
ECONOMISTS IN UKRAINE: WHO ARE THEY AND WHERE DO THEY PUBLISH?

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ABSTRACT

This paper analyses 1,672 articles published in English by economists working in Ukraine over 1991-2017 using SCOPUS database and bibliometrix package in R. Between 2011 and 2012 when the number of published papers increased more than ten times with *Actual Problems of Economics* and *Economic Annals-XXI* being the two most important outlets accounting for more than 70 percent of all publications. Despite this increased visibility the citation counts show rather modest contribution of economists in Ukraine. Regression analysis of citations indicates that articles with a foreign co-author and Digital Object Identifier are more likely to receive citations.

Key words: Economists, Ukraine, SCOPUS, bibliometrics, ranking

JEL classifications: A1

1. Introduction

“Publish or perish” is a popular slogan for academic economists whose job, salary, promotion and academic prestige often depend on the number of academic publications and citations. Previous literature has shown a limited role played by Ukrainian economists on international research arena. Mirucki (1999) studied scientific production by Ukrainian economists over 1969-94 while Coupe (2008) further extended the analysis through 2005.

Mirucki (1999) identified Mikhail Tuhan-Baranovsky and Eugen Slutsky as major contributors to the field of Economics in the past but also discussed the limited international publication record of economists working in Ukraine over 1969-94. Specifically, American Economic Association's EconLit (1969-3/1995) database identifies only 17 publications in three journals: *Problems of Economics* (10 papers), *European Review of Agricultural Economics* and *International Regional Science Review* (Mirucki 1999). Ukrainian economists from Diaspora contributed to another 39 publications including some top field journals such as *Journal of Development Economics* and *Journal of Comparative Economics*. Coupe (2008) further extended this analysis based on EconLit over 1969-2005 to identify a total of 86 Ukrainians who contributed to 121 articles. This list, however, also includes authors of Ukrainian origin who could be working at international institutions.

The current paper aims to investigate recent trends in the research output of economists working in Ukraine over 1991-2017 using the SCOPUS database. “Economists in Ukraine” in this study are identified by Ukraine as a country of affiliation rather than by national origin or citizenship. There are many talented authors from Ukraine who work at foreign institutions and are actively publishing but they

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are excluded from the analysis in this article.² So a Belgian affiliated to a Ukrainian institution will be included in the analysis while a Ukrainian working in the US will not be (unless she has affiliation to a Ukrainian institution as well). Hence, to avoid confusion term “Economists in Ukraine” is used instead of “Ukrainian economists” throughout this article.

The paper focuses on research papers written in English for a number of reasons. First of all, papers published in languages other than English do not get as much critical evaluation because they reach smaller audience. Second, the best Economics journals are all published in English. Third, local journals in Economics often approve papers without sending comments to authors who are also not supposed to modify their papers (Coupe, 2008). Hence, focusing on English language output allows to focus on better quality peer-reviewed output published by economists in Ukraine.

The rest of the paper is organized as follows. Descriptive statistics about the number of economists and their research output is provided first. The citation record for 30 most popular outlets where authors from Ukraine publish is analyzed next. Then the list of the most cited authors affiliated with Ukrainian institutions is provided. Finally, major correlates for the number of citations per article are identified via linear regression.

2. Analysis of research output and citations

First of all, let’s consider descriptive statistics about economists in Ukraine and their research output. The list of papers includes only articles in English published by authors with Ukrainian affiliation.³ The results are provided for all journals and separately only for journals published outside of Ukraine. This latter list excludes journals *Actual Problems of Economics, Banks and Bank Systems, Economic Annals-XXI, Economics and Sociology, Investment Management and Financial Innovations, Journal of International Studies and Risk Governance and Control: Financial Markets and Institutions*.

Table 1. SCOPUS publications in Economics by authors working in Ukraine over 1991-2017

	All journals	Non-Ukrainian journals
Articles	1,672	326
Journals	162	154
Average citations per article	1.382	5.699
Unique authors	1,948	379
Articles per unique author	0.858	0.860
Authors per article	1.496	1.684

Source: Author’s calculations based on SCOPUS data.

² See, for example, a list of RePEc authors who identified themselves as Ukrainian economists but who are not necessarily affiliated with institutions in Ukraine: <https://ideas.repec.org/g/ukraine.html>

³ The SCOPUS search term is: (AFFILCOUNTRY (ukraine) AND LANGUAGE (english)) AND (LIMIT-TO (SUBJAREA , "ECON ")) AND (LIMIT-TO (DOCTYPE , "ar"))

Table 1 shows the descriptive statistics for publications in SCOPUS category “Economics, Econometrics and Finance” written in English by authors with affiliation in Ukraine. There are 1,672 articles published by 1,948 authors in all journals listed in SCOPUS with much smaller numbers for journals published outside of Ukraine (326 papers by 379 unique authors). However, this latter category seems to be of better quality based on citation counts (5.7 citations in international journals versus only 1.4 citations for all journals including Ukrainian). Articles in international journals also tend to have more authors (1.7 versus 1.5).

Figure 1 shows the number of publications in SCOPUS per year which explains some of the differences between all SCOPUS journals and journals published outside of Ukraine. Specifically, there was a surge in the number of publications from 25 in 2011 to 265 in 2012 due to substantial increase in the number of publications by 2 journals published in Ukraine (which are further analyzed below). At the same time there was also an increase in the number of publications in international journals of varying quality reaching 61 publication in 2017.

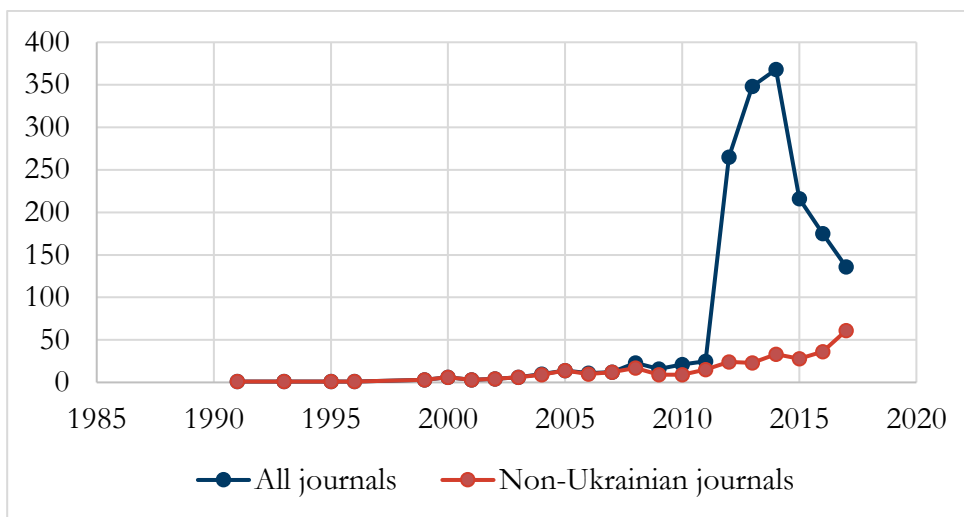


Figure 1. Number of SCOPUS publications in Economics per year by authors working in Ukraine over 1991-2017. Source: Author’s calculations based on SCOPUS data analyzed by bibliometrix package in R (Aria and Cuccurullo 2017).

Table 2 provides evidence about article distribution published in 30 journals with the largest number of articles as well as percent of articles per journal in total publications. *Actual Problems Of Economics* (with 1.5% of all articles!) and *Economic Annals-XXI* (20.1%) are the two most important venues for publications in English by economists in Ukraine.⁴

For proper evaluation of academic publications it is also crucial to account for the quality of publications using various rankings. Scimago Journal Rank (SJR) is one of the popular measures of the

⁴ At the time of this writing “Actual Problems of Economics” is discontinued from SCOPUS.

scientific importance of academic journals which accounts for both the number of citations as well as prestige of the journals where such citations come from. According to Scimago Journal & Country Rank Ukraine has a decent rank of 36 (between Ireland and Mexico) out of 212 countries and territories in subject category "Economics, Econometrics and Finance" over 1996-2016.⁵

Table 2 provides the SJR class for each journal in 2017 in the range from the lowest class of F and up to the top journals such as *American Economic Review* and *Econometrica* in "A+" category. The first observation is that many journals in which economists in Ukraine publish are not even ranked by Scimago Journal Rank which includes as many as 1,808 journals in the field of Economics and Econometrics. The remaining journals end up in lower quality tiers of D and E (except for *Economic Theory* of tier C). There are only a handful of publications in top journals such as *American Economic Review* or *Review of Economic Studies* by authors who have affiliation with Ukrainian institutions.

The last two columns in Table 2 show average SCOPUS citations per article published in each venue as well as citations per year since the year of publication. The leading journals in terms of citations are *Journal of Productivity Analysis* (as many as 29.40 citations per article!), *Journal of Comparative Economics* (12.6 citations) and *Economic Theory* (11.2 citations). Unfortunately, none of the journals published in Ukraine is close with average citations in the range from 0.02 to 0.59.

Table 2. Top 30 outlets for SCOPUS publications in Economics by authors working in Ukraine over 1991-2017.

	Articles	% in All journals	% in Non-Ukrainian journals	SJR class 2017	Cites per article	Cites per article per year
Actual Problems Of Economics	858	51.5%		E	0.15	0.04
Economic Annals-XXI	335	20.1%		-	0.54	0.16
Economics And Sociology	60	3.6%		D	1.33	0.33
Investment Management And Financial Innovations	29	1.7%		E	0.59	0.40
Banks And Bank Systems	24	1.4%		E	0.29	0.08
Journal Of International Studies	23	1.4%		E	0.52	0.11
Journal Of Advanced Research In Law And Economics	16	1.0%	4.9%	E	0.00	0.00
Journal Of Comparative Economics	15	0.9%	4.6%	D	12.60	1.36
Journal Of Applied Economic Sciences	13	0.8%	4.0%	-	0.38	0.07
Risk Governance And Control: Financial Markets And Institutions	11	0.7%		E	0.09	0.02

⁵ <http://www.scimagojr.com/countryrank.php?area=2000>

Europe - Asia Studies	9	0.5%	2.8%	-	7.22	1.37
Ikonomicheski Izsledvania	9	0.5%	2.8%	-	0.21	0.06
Nonlinear Analysis: Real World Applications	8	0.5%	2.5%	-	3.25	0.52
Studies On Russian Economic Development	8	0.5%	2.5%	-	0.25	0.04
Applied Economics Letters	6	0.4%	1.8%	E	4.00	0.29
Mediterranean Journal Of Social Sciences	6	0.4%	1.8%	-	0.67	0.22
Transformations In Business And Economics	6	0.4%	1.8%	E	3.83	0.60
Economic Theory	5	0.3%	1.5%	C	11.20	1.81
Journal Of Productivity Analysis	5	0.3%	1.5%	D	29.40	3.06
Post-Communist Economies Communications - Scientific Letters Of The University Of Zilina	4	0.2%	1.2%	-	0.00	0.00
Eastern European Economics	4	0.2%	1.2%	E	2.75	0.26
Economics Bulletin	4	0.2%	1.2%	E	3.00	0.22
Extremes	4	0.2%	1.2%	-	1.00	0.30
Journal Of Mathematical Economics	4	0.2%	1.2%	D	4.75	1.17
Comparative Economic Research	3	0.2%	0.9%	-	0.00	0.00
Economics Letters	3	0.2%	0.9%	D	5.33	0.42
Fuzzy Economic Review	3	0.2%	0.9%	E	1.67	0.18
International Journal Of Applied Business And Economic Research	3	0.2%	0.9%	E	1.00	1.00
International Journal Of Ecological Economics And Statistics	3	0.2%	0.9%	E	0.00	0.00

Note: Cites per article in a journal are computed as average citations per article published. Cites per article per year are computed as average citations per article since the year of publication.

Source: Author's calculations based on SCOPUS data analyzed by bibliometrix package in R and own codes. Journal in bold are published in Ukraine.

Table 3 lists the most productive authors in terms of number of SCOPUS papers and citations. The majority of authors have just one paper (78.5% of all authors) and no citations (71.6% of all authors). Overall, there are 24 authors who have 5 or more papers and 25 authors with 5 or more citations. Notice that top three authors (Zelenyuk, V, Coupe, T and Talavera, O) are no longer affiliated with Ukrainian institutions.

Table 3. Authors with the largest number of citations and papers SCOPUS

Author	Total cites	Total papers	Author	Total cites	Total papers
Zelenyuk, V	295	9	Wilson, A	20	1
Coupe, T	263	13	Kravtsova, V	19	1
Talavera, O	108	2	Nizalova, O	19	2
Sushko, I	94	8	Puglisi, R	19	1
Prokopovych,P	70	6	Zavadskas, E	19	1
Zheka, V	68	1	Tsapin, A	18	3
Bilotkach, V	40	2	Velychko, O	18	4
Lehmann, H	39	2	Gogenko, O	16	1
Kupets, O	37	4	Goncharuk, A	16	3
Michalevich, M	37	1	Kripak, S	16	1
VanderMeer, J	36	1	Pilyavsky, A	16	1
Tsaplin, V	31	1	Poliwka, S	16	1
Kukush, A	29	4	Shatokha, V	16	1
Shepotylo, O	29	5	Vakhitov, V	16	2
Mertens, A	28	1	Akimova, I	15	1
Nizalov, D	26	2	Churilova, T	15	1
Soskin, O	23	3	Finenko, Z	15	1
Hoffmann, M	22	1	Gardner, R	15	1
Mykhalenko, V	22	2	Gorobets, A	15	3
Ogorodnik, S	22	1	Kryvenko, O	15	1
Shmarin, S	22	1	Branman, L	14	1
Salamatov, V	21	1	Kulyk, V	14	2
Bilous, A	20	1	Stepurko, T	13	2

Source: Author's calculations based on SCOPUS data. Citations for each author include only articles published when the author was associated with a Ukrainian institution.

In order to improve rankings it is of interest to explore which variables are associated with higher citations per article. This analysis, of course, has no causal interpretation because of possible endogeneity of many factors. Nevertheless, it is more informative than simple analysis of pairwise correlations between variables and citations. Column (I) in Table 4 reports descriptive statistics for potential correlates of article citations which could be identified from SCOPUS. The list includes number of years since publication, number of authors, whether paper has a digital object identifier (DOI), counts of words in abstract and title and an indicator whether there is a co-author with a foreign affiliation.

Three models are estimated with these covariates. Column (II) reports the results of the Linear Probability Model (LPM) for an indicator variable taking value of 1 if a paper received at least one SCOPUS citation. Column (III) shows the results of Ordinary Least Squares (OLS) regression for the total number of citations a particular paper has received. Finally, column (IV) is an OLS regression for an average number of citations a paper received per year since the year of publication.

Interestingly enough, even such a simple model with just a few variables can explain from 18.1 to 21.2 percent of variation in three different definitions of article citations. Covariates in the model have expected effects on article citations. Specifically, the most important factors associated with article citations are indicators (i) whether there is a foreign co-author and (ii) whether a paper has DOI. Naturally, presence of an international co-author may indicate a larger scale project with a greater impact. A Digital Object Identifier (DOI) is assigned by the International DOI Foundation to uniquely identify content and provide a permanent link to its location on the Internet. Since DOI is not free only better quality journals typically assign DOI.

Table 4. Regression analysis of citations per article

Variable	(I) Mean (std.dev)	(II) 1 or more cites	(III) Count of cites	(IV) Cites per year
Years since publication	4.612 (2.843)	0.066*** (0.009)	0.911*** (0.135)	0.091*** (0.014)
Years since publication Squared	29.352 (49.999)	-0.001** (0.001)	-0.004 (0.008)	-0.003*** (0.001)
Number of authors	1.843 (1.486)	0.006 (0.007)	0.214** (0.108)	0.049*** (0.011)
Paper has DOI	0.265 (0.441)	0.208*** (0.026)	2.309*** (0.385)	0.349*** (0.039)
Words in Abstract	119.416 (92.670)	0.001*** (0.000)	0.005*** (0.002)	0.001*** (0.000)
Words in Title	11.146 (3.549)	-0.001 (0.003)	-0.063 (0.040)	-0.007 (0.004)
Foreign author	0.127 (0.333)	0.178*** (0.035)	1.813*** (0.513)	0.211*** (0.052)
Constant		-0.168*** (0.048)	-3.867*** (0.714)	-0.339*** (0.073)
Observations		1672	1672	1672
Adjusted R-squared		0.212	0.210	0.181

*Note: Author's calculations based on SCOPUS data. All models are estimated via OLS. Model in column (II) estimates a linear probability model for a binary dependent variable (0/1) whether a paper has any citations. Models in columns (II) and (III) are estimated for dependent variables number of citations and number of citations per year since publication. *** means significant at the 1% significance level, ** at the 5% significance level and * at the 10% significance level.*

Specifically, LPM model in column (II) shows that presence of a foreign co-author and article DOI are associated with 20.8 and 17.8 percentage points higher probability that a paper has at least one citation. Each additional year from the date of publication is associated with 6.6 percentage points higher probability that a paper has a citation. Years since publication has inverted U-shape effect on the probability of receiving a citation – after 35 years each additional year without citation reduces (rather than increases) the probability that a paper receives a citation. The number of words in abstracts is

positively associated with the probability of receiving a citation – one additional standard deviation in the number of words (92.7) is associated with 9 percentage points higher probability of receiving a citation.

Model for the total number of citations (citations per year) shows that foreign co-author is associated with 1.8 more citations (0.2 more citations per year) while articles with DOI have 2.3 more citations (0.3 more citations per year). Each additional year since publication is associated with 0.9 more citations (0.1 more citations per year) and the effect is also inverted U-shape. Articles with longer abstracts tend to have more citations as well. What is different from the LPM model is that the number of authors is positively associated with citation counts. Specifically, each additional co-author is associated with 0.2 more citations (0.05 more citations per year).⁶

Conclusions

This paper analyzes the research output of economists working in Ukraine over 1991-2017. On a positive side, there is an increased visibility of authors from Ukraine compared to previous studies. In addition, Scimago Journal Rank assigns Ukraine a rank of 36 out of 212 countries which scores quite well compared to other rankings for Ukraine.

Nevertheless, contribution of authors from Ukrainian institutions is rather limited based on citation counts. In particular, three top cited authors in SCOPUS are no longer affiliated with Ukrainian institutions. This is particularly pity given a large number of young and very productive Ukrainians who work at many leading research centers and Universities outside of Ukraine. If Ukraine changes priorities and decides to improve its economics science it has a large pool of potential researchers to draw from. An example of Ireland shows that coming back home is an option even for highly-skilled professionals (Barrett, 2002).

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⁶ When the squared number of authors was added to test for possible diminishing returns both coefficients (for the number of authors and number of authors squared) became insignificant in most cases.