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### IS THERE LIFE BEYOND THE ISI JOURNALS LISTS? THE INTERNATIONAL IMPACT OF SPANISH, ITALIAN, FRENCH AND GERMAN ECONOMICS JOURNALS

Jordi Pons Novell Daniel A. Tirado Fabregat December 2005

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UNIVERSIDAD CARLOS III DE MADRID - C/ Madrid, 126-28903 Getafe (Spain)

## Is There Life Beyond the ISI Journals lists? The International Impact of Spanish, Italian, French and German Economics Journals

Jordi Pons Novell (a) Daniel A. Tirado Fabregat (b)

University of Barcelona

- (a) Departament d'Econometria, Estadística i Economia Espanyola Avda. Diagonal, 690
   08034 – Barcelona
   Email: jpons@ub.edu
- (b) Departament d'Història i Institucions Econòmiques
  Avda. Diagonal, 690
  08034 Barcelona
  Email: <u>datirado@ub.edu</u>

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#### Abstract

This comparative study looks at the international impact of leading economics journals published in Spain, Italy, France and Germany. It also aims to establish whether they play a similar role in any of these 4 countries. For this purpose data were collected on the number of times that articles published in these journals are cited in international journals on the ISI Journals lists. The study focused on the number and characteristics of the citations received during the period 1996-2004 by articles published between 1995 and 1999 in a limited number of Spanish, Italian, French and German journals. The international impact of the Spanish journals was found to be similar in size and characteristics to that of the Italian publications. However, it differed sharply from the impact of the highest-ranking French and German journals. These last received a higher volume of citations, some of which also showed very different qualitative characteristics.

**Key words:** bibliometry, economics journals, impact, international comparison **JEL Clasification:** A11, A13

#### Introduction

In recent years there has been growing interest in evaluating research in different areas of knowledge. Public and private organisations have asked for more precision in the preparation of this type of information since concessions of supplementary payments for research scientists, allocations of funds to projects or research groups, and financial support to public or private institutions responsible for organising research, are increasingly linked to the achievement of results. Quantifying research outputs using procedures that allow comparisons to be made between scientists, groups, or institutions at a national or international level, has therefore become a crucial matter.

It is this way of working that has caused the appearance (in the field of economy as in other areas of knowledge) of different studies aimed at ranking schools of economy by the number of pages published in high-ranking international or national journals. This is the case in the studies of the United States by Conroy *et al* (1995), Scott and Mitias (1996) and Dusansky and Vernon (1998); in the studies of Europe by Kalaitzidakis *et al* (2003), Combes and Linemer (2003) and Tombazos (2005); or in the global study by Coupé (2003).

The procedure on which these studies are based consists in quantifying the number of publications in scientific journals, so as to be able to rank institutions, universities or departments by the scientific work produced by their members. The premise underlying this procedure is that high-quality scientific work is published in high-ranking national and international journals.

However, the direct application of this theory to the specific study of economic papers produced by research scientists and/or institutions in countries whose first language is not English comes up against an additional problem that has not been totally resolved so far, since it is not possible to carry out a comparative evaluation of the quality of different papers when some outputs are published in revues that do not appear in the international lists of publications.

In international bibliometric studies, there has been a general tendency to construct and use a research tool called the impact factor, which makes it possible to compare articles by assigning them the estimated quality of the journal in which they have been published. The estimation is based on the number of times the articles published in a certain group of publications cite articles published in a particular journal in preceding years. For this purpose, there is a preference in international economics literature for using the index provided by the

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Institute for Scientific Information (ISI), known as the 'Social Science Citation Index (SSCI)'. To give a concrete example, the impact factor for the *Journal of Forecasting* in 2004 provided by ISI is obtained, in its most extensive version, by dividing the total number of citations that all the journals in the SSCI made in 2003 of articles published in the *Journal of Forecasting* in 2001 and 2002, by the total number of articles published by this journal over the same 2 years.

The problem faced by studies aimed at providing information for use at a national level on the scientific productivity of researchers or research institutions in the field of economics is, as mentioned previously, that many of their papers are published, not in international journals, but in national journals and/or in languages other than English, whereas the impact factors usually used in international literature come from databases that provide very limited, or almost inexistent, coverage of this type of publication. This makes it difficult to establish common criteria for evaluating the *curricula* of individuals, groups, or institutions when comparing estimations of outputs that in publications that appear on the ISI Journals lists with outputs in publications that do not.

For this reason it seemed to be a good time to initiate a research project on the volume and characteristics of the citations received on an international level by national economics journals from the larger European countries, where high-quality research papers appear in journals published in languages other than English and/or in publications not included in the ISI listings. This particular study focuses on Spain, Italy, France, and Germany. Furthermore, the comparative nature of the study, makes it possible to ascertain whether national journals play a similar role on the international market in each of the countries studied.

The rest of the study is presented in the following way. First, the methods used in drawing up the database of citations, with special emphasis of the procedure for selecting the journals to be included in the study in each country. Second, the resulting data on citations received in the period 1996-2004 by articles published between 1995 and 1999 in the selected Spanish, Italian, French, and German journals. Third, the comments on these data. The study concludes with some paragraphs dedicated to drawing the overall conclusions and making proposals for the development of future research.

#### Methods

The procedure for drawing up the impact indicators is based on the one used by the ISI in the Social Science Citation Index for calculating the most widely-used impact factors. It involves carrying out the following initial tasks:

- a) Selecting the national journals to be studied.
- b) Selecting the citing journals to be considered.
- c) Defining which periods to study.

In the present study, the most complex task, and doubtless the most controversial one, was that of selecting the national journals on which to base the analysis. For this reason it was decided, if possible, to adopt proposals taken from reports made by scientists or institutions responsible for evaluating research in each of these countries. Only in the absence of such reports was the decision taken to make a selection of the main publications based on the opinion of experts from the country to be studied.

In the case of Spain, the journals selected for study were the 30 Spanish journals that ranked highest for basic impact factor (obtained from citations received in Spanish journals) in the study carried out on this subject by Velázquez (2003).<sup>1</sup> This option involved including a very large number of publications in the selection. In fact, as will be seen, it meant including publications that had not received a single citation from ISI journals since they were established. The list of publications included in the study is shown in table 1.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> In fact, 4 of the total of 30 journals did not have an acronym in the ISI databases, and therefore were not included in the study in the end.

<sup>&</sup>lt;sup>2</sup> It should be emphasised that none of the economics journals considered in the Spanish study were indexed in the ISI Master List in spite of the fact that some of them only publish original articles in English (*Spanish Economic Review* since 1999) and others allow the publication of papers in this language (e.g. *Revista de Historia Económica, Investigaciones Económicas, Moneda y Crédito* or *Revista de Economía Aplicada*).

1 Actualidad Financiera					
2	Análisis Financiero				
3	Auditoría Pública				
4	Boletín Económico del Banco de España				
5	Cuadernos Económicos de ICE				
6	Economía Industrial				
7	Economistas				
8	Ekonomiaz				
9	Hacienda Pública Española				
10	Harvard Deusto				
11	Información Comercial Española				
12 Investigaciones Económicas					
13	Moneda y Crédito				
14	Papeles de Economía Española				
15	Partida Doble				
16	Perspectivas Sistema Financiero				
17	Revista Asturiana de Economía				
18 Revista de Economía Aplicada					
19	Revista de Historia Económica				
20	Revista de Historia Industrial				
21	Revista del Instituto de Estudios Económicos				
22	Revista Española de Economía				
23	Revista Española de Financiación y Contabilidad				
24	Revista Europea de Dirección				
25	Situación				
26	Técnica Contable				

In the case of Italy, the set of national publications to be included in the study was taken from the list provided by *Osservatorio della Recerca* at the University of Bologna. Within the total number of journals on this organisation's list of "economic journals without impact factor" the study concentrated on journals published in Italy that had been classified as type B1 or C1. According to this report, type B1 corresponds to peer-viewed journals with moderate international circulation<sup>3</sup>, and type C1 to minor international peer-viewed journals. It was from

<sup>&</sup>lt;sup>3</sup> The report can be consulted at <u>http://ossric.cineca.it//</u>. Researchers for the present study visited it on 10/05/05.

these sections that the group of 25 journals to be included in the project's Italian study were selected. They are listed in table 2.<sup>4</sup>

Table 2. Italian Journals Included in the Study					
1 Analisi Finanziaria					
2	Archivi e Imprese				
3	BNL Quarterly Review				
4	Economia Aziendale				
5	Economia e Lavoro				
6	Economia e Management				
7	Economia e Politica Industriale				
8	Economia Internazionale				
9 Economia Italiana					
10	Economia Politica				
11	Giornale degli Economisti				
12	Italian Economic Papers				
13	L´Industria				
14	Nuova Economia e Storia				
15	Politica Economica				
16	Rivista di Economia Agraria				
17	Rivista di Politica Economica				
18	Rivista di Storia Economica				
19	Rivista Internazionale di Scienze Economiche e Commerciali				
20	Rivista Italiana degli Economisti				
21	Rivista Italiana di Economia, Demografia e Statistica				
22	Storia del Pensiero Economico				
23	Studi e Note di Economia				
24	Sviluppo e Organizzazione				
25	Tributi				

The study of citations received by journals published in France was based on the report made by Section 37 du Comité National "Economie et Societe" of the Comité National de la Recherche Scientifique, entitled Classement des revues à comité de lecture en économie et en gestion.<sup>5</sup> This study establishes a 5-level hierarchy for general economics journals and a 4-level hierarchy for specialised journals. The French study took into account all the publications in French from the journals included in the list of general economics publications

<sup>&</sup>lt;sup>4</sup> As in the Spanish study, none of the publications selected were in the ISI Master List. Nonetheless, some of them published articles in English (e.g. *Rivista di Storia Economica*) or were published entirely in this language (*BNL Quarterly Review*).

<sup>&</sup>lt;sup>5</sup> It is worth noting that, in an attempt to cover journals published in French, this study includes some publications from Belgium.

and from the journals included in levels 1, 2 or 3 of the listings by areas of specialization.<sup>6</sup> The result of this selection is the following list of 17 journals:<sup>7</sup>

Table 3. French Journals Included in the Study					
1	Actualité économique				
2	Annales d'Economie et Statistiques				
3	Banque et Marchés				
4	Comptabilité Contrôle Audit				
5	Economie Appliquée				
6 Economie et Prévision					
7	Economie et Statistique				
8	Finance Contrôle Stratégie				
9	Histoire, Economie, Sociétés				
10	Recherche et Application en Marketing				
11	Recherches Economiques de Louvain				
12	Revue d'Economie du Développement				
13	Revue d'Economie Industrielle				
14	Revue d'Economie Politique				
15	Revue Economique				
16	Revue Française d'Economie				
17	Revue Suisse d'Economie Politique				

The German study used a different approach. Since in this case no studies were found from which to make a selection, an expert was asked to draw up a list.<sup>8</sup> The German publications selected as being the 9 main economics journals are listed below. <sup>9</sup>

<sup>&</sup>lt;sup>6</sup> Level 1 corresponds to "Journals whose excellence is unanimously recognised in the field ". Level 2 to "Journals of very high quality with a smaller circulation". Level 3 to "International reference journals in their field".

<sup>&</sup>lt;sup>7</sup> In the case of France, the journal *Revue d'Economie Politique* is indexed in the ISI Master List.

<sup>&</sup>lt;sup>8</sup> The list presented for the German study was suggested by Prof. Albrecht Ritschl of Humboldt University.

<sup>&</sup>lt;sup>9</sup> The publications selected for the German study were more highly represented in the ISI listings. Thus, *Weltwirtschaftliches Archiv, Finanzarchiv* and *Zeitschrift fuer die gesamte Staatswissenschaft* were indexed in the ISI Master List. Furthermore, many of the selected journals were published only in English (*German Economic Review*) or published most of their articles in that language.

Table 4. German Journals Included in the Study					
1	Finanzarchiv				
2	German Economic Review				
3	Jahrbuch fuer Wirtschaftsgeschichte				
4	Jahrbuecher fuer Nationaloekonomie und Statistik				
5 Perspectiven der Wirtschaftspolitik					
6 Schmollers Jahrbuch					
7 Vierteljahreshefte fuer Sozial und Wirtschaftsgeschichte					
8	Weltwirtschaftliches Archiv				
9	Zeitschrift fuer die gesamte Staatswissenschaft				

Having completed the selection of publications for each of the countries included in the comparative study, the set of citing publications on which to base the study was established. It was decided not to restrict the information given to a limited number of the journals included in the ISI Journals lists and to consider all citations received by articles published in the selected national journals in any publication listed in the ISI databases.

Finally it was decided to limit the study in time to citations made during the years 1996-2004 from articles published in the national journals between 1995 and 1999. This option meant that all of the articles in the selected national journals could be studied for a minimum of 5 years after publication. This is longer than the period established by the Social Science Citation Index for constructing the most well-known of its impact factors, but, given the low number of citations received by many of the articles published in national journals, it was thought that this option would make it possible to take more citations into consideration and thus yield more substantial results.

The citations made during the period 1996-2004 from articles published between 1995 and 1999 in the selected national journals were then quantified and some qualitative data were obtained from them. The results obtained are shown below.

#### Results

Tables 5 to 8 contain the information gathered in the database on citations of Spanish, Italian, French and German economics journals made in journals on the ISI listings. In each table the information is presented in the same way. Column 1 contains the names of the selected journals ranked by total citations received in the period of study. Column 2, "Total Citations" shows the number of times that articles published by those national journals between 1995 and 1999 were cited by ISI journals in the period 1996-2004. Columns 3, 4 and 5 provide qualitative information on the citations received. Column 3, "Citations of Citing Articles" shows the mean score for citations of the international articles that cited papers published in the national journals. Column 4, "Self-Citations", contains the percentage of citations in international journals that were made by the authors of the national articles themselves. Where the article being studied has more than 1 author, any citations in which at least 1 of the authors of the cited national articles appears as author of the international article, is considered to be a self-citation.

Finally, column 5 "Percentage affiliation *country being studied*" provides information about the professional affiliation of the authors of the international articles. In the case of Spain, for example, the table provides the percentage of authors citing articles published in Spanish journals, who have at least 1 professional affiliation with a Spanish research institution. (Where articles were published by more than 1 research scientist it was considered sufficient if 1 of them had declared affiliation to a Spanish research institution.)

The information contained in table 5 makes it clear that the international impact of most Spanish economics journals was purely symbolic. Suffice it to say that the articles published during the period 1995-1999 by more than half of the 26 journals included in the study, received less than 10 citations between 1996 and 2004. In fact, 10 journals received less than 5 citations. Moreover, none of the articles published by 3 of the journals were cited in international journals.

However, one group of publications had significant international impact. 4 publications were cited more than 50 times, 8 journals more than 25 times, and 13 journals, 10 or more times. In the group of highly-cited publications, *Investigaciones Económicas*, *Papeles de Economía Española, Economía Industrial* and *Revista Española de Economía (Spanish Economic Review)*, with more than 50 citations each, were the top-ranking national journals.

		Total citations	Citations of citing articles	Self- citations	% affiliation in Spain
1	Investigaciones Económicas	110	1,48	19,82	70,39
2	Papeles de Economía Española	83	1,37	4,82	84,34
3	Economía Industrial	78	0,95	5,13	74,36
4	Revista Española de Economía	68	3,16	16,18	48,53
5	Información Comercial Española	48	1,29	16,67	83,33
6	Revista de Historia Económica	45	1,27	13,33	57,78
7	Revista de Economía Aplicada	39	1,56	7,69	84,62
8	Moneda y Crédito	31	1,35	6,45	64,52
9	Hacienda Pública Española	20	0,65	25,00	100,00
10	Revista Asturiana de Economía	14	2,86	14,29	71,43
11	Economistas	11	2,27	9,09	77,78
	Revista Europea de Dirección	11	0,73	36,36	100,00
13	Revista de Historia Industrial	10	0,50	20,00	90,00
-	Harvard Deusto	9	0,56	11,11	66,67
15	Cuadernos Económicos de ICE	8	0,38	0,00	87,50
16	Ekonomiaz	7	2,57	14,29	85,71
17	Revista del Instituto de Estudios Económicos	4	0,00	25,00	75,00
18	Auditoría Pública	3	0,33	0,00	100,00
19	Situación	2	0,50	0,00	100,00
20	Perspectivas Sistema Financiero	2	1,00	0,00	50,00
21	Partida Doble	2	0,00	0,00	100,00
22	Actualidad Financiera	- 1	0,00	100,00	100,00
23	Análisis Financiero	1	0,00	0,00	0,00
	Boletín Económico del Banco de España	0	n.d	n.d	n.d
25	Técnica Contable	0	n.d	n.d	n.d
-	Revista Española de Financiación y Contabilidad	0	n.d	n.d	n.d

# Table 5. ISI Citations Received in the Period 1996-2004 for the Articles Published in Spanish

Note: Since 1999, Revista Española de Economía only publishes originals in English and has changed its name to Spanish Economic Review

Source: present study:

With respect to the qualitative information contained in the table, it should be stressed that the mean citation score of articles that cited papers published in Spanish journals was about 2. The high citation score of articles citing Revista Española de Economía (Spanish Economic Review) stood out from the rest; ISI articles that cited articles published in this journal had a mean citation score of 3,16.

The mean score for self-citations was less than 20% of the total citation score. Exceptions to this were Hacienda Pública Española and Revista Europea de Dirección y Economía de la *Empresa,* which scored much higher for self-citations. Lastly, it should be emphasised that citations received by articles published in Spanish journals were heavily dependent on the presence in ISI publications of authors affiliated with Spanish research institutions. The mean score for citations in studies where at least 1 author was affiliated with a national institution was over 70% of the total citation score. In this section, *Hacienda Pública Española* and *Revista Europea de Dirección y Economía de la Empresa* also stood out from the rest. All of the citations received by articles published in these 2 journals were made by authors affiliated with Spanish institutions. This was not so in the case of *Revista Española de Economía (Spanish Economic Review)* where the affiliation score was less than 50%.

	Citations %					
		Total	of citing	Self-	affiliation	
		citations	articles	citations	in Italy	
1	Rivista Internazionale di Scienze Economiche e					
	Commerciali	43	1,56	41,86	30,95	
2	Economia e Politica Industriale	38	2,76	13,16	78,79	
3	Rivista di Politica Economica	34	2,71	23,53	50,00	
4	L´Industria	28	3,68	3,57	75,00	
5	BNL Quarterly Review	26	6,54	11,54	24,00	
6	Rivista di Storia Economica	24	0,58	50,00	66,67	
7	Politica Economica	18	0,11	22,22	73,33	
8	Economia Italiana	17	0,06	23,53	17,65	
9	Economia e Lavoro	13	0,31	15,38	46,15	
10	Economia Politica	11	1,09	45,45	75,00	
11	Giornale degli Economisti	6	0,50	33,33	66,67	
12	Rivista di Economia Agraria	6	1,00	50,00	83,33	
13	Studi e Note di Economia	3	1,67	0,00	50,00	
14	Economia Internazionale	2	0,00	0,00	50,00	
15	Storia del Pensiero Economico	2	0,00	50,00	100,00	
16	Economia Aziendale	1	0,00	0,00	100,00	
17	Italian Economic Papers	1	0,00	0,00	100,00	
18	Rivista Italiana degli Economisti	1	0,00	0,00	100,00	
19	Analisi Finanziaria	0	n.d.	n.d.	n.d.	
20	Archivi e Imprese	0	n.d.	n.d.	n.d.	
21	Economia e Management	0	n.d.	n.d.	n.d.	
22	Nuova Economia e Storia	0	n.d.	n.d.	n.d.	
23	Rivista Italiana di Economia, Demografia e Statistica	0	n.d.	n.d.	n.d.	
24	Sviluppo e Organizzazione	0	n.d.	n.d.	n.d.	
	Tributi	0	n.d.	n.d.	n.d.	

## Table 6. ISI citations Received in the Period 1996-2004 by Articles Published in Italian Journalsbetween 1995 and 1999

The selected Italian economics journals had an even more limited international impact than the Spanish ones. In fact, for 15 of the 25 journals studied, the total number of citations registered was less than 10. However, a small group of these journals had a significant impact. 5 journals received 25 or more citations during this period and 10 journals received 10 or more citations. The 6 most highly-cited journals were (in this order): *Rivista Internazionale di Scienze Economiche e Commerziale, Economia e Politica Industriale, Rivista di Politica Economica, L'Industria, BNL Quarterly Review* and *Rivista di Storia Economica* (table 6).<sup>10</sup>

The qualitative data in the table show that the mean citation score for articles citing studies from these 6 journals was close to 3, although the results attained by different journals varied greatly. The high score recorded for articles citing *BNL Quarterly Review* stands out from the rest; the mean citation score for ISI papers citing articles published in this journal was 6,54. The lower end of the scale is headed by *Rivista di Storia Economica*; articles citing this journal had a citation score of 0,58.

The mean score for self-citations came to about 25% of the total citation score, although there are journals that double this (*Rivista di Storia Economica, Rivista di Economia Agraria* or *Storia del Pensiero Economico*). On the other hand journals have much lower results; *L'Industria* scored 3,57% for self-citations, and *BNL Quarterly Review* scored 11,54%. It should be emphasised that, as in the case of Spanish journals, the number of citations received by articles published in Italian journals, depended to a very large extent on the presence in ISI publications of authors affiliated with a national research institution. For the 6 most highly-cited journals, the mean score for citations in studies where at least 1 author was affiliated with a national institution came to more than 60% of the total citations examined. Extreme examples of this were *Economia e Politica Industriale* (78,79%) and *L'Industria* (75%). At the other end of the scale was *BNL Quarterly Review* with only 24%.

The French study (table 7) offered different quantitative characteristics from the Spanish and Italian ones. In the first place, it should be emphasised that a large group of journals scored highly for international impact. Although, as in the case of Spain (8) or Italy (6), there were 7 journals with a citation score of over 25, the French results included 3 publications with over

<sup>&</sup>lt;sup>10</sup> In the following paragraphs the results obtained by the 6 leading Italian journals are analysed. This includes all the journals that received more than 25 citations, plus *Rivista di Storia Economica*, which received 24.

a 100 citations: Annales d'Economie et Statistiques (322), Revue d'Economie Industrielle (157) and Economie et Prévision (108). However, there was a marked polarisation in the French-speaking journals' results; the remaining 10 publications included in the study received less than 10 citations and 9 of them received 5 citations or less.

As regards qualitative characteristics, the differences were not so great. Articles citing the 5 journals that received more than 50 citations during the period covered had a mean citation score of about 3, similar to the score registered in the Italian study. Here too, the mean score masked a high score dispersion between different journals. In the French study, the high score for citations of citing articles (5,53) registered by the most highly-cited journal in absolute terms, Annales d'Economie et Statistiques, stood out from the rest. At the bottom end of the list, this time, was Revue d'Economie du Développement with a mean score of 0.83 for citations received by each citing article.

		Citations		%
	Total	of citing	Self-	affiliation
	citations	articles	citations	in France
1 Annales d'Economie et Statistiques	322	5,53	18,01	19,23
2 Revue d'Economie Industrielle	157	2,92	8,39	67,11
3 Economie et Prévision	108	1,54	27,62	84,00
4 Revue d'Economie Politique	68	3,78	33,82	58,82
5 Revue d'Economie du Développement	64	0,83	31,25	82,26
6 Revue Française d'Economie	34	1,71	11,76	65,63
7 Actualité économique	28	2,07	46,43	35,71
8 Finance Contrôle Stratégie	6	0,67	33,33	83,33
9 Revue Economique	5	0,20	60,00	75,00
10 Economie et Statistique	3	1,00	0,00	100,00
11 Revue Suisse d'Economie Politique	3	2,00	33,33	0,00
12 Banque et Marchés	2	0,00	50,00	50,00
13 Recherches Economiques de Louvain	1	0,00	0,00	100,00
14 Economie Appliquée	1	1,00	100,00	0,00
15 Comptabilité Contrôle Audit	1	0,00	0,00	0,00
16 Histoire, Economie, Sociétés	0	n.d.	n.d.	n.d.
17 Recherche et Application en Marketing	0	n.d.	n.d.	n.d.

Table 7 ISI Citations Received During the Period 1996-2004 by Articles Published in

In the case of the most highly-cited French journals the mean score for self-citations was slightly less than 25% of the total. No publication stood out for depending heavily on the citations of its own authors (the highest score was 33,82% by Revue d'Economie Politique). At the bottom of the list Annales d'Economie et Statistiques (18,01%) and Revue d'Economie Industrelle (8,39%) scored well below the mean.

To sum up, it should be emphasised that as in the Spanish and Italian studies, citations received by articles published in French-language journals, depended heavily on the presence within ISI publications of authors affiliated to national research institutions. For the 5 most highly-cited journals, the mean score for citations in studies where at least 1 author was affiliated with a national institution was more than 60% of the total number of citations. However, in the French study, it is significant that the most highly-cited journal, *Annales d'Economie et Statistiques*, was the least dependent on citations made by authors with this type of affiliation, since they only made up 19,23% of the total.

## Table 8. ISI Citations Received During the Period 1996-2004 by Articles Published in GermanJournals Between 1995 and 1999

		Total citations	Citations of citing Articles	Self- citations	% affiliation in Germany
1	Weltwirtschaftliches Archiv	613	2,75	13,05	14,13
2	Finanzarchiv	195	1,84	17,44	52,94
3	German Economic Review*	103	0,54	29,13	41,00
4	Schmollers Jahrbuch*	44	1,48	13,64	65,91
5	Perspectiven der Wirtschaftspolitik*	42	0,29	14,29	76,92
6	Vierteljahreshefte fuer Sozial und Wirtschaftsgeschichte	11	3,73	18,18	60,00
7	Jahrbuch fuer Wirtschaftsgeschichte	9	0,22	11,11	30,00
8	Zeitschrift fuer die gesamte Staatswissenschaft	1	0,00	0,00	100,00
9	Jahrbuecher fuer Nationaloekonomie und Statistik	0	n.d.	n.d.	n.d.

Note: The information provided by ISI for the journals marked with an asterisk either only covers the period 2000-2004 or, in the case of *German Economic Review* - whose late entrance means that very few articles were published before this date – contains little information for previous years. In these cases it was decided to include in the study citations received in the years 2000-2004 by articles published throughout the same period. This option implies that the calculation of results for these journals contains a bias against them that should be pointed out.

Source: present study

While the French study showed quantitative characteristics that clearly differentiated it from the Italian and Spanish ones, the case of Germany was, if possible, even more striking. 5 of the 9 journals in the study received 40 or more citations, 3 received more than 100, and the most highly-cited journal received more than 600. The most outstanding German journals clearly had very considerable international impact. <sup>11</sup>

<sup>&</sup>lt;sup>11</sup> It should be stressed that the 2 most highly-cited German publications appeared on the ISI lists. This did not occur in the other national cases analysed.

However, the qualitative characteristics do not present such palpable differences. In some cases, such as the mean citation score for articles citing studies published in German journals, which is less than 2, it must be emphasised that German study scores well below the French or Italian one and very close to the Spanish one. Nonetheless, as in the French study, it is significant that the highest scorer in this column, *Weltwirtschaftliches Archiv* with 2,75, is also the most highly-cited journal in absolute terms.

In the case of the 5 most highly-cited German journals, the mean score for self-citations was well below 20%, putting the German study at the top of the scale for low dependence on this kind of citation, just above the Spanish study. However, it is significant that the most highly-cited journal, *Weltwirtschaftliches Archiv*, once again occupied a position far away from the mean. Its score of 13,05% for self-citations was the lowest score of all for journals included in the study.

Finally, as in the case of Spanish, Italian or French publications, it was found that citations received by articles published in German journals were heavily dependent on the presence in ISI publications of authors affiliated to national research institutions. In this case, for the 5 most highly-cited journals, the mean score for citations in articles where at least 1 of the authors was affiliated to a national institution was over 50% of the total citation score. However, it should be stressed that in the German study, as in the French one, the most highly-cited journal, in this case *Weltwirtschaftliches Archiv*, was the least dependent on citations made by authors with this type of affiliation, who only make up 14,13% of the total.

#### Discussion

In this paper, an comparative study was made of the international impact of articles published in Spanish, Italian, French and German economics journals based on examination of the citations they received from journals with a greater international readership. The purpose of this comparative study was to establish whether national journals played a similar role on the international market independently of their country of origin.

The paper is based on the study of a set of more than 2,000 citations received between 1996 and 2004 by articles published during the period 1995-1999 in 26 Spanish, 25 Italian, 17 French, and 9 German journals. These journals were selected according to guidelines drawn up by research scientists or institutions responsible for evaluating research in each of these countries. Only in the absence of this type of report (in the case of Germany) was it decided

to make a selection of the main publications based on the opinion of experts from the country in question.

A first analysis of the quantitative results shows that the most highly-cited German journals received a much higher number of citations than their French, Spanish, or Italian equivalents. The German publications were followed in the citation ranking by the French, Spanish and Italian journals, in that order. Independently of the number of citations received, examination of the data gathered about the number of citations indicates the existence of a German (and perhaps also French) model, in which there is a first publication with high international impact at a great distance from the rest, as opposed to a Spanish and Italian model, in which the top of the scale is occupied by a small group of publications with more limited international impact.

The study also focused on some qualitative characteristics of the citations received by articles published in national journals. As a general rule, the results show how national articles received citations in articles that had a modest impact on the international market. This section was headed by the French journals, followed in order by the Italian, Spanish and German journals. It is worth mentioning that a distinctive trait appeared in both the German and French studies: the most highly-cited journals were also those that received the citations with greatest Impact in high-ranking international publications.

As regards the characteristics of authors who cite articles published in national journals, the data do not reveal significant differences between studies. The 4 studies show that dependence on self-citations was generally low but that a large proportion of citations received by national journals were attributable to articles published by authors with a professional affiliation in the country in question. On the scale for this type of dependence, Spain heads the list, followed by Italy, France and Germany, in that order. It is worth pointing out that in this section the German and French results once again had a distinctive trait in common: in both cases the most highly-cited journals were the least dependent on citations by authors with a professional affiliation in the country being studied.

An overall analysis of the data on citations received by articles published in national economics journals suggests that there are substantial differences between the German and French cases on one hand and the Italian and Spanish ones on the other. In the first 2 countries, 1 or 2 journals not only score highly for international impact in absolute terms, but are also the top-ranking journals in their countries for the quality of citations received. In other words, they stand out for being cited by articles with more impact and for the fact that

the quantity of citations does not depend greatly on articles published by researchers with a professional affiliation in the country in question.

It is becoming clear that there is a German or French model of economics journal that has distinctive characteristics from the Spanish or Italian models as regards international impact. The Spanish and Italian models have more in common. However, the same body of information may show that there is a quantitative and qualitative progression as regards the international impact of articles published in national journals, in which Germany and France have a clear lead on Spain and Italy. The reasons for this advantage will be the object of future studies.

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