Publishing performance of Czech Academic Economists: (just) a matter of time?

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In 1995, the Czech Republic joined the Organization for Economic Cooperation and Development (OECD) and in 2004 it became a member of the European Union. While the country's transition process has apparently been completed and the Czech Republic became a standard market economy with developed democratic institutions, its higher education sector has not passed fundamental reforms yet. In this, both empirical and policy paper, we first briefly summarize past developments in national policies related to academic research and then argue that despite the reform efforts a low degree of international research competitiveness remains a major problem in the Czech academia, as clearly proved by rather poor publishing performance of senior academic staff in economic disciplines. To indirectly test the community impact of a series of research measures recently introduced by the Czech government, we employ regression models to assess the publishing performance of 322 associate professors

and 121 full professors of economics appointed between January 1999 and January 2015, focusing on the number of their contributions to journals and conference proceedings listed in the Web of Science (WoS) database. Our empirical findings show that, although there is a recent positive trend of the increasing number of scholar publications in the Czech Republic, a large portion of the publications appears in lower-ranked domestic journals and conference proceedings rather than high-quality international periodicals. Thus, many senior academic economists still lack a solid proof of meeting international publishing standards.

Keywords: academic economics; Czech Republic; R&D policies; publishing performance.

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1. PAST DEVELOPMENTS AND CURRENT PROBLEMS OF THE CZECH HIGHER EDUCATION SECTOR

This year the Czech Republic (CR) is celebrating the 20th anniversary from joining the Organization for Economic Cooperation and Development (OECD), last year the Czech Republic has celebrated 10 years membership in the European Union (EU) and fifteen years membership in the North Atlantic Treaty Organization (NATO). According to World Bank's classification the CR belongs among high-income economies and the United Nation Organization considers it as a country with very high human development. GDP per capita in purchasing power standards is higher in the Czech Republic than in Portugal or Greece; the country CR is together with Slovenia, according to this indicator, the top of the group of postsocialistic economies. Domestic labour manpower is perceived abroad as skilled and welleducated, and that thanks to the tradition which dates back to the Austro-Hungarian Empire, where approximately 70% of its industrial production was concentrated in the Czech lands. Fortunately, nothing major has changed in this perception and even after more than forty years of communist regime ruling which has meant growing lagging of CR behind developed countries with market economy. This has, apart from others, reflected in worsening quality of human and social capital, and especially by the influence of the higher education (HE) ideology, its exclusivity and little accessibility, economization of research and development (R&D) and intentional separation from HE.²

1.1. Transformation of Universities and Academic Research

Society democratization, economy transformation and related legislative and institutional changes which took place in the 90s of last century naturally affected also the sectors of HE and R&D. The universities re-gained their autonomy and academic freedom and in accordance with traditional "three missions model" (teaching, research, and community engagement) took over; to a certain extend the role of research institutions, although the Academy of Science and other specialized research institutions, in their significantly reduced form, remained until today. Independent state institutions funding the basic (Czech Science Foundation – GACR, 1993) and – significantly later also applied – research (Technology Agency of the Czech Republic – TACR, 2009) based on grants were established, study programs in public and newly founded private universities started to be evaluated by the independent Accreditation Commission, also according to the quality of academic staff and their research results.

By joining the EU the universities become involved in the events of European Research Area (ERA) and European Higher Education Area (EHEA) and they received the access to financial funds for the development of research and experimental infrastructure and learning capacity,

¹ This overview part of this paper derives from information presented in more detail in Macháček and Kolcunová (2015).

Only around 11 – 15 % of given age cohort went to the universities, research has been concentrated in specialized institutes of Czechoslovak Science Academy and branch ministries; the university lecturers were not required to do research and it was not expected, on the contrary the upbringing and education of students within the Marxist-Leninist ideology was expected.

thanks to the participation at mobility programmes the students and the academic staff have begun to travel abroad much more intensively. The ratio of population entering universities has increases dramatically, the Bologna system pertaining to the higher education has been implemented and the universities started to receive funds from the state budget according to the number of enrolled students and student's employability at the labour market, however gradually also more and more on the achieved research results and internationalization.

Government-supported massification of HE and growing pressure on research results of academic staff also lead to some negative phenomena, especially to increasing problems with the quality of teaching (not only in dynamically developing sector of private universities or colleges), low motivation of students and limited international competitiveness of university R&D. Due to the lack of insufficient political will and support of experts and public it has not been possible to execute a more profound reform of HE, which has been already prepared six years ago (see Matějů et al., 2009) and which was meant to support the quality of HE at the expense of quantity, i.a. increase financial participation of students on the education and lead to the support and prioritization of excellent academic research before the low quality research. This leads to a significant problem in the present, where by the domestic demographic development the number of students interested in higher education rapidly decreases and at the same time fiscal situation in the CR does not enable the government to provide more significant support to the university sector.

Despite this failure, some governmental reform took place, concretely the Reform of Research, Development and Innovation System in March 2008 (for details see The National Research, Development, and Innovation Policy of the Czech Republic in 2009 - 2015).3 This reform introduced for the first time the performance evaluation system that motivates research institutions and their employees including the universities and academic staff, to publish R&D results especially in scientific monographs and in journals ranked in the respected international databases. This system has been working till today, although its key parameters have changed throughout the years, new methodology for evaluating R&D results has been in the stadium of preparation and discussion since 2012, giving – in comparison with the past – higher emphasis on peer review in the contrary to bibliometric indicators (so called "coffee-mill" system). ⁴ The question is if this reform fulfilled its task in supporting quality and internationally-competitive research, especially in the disciplines where the scientific level due to the strong idealization in the era of socialism was very low. This is a typical example for social sciences and humanities, including Economics & Business. We assume – and in the empirical part of the paper we show - that although the results of this reform are rather positive, its design and institutional characteristic of HE system in CR leads to the fact, that also in the academic research the quantity is preferred before quality. According to our opinion, this relativizes the sense of up to now reform efforts for desirable increase in international competitiveness in research and education in the CR.

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The reform has reflected the results of extensive audit of research, development and innovation in the CR executed by Technopolis Group (for details see Arnold and Mahieu, 2011).

A part of current ideas about the continuation of R&D reform in the CR are also the plans to establish the Ministry of Research and the universities will be subordinate to this ministry, i.e. they will be no longer supervised by the Ministry of Education.

1.2. "Publish or Perish" at the Economics & Business Departments?

One of the disciplines the most affected by Marxist-Leninist ideology was definitely economics, which university's lectures took the form of so called political economy of socialism and critique of "bourgeois theory". In socialist Czechoslovakia the ratio of private entrepreneurship – also in the comparison with other socialistic countries – was insignificant and therefore no business studies practically existed. After the collapse of communist regime at the beginning of 1990s departments focused on economics had to begin de facto from the scratch, with the help of foreign colleagues, international textbooks and former emigrants returning to the CR. Due to this we consider the Economics & Business a field on which we can illustrate well the transformation of HE sector and its R&D in post-socialistic era.

Several older studies by Czech authors which concentrate on mentioned issue exist; see e.g. Turnovec (2002, 2005), Münich (2006), Jurajda et al. (2012), or Macháček and Kolcunová (2005, 2015). Since the scientific communication in economic disciplines is especially through the scientific journals, these studies are primarily observing the number of published papers in journals indexed in database Web of Science (WoS). In general, these studies show that although the number of publication in CR continually grows, there are big differences in their production and among academic sphere and individual economists, where the aggregate results have been significantly lagging behind the developed Western countries of similar size. And although a quarter of a century has passed from the Velvet Revolution and according to the requirements of Accreditation Commission and also individual universities it is not possible to receive habilitation (being appointed Associate Professor) or professorship without relevant publication results and number of citations; in the past 15 years 52 % of Associate Professors and 43 % of Professors were appointed without any own paper in WoS database (Macháček and Kolcunová, 2015).

Until today there is still the system in CR where the Associate Professors and Full Professors are appointed based on the recommendation of Scientific Councils of selected faculties and universities with relevant academic regulations, however their scientific and pedagogical titles have a national validity and their bearers do receive significant social prestige.

Moreover, especially the Associate Professors and Full Professors are the guarantors of bachelor and master study programmes and are the advisors of PhD students and by this they influence future generation of university graduates, i.a. researches. It should be those senior academic staff who will have proven international scientific results. However, available empirical evidence shows that at least in the field of Economics & Business this is usually not the case and verified system "Publish or Perish" – leading to academic quality through competitiveness – does not efficiently work in the CR. As we, further argue, one of the significant causes of this unwanted situation is not appropriately set domestic research governance system which is based on evaluation instruments creating perverse motivation for academic staff and their employer.

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Moreover, the universities in the CR are the main producer of these publications and their ratio was in the period 1993 – 2009 in case of the field of Economics & Business 58 % and in case of the field of Management & Planning 68 % (see Arnold and Mahieu, 2011).

2. AN EMPIRICAL EVALUATION OF PUBLISHING PERFORMANCE

Domestic studies mentioned in section 1.2 include traditional rankings of academic departments and/or researches, i.e. overview of habilitations and professorship appointments according to various criteria; all of this is expressed through simple tables and graphs. In this paper we are relying on regression analysis, since we are interested in the impact of several independent factors on the number of publications by successfully habilitated and appointed Associate Professors, resp. Full Professors. In the following section, we describe analysed data, their source and modifications; in the next section the regression model is presented.

2.1. Data

Analysed data of habilitation and professorship appointing procedures have been acquired from public database of Ministry of Education of the CR, which is available at web site http://www.msmt.cz/vzdelavani/vysoke-skolstvi/habilitacni-a-jmenovaci-rizeni (only in Czech language). Only successfully finished procedures were observed, i.e. such procedures that led to the relevant scientific and pedagogical title, in the period January 1999 – January 2015. In every procedure it was differentiated if it was procedure whose candidate was a woman, i.a. procedure whose candidate was a man, and further if the candidate for habilitation or professorship has been employed by the same university where the procedure has taken place (i.e. he/she was in-house candidate), or not (i.e. he/she was external candidate).

Consequently, for each of the procedures was acquired the total number of publications to the date of the habilitation or professorship, through the WoS database – Social Sciences Citation Index and Conference Proceedings Citation Index. This total number of publications was further divided to the number of articles in foreign journals, local journals (i.e. journals published in the CR and Slovakia, where Slovakian journals are considered as local due to the recent common history, culture and language similarity) and other publications (typically publications in conference proceedings, possibly also book reviews, lead articles etc.). In case of publications with more than one author we have proceeded in a strictly egalitarian way, where to any co-author was given from the group n co-authors the mental ratio of 1/n publication.

The research subject was merely habilitation and professorship procedures in the selected following fields:

- Econometrics and Operational Research
- Economics
- Finance
- Economic Policy
- Economic and Social History
- Management & Marketing
- International Trade

- National Economy
- Sector Economy and Management
- Business Economics and Management
- Regional and Social Development & Regional and Social Sciences
- Social Policy and Work
- World Economy
- Accounting and Financial Management
- Public Economics

2.2. Regression Models

The following three models were tested on the data pertaining to the habilitation procedures (M1) - (M3) and data pertaining to professorship procedures (M4) - (M6). The motivation for the selection of dependent variables was the existing literature dealing with the influence of sex on academic career and possible favouritism of in-house candidates (e.g. in economic journals), and prior empirical findings about different publication requirements of local universities and growing pressure on the publication performance in the connection with the implementation of performance evaluation system in the CR.

The model's estimations were executed in Stata 12 program. Due to the occurrence of heteroskedasticity in the data, the models were estimated by robust estimations. The models also include linear time trend, represented by variable YEAR (meaning the year of habilitation or professorship appointment). In the case of total publication outputs (TP) and other publication apart from journal papers (CP) the quadratic trend was more appropriate, nevertheless for the purpose of comparison the linear trend for all models selected.

Specific tested models were as follows:

$$TP_i = \alpha_1 + \sum_{j=2}^{11} \alpha_j j. UNID_i + \alpha_{12} SEX_i + \alpha_{13} HOMEUN_i + \alpha_{14} YEAR_i + \varepsilon_i^{TP}, \tag{M1},$$
 M4)

$$FP_i = \beta_1 + \sum_{j=2}^{11} \beta_j j.UNID_i + \beta_{12}SEX_i + \beta_{13}HOMEUN_i + \beta_{14}YEAR_i + \varepsilon_i^{FP},$$
 (M2, M5)

$$CP_i = \gamma_1 + \sum_{j=2}^{11} \gamma_j j. UNID_i + \gamma_{12} SEX_i + \gamma_{13} HOMEUN_i + \gamma_{14} YEAR_i + \varepsilon_i^{CP}$$
, (M3, M6)

Where

 TP_i total number of publications at the time of the appointing procedure (taking into account the ratio of author's contribution)(tpubbef),

	FP_i	total number of papers in foreign journals at the time of the appointing procedure (taking into account the ratio of author's contribution) (fpubbef),				
	CP_i	total number of publications other than publications in journals at the time of the appointing procedure (taking into account the ratio of author's contribution) (confbef),				
	j. UNID _i	dummy variable indicating that the procedure has taken place at j-th universit $(0-no, 1-yes)$,				
	SEX_i	dummy variable indicating the gender of applicants (0 - man 1- woman),				
	$HOMEUN_i$	dummy variable indicating if it was internal or external candidate (0 - external, 1- in-house),				
	$YEAR_i$	the year of the appointing procedure,				
$\alpha_j, \beta_j, \gamma_j$ pro $j = 1, \dots, 14$ parameters,						
	${arepsilon_i}^{TP}$, ${arepsilon_i}^{FP}$, ${arepsilon_i}^{CP}$ residuals.					

In order to compare time trends in individual models the following was calculated from estimated models $TP_trend_i = \alpha_1 + \alpha_{14}YEAR_i$ for models (M1) and (M4), $FP_trend_i = \beta_1 + \beta_{14}YEAR_i$ for models (M2) a (M5), and $CP_trend_i = \gamma_1 + \gamma_{14}YEAR_i$ for models (M3) and (M6). These trends are shown in Figure 1. and Figure 2. below.

2.3 Results and Discussion

Table 1. shows basic data statistic which appears in the aforementioned presented regression models. From the table it is evident that a total of 443 successful procedures were examined, where the ratio of habilitation procedure was 73 % and full professorhip was appointed to 27 %. When it comes to the data based on the sex, in case of habilitation procedure the ratio of women candidate was 39 % and in the case of full professorship it was 31 %. Further the table shows that nearly 79 % of habilitation procedures and 81 % of full professorship procedures were realized at the same university where the applicant is employed.

Table 1. Basic data statistic.

Academic-	Distribution by Sex		Distribution by Status		Total
pedagogical title	Men	Women	External	Internal	
Associate Professor	197	125	69	253	322
Professor	84	37	24	97	121
Total	281	162	93	350	443

Then, Table 2. shows at which universities were the analysed habilitation and professorship procedures realized. Detailed information about the procedures' distribution among individual universities and fields (see Table 1.) are not presented in this paper, due to the space

limitation, however they can be submitted on request. However, it should be noted that the highest ratio on the total number of executed procedures was in the fields of Economics (16.5 % habilitation procedures, 14 % full professorship), Finance (nearly 11 %, i.a. 17 %) and Business Economics and Management (38 %, i.a. 28 %). The highest ratio in the successful procedures was at the University of Economics in Prague (34 % in habilitation and 40.5 % full professorship), VSB-Technical University of Ostrava (16 %, i.a. almost 21 %) and Czech University of Life Sciences Prague (nearly 11 %, i.a. 9 %). For comparison, the ratio of Charles University was 6.5 % for habilitation and more than 7 % for full professorship procedure.

University Code	Name of the University/Czech Abbreviation
1	Czech University of Life Sciences Prague/ČZU
2	University of South Bohemia in České Budějovice/JČU
3	Mendel University in Brno/MENDELU
4	Masaryk University/MU
5	University of Ostrava/OSU
6	Technical University of Liberec/TUL
7	Charles University/UK
8	Tomas Bata University in Zlín/UTB
9	VŠB-Technical University of Ostrava/VŠB-TUO
10	University of Economics in Prague/VŠE
11	Brno University of Technology/VUT

In the text not presented, however available on request analysis results show, that in the case of habilitation and full professorship procedures there are statistically significant differences between the average number of candidate's publications in the WoS databases according to individual fields. For illustration the mean value of publication's number in the field of Econometrics and Operational Research is 11.3 at professorship appointment procedures, in the field of Economics 10.1 and in the field of Economic Policy 6.3, whereas in the field e.g. Business Economics and Management only 3 and in the field of Sector Economy and Management 0.5.

Due to the fact that among the universities where the procedures took place and data pertaining to the field of procedure existed according to Cramer V quite significant correlation, the field of procedure did not appear among the independent variables in the regression models.

Regarding the results of estimating individual regression models, those are shown in summarizing Table 3. The table shows that the existence of differences between an average numbers of candidates' publications in WoS database based on individual universities where the successful procedure took place, and also according to candidate's sex, was proven. For example, it is evident that in comparison with Czech University of Life Sciences Prague, which serves here for comparison (code 1, see Table 2.) at Charles University the number of

publications was higher by 7.5 and number of articles in foreign journals was higher by 2.3 in habilitations, whereas in full professorship procedures the mentioned numbers were higher by 10, i.a. 3. It is also evident, that the women candidates had lower number of publications on average than their men colleagues. Regarding the possible favouritism of in-house candidates for habilitation or full professorship, the results are not conclusive here, since the expected lower number of publications for procedures taking place at candidate's "home university" was not confirmed. It can be added that the mean value for number of publications in the WoS database was in the case of successful habilitation procedures 2.5 and in the case of full professorship procedure 4.9; however it was not uncommon that some of them were successfully finished without any (!) publication record in mentioned database.

Table 3. Overview and comparison of estimated regression models.

	TP (M1)	FP (M2)	CP (M3)	TP (M4)	FP (M5)	CP (M6)
1.UNID	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)
2.UNID	-0.471	-0.248	0.650			
	(0.897)	(0.130)	(0.540)			
3.UNID	1.149	0.0491	0.654	2.144	0.708	0.957
	(0.650)	(0.107)	(0.494)	(1.529)	(0.599)	(0.719)
4.UNID	1.164*	0.0750	0.687	2.935	0.421	0.370
			(0.359)	(2.990)	(0.478)	(0.604)
5.UNID	0.817	0.242*	0.423	1.565	0.373	1.042
	(0.437)	(0.104)	(0.261)	(0.961)	(0.243)	(0.639)
6.UNID	2.171*	0.0922	1.366*	4.410	-0.152	1.536
0.0012	(0.961)	(0.0813)	(0.633)	(4.170)	(0.228)	(0.998)
7.UNID	7.518***	2.340***	0.937	10.01**	3.138**	1.893
7.0010	(1.618)	(0.406)	(0.532)	(3.217)	(1.078)	(1.439)
8.UNID	0.333	-0.0495	0.489	-0.268	0.0537	0.454
O.UNID	(0.435)	(0.0497)	(0.350)	(1.287)	(0.291)	(0.776)
0	0.050++	0.005	1 055+	1 270	0.0000	0.750
9.UNID	2.050**	0.285	1.055*	1.379	0.0860 (0.150)	0.750 (0.460)
10.UNID	2.049***	0.126* (0.0602)	1.055*** (0.224)	5.901*** (1.311)	0.329 (0.220)	3.097***
11.UNID	0.407	0.0540	0.402*	1 406	0.000400	-0.414
II.UNID	0.407	0.0548 (0.0576)	(0.187)	-1.406 (0.962)	(0.231)	(0.476)
	_			_		_
0.SEX	0	0	0	0	0	0
1.SEX	-0.773* (0.380)	-0.155* (0.0737)	-0.0943 (0.225)	-3.308** (1.183)	-0.495* (0.242)	-1.773** (0.626)
YEAR	0.218*** (0.0541)	0.0376**	0.111**	0.613***		0.268**
0.HOMEUN	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.,	(.,
1.HOMEUN	0.574	0.125	-0.0288	-0.00689	0.105	-0.222
	(0.444)	(0.0720)	(0.320)	(1.245)	(0.341)	(0.688)
_cons	-437.6***	-75.40**	-223.5**	-1227.0***	-204.5*	-535.6**
	(108.6)	(28.08)	(71.43)	(355.0)	(95.85)	(184.6)
N	319	319	320	121	121	121
R-sq	0.230	0.388	0.076	0.306	0.363	0.216
adj. R-sq	0.197	0.362	0.037	0.229	0.292	0.129

Standard errors in parentheses

^{*} p<0.05, ** p<0.01, *** p<0.001

For the purpose of comparing the publications' development in time, especially in the period from 2008, when the mentioned Reform of Research, Development and Innovation System took place in the CR, the following graphs show the results where we have included the linear trends into the models. We do so knowing that in some cases it was proven that more appropriate was the inclusion of quadratic trends, due to the comparability of models results we have not worked with these trends further. From the results shown in Table 3. it is evident that total number of all types of examined publications in WoS database increased, however the growth rate of articles in foreign journals is relatively low. On the contrary, it is evident that rather than the number of these articles other publications are on the rise, such as papers in conference proceedings, possibly book reviews, lead articles etc.

Figure 1. The development trend of total number of publications, articles in foreign journals and other publications in case of habilitation procedures.

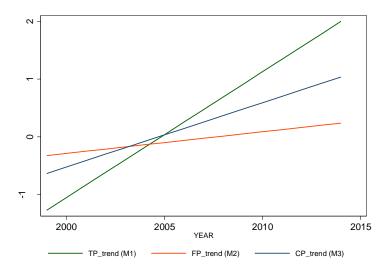
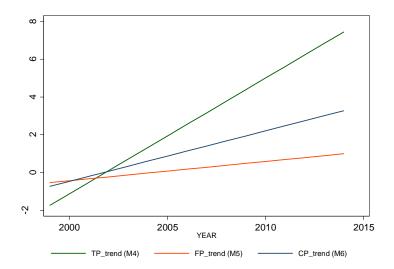


Figure 2. The development trend of total number of publications, articles in foreign journals and other publications in case of full professorship procedures.



If we were to summarize found empirical results, we can state that in the CR within the analysed period of 1999 - 2015 and in agreement with our expectations it was shown that most successfully finished habilitation and full professorship procedures in economic disciplines were executed at the "home university" with the predominance of male candidates. They also shown typically higher number of publication in the WoS database than their female colleagues, where in full professorship procedures there is a higher number of publications than in the habilitation procedures. Further, it was proven that there are significant differences in average number of candidates' publications among universities where the procedures took place. This may be related to the fact, that universities do not always have the same fields for habilitation and full professorship procedures accredited, e.g. Charles University with accredited habilitation field Economics (i.a. Economic Theories) shows higher number of publications per procedure than the University of South Bohemia in České Budějovice with accredited habilitation field of Business Economics and Management (i.a. Economics and Management). Perhaps, somewhat surprisingly the existence of favouritism of in-house candidates was not unequivocally proven, this can be interpreted as a fact, that these candidates do appear before their home university Scientific Council only in a case that they do have sufficient publication outputs, so they do not raise negative impressions of colleagues. At the same time, it will also hold true that especially the candidates from reputable universities based in Prague (Charles University, Univesity of Economics in Prague) will not favourite their procedures to be held in regions out of Prague, that is due to the reputable academic "Pragocentrism".

Proven, significant increase of other publications than are articles in foreign impacted journals (which is happening in the recent years) can be justified by the fact that the university researches firstly present their findings at several conferences and then they publish them in journals. Nevertheless, this is the standard academic procedure. However, more detailed view on the publication data which we have at disposal does not support this explanation. In many cases in the CR the publication in the conference proceedings indexed in WoS database is not the tool to elaborate more quality journal article but the final publication aim of the author. This is because according to the current evaluation performance system even for these publications the author(s) can receive points based on which the universities receive funds from public budgets. Then this perverse system leads to fact that local academics extensively use the offers of conference's organizors with the proceedings indexed in mentioned database and they do concentrate on a large number of more attainable outputs rather then aspiring for a quality publication in foreign journal.

3. CONCLUSIONS

The HE sector in the CR has from the beginning of the 1990s certainly undergone a major transformation, which has brought it closer to the international academic standards. Domestic academics have already got used to the fact that a significant part of their work at the university is research, which results must be presented to the professional community at the conferences and subsequently published.

After the executed reform of research governance system in 2008 the financial pressure on the university has significantly increased in order to support research and publication of results; according to the data pertaining to successfully finished habilitation and full professorship procedure in economic disciplines it can be seen that there is a rise in publications in WoS database.

Unfortunately it also shows that this positive development is not the reflection of more significant increase in number of articles in foreign journals, but rather increasing number in conference proceedings, in local journals, possibly other types of journal proceedings (book reviews, lead articles etc.). However, this does not suggest that the introduced reform and implemented performance evaluation system in the CR has significantly supported the rise of international competitiveness of economic research taking place at the local universities.

Together with many experts, we are convinced that the current form of performance evaluation system in the CR which is based especially on bibliometric indicators and publications indexed in databases such as WoS, does create a perverse motivation and it leads the academics to favour publication quantity before quality. Much better solution is neither simple bonus for the publications in foreign journals, although in this paper these publications – from the viewpoint of international research competitiveness – are preferred before local publications. As it is well known, there are many journals indexed in WoS which sometimes have very high impact factor, however their scientific quality raises some questions. Although it can be expected that with time the situation in the local sphere will somewhat improve, that is thanks to the inflow of "fresh blood" with the experience of developed academic world; we believe that without another reform of research governance system in the CR it will not come to a desired qualitative change in the university's research, at least not in the environment of Economics & Business departments.

It is necessary that there is a pressure on the quality of publication outputs, especially through the implementation of peer-review method at university departments. However, this peerreview must encompass significant international element in order to be maximally immune to the pressure of local groups.

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