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The development of political science in Central and Eastern Europe: bibliometric perspective, 1996–2013

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Abstract

This research aims to develop a deeper insight into the development of political science from the bibliometric perspective by analysing peer-reviewed journal articles (n=1,117) indexed in the Scopus database and published by authors from fifteen Central and Eastern European (CEE) countries in the period 1996–2013. Results indicate that the majority of articles (84 per cent) by CEE authors have been published in international journals and in the English language. The visibility of these articles in international journals, measured by the mean number of citations, is 5.2 per paper, while the same indicator for CEE journal articles amounts to 0.2. Authorship analysis indicates a gradual but continuous increase in co-authorships. Additionally, there are significant differences in citations between single-

authored and co-authored articles, both in international and CEE journals. Co-authorship among CEE authors is present in only 1 per cent of the analysed articles, confirming weak collaboration between political scientists in CEE countries.

Key words bibliometric analysis · Central and Eastern Europe · political science journals

Introduction¹

Analysis of the development of social sciences in EU countries that are historically, politically, economically, linguistically and culturally diverse contributes to the better understanding of the undergoing integration process. Fifteen post-socialist Central and Eastern European (CEE) countries share common but – to various degrees – different socialist backgrounds and have a great potential in that process. While investigating the effect of heterogeneities among these countries on the development of social sciences, Muskens and Kinnear (1993) emphasised different degrees of research openness in the past but also the possibility of a dynamic equilibrium between the cultural inheritances of the East and the West, and between the former Yugoslav states, Hungary and Poland on the one side and the Czech and Slovak Republics, Romania and Bulgaria on the other. Although in the past all disciplines within the social sciences had distinct characteristics in CEE countries, compared to their West European counterparts, the most pronounced were present in the field of political science. Newton and Vallès (1991) argue that political science as an academic discipline can develop only within democratic societies.

In the US, the institutionalisation of political science emerged at the beginning of the twentieth century; while in West European countries this process began rather later, as it was not until the 1970s that all Western European countries had democratically elected governments (Klingemann, 2008; Newton and Vallès, 1991). As a result, political science in West European countries does not have deeper roots than in some of the CEE countries. For example, Croatia and Slovenia as parts of former Yugoslavia began the institutionalisation of political science as a discipline in the late 1960s, based on the Marxism-Leninism and scientific communism agenda (Klingemann, 2008).

¹ This work has been supported by the Croatian Science Foundation under the project IP-09-2014-9351. The views expressed are those of the authors and do not necessarily reflect the views of Croatian Science Foundation.

We assume that the time of institutionalisation of political science in CEE countries has significantly affected the field and therefore has important repercussions on its present state. The term ‘institutionalisation’ primarily refers to infrastructure and teaching practices at faculties and university departments that include a critical number of teaching and academic staff; and secondarily also to the establishment of national professional associations (Klingemann, 2008; Eisfeld and Pal, 2010a, 2010b) and domestic political science journals.

In all CEE countries included in this study, political science is recognised as an academic discipline represented by a national professional association. However, our main focus here is on political science journals. Although it has often been argued that political science is a locally-oriented field of social sciences (Jokić et al., 2012), there are opposing opinions (Chi, 2012, 2014). One of the main challenges of this study is to analyse the changes in orientation of political science in CEE countries, which will reveal similarities and differences in the scientific communication of fifteen post-socialist European countries. Our study is based on papers published in peer-reviewed journals indexed in the Scopus database, assuming that journal articles are the main form of academic research output in political science (Samuels, 2011). Although books are also an important publication form in this discipline (Hix, 2004), they will not be considered due to the absence of relevant databases for bibliometric analysis.

According to the best of our knowledge, this study provides the first systematic attempt of analysis of communication patterns (publication and citation patterns, collaboration) via journals in political science of the fifteen CEE countries over the longer time period and from the bibliometric perspective. We expect the results to give a deeper insight into the development of political science as a discipline in this group of European countries.

The paper is structured as follows. After introductory notes, the paper provides an overview of relevant literature background in the second section. The third section consists of a detailed description of the methodological approach and sample while the fourth section brings the discussion of results; this is followed by conclusions in the fifth section.

Literature review

Most of the studies on the development of political science as an academic discipline refer to the US and other English-speaking countries, such as the UK, Australia, and Canada. Predominantly these studies focus on the ranking of university departments or faculties of political sciences. While political science in the European countries were still in the process of institutionalisation, studies for the US had already reviewed the ‘quality’ and reputation of political science departments (Robey, 1979). In the ranking of departments and faculties, journals play a crucial role. Consequently, Nisonger (1993, 2002), Hix (2004), Wright (2011) and Samuels (2011) focused on the evaluation of political science journals, with an emphasis on citation analysis. Dale and Goldfinch (2005), Sapotichne et al. (2007) and Waismel-Manor and Lowi (2011) reviewed the importance of citation analysis as a tool to examine the flow of ideas across scholarly boundaries. As a most prominent opponent of a bibliometric-based approach for the evaluation of research output in the political science, Donovan (2009) argues that it is just as subjective as peer-review.

Masuoka et al. (2007a, 2007b) and Fowlers et al. (2007) used citation and network data analysis to provide a detailed overview of changes that have occurred during the twentieth century in US political science; while Altman (2012) studied the status of political science in Latin America.

The status and development of political science in Europe have been intensively studied. Klingemann's (2008) study is one of the most comprehensive, with significant additional contributions by Bardi (2011), Coakley and Doyle (1998) and Newton and Vallès (1991). Additionally, Goldsmith and Goldsmith (2010) covered a specific aspect of teaching practices in political science. McGrath (2008) investigated the co-operation among European national political science associations while Daalder (2010) evaluated the importance of the European Consortium for Political Research in the development of political science as a discipline. Several authors reviewed the status of political science in specific European countries: for example, Chi (2012, 2014) and Metz and Jäckle (2013) in Germany; Bernauer and Gilardi (2010) in Switzerland; Plümper and Radaelli (2004) as well as Angstrom et al. (2003) in Italy, and Butler and McAllister (2009) in the UK.

Issues related to the status and development of political science in CEE countries, including the process of institutionalisation, scientific productivity, and visibility or internationalisation, have rarely been studied. Contributions can be divided into two groups. The first group deals with certain issues at the level of individual CEE countries while the second group undertakes comparative analysis for a group of CEE countries. The largest number of contributions in this group come from Slovenia (Bibič, 1996; Zajc, 2013; Fink-Hafner and Deželan, 2014) and Croatia (Grdešić, 1996; Kasapović, 2008, 2015), two ex-Yugoslavian countries which began the institutionalisation of political science in the 1960s. As far as other countries are concerned, analyses are available for Poland (Czaputowicz and Wojciuk, 2016), Romania (Ghica, 2014), the Czech Republic (Holzer, 2010), Bulgaria (Karasimeonov, 1997) and Lithuania (Krupavičius, 1997), with a comprehensive overview of nineteen post-socialist CEE countries in Einsfeld and Pal (2010a).

Sample and methodological approach

The data for this study has been extracted from a larger dataset designed for the project investigating the status of social sciences in fifteen post-socialist CEE countries.² Bibliographic and citation database Scopus was chosen as the main source as we find it more appropriate for the bibliometric analysis of social sciences than the Web of Science (WoS). As argued by Archambault et al. (2009), Moed et al. (2013) and Abadal et al. (2015), Scopus offers, thematically and regionally, more balanced representation of journals and possesses credible journal selection procedures and adequate bibliometric indicators. Furthermore, we have taken into account that papers indexed in Scopus count as relevant in career promotions as well as in international university rankings.³

Our dataset consists of papers of which at least one author has an affiliation in one of the fifteen CEE countries. By implementing this criterion, we have excluded from the analysis authors from CEE countries who were, at the time of publishing papers, affiliated with a non-CEE institution. The countries in our sample include eleven EU members: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia, and four EU prospective candidate or candidate countries: Bosnia and Herzegovina, Macedonia, Montenegro and Serbia. Scopus's search strategy included the subject field 'social sciences and humanities' (SSH) as a default option⁴ and document types – articles and reviews – in the period 1996–2013. The resulting dataset was reclassified in order to exclude journals attributed to the field of humanities and to classify them in line with the Croatian

² For details, please refer to RACOSS project at http://racoss.idi.hr/index_en.html (accessed 8 March 2018).

³ Access to the Scopus database was supported by the Ministry of Science and Education of the Republic of Croatia.

⁴ This syntax was a default option at the time (January 2015) when we retrieved the data from the Scopus database.

classification of sciences, which is based on the OECD Frascati Field of Science⁵ classification. Experts in political science defined the sample for this study, based on their knowledge of the journals and review of the journals' subject orientation.

The final dataset for this study includes 157 journals in the field of political science with 1,117 published research articles or reviews. As we classified journals and not individual articles by fields some papers might have been left out of this sample because they have been published in journals predominantly oriented towards sociology, law, economics, philosophy or history, disciplines closely related to political science (Newton and Vallès, 1991; Dale and Goldfinch, 2005). This issue could be explored when analysing the development of interdisciplinarity within political science (Dubrow and Kołczyńska, 2015).

Journals from the field of political science were further classified into two groups. The first group is termed 'international journals' and it consists of 149 journals which published 84 per cent of all papers (n=935) in the sample. The second group is named 'domestic journals' or 'CEE journals' and covers all the journals published in CEE countries. This group consists of eight journals that published the rest of the papers from the sample, e.g. 16 per cent (n=182).

Considering the main goal of this study, we focus on the analysis of publishing patterns and visibility of published papers measured via citations; type of journals where the papers are published (CEE journals vs international journals), authorship (single vs multi) and language.

The analysis is undertaken on the full sample (n=1,117), on the subsamples of country groups as well as individual countries. Countries are classified into three groups depending on the

⁵ See revised classification of science and technology field in the Frascati Manual, <http://www.oecd.org/sti/inno/38235147.pdf> (accessed 24 November 2017).

time they accessed the European Union. *Group A* consists of eight countries that became members in 2004 (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia). *Group B* consisted of three countries that became members during the period from 2007 until 2013 (Bulgaria, Croatia and Romania). *Group C* consists of EU prospective candidate or candidate countries (Bosnia and Herzegovina, Macedonia, Montenegro and Serbia), which are currently in different stages of accession negotiations. Additionally, countries are analysed according to background similarity (former Yugoslav states, the Czech and Slovak Republics, Baltic countries). The data were drawn at the beginning of 2015 and include citations registered in Scopus up to then.

Results and discussion

Publishing and citation patterns

In the sample of all papers indexed in Scopus authored by at least one author with an affiliation in a CEE country, papers from political science have the smallest share among social science disciplines. The share amounts to 3 per cent in the analysed period, although rough estimates by Klingeman (2008) suggest that, in 2005, there were around 10,000 political scientists in Europe, with more academic staff in Central and Eastern Europe than in Western Europe.

Among the basic indicators of bibliometric analysis are those on productivity that refer to the number of published papers indexed in internationally relevant literature sources. In the case of political science, the number of published papers by CEE authors indexed in Scopus was almost negligible in 1996 and so it remained up to 2006, when a pronounced increase occurred, due to authors from Poland, Hungary and the Czech Republic (Figure 1).

Figure 1 here

It is important to note that the contribution of Polish authors was associated with the indexing of Polish-based journal *Geopolitical Studies* in the Scopus database. An additional hike occurred in 2011, with the largest number of contributions from Lithuania, the Czech Republic, Hungary and Poland, as two Lithuanian journals, *Politologija* and *Lithuanian Foreign Policy Review*, entered the Scopus database.

Our three main country groups, A, B and C, contribute to the overall number of papers with 85.6, 12.3 and 3.6 per cent respectively. In order to allow for cross-country comparisons, the number of published papers has been normalised by the population size.⁶ Figure 2 indicates the productivity of groups A, B and C as well as of individual countries.

Figure 2 here

As expected, the most productive is group A and, among countries, the Baltic states Lithuania and Estonia, followed by Slovenia, Hungary and the Czech Republic. Results for Croatia, which has a critical mass of researchers, are surprisingly weak, especially having in mind that Croatia began institutionalising political science in the 1960s, by establishing a faculty of political science at the University of Zagreb.

In order to better understand the above-mentioned data, and especially to explore the visibility of published papers, it is important to verify in which languages these papers were written and which journals published them. Among 157 journals classified in the political sciences, 84 per

⁶ Our results are biased in the sense that the analysis has not taken into account journals that are not included in Scopus. However, using the Scopus database allowed us to perform citation analysis on the sample of journals that have attained the quality standards needed to qualify for inclusion in the Scopus database.

cent of papers were published in international journals (n=149) and in the English language (Table 1).

Table 1 here

For the 1996–2013 period, the average number of papers per journal amounted to 6.2, with a median of 2 and a range of 1 to 137 papers per individual journal. Although at first glance the dispersion appears high, half of the papers were published in ten *core* journals.⁷

Table 1 indicates that authors from CEE countries prefer to publish in European-based journals (66 per cent), followed by the US-published journals. Chi (2012) has drawn a similar conclusion while investigating the publication behaviour of German political scientists.

At the first glance, the fact that more than 80 per cent of all papers by CEE authors in the field of political science have been published in international journals might imply some deficiency in the domestic (CEE) journals. But Table 2, which helps us analyse the situation at the level of individual countries, proves just the opposite.

Table 2 here

As Klingermann (2008) notes, in disciplines such as political science, national professional journals, in particular, journals in native languages, are essential for both professional communication and providing links to society at large. In CEE countries, where the political science discipline was essentially reborn in the 1990s, national professional journals provide

⁷ In order to compare a number of papers across countries of different size, we have normalised the number of papers by the population size. Normalisation by the number of full-time researchers in the field of political science (or social sciences) would be a preferable option but was not possible, due to data constraints.

infrastructure for teaching and research, by providing a platform for both original contributions and for translations of major contributions from other languages in an accessible form (Coakley and Doyle, 1998).

In only four countries from our sample, Latvia, Bulgaria, Bosnia and Herzegovina and Montenegro, have national journals in political science not been established. At the same time, journals from only one-third of the CEE countries (the Czech Republic, Hungary, Lithuania, Poland and Romania) have, in the period analysed, met the criteria for inclusion in the Scopus database.

Countries from group B represent an interesting case in this respect. For example, the Croatian journal *Politička misao*, active since 1964, did not reach the standards of the Scopus⁸ database until recently. On the contrary, Romania has twelve national journals in the field of political science, with three being indexed in Scopus. However, those three contain less than a half of all papers published by Romanian authors, due to the years covered in the Scopus database.

Although the use of English was not encouraged in socialist times, it is important to emphasise that all CEE journals indexed in Scopus include papers written in English. Some of them publish exclusively in English (the Czech Republic, Hungary, Lithuania, Poland and Romania) while the others publish at least half of their papers in English (Lithuania and Romania). Newton and Vallès (1991) stated that English has become a common language

⁸ Core journals in the sample include *Osteuropa*; *Public Policy and Administration*; *Electoral Studies*; *Helsinki Monitor*; *Journal of Democracy*; *European Journal of Political Research*; *Journal of Communist Studies and Transition Politics*; *Journal of International Relations and Development*; *Perspectives on European Politics and Society*; and *Journal of European Public Policy*.

among European political scientists and is paving the way for European links and professional identities. The results in Table 2 confirm it.

The first political science journals published in a CEE country that were indexed by Scopus came from Poland in 2006, followed by Romania in 2009 and then the Czech Republic and Lithuania (with two journals).

Availability of journal papers that were written in English and included in the most relevant international bibliographic and citation databases alone, without data on citations, does not give a complete picture. Bernauer and Gilardi (2010) emphasise that the number and impact of publications is an indicator of the international visibility of research activity. The impact of published papers is measured by citation analyses and the number of citations is perceived as an indicator of visibility and acknowledgment in the academic community.

Furthermore, Samuels (2011) states that the number of citations of an article is the main quality indicator of political science research. However, Dale and Goldfinch (2005) rightly argue that citations are also partially a measure of networking, while Waismel-Manor and Lowi (2011) add that it is not possible to control for the nature of citations: in particular, unfavourable or negative citations call into question the appropriateness of number of citations as an indicator of quality. As Sapotichne et al. (2011) state, the main role of citation analysis is in examining the flow of ideas across scholarly boundaries and citation numbers can only serve for orientation in science policy issues.

In the full sample (n=1,117) of papers published in 157 journals, the average number of citations per paper is 4.4. However, if we take CEE and international journals separately, it is

obvious that papers published in international journals have a much higher average number of citations, 5.2 per paper, than papers published in CEE journals (Figure 3).

Figure 3 here

Chi (2012) examined the sample of papers by German political scientists published in journals indexed in WoS and found 7.1 citations per paper on average, whereas articles written in the English language reached 8.3 citations per paper on average. At the same time, the average citation rate of journal articles written in German was 2.3. A study by Williams et al. (2015) on the sample of papers from three most prestigious journals in the field of political science indexed in the WoS database, showed an average of 10.1 citations per paper. Plümper and Radaelli (2004) examined the citation rate of papers indexed in WoS published by authors from Italian faculties and departments in the field of political science and found significantly lower average values, up to 5.0 citations per paper. Butler and McAllister (2009) reported that papers from the UK departments published in journals indexed in the WoS database had an average number of citations per paper in the range from 0.78 (for Middlesex) to as high as 20.21 (for Birkbeck), with the overall mean of 5.34.

In our sample, the median number of citations per paper in international journals amounted to 3, with papers published in ten journals (or 6.7 per cent of international journals) having 58 per cent of citations. The journals in which published papers gained the highest number of citations on average include *European Journal of International Relations* (with the average number of 74.2 citations per paper), *Journal of Political Economy* (49.5), *Political Behavior* (45.0), *International Studies Quarterly* (42.0), *Political Studies* (39.5), *Journal of European Public Policy* (35.9), *Studies in Comparative International Development* (33.0), *Government*

and Opposition (29.0), *American Political Science Review* (29.0), *Journal of Democracy* (25.9) and *Journal of Politics* (23.0).

Although the majority of the papers published in CEE journals were written in English, the average number of citations for those papers was much lower (0.2 citations per paper) than for the papers written in English and published in international journals (Figure 4). When interpreting the average number of citations per paper, it is important to note that more than two-thirds of papers in CEE journals were published in the 2011–2013 period (Figure 4). In political science, articles are substantially less likely to be cited by the end of the three-year period after publication, which might have affected our results

Figure 4 here

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Authorship and collaboration

Authorship refers to an important aspect of scientific communication and is an indicator of dynamics in a certain scientific field. Metz and Jäckle (2013) found a pronounced trend towards more co-authorship in political science, although single authorships were still the norm. Opposed to this, Jokić et al. (2012) found the dominance of single-authored papers among Croatian political scientists in the period 1991–2005, with a share of 89 per cent and with an upward trend. This study shows that the number of co-authored papers continuously and gradually increases (Figure 5).

Although an increasing trend is present, single-authored papers exhibit significant variations. Additionally, analysis of authorship of papers published in international and CEE journals shows significant differences. The share of single-authored papers published in international journals was 63 per cent while in CEE journals it was 87 per cent. The citation rate of single-authored papers compared to co-authored papers is lower in both international and CEE journals. The average number of citations of single-authored papers in international journals was 4.6 while that of co-authored papers was 6.4. The same indicators for CEE journals were 0.17 citations per paper for single-authored papers and 0.26 for co-authored papers. These results are in line with Williams et al. (2015).

Figure 5 here

More detailed analysis of co-authorship in the total sample requires additional study. Here we are primarily interested in collaboration and co-authorship among political scientists of the fifteen CEE countries, as we hypothesise that their joint socialist past could be an incentive to collaboration. However, Schneider et al. (2013) emphasised that scholars from different countries in CEE countries tend not to collaborate. We have identified sixteen papers co-authored by authors in CEE countries, which represents 1.4 per cent of all papers, with one paper (Poland-Bulgaria) being published in a Polish journal while the rest of fifteen papers were published in international journals.

Authors from group C as well as three countries from group A, Slovenia, Lithuania and Latvia, have had no co-authored papers. The results of the co-authorships are similar to Schneider et al. (2013) and show that neighbouring countries and former compatriots such as

the countries which emerged from former Yugoslavia, the Baltic countries and even the former Czechoslovakian countries, do not collaborate (Figure 6).

Figure 6 here

The only country standing out is Hungary, whose authors are networking with authors from seven out of fifteen CEE countries. One of the plausible explanations for this exceptionalism is the role of Open Society and the Central European University (Goldsmith and Goldsmith, 2010). Furthermore, a glimpse of openness is observed in the Czech Republic, whose authors collaborate with those in neighbouring Hungary (3), Poland (2), Slovakia (1) and Romania (1).

Furlong (2007), McGrath (2008) and Daalder (2010) argue that political science national associations and, in particular, European Confederation of Political Science Associations (ECPSA), as well as the European Consortium for Political Research (ECPR), should play a key role in inducing collaboration. These associations are aimed at facilitating collaboration and communication between associations and developing work on collaborative research projects that include a large number of European and other countries. The results of this study indicate that this goal, at least so far, has not been reached. For example, according to McGrath (2008), only Czech, Lithuanian, Romanian and Slovenian political science associations participated in the ECPSA 2008 conference, meaning that even the societies from aforementioned countries show weak or absent mutual collaboration. Schneider et al. (2013) believe that the lack of academic collaboration might be overcome through several co-operation projects launched in recent years. For the ex-Yugoslav countries as well as for other

CEE countries, peer-reviewed journal *Političke perspektive*, established in 2011, which was edited jointly by scholars from Croatia and Serbia, was an attempt to fulfil this mission.

Conclusions

Our main findings are in line with the conclusions of other authors (Klingemann 2008; Coakley and Doyle, 1998; Eisfeld and Pal, 2010a, 2010b), implying that political science in Central and Eastern Europe is country-specific, even in the case of countries sharing common backgrounds as in the case of the former Yugoslav states, the Czech and Slovak Republics or the Baltic states.

In the period 1996–2013, a large majority of papers, 84 per cent, were published in international journals and in English. Although these papers exhibit relatively wide journal dispersion, with a median of 2 papers per journal, 10 out of 149 journals can be perceived as core journals, with half of all papers from the sample published in them. The visibility of papers authored by at least one author from a CEE country and published in international journals, measured by the mean number of citations, is 5.2 per paper, while the same indicator for CEE journals amounts to 0.2. Although about two-thirds of the papers published in CEE journals are in English, the number of their citations is substantially lower than for papers published in international journals. These results speak in favour of English as the *lingua franca* as well as in favour of international journals, if visibility is to be improved.

The analysis of the international journal country of publication has shown that CEE authors prefer to publish papers in European journals (Table 1), which might be an indicator of the process of integration within the EU framework.

The existence of a professional and/or peer-reviewed journal might be taken as an indicator of the institutionalisation of political science in CEE countries. However, they have not been established in four countries: Latvia, Bulgaria, Bosnia and Herzegovina and Montenegro. Only one-third of CEE countries (the Czech Republic, Hungary, Lithuania, Poland and Romania) had met the criteria for inclusion in indexing of national political science journals in the Scopus database by 2013. Surprisingly, Croatia and Slovenia, which, in the 1960s institutionalised political science, including journals, were not represented in the Scopus database by their national political science journals over the analysed period. It is important to emphasise that first CEE political science journals were indexed in Scopus in 2006 (Figure 4).⁹

Authorship development, as an indicator of the discipline dynamics, shows in the overall sample a continuous and gradual increase in co-authored papers (Figure 5). The analysis of authorship of papers published in international and CEE journals shows a significant difference. The share of single-authored papers in international journals was 63 per cent, while in CEE journals it was 87 per cent. The average number of citations for single-authored papers is considerably smaller compared to co-authored papers in international journals, 4.6 vs 6.4. The same indicators for CEE journals are 0.2 for single-authored papers and 0.3 for co-authored papers.

By dividing fifteen CEE countries into three groups according to the time of their EU accession, we have tried to explore similarities and differences in publication patterns including productivity, citation analysis and authorship development. According to all indicators, there are differences in scientific communication between these three groups of

⁹ Scopus started to include the Croatian journal *Politička misao* in 2015.

countries. As expected, countries of the group A were the most productive and the most internationally visible, with a large number of co-authored papers.

Due to the common background and specifics of the political science discipline in CEE countries, we expected more prominent collaboration among authors from CEE countries. However, the results (Figure 6) show very weak mutual collaboration, especially between countries that were formerly part of the same state, such as the ex-Yugoslav states, the Czech and Slovak Republics and the Baltic countries. Regarding ex-Yugoslav countries, the situation is very complex. In order to understand it, a more detailed methodological approach is needed. Although co-authorship between CEE authors is registered in just 1 per cent of papers, it is evident that Hungary stands out, with the largest number of collaboration. This position could be attributed to the activity of the Open Society and the Central European University in Budapest.

This research is the first in a series of planned studies with the aim of gaining a more complete picture of the specificities of political science in CEE countries, as well as of the social science field.

References

- Abadal, E., Melero, R., Rodrigues, R.S. and Navas-Fernández, M. (2015) 'Spanish scholarly journals in WoS and Scopus: the impact of open access', *Journal of Scholarly Publishing* 47(1): 77–96, doi: 10.3138/jsp.47.1.04.
- Altman, D. (2012) 'Where is knowledge generated? On the productivity and impact of political science departments in Latin America', *European Political Science* 11(1): 71–87, doi: 10.1057/eps.2010.82.
- Angstrom, J., Hedenstrom, E. and Strom, L.-I. (2003) 'Survival of the most cited? Small political science communities and international influence: the case of Sweden', *European Political Science* 2(3): 5–16.
- Archambault, É., Campbell, D., Gingras Y., and Larivière, V. (2009) 'Comparing bibliometric statistics obtained from the Web of Science and Scopus', *Journal of the American Society for Information Science and Technology* 60(7): 1320–1326, doi: 10.1002/asi.21062.
- Bardi, L. (2011) 'Forty years of political science in Europe: the European Consortium for Political Research celebrates its ruby anniversary', *PS: Political Science & Politics* 44(1): 93–95, doi: 10.1017/S1049096510002179.
- Bernauer, T., and Gilardi, F. (2010) 'Publication output of Swiss political science departments', *Swiss Political Science Review* 16(2): 279–303, doi: 10.1002/j.1662-6370.2010.tb00160.x.
- Bibič, A. (1996) 'The development of political science in Slovenia: democratisation and transformation of the discipline', *European Journal of Political Research* 29(4): 425–450.
- Butler, L. and McAllister, I. (2009) 'Metrics or peer review? Evaluating the 2001 UK research assessment exercise in political science', *Political Studies Review* 7(1): 3–17, doi: 10.1111/j.1478-9299.2008.00167.x.
- Chi, P.-S. (2012) 'Bibliometric characteristics of political science research in Germany', *Proceedings of the American Society for Information Science and Technology Annual Meeting* 49(1):1–6, doi: 10.1002/meet.14504901115.
- Chi, P.-S. (2014) 'Changing publication and citation patterns in political science in Germany', *Scientometrics* 105(3): 1833–1848, doi: 10.1007/s11192-015-1609-3.
- Coakley, J., and Doyle, J. (1998) 'Developments in European political science journals and electronic literature during 1997', *European Journal of Political Research* 33(4): 525–547.
- Czaputowicz, J., and Wojciuk, A. (2016) 'IR scholarship in Poland: the state of the discipline 25 years after the transition to democracy', *Journal of International Relations & Development* 19(3): 448–474, doi: 10.1057/jird.2014.21.
- Daalder, H. (2010) 'Political science in Europe and the ECPR: looking back and looking on', *European Political Science* 9 (Supplement 1): S30–S37, doi: 10.1057/eps.2010.42.

- Dale, T., and Goldfinch, D. (2005) 'Notes on article citation rates and productivity of Australasian political science units 1995–2002', *Australian Journal of Political Science* 40(3): 425–434, doi: 10.1080/10361140500203951.
- Donovan, C. (2009) 'Gradgrinding the social sciences: the politics of metrics of political science', *Political Studies Review* 7(1): 73–83, doi: 10.1111/j.1478-9299.2008.00172.x.
- Dubrow, J. K., and Kołczyńska, M. (2015) 'Who owns the study of democracy? Sociology, political science and the interdisciplinary promise of political sociology since 1945 [A quem pertence o estudo da democracia? Sociologia, ciência política e a promessa da interdisciplinaridade na Sociologia política desde 1945]', *Sociologias* 17(38): 92–119, doi: 10.1590/15174522-017003805.
- Eisfeld, R., and Pal, L. A. (eds) (2010a) *Political Science in Central-East Europe: Diversity and Convergence*, Opladen and Farmington Hills, MI: Barbara Budrich Publishers..
- Eisfeld, R., and Pal, L.A. (2010b) 'Political science in Central-East Europe and the impact of politics: factors of diversity, forces of convergence', *European Political Science* 9(2): 223–243, doi: 10.1057/eps.2010.11.
- Fink-Hafner, D., and Deželan, T. (2014) 'The political science professional project in Slovenia: from communist monism, democratisation and Europeanisation to the financial crisis' [Stručni projekt studija političkih znanosti u Sloveniji: Od komunističkoga monizma, demokratizacije i europeizacije do financijske krize], *Društvena istraživanja* 23(1): 133–153, doi: 10.5559/di.23.1.07.
- Fowler, J. H., Grofman, B., and Masuoka, N.(2007) 'Social networks in political science: hiring and placement of Ph.D.s, 1960–2002', *PS: Political Science & Politics* 40(4): 729–739.
- Furlong, P. (2007) 'The European Conference of National Political Science Associations: problems and possibilities of co-operation', in H.-D. Klingemann (ed.) *The State of Political Science in Western Europe*, Opladen and Farmington Hills, MI: Barbara Budrich Publishers, pp. 401–407.
- Ghica, L. A. (2014) 'Academic bovarism and the pursuit of legitimacy: canon-building in Romanian political science', *European Political Science* 13(2): 171–186. doi: 10.1057/eps.2014.3.
- Goldsmith, M., and Goldsmith, C. (2010) 'Teaching political science in Europe', *European Political Science* 9 (Supplement 1) S61–S71, doi: 10.1057/eps.2010.38.
- Grdešić, I. (1996) 'The development of political science in Croatia: meeting the challenges of democracy and independence', *European Journal of Political Research* 29(4): 405–423.
- Hix, S. (2004) 'A global ranking of political science departments', *Political Studies* 2(3): 293–313.
- Holzer, J. (2010) 'Quality in the transitional process of establishing political science as a new discipline in Czech higher education (post 1989)', in C.S. Nair, L. Webster and P.

- Mertova (eds) Chandos Learning and Teaching Series, *Leadership and Management of Quality in Higher Education*, Oxford: Chandos Publishing, pp. 137–146, doi: 10.1016/B978-1-84334-576-3.
- Jokić, M., Zauder, K. and Letina, S. (2012) *The features of Croatian national and international scholarly productivity in social sciences, arts and humanities 1991-2005* [Karakteristike hrvatske nacionalne i međunarodne znanstvene produkcije u društveno-humanističkim znanostima i umjetničkom području za razdoblje 1991-2005], Zagreb: Institut za društvena istraživanja u Zagrebu.
- Kasapović, M. (2008) 'Political science in Croatia 1962–2007', *European Political Science* 7(2): 237-246, doi: 10.1057/eps.2008.3.
- Kasapović, M. (2015) 'Political science in Croatia at the beginning of the 21st century', in B. Krauz-Mozer, M. Kułakowska, P. Borowiec and P. Scigaj (eds), *Political Science in Europe at the Beginning of the 21st Century*, Krakow: Jagiellonian University Press, pp. 39–62.
- Karasimeonov, G. (1997) 'The development of political science in Bulgaria: a discipline in transition', *European Journal of Political Research* 31(4): 519–532, doi: 10.1111/1475-6765.00327.
- Klingemann, H.-D. (2008) 'Capacities: political science in Europe', *West European Politics* 31(1–2): 370-396, doi: 10.1080/01402380701835181.
- Krupavičius, A. (1997) 'The development of political science in Lithuania: years of the breakthrough', *European Journal of Political Research* 31(4): 499–517, doi: 10.1111/1475-6765.00326.
- Masuoka, N., Grofman, B., and Feld, S. L. (2007a) 'The production and placement of political science Ph.D.s, 1902–2000', *PS – Political Science & Politics* 40(2): 361–366, doi: 10.1017/S1049096507070576.
- Masuoka, N., Grofman, B., and Feld, S. L. (2007b) 'Ranking departments: a comparison of alternative approaches', *PS – Political Science & Politics* 40(3): 531–537.
- McGrath, C. (2008). 'Increasing co-operation among political science associations in Europe', *European Political Science* 7(3): 352–365. doi: 10.1057/eps.2008.10.
- Metz, T. and Jäckle, S. (2013). 'Co-authorships in German political science –a network analysis based on journal articles' [Koautorenschaften in der deutschsprachigen Politikwissenschaft – Eine netzwerkanalyse auf Basis von Fachzeitschriftenartikeln], *Politische Vierteljahresschrift* 54(2): 256–291.
- Moed, H. F., Aisati, M., and Plume, A. (2013). 'Studying scientific migration in Scopus', *Scientometrics* 94(3): 929–942. doi: 10.1007/s11192-012-0783-9.
- Muskens, G., and Kinnear, R. (1993) 'Political and multicultural constraints of the social sciences in Europe: cultural contact, schismogenesis and institutional change', *Innovation: the European Journal of Social Science Research* 6(2): 211–228. doi: 10.1080/13511610.1993.9968349.

- Newton, K., and Vallès, J.M. (1991) 'Introduction: political science in Western Europe, 1960–1990' *European Journal of Political Research* 20(3–4): 227–238. doi: 10.1111/j.1475-6765.1991.tb00268.x.
- Nisonger, T. E. (1993) 'A ranking of political science journals based on citation data', *Serials Review* 19(4): 7–14, doi 10.1016/0098-7913(93)90027-8.
- Nisonger, T. E. (2002) 'The relationship between international editorial board composition and citation measures in political science, business, and genetics journals', *Scientometrics* 54(2): 257–268, doi: 10.1023/A:1016065929026.
- Plümper, T., and Radaelli, C.M. (2004) 'Publish or perish? Publications and citations of Italian political scientists in international political science journals, 1990–2002', *Journal of European Public Policy* 11(6): 1112–1127, doi: 10.1080/1350176042000298138.
- Robey, J. S. (1979) 'Political science departments: reputations versus productivity', *PS: Political Science & Politics* 12(2): 202–209, doi: 10.1017/S104909650000696X.
- Samuels, D. J. (2011) 'The modal number of citations to political science articles is greater than zero: accounting for citations in articles and books', *PS: Political Science & Politics*, 44(4): 783–792, doi: 10.1017/S1049096511001259.
- Sapotichne, J. B., Jones, D., and Wolfe, M. (2007) 'Is urban politics a black hole?: analyzing the boundary between political science and urban politics', *Urban Affairs Review* 43(1): 76–106, doi: 10.1177/1078087407302901.
- Schneider, C. Q., Bochsler D., and Chiru, M. (2013) 'Comparative politics in Central and Eastern Europe: mapping publications over the past 20 years', *European Political Science* 12(1): 127–145, doi: 10.1057/eps.2012.27.
- Waismel-Manor, I. and Lowi, T. J. (2011) 'Politics in motion: a personal history of political science', *New Political Science* 33(1): 59–78, doi: 10.1080/07393148.2011.544478.
- Williams, H., Bates, S., Jenkins, L., Luke, D., and Rogers, K. (2015) 'Gender and journal authorship: an assessment of articles published by women in three top British political science and international relations journals', *European Political Science* 14(2): 116–130, doi: 10.1057/eps.2015.8.
- Wright, B. E. (2011) 'Public administration as an interdisciplinary field: assessing its relationship with the fields of law, management, and political science', *Public Administration Review* 71(1): 96–101, doi: 10.1111/j.1540-6210.2010.02310.x.
- Zajc, D. (2013) 'The development of political science in Slovenia – options and opportunities' [Razvoj politologije v Sloveniji – Možnosti in priložnosti], *Teorija in praksa* 50(2): 317–329.

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Figure 1. Published papers in political science by CEE authors, 1996-2013

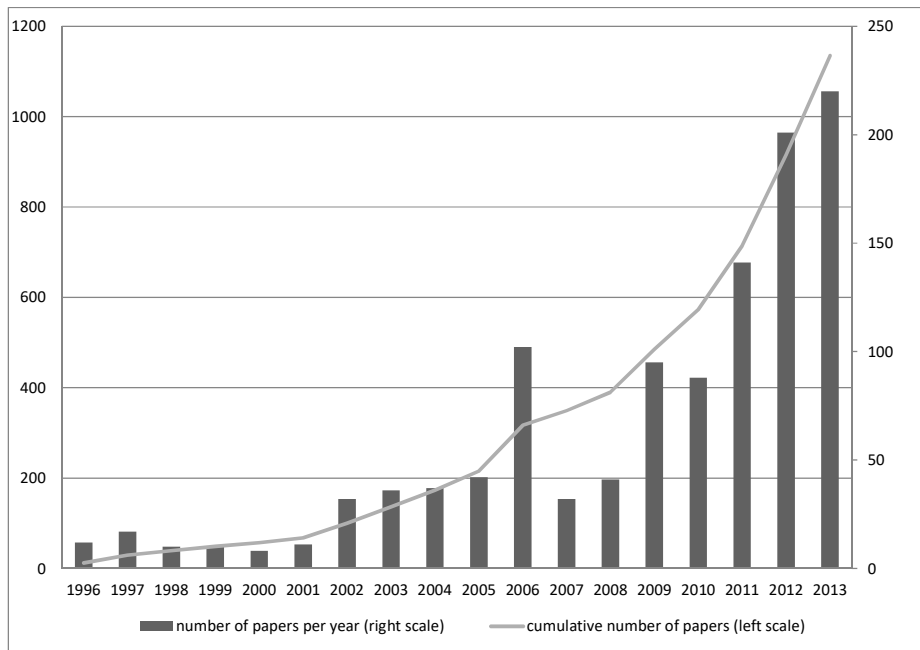
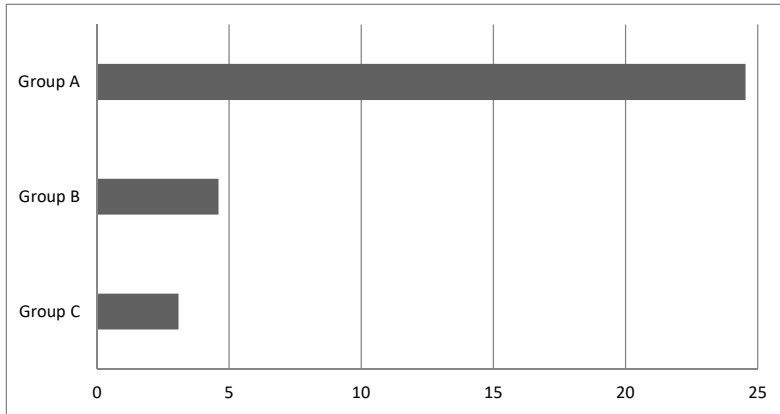


Figure 2. Published papers by country groups and individual countries (number of papers per million inhabitants)

Panel A



Panel B

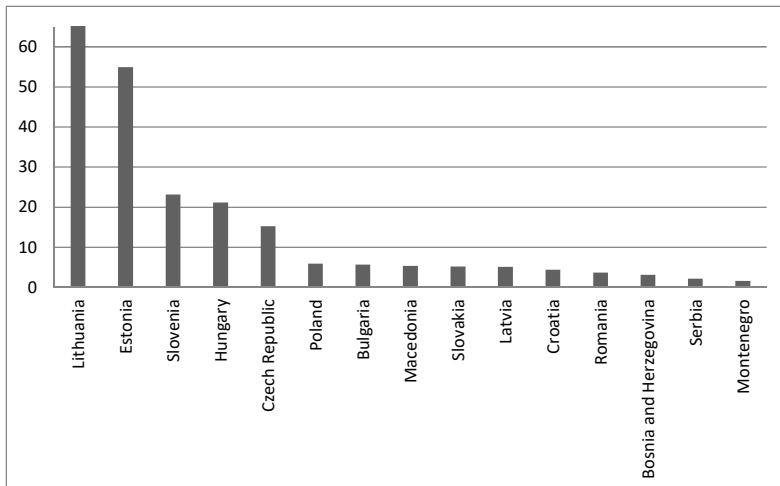


Figure 3. Published papers and their citations in international and CEE journals

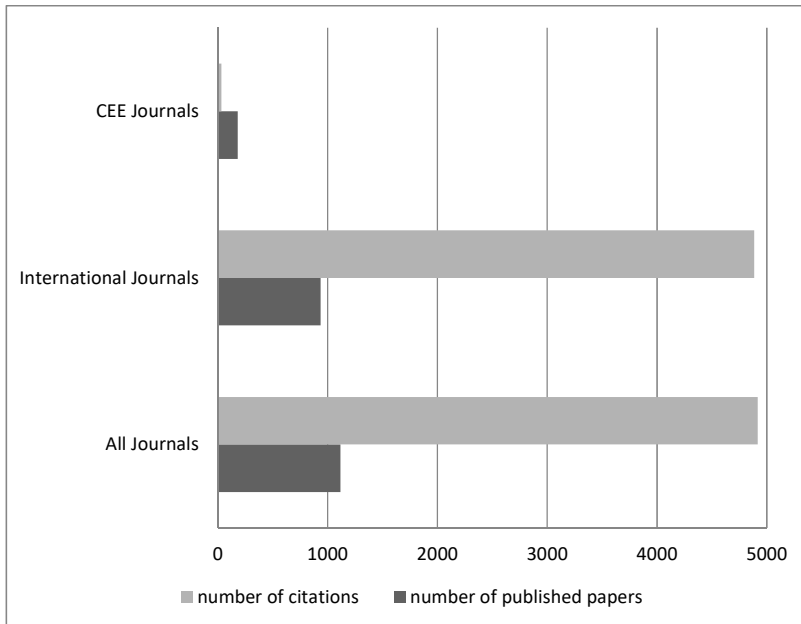


Figure 4. Distribution of published papers in political science in international and CEE journals, 1996-2013

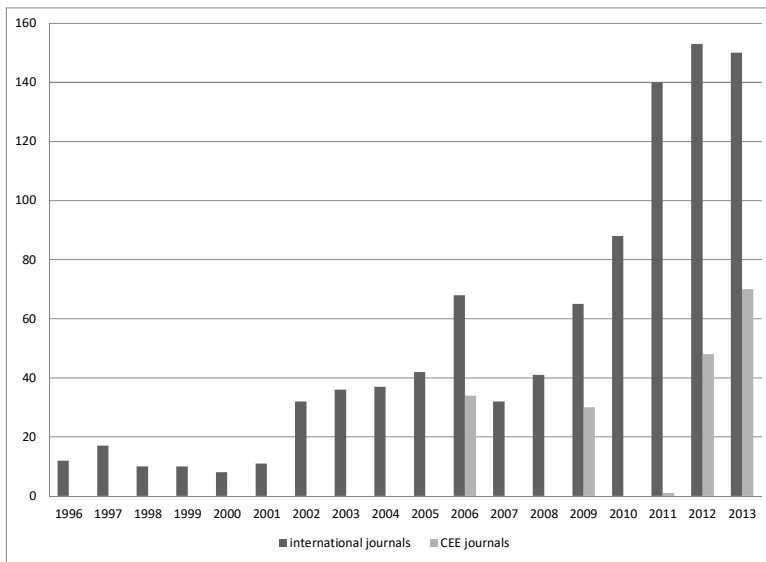


Figure 5. Distribution of authorship, 1996-2013

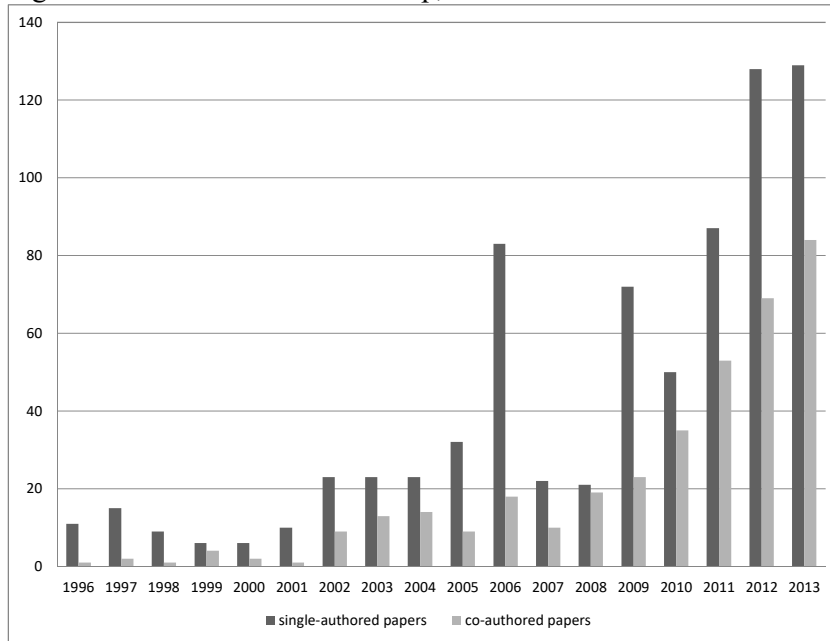


Figure 6. Collaboration network between CEE authors in political science, 1996-2013

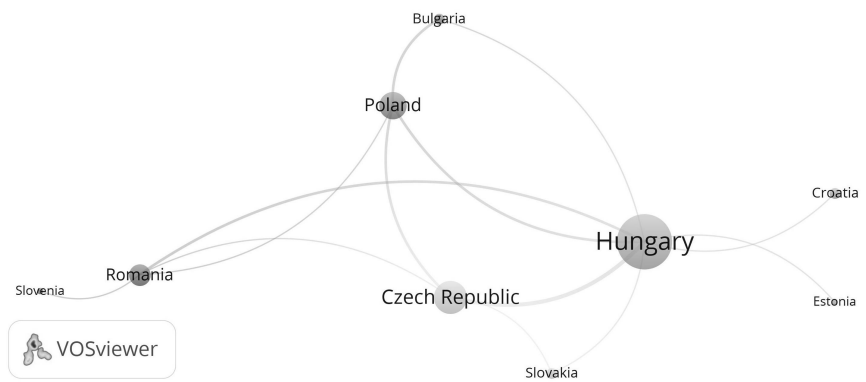


Table 1. Publishing and citation patterns of CEE authors in political science, 1996-2013

Publisher's country	Journals	Papers	Citations	Citations /Paper
International journals*				
Austria	1	6	2	0.333
Canada	1	1	9	9.000
France	5	13	3	0.231
Germany	3	152	52	0.342
India	1	3	0	-
Ireland	1	1	7	7.000
Netherlands	10	74	117	1.581
Norway	1	1	0	-
Portugal	1	1	0	-
South Korea	2	3	0	-
Spain	1	1	0	-
Switzerland	1	2	6	3.000
Taiwan	1	1	0	-
Turkey	1	5	10	2.000
United Kingdom	76	363	2,620	7.218
United States	43	308	2,079	6.750
CEE journals*				
Czech Republic	1	20	3	0.150
Hungary	1	11	1	0.091
Lithuania	2	52	9	0.173
Poland	1	60	11	0.183
Romania	3	39	9	0.231
Total	157	1,117	4,938	-

Note: * Refer to the section on sample for the definition of international and CEE journals.

Table 2. CEE journals in political science covered by Ulrich's web and/or Scopus

Group	Publisher's country	Ulrich's web: Journals	Scopus:	
			Journals	Papers
Group A	Czech Republic	11	1	20
	Estonia	1	0	-
	Hungary	3	1	11
	Latvia	0	0	
	Lithuania	3	2	52
	Poland	10	1	60
	Slovakia	3	0	-
	Slovenia	1	0	-
Group B	Bulgaria	0	0	-
	Croatia	1	0	-
	Romania	12	3	39
Group C	Bosnia and Herzegovina	0	0	-
	Macedonia	1	0	-
	Montenegro	0	0	-
	Serbia	3	0	-
	Total	49	8	182