Approximately 16% of the GS citations are in the form of journal citations. Without self citation, this number drops to 12%. The percentage of GS citations that are in the form of international citations is only 2%. The net impact of a top paper published in EE in the international literature is 12%.

Table 8

## ESTUDOS ECONÔMICOS

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
NAKANE, M.	0.18	0.18	0.09	0.5
AZZONI, C.	0.13	0.1	0.01	0
LINS, H.	0.14	0.1	0	0
VEIGA, J.	0.12	0.12	0	0
BRITTO, J., E. ALBUQUERQUE	0.13	0.13	0	0
DEDECCA, C., P. BALTAR	0.13	0.07	0.02	0.33
FERREIRA, A.	0.14	0.14	0.03	0.2
ALBUQUERQUE, E.	0.18	0.03	0.03	0
LEMONS, M., C. DINIZ, L. GUERRA, S. MORO	0.12	0.06	0	0
AZZONI, C., H. CARMO, T. MENEZES	0.31	0.25	0.06	0.13
EE TOTAL	1.58	1.18	0.24	1.16
EE AVERAGE	0.16	0.12	0.02	0.12

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS = SELF CITATION INT.

The most cited paper published in EE since 1990, according to GS, is Nakane (2002). Academically it is also the most successful paper, since it is the one with most citations in academic journals, and half of them are in international journals. This paper is cited in international journals such as Annals of Finance, Banca Nazionale del Lavoro Quarterly Review, and Journal of Banking and Finance.

Table 9 presents the Pesquisa and Planejamento Econômico [PPE] ratios. The last row of Table 9 shows the average of the ratios for PPE. Approximately 18% of the GS citations are in the form of journal citations. Without self citation, this number drops to 16%. The percentage of GS citations that are in the form of

international citations is only 3%. The net impact of a paper published in PPE in the international literature is 17%.

Table 9  
PESQUISA E PLANEJAMENTO ECONÔMICO

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
BONELLI, R., R. FONSECA	0.19	0.18	0.02	0.07
VARSAÑO, R.	0.13	0.13	0.04	0.3
ROSSI, J., P. FERREIRA	0.25	0.24	0.01	0.05
GOMES, V., S. PESSOA, F. VELOSO	0.13	0.1	0	0
ROCHA, S.	0.15	0.09	0.04	0.4
PINHEIRO, A.	0.19	0.19	0.08	0.3
SABOIA, J.	0.16	0.13	0	0
BAUMANN, R.	0.09	0.09	0.02	0.25
ALBERNAZ, A., F. FERREIRA, C. FRANCO	0.22	0.2	0.02	0.11
MOREIRA, M., S. NAJBERG	0.27	0.24	0.05	0.1
PPE TOTAL	1.77	1.59	0.28	1.68
PPE AVERAGE	0.18	0.16	0.03	0.17

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS = SELF CITATION INT.

Although Rossi and Ferreira (1999) and Moreira and Najberg (1998) have 24% of their GS citations in the form of journal citations, the article that achieved greater international penetration is Rocha (1997) with 40% of its journal citations in international journals. These articles are cited in international journals such as *Developing Economies*, *Journal of Development Studies* [JDS], *Review of Development Economics* [RDE], *Review of Urban and Regional Development*, and *World Development* [WD].

In Table 10 the ratios for *Revista Brasileira de Economia* [RBE] are presented. Looking at the average ratios in the last row we see that 24% of the GS citations are in the form of journal citations. Without self citation, this figure drops to 21%. Only 8% of the GS citations are in international journals. The proportion of citations in international journals in journal citations, without self citation, is 25%.

It is worth noticing that the second most cited article in international journals of our sample is Tan and Werlang (1992). It is the only one that is cited in more than one top journal of economics. It is cited in *American Economic Review* [AER], *Econometrica* and *Quarterly Journal of Economics* [QJE]. However, all its international citations refer to previous versions of the paper as a working paper [at CARESS, Chicago, and Princeton]. Curiously, Roger Guesnerie that cites it in *AER*, *Econometrica* and *QJE*, misquoted the article as being published in *Journal of Economic Theory* [JET]. Actually he mixes the title of Tan and Werlang

Table 10

## REVISTA BRASILEIRA DE ECONOMIA

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
FERREIRA, F., P. LANJOUW, M. NERI	0.24	0.15	0.17	0.73
ROCHA, F.	0.32	0.26	0.07	0.25
ELLERY Jr., R., V. GOMES, A. SACHSIDA	0.31	0.25	0	0
ARBACHE, J., C. CORSEUIL	0.14	0.12	0.02	0
TAN, T., S. WERLANG	0.44	0.44	0.41	0.95
GARCIA, M., G. OLIVARES	0.18	0.15	0	0
CATÃO, L.	0.23	0.23	0.1	0.44
ARAÚJO, C., P. FERREIRA	0.29	0.26	0	0
CACCIAMALI, M., L. BEZERRA	0.13	0.1	0	0
MINELLA, A.	0.16	0.16	0.03	0.16
RBE TOTAL	2.44	2.12	0.8	2.53
RBE AVERAGE	0.24	0.21	0.08	0.25

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS = SELF CITATION INT.

RBE (1992) paper “On Aumann’s notion of common knowledge: An alternative approach”, with the reference of another Tan and Werlang paper actually published in JET in 1988 entitled “The Bayesian foundations of solution concepts of games”, *Journal of Economic Theory* **45** (1988), pp. 370–391. As it happens, Guesnerie’s logical sleep is repeated by other authors in the literature, which indicates that they cite the paper without reading it.<sup>2</sup>

Having said that, Tan and Werlang (1992) has an amazing record, since 44% of its GS citations are in the form of journal citations, and 41% in the form of international citations. Moreover, 95% of its journal citations are in international journals. Its only citation in a Brazilian journal is also the only one to make reference to its publication in RBE. It is also worth noticing that another RBE article, the one authored by Ferreira et al. (2003) is cited in international journals such as *Economic Development and Cultural Change*, *Journal Development Economics* [JDE], and *Journal of Development Studies* [JDS].

Table 11 shows the ratios of *Revista de Econometria* [RE]. The average ratios are in the bottom row. RE has the highest averages of any Brazilian journal. 31% of its GS citations are journal citations, 25% without self citation. 15% of its GS

<sup>2</sup> This appears to be an aberration of what Klamer and van Dalen (2002, 2005) call the attention game in science, in which there is a skewed distribution of citations. Because there are too many articles for any scholar to pay attention to, she has to make a selection and usually follows others in doing so (see Faria 2008). In this case other authors follow the citation mistake.

citations are international journal citations. International journal citations are 46% of all journal citations.

Table 11  
REVISTA DE ECONOMETRIA

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
ERICSSON, N., J. CAMPOS, H. TRAN	0.5	0.39	0.5	1
BRILLINGER, D.	0.22	0.22	0.22	1
FERREIRA, P., R. ELLERY Jr.	0.26	0.25	0.04	0.15
FERREIRA, S., F. VELOSO	0.15	0.15	0.1	0.64
PASTORE, A.	0.35	0.33	0.04	0.125
ISSLER, J. , N. PIQUEIRA	0.45	0.42	0.1	0.25
KASSOUF, A.	0.24	0.21	0.03	0
SIMONSEN, M., S. WERLANG	0.26	0.26	0.22	0.86
FAJARDO, J., A. FARIAS	0.4	0.18	0.18	0.6
CHAUVET, M.	0.28	0.12	0.12	0
RE TOTAL	3.11	2.53	1.55	4.625
RE AVERAGE	0.31	0.25	0.15	0.46

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS= SELF CITATION INT.

RE published the article with most international journal citations in our sample. Ericsson et al. (1990) is a long article that explains the new, at the time, David Hendry's econometric methodology, and teaches how to use its software PC-Give. It is not cited in any Brazilian journal. All its journal citations are international. Curiously the second article in the RE ranking, Brillinger (1996), is not cited by any Brazilian journal as well. What may explain their international success? Both articles are written by authors, Ericsson and Brillinger, which are internationally established, well-known researchers, and both papers deal with time series techniques that are quite popular. They are cited in international journals such as *Biometrika*, *Econometrics Journal*, *Econometric Theory*, *Economics Letters*, *Journal of the American Statistical Association [JASA]*, *Journal of Applied Econometrics [JAE]*, *Journal of International Money and Finance [JIMF]*, *Journal of Labor Economics [JLE]*, and *Oxford Bulletin of Economics and Statistics [OBES]*.<sup>3</sup> A couple of articles in RE also deserve attention, because they are cited in *Econometrica*, Simonsen and Werlang (1991), already referred to, and Issler and Piqueira (2000).

<sup>3</sup> Sometimes the name of *Revista de Econometria* is misspelled in international journals as *Revista de Econometrica*.



Revista de Economia Política [REP] ratios appear in Table 12. 17% of REP's GS citations are journal citations, 14% without self citation. International journals citations are 3% of GS citations. The proportion of international journal citations on journal citations is 14%.

Table 12

## REVISTA DE ECONOMIA POLÍTICA

AUTHOR	C/G	OC/G	I/G	[I-IS]/OC
FRANCO, G.	0.15	0.15	0.01	0.1
BRESSER-PEREIRA, L., Y. NAKANO	0.22	0.16	0.05	0.19
BARROS, J., L. GOLDENSTEIN	0.13	0.13	0.03	0.2
BACHA, E.	0.16	0.16	0.03	0.17
BRESSER-PEREIRA, L.	0.14	0.1	0.01	0.13
SUZIGAN, W.	0.13	0.11	0	0
CARVALHO, F., J. SICSU	0.24	0.21	0.08	0.29
BRESSER-PEREIRA, L., Y. NAKANO	0.31	0.17	0.09	0.18
ARIDA, P.	0.13	0.13	0.02	0.13
ERBER, F., J. CASSIOLATO	0.06	0.06	0	0
REP TOTAL	1.67	1.38	0.32	1.39
REP AVERAGE	0.17	0.14	0.03	0.14

G = GOOGLE SCHOLAR, C = CITATIONS, OC = OTHER CITATIONS, I = INTERNATIONAL CITATIONS, IS = SELF CITATION INT.

The article that stands out in REP is Carvalho and Sicsu with 21% of its GS citations appearing as journal citations, and 29% of its journal citations appear as international journal citations. It is cited in journals such as International Journal of Political Economy, Investigaciones Economicas, Journal of Post Keynesian Economics [JPKE], and Revista Venezolana de Analisis de Coyuntura.

Overall, the picture that emerges from the ratios is that these most cited articles published in the top Brazilian journals of economics have, on average, 21% of their GS citations appearing as journal citations, 18% without self citation, and only 5.5% of the GS citations are citations in international journals. Considering journal citations, 18% of them are in international journals.

Looking at the total GS citations, the journal with most GS citations is REP with 882, followed by PPE with 657, and EA with 633 hits. Considering journal citations without self citation, REP is again on top with 127 citations, followed by RE with 115, and PPE with 106. Regarding the international impact of the Brazilian journals, as captured by total citations in international journals without self citation, RE comes on top with 63 citations, followed by RBE with 34 and REP with 19.

Given these results, and the ones related to the average ratios, apparently REP is the top Brazilian journal for a general public, and RE is the top Brazilian journal for academia.

## 5. Discussion

Sections 3 and 4 give a picture not only of the most cited papers published in the top journals of economics in Brazil, but a much wider view of academic research in economics in Brazil.

Concerning the age of the most cited articles, since most of them were published in the 1990's this shows that citations take time. There is a time span between a paper being published and its impact in the literature. Further investigation is necessary to evaluate the pattern of citations, whether they grow linearly over time, or whether they have a life cycle, in which citations grow initially, but after a few years their frequency decrease until the time in which a paper is no longer cited (Cano and Lind 1991).

The areas of research in economics published in Brazil more frequently cited, when Google Scholar [GS] is taken into consideration, are macroeconomics, labor economics, industrial organization, economic growth and political economy. This also holds true for domestic journal citations. There are a number of explanations for this result. For example, over the past two decades labor economics and economic growth experienced a significant growth because of new theories, techniques and data sets.<sup>4</sup> These innovations stimulated research everywhere, including Brazil.

Regarding the fields of macroeconomics and political economy, they were always popular among economists in Brazil. This is in part due to path dependence. Historically the first graduate schools of economics in Brazil emphasized more public policy formulation than theory and techniques [e.g., Loureiro (1997); Mantega (1999); Macedo (2001)]. The first generations of economists were trained to work in the government, not in academia. Their work focused more in simple applications of economics to solve development problems, than to formulate theories, using sophisticated analytical techniques. Therefore macroeconomics and political economy were not only their necessary tools of work, but their focus as well.

The only area that is surprisingly popular according to these citations is industrial organization, with 6 papers among the 60 most cited papers. Inspection of domestic journal citations of these papers suggest that there is a cluster of authors at UFMG, Unicamp, UFRJ, that cite regularly themselves in journals like Nova Economia, associated with UFMG.

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<sup>4</sup> Labor economics in Brazil has benefited from the excellent quality and availability of data on labor market, the PNAD, PME, and the national registration of employment and unemployment of the Labor Ministry are high quality, outstanding data sets.

When it comes to international journal citations the most cited articles are the ones produced in the areas of econometrics, game theory, development economics, regional economics, and political economy. The international journals citations are highly influenced by few articles, which are in the areas of econometrics and game theory. The few papers are four in total, Tan and Werlang [RBE, 1992], Simonsen and Werlang [RE, 1991], in game theory, and in econometrics Ericsson et al. [RE, 1990], and Brillinger [RE, 1996]. Incidentally these are the only papers that reach the top journals of the economic profession, as well as statistics, such as AER, *Econometrica*, QJE, JET, and JASA.

What explains citations in international journals? Of course the intrinsic quality of the paper is a necessary condition; however it may not be a sufficient condition. The same can be said about the object of the article. There are issues that attract greater attention internationally, while there are others that have only domestic interest. However, no matter how interesting is the topic of an article for an international audience; it will not guarantee its international success if it is written in Portuguese. For one, if the paper is written in Portuguese it is obvious that it will not be read by an international audience, although it may be cited in international journals by Brazilian or Portuguese peers that happen to read it. Examining the most cited papers we observe that the majority were written in English and authored or co-authored by a foreign and/or well-known author. An author affiliated with a large international institution such as the World Bank [WB], the International Monetary Fund [IMF], the Federal Reserve [FED], or a large and influential University, such as Berkeley, has naturally a much wider network to divulge her paper, which can be translated into greater international impact through citations in international journals (see Faria 2002).

According to the above discussion a paper published in Brazil maximizes its chances to be cited in international journals if it lies in an area of international interest, it is written in English, and it is authored or co-authored by someone with broad international networks.

A Brazilian journal editor willing to maximize the international insertion of its journal could formulate a strategy along the following lines. First, she could try to attract well-known researchers to publish in her journal, probably by inviting them. Second, she could focus on subjects that are in greater demand by an international audience, publishing provocative articles that ensure discussions (see Perlman 1991). This strategy is similar to the one pursued successfully at the Brazilian academic environment by Bresser-Pereira in his *Revista de Economia Política*. Finally, she could only publish papers in English asking the authors to translate the accepted papers, or make the journal provide this service (Faria 2004).

We found that about half of the papers are co-authored, and around 10% are authored by more than 2 co-authors. This appears to be in line with a trend showed by Laband and Tollison (2000) on increasing co-authorship in economics. Ignoring financial rewards to co-authorship (see Sauer 1988), co-authorship can be explained by division of labor. Economics is getting increasingly difficult, with more theories, more techniques, and more data sets, which demand greater amount of work to

understand and deal with. One way to address economic complexity is therefore by joining different specialists in a single team so as to do research and write papers.

There are 10 articles authored or co-authored by 9 females among the most cited papers. There are 2 female economists affiliated with USP, 2 with BNDES, and one each with University of California Riverside, FGV-RJ, ESALQ, UFMG and IPEA. They wrote 4 papers of labor economics, 2 of macro, and one each of international economics, regional economics and political economy. Females appear to be underrepresented among the main authors, which can be a result of their underrepresentation in the profession. However, we do not have data for women participation in the Brazilian academic economics to make this sort of assessment. Apparently there is room for a professional survey in Brazil as the one conducted by the Royal Economic Society Women's Committee (see Booth et al. 2000).

There are 4 articles authored or co-authored by graduate students. This is a remarkable fact. There are 2 graduate students of UnB, and one each from FGV-RJ, and the University of Pennsylvania.

The institutions that have the greater number of most cited papers in GS published by its members are: USP with 10 articles, FGV-RJ with 8, IPEA with 6, UFRJ with 5, FGV-SP, UnB, UFMG, with 4, and IBMEC-RJ, PUC-RJ, UCB, and Unicamp, with 3 articles. Comparing this ranking of institutions with the ones produced by Faria, Issler and their co-authors, in which economic departments in Brazil are ranked according to international publications of their members, shows that when domestic publications and their general impact are taken into account USP, UFRJ, FGV-SP, UFMG have a much better performance, while the leading academic department FGV-RJ keep its relative position.

The articles most cited in academic journals, without self citation, are authored by G. Franco, BACEN, N. Ericsson, J. Campos and H. Tran, all affiliated with the FED, R. Bonelli and R. Fonseca, affiliated with IPEA and CNI respectively, L. Bresser-Pereira and Y. Nakano, both from FGV-SP, T. Tan and S. Werlang, affiliated with the University of Illinois and FGV-RJ respectively, and R. Abramovay, USP. Among these 11 authors, 4 are affiliated with an international institution, 3 with non-academic Brazilian institutions, and 4 with Brazilian universities. This is indicative that quality academic research published in Brazil is not limited to Brazilian academic departments, and has a strong international contingent. In order to better examine this issue let us refine the journal citations focusing on citations in international journals.

The articles most cited in international journals, without self citation, are authored by N. Ericsson, J. Campos and H. Tran; Tan and Werlang; D. Brillinger from Berkeley, F. Ferreira P. Lanjouw, and M. Neri, affiliated with PUC-RJ, the WB, and FGV-RJ respectively, M. Nakane, BACEN, Simonsen and Werlang, the first one, already deceased, affiliated at the time with FGV-RJ. As half of these authors have an international affiliation, and 4 out of 6 articles have at least one co-author with an international affiliation, this appears to confirm that quality research published in Brazil is mainly done by authors affiliated with international institutions.

This study shows that for every journal examined, the rankings would be different if citations in academic journals are taken into account. Just 21% of GS citations appear as journal citations, 17% without self citation, and only 5.5% of the GS citations are citations in international journals. This suggests that GS citation rankings are not a perfect proxy for journal citation rankings. One possible explanation lies in the fact that GS captures any kind of citation, mostly citations made in non-academic works. As it happens very few of these works are submitted and published in peer review academic journals. As a consequence, GS citations have little relation with journal citations.

The authors that published more than one article in the rankings are Luis Bresser-Pereira, FGV-SP, and Pedro Ferreira, FGV-RJ, with 3 papers each. The authors with 2 articles are: Eduardo Albuquerque, UFMG, Carlos Azzoni, USP, Roberto Ellery, UnB, Francisco Ferreira, PUC-RJ, Victor Gomes, UnB, Ana Lúcia Kassouf, ESALQ, Yoshiaki Nakano, FGV-SP, Wilson Suzigan, Unicamp, Fernando Veloso, IBMEC-RJ, and Sérgio Werlang, FGV-RJ. Comparing this ranking of Brazilian scholars with the rankings in Faria (2000) and Faria et al. (2007a) based on Brazilian academic economists that publish in the top journals of economics [Table 5 of both papers]; one can see that only Sérgio Werlang appears in Faria (2000), and only Pedro Ferreira appears in Faria et al. (2007a).

If we consider all authors that published the most cited papers, and compare with the top authors of Faria (2000) and Faria et al. (2007a) that published at least 4 articles in international journals of a wide list [Table 6 of both papers], we can see that S. Werlang, F. Carvalho, and F. Carneiro appear in Faria (2000) and J. Arbache, J. Issler, P. Ferreira appear in Faria et al. (2007a). There is roughly 8% overlap of authors that published the top articles in Brazilian journals and Brazilian authors that publish regularly in international journals.

These findings suggest that there is little overlap between authors publishing in domestic journals and authors publishing in international journals. Apparently there is a market specialization, in which Brazilian authors may self select themselves as producing mainly to domestic journals, or international journals. Actually, given that all these Brazilian journals are not well-known abroad and have no international reputation, one wonders why publish a potentially influential paper that can make a mark in the international literature in a domestic journal.<sup>5</sup>

## 6. Concluding Remarks

This paper examines the rankings of the most cited papers published in Brazilian journals of economics since 1990, according to Google Scholar [GS]. It shows that GS citations are not a good proxy for journal citations, since 21% of GS citations appear as journal citations, 17% without self citation, and only 5.5% of the GS citations are citations in international journals.

<sup>5</sup> Faria (2005) discusses in detail the trade-off between domestic and international publications.

Quality research published in Brazil, measured by academic impact in international journals, is mainly associated with scholars working in international institutions. This happens because, among other things, international scholars have wider academic networks.

Half of the articles are co-authored, which is in line with international trends in economics research. 7% of the most cited articles are authored or co-authored by graduate students. Women authors appear to be underrepresented, although more research is necessary on this topic.

There is little overlap between authors publishing in domestic journals and authors publishing in international journals. There is a market specialization in which Brazilian authors self select themselves as domestic or international authors.

The areas of research more frequently cited are macroeconomics, labor economics, industrial organization, economic growth and political economy. The areas more frequently cited by articles in international journals are econometrics, game theory, and development economics.

The best institutions are 1-USP, 2-FGV-RJ, 3-IPEA, 4-UFRJ, 5-FGV-SP, UnB, UFMG, 6-IBMEC-RJ, PUC-RJ, UCB, Unicamp. As compared with available institutional rankings of economics departments in Brazil, based on international publications, USP, UFRJ, FGV-SP, UFMG have a much better performance when it comes to publications in Brazilian journals.

The authors that published more than one article in the rankings are Luis Bresser-Pereira, and Pedro Ferreira, with 3 articles each, and Eduardo Albuquerque, Carlos Azzoni, Roberto Ellery, Francisco Ferreira, Victor Gomes, Ana Lúcia Kassouf, Yoshiaki Nakano, Wilson Suzigan, Fernando Veloso, and Sérgio Werlang, with 2 articles each. Kassouf is the only woman, and also the only author in this list with two sole authored papers. Werlang is the only author that is also more cited in academic journals and in the top journals of the economic profession.

Revista de Economia Política appears to be the journal with greater general appeal, while Revista de Econometria is the top journal academically.

## References

- Azzoni, C. R. (1998). “Clássicos da literatura econômica brasileira: Trabalhos e autores mais citados nas nossas revistas acadêmicas. *Economia Aplicada*, 2:771–780.
- Azzoni, C. R. (2000). Desempenho das revistas e dos departamentos de economia brasileiros segundo publicações e citações recebidas no Brasil. *Economia Aplicada*, 4:787–822.
- Azzoni, C. R. (2001). Onde vender o peixe? Repercussão das principais revistas brasileiras de economia na virada do século. *Economia Aplicada*, 5:885–894.
- Barrett, A. & Lucey, B. (2003). An analysis of the journal article output of Irish-based economists. *Economic and Social Review*, 34:109–143.
- Booth, A. L., Burton, J., & Mumford, K. (2000). The position of women in UK

- academic economics. *Economic Journal*, 110:F312–F333.
- Burton, M. P. & Phimister, E. (1995). Core journals: A reappraisal of the Diamond list. *Economic Journal*, 105:361–373.
- Cano, V. & Lind, N. (1991). Citation life cycles of ten citation classics. *Scientometrics*, 22:297–312.
- Cokgezen, M. (2006). Publication performance of economists and economics departments in Turkey (1999-2003). *Bulletin of Economic Research*, 58:253–265.
- Coupé, T. (2003). Revealed performances: Worldwide rankings of economists and economics departments, 1990-2000. *Journal of the European Economic Association*, 1:1309–1345.
- Diamond Jr., A. M. (1989). The core journals in economics. *Current Contents*, 21:4–11.
- Dusansky, R. & Vernon, C. (1998). Rankings of US economics departments. *Journal of Economic Perspectives*, 12:157–170.
- Faria, J. R. (2000). The research output of academic economists in Brazil. *Economia Aplicada*, 4:95–113.
- Faria, J. R. (2002). An analysis of rankings of economic journals. *Revista Brasileira de Economia de Empresas*, 2:95–117.
- Faria, J. R. (2004). Some reflections on incentives for publication: The case of the CAPES' list of economic journals. *Economia Aplicada*, 8:791–816.
- Faria, J. R. (2005). Is there a trade-off between domestic and international publications? *Journal of Socio-Economics*, 34:269–280.
- Faria, J. R. (2008). Citations. In Darity Jr., W. A., editor, *International Encyclopedia of the Social Sciences*. Thompson Gale. <http://www.encyclopedia.com/doc/1G2-3045300336.html>.
- Faria, J. R., Araújo, A., & Shikida, C. D. (2007a). The citation pattern of Brazilian economists. *Estudos Econômicos*, 37:151–166.
- Faria, J. R., Araújo, A., & Shikida, C. D. (2007b). The international research of academic economists in Brazil: 1999-2006. *Economia Aplicada*, 11:387–406.
- Gonçalves, R. & David, M. D. (1982). A produção acadêmica nas principais revistas de economia: Balanço de uma década. *Literatura Econômica*, 4:283–380.
- Gregor, M. & Schneider, O. (2005). The world is watching: Rankings of Czech and Slovak economics departments. *Czech Journal of Economics and Finance*, 55:518–530.
- Issler, J. V. & Ferreira, R. C. (2004). Avaliando pesquisadores e departamentos de economia no Brasil a partir de citações internacionais. *Pesquisa e Planejamento Econômico*, 34:491–538.
- Issler, J. V. & Pillar, T. (2002). Mensurando a produção científica internacional em economia de pesquisadores e departamentos brasileiros. *Pesquisa e Planejamento Econômico*, 32:323–381.
- Jin, J. & Yau, L. (1999). Research productivity of the economics profession in East Asia. *Economic Inquiry*, 37:706–710.
- Klamer, A. & van Dalen, H. P. (2002). Attention and the art of scientific publishing. *Journal of Economic Methodology*, 9:289–315.

- Klamer, A. & van Dalen, H. P. (2005). Is science a case of wasteful competition? *Kyklos*, 58:395–414.
- Laband, D. N. & Tollison, R. D. (2000). Intellectual collaboration. *Journal of Political Economy*, 108:632–662.
- Loureiro, M. R. (1997). Formação de elites dirigentes no Brasil: O papel das instituições de ensino e pesquisa econômica aplicada. EAESP/FGV/NPP Relatório de Pesquisa 18.
- Macedo, R. (2001). Pensamento econômico no Brasil contemporâneo II. *Estudos Avançados*, 15:375–388.
- Mantega, G. (1999). Trajetória das idéias econômicas no Brasil. EAESP/FGV/NPP Relatório de Pesquisa 24.
- Mirucki, J. (2007). Searching for scholarly visibility: The case of Ukraine. *International Research Journal of Finance and Economics*, 11:66–79.
- Novaes, W. (2008). A pesquisa em economia no Brasil: Uma avaliação empírica dos conflitos entre quantidade e qualidade. *Revista Brasileira de Economia*, 62:469–500.
- Perlman, M. (1991). On the editing of American economics journals: Some comments on the earliest journals and the lessons suggested. *Economic Notes*, 20:159–172.
- Ramos, R., Royuela, V., & Suriñach, J. (2007). An analysis of the determinants in economics and business publications by Spanish universities between 1994 and 2004. *Scientometrics*, 71:117–144.
- Rocha, C. H. & Machado, A. (2003). O desempenho universitário acadêmico-pedagógico versus o desempenho financeiro. *Revista de Economia Contemporânea*, 7:161–168.
- Sauer, R. D. (1988). Estimates of the returns to quality and coauthorship in economic academia. *Journal of Political Economy*, 96:855–866.
- Silva, S. (2009). Going parochial in the assessment of the Brazilian economics research output. *Economics Bulletin*, 29:2826–2846.



## **Appendix A. Abbreviations of Names of Institutions, Journals, and Search Engines**

### *A.1. Search Engines*

Google Search [GS].  
Harzing's "Publish or Perish" [POP].

### *A.2. Journals*

#### *Brazilian Journals*

Economia Aplicada [EA], Estudos Econômicos [EE], Pesquisa e Planejamento Econômico [PPE], Revista Brasileira de Economia [RBE], Revista de Econometria [RE], and Revista de Economia Política [REP].

#### *International Journals*

American Economic Review [AER], Journal of the American Statistical Association [JASA], Journal of Applied Econometrics [JAE], Journal of Development Economics [JDE], Journal of Development Studies [JDS], Journal of International Money and Finance [JIMF], Journal of Labor Economics [JLE], Journal of Post Keynesian Economics [JPKE], Oxford Bulletin of Economics and Statistics [OBES], Quarterly Journal of Economics [QJE], Review of Development Economics [RDE], World Development [WD].

### *A.3. Institutions*

Catholic University of Rio de Janeiro [PUC-RJ], Catholic University of Brasília [UCB], Federal Reserve Bank [FED], Federal University Fluminense [UFF], Federal University of Minas Gerais, [UFMG], Federal University of Paraná [UFPR], Federal University of Rio de Janeiro [UFRJ], Getulio Vargas Foundation Rio de Janeiro [FGV-RJ], Getúlio Vargas Foundation of São Paulo [FGV-SP], International Monetary Fund [IMF], Luiz de Queiroz College of Agriculture [ESALQ], National Bank of Development [BNDES], State University of Araraquara, State University of Campinas [Unicamp], State University of Londrina, University of São Paulo [USP], University of Brasilia [UnB], World Bank [WB].