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Current Trends
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Current Trends in Public Sector Research

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Prologue

It was my great pleasure to have been invited as a keynote speaker to the Conference on "Current Trends in Public Sector Research", which was organised by the Department of Public Economics at Masaryk University, Czech Republic. I am equally delighted to have been asked to provide a prologue to the proceedings of the Conference – a publication welcomed by many but especially by those unable to attend the meeting itself.

It is indeed great news that Masaryk University has deepened its activities and academic research in the field of non-profit or third sector research by establishing a Centre for Nonprofit Sector Research (CVNS), and by making research in this growing field one of the themes of the conference. I'd like to congratulate Masaryk University most warmly on the opening of CVNS. I regard the Centre's inter-disciplinary and comparative approach to be very fruitful in shedding light on the challenges the Czech non-profit sector is facing. I am sure that the Centre's research and policy advice will make important contributions to the Czech non-profit sector as well as civil society at large, and I look forward to learning about its findings.

In my keynote address to the Conference, I discussed various key issues of non-profit research and provided an overview of the evolution of the field. Non-profit research is a comparatively young discipline. In its early years (-1990s), scholars focused on the functions and behaviour of nonprofits, and introduced major theories in terms of institutional choice, public goods provision, information asymmetries, and state as well as market failures. The key insights of the early years are that there are good reasons why nonmarket firms exist in market economies, and that non-profit organisations require an adequate legal and policy framework to bring their advantages to the forefront and to avoid shortcomings and failures.

Between 1995 and 2005, responding to new socio-political developments, non-profit sector research examined privatization and public-private-partnerships (PPP), the watchdog role of civil society, and the social capital generated by civic engagement. Key insights of that period are that nonprofits are useful tools of government reform (privatization) and that they can be used for market reform as well (quasi-markets). Furthermore, they are good partners for PPPs. At the moment, and probably in the years to come, the main question in the field of non-profit sector research is: How do societies invest in their own future when governments are no longer able or willing to take both leading or primary roles? The inability or unwillingness of governments to take primary roles calls all sectors into focus and makes it likely that new forms of inter-sectoral partnership and of hybrid organisations will emerge.

Therefore, not only dialogue between the public and non-profit sector, but also dialogue between public sector research and non-profit sector research will become more and more important. For one, research has introduced several useful typologies on how

public and non-profit sectors relate, and identified a number of patterns: complementarity, substitution, conflict, co-optation among them. What is more, countries like the United States or Germany have developed distinct policy patterns: third party government, whereby government contracts private non-profits to deliver services, or subsidiarity, which established a hierarchy between the public and the private in terms of responsibilities.

Undoubtedly, these models will develop in years to come, especially as PPP and complex contracting regimes invite hybridity and form differentiations. The newly founded Centre for Nonprofit Sector Research at Masaryk University is well positioned to contribute to a better understanding of what these changes are, and what their implications are for research and policy.

Helmut K. Anheier

SESSION I:
NON-PROFIT AND PUBLIC SERVICES

Case Study of Impact of Innovations in the Financing of Higher Education in Slovakia

Beblavý Miroslav

Abstract

In 2002, Slovakia adopted a new strategic reform that fundamentally altered the financing of institutions of higher education. The new, quasi-market financing of public institutions of higher education made the institutions more dependent on inputs and desirable outputs. Institutions of higher education now receive subsidies based on a combined mix of normative financing which stems from the financial requirements of the field of study and a performance component, which is based primarily on a scientific performance of the respective institution. This mixed financing formula creates noteworthy differences among the HEIs. On the micro level, the financial earnings of a selected university workplace for the university's budget are analyzed. Significant differences in the scientific performance of the teachers and a lacking wage differentiation are shown and discussed.

Keywords

Introduction

Higher education in developed countries has been for decades a subject of constant change. The pace of change has in recent years even accelerated. Increase in the number of students seen in many developed countries in the past twenty years has created not only unprecedented demand for higher education, but it has also created pressure on the institutions and public finances, which has traditionally funded most of the education-related spending in almost all OECD countries.

The increases in demand and rising expenses in the higher education have raised the attention given to outputs and cost-effectiveness of higher education. The general tendency in post-industrial societies to emphasize individual needs and client orientation in public services also contributed to the changing environment of higher education financing and organization.

Governments all over the world responded to these developments through a number of policies, which usually included the introduction or strengthening of the use of private funding, including tuition. In 2002, the Slovak government introduced a major reform of higher education, but for political reasons the student fees and tuition were not significantly included. The government decided to impose changes on the use of public subsidies by creating a series of powerful motivators and ensuring

that the objectives of the individual institutions of higher education (HEI) are being met, and also by changing the rules allowing the HEIs to flexibly utilize the new conditions for use of their tangible and intangible assets. A case study of the nature of the reform and its impact are discussed in this paper.

Material and Methods

The chapter stems from theoretical research previously presented in Beblavý, Mederly, Beblavá (2010). Material assessing the current performance of the funding formula and financial consequences of the reform is based on the publicly available data of the Ministry of Education, Science, Research and Sport of the Slovak Republic covering the years 2009 - 2012. The ministerial data are presented in two web-based documents: Description of State Subsidy to Public Higher Education Institutions for 2012 and in Annual Report on State of Higher Education for 2011. Data on individual research production for the case study were taken from the Comenius University web-based database of all its employees' research production. Own calculations based on available data are presented.

Innovations in financing public services, including higher education

In this paper, we look at impact of innovations in how public funding is distributed to higher education. A good example are vouchers and voucher-like mechanisms through which a grant follows the student (Barr, 1993, p. 722). The government can create quasi-markets with students and governments as consumers. Such mechanisms can also be integrated into traditional funding formulae for universities.

Genua (2001, p. 610) describes three channels for direct financing of higher education by the state:

- incremental funding – "funds are allocated on the basis of past expenditure levels with incremental resources made available for the development of new activities".

- formula funding – "the budget of the institution is determined by some form of assessment of the actual institutional expenditure per student enrolled or expected to be enrolled…. Research funds can also be determined by a formula system that allows the distribution of the funds in a selective way on the basis of research record."

- contractual funding – "is applied via tender schemes. Public funding agencies issue targets in terms of student numbers or research and the various institutions apply for the funds to carry out specified tasks."

Jongbloed (2008, p. 13) suggests that funding on the base of outputs has better economic results than on the base on input. Output funding *is believed to contain more incentives for efficient behaviour than input funding. If budgets depend*

on performance measures, there is reason to believe that those who receive the budgets will pay increased attention to their performance."

Current performance funding of universities in Slovakia

Innovations in funding of Slovak higher education analyzed in this chapter span a decade and three governments. They started in 2000 by the Government's White Paper called "Concept of Further Development of Slovak Higher Education in the 21st Century". The paper called for a radical change in legal framework of the higher education and accompanying changes in governance and financing. While some of these changes were then piloted during the 2000-2001 period, it was the new Act on Higher Education approved in 2002 that set the stage for the new system.

Subsidies to public HEIs in Slovakia are distributed according to the methodology for allocating subsidies from the state budget, which is based on the Higher Education Act. Teaching, research and development and social support for students is being financed through this subsidy. In 2012 441 424 063 euro has been allocated for institutions of higher education. The subsidies allocated for the HEI enjoy, except for ring-fencing and mandatory maximum total wage bill, substantial discretion in their use.

The vast majority of money is divided according to two sets of criteria. The first is based primarily on the number of students and a student „normative" differentiated according the expected costs of the respective field of study. Also, the number of graduates and the employability of graduates are taken into account in the design of this formula, but only marginally. Table no. 1 shows the normative per student for each of the fields of study for the year 2012, both for bachelor's and master's degree. We can observe that there is a significant variance from - 557 EUR per undergraduate law student to 3528 EUR per one master student of veterinary science (omitting doctoral students at the end of the table).

The ratio between the highest and lowest normative is thus more than 1:6.

Table 1: Normative financing per student by level and field of study (EUR)

	Fields of study	undergraduate	graduate
1.	medical fields, pharmacy, midwifery	1744	2616
2.	artistic disciplines including design	1790	2685
3.	veterinary science	2352	3528
4.	scientific disciplines, engineering, information technology	957	1436
5.	agriculture	1012	1518
6.	architecture, translation, interpreting	969	1454
7.	education, pedagogy I. grade, special pedagogy, psychology. physical education and other education, journalism	820	1230
8.	mathematics	882	1324

	Fields of study	undergraduate	graduate
9.	economic fields, management, business studies public administration, tourism, geography, languages	750	1125
10.	social sciences, humanities	732	1098
11.	law	557	835
12.	pedagogy – science, technical and vocational subjects	938	1407
13.	pedagogy – modern languages	775	1162
14.	pedagogy – mathematics, informatics	820	1230
15.	pedagogy – humanities, social sciences, economics	775	1162
16.	chemistry, technology, selected metallurgical fields of study	1401	2101
17.	nursing, physiotherapy, public health. pedagogy - art and art education	1279	1918
18.	PhD – medicine	5623	5623
19.	PhD – science, engineering, information technology, pharmaceutical science, agriculture, forestry	3804	3804
20.	PhD – other	2337	2337

Source: Ministry of Education, Science, Research and Sport of the Slovak Republic

The second main set of criteria is based on research performance, which is determined by the research work hitherto, ability to obtain domestic and foreign research grants, the share of PhD students and university's share in publishing and the arts. Publication in a scientific journal registered in the ISI Current Content (CC) is in financial terms thirtyfive times more valuable than a paper published in a non-registered publication at home. The variance is thus even greater than by the normatives per student.

Table 2: Financing per unit of performance (EUR)

Unit of performance	Financing
Domestic research grant (for each 1000 €)	182
Foreign research grant (for each 1000 €)	860
Internal PhD student after the first oral exam	3 545
Scientific monograph (group A1)	6 270
Textbook and other printed publications (group A2)	1 243
Publication in a CC journal (Group B)	4 121
Peer-reviewed scientific publication published abroad, but not in a CC journal	291
Peer-reviewed scientific publication published abroad, but not in a CC journal	116
Peer-reviewed publication published abroad (Group C, Category ACC, BEC)	151
Peer-reviewed publication published in Slovakia (Group C, category ACD, BED)	60
Other scientific publications (Group C)	58
Other publications (Group C)	30
Unit of artistic performace	128
Highest artistic performace (Category ZZZ, ZYZ - waging 12)	1 536

Source: Ministry of Education, Science, Research and Sport of the Slovak Republic

In addition to these two sets of criteria, there are also grants aimed at development to be allocated through tendering procedure by the Ministry of Education and social support subsidies for students, which are legally granted. For the purpose of this chapter

we will not take into account these two sources of financing because of their relatively small share when compared to normative and performance financing. All subsidies merge together into a single annual budget for the HEIs. The budget thus consists of both, the performance and the normative element. In table no. 3 we can observe:

- total performance power of HEI
- number of students of each institution
- conversion of the subsidy to a single student
- the average monthly salary of teaching staff

The table is sorted by the performance power converted to a subsidy for a single student. Leading of the art colleges - despite negligible scientific activities – could be explained with their extremely high normative per student. Nevertheless, we can observe that the subsidy per student is varying in hundreds of euro, even for similar fields of study. We have schools with a low normative, but still able to compensate for it with their scientific performance. Therefore, it is not possible to argue that performance-based financing evens out the subsidies for schools.

Table 3: Funding per student by performance component

Institution of higher education	Performance component (euro)	Number of students	Performance funding per student (euro)	Average teachers monthly salary in 2011 (euro)
VŠVU Bratislava	3 692 731	826	4469	1031.90
VŠMU Bratislava	4 922 607	1 127	4369	1006.60
AU B.Bystrica	2 663 992	672	3964.3	1020.60
UVL Košice	6 715 515	1 860	3610.4	1148.30
UK Bratislava	59 596 766	23 816	2502.4	1211.90
STU Bratislava	46 202 540	18 802	2457.3	1335.20
UPJŠ Košice	18 046 181	7 902	2283.7	1167.00
KU Ružomberok	9 145 252	4 501	2031.8	1058.80
TU Košice	29 350 910	14 812	1981.5	1299.60
TU Zvolen	8 525 810	4 323	1972.0	1095.90
ŽU Žilina	20 430 837	10 551	1936.4	1091.50
SPU Nitra	15 435 365	8 381	1841.6	1010.40
UMB B. Bystrica	15 692 816	8 982	1747.2	1074.60
PU Prešov	13 062 238	7 655	1706.3	1069.90
UKF Nitra	15 671 333	9 198	1703.7	1154.10
TUAD Trenčín	5 997 982	3 812	1573.4	1169.40
TvU Trnava	8 195 021	5 375	1524.8	1113.80
UCM Trnava	6 701 348	4 800	1396.2	1057.10
EU Bratislava	16 989 556	12 364	1374.1	1039.00
UJS Komárno	2 086 538	1 619	1288.7	1066.80

Source: Ministry of Education, Science, Research and Sport of the Slovak Republic; own calculation

On the other hand, the most important budget components which should be significantly linked to the quality and competitiveness of the respective institution of higher education are the wages of the teaching staff. The question is, what is the relationship between the funding and wage of the employees. The "optimal" situation is a strong relationship. In practice, however, is the correlation mildly negative: -0.17, which de facto means there is no correlation (in the range of correlations from -0.2 to 0.2, these are considered to be very weak). In other words, there is no connection between wages and public subsidies, so that schools that have a higher subsidy per student - for reasons both pedagogical and scientific - are using the subsidies for purposes other than salaries, rewarding better teachers or increasing the numbers of teaching staff.

Case study – impact of the performance funding at the micro level

In the previous section, we have shown the impacts of funding of public HEIs at the macro level. Performance of schools, however, is being created at lower levels, e.g. at the level of individual departments, institutes, and so on. Available "normative" and public data on individual publishing outputs allow us to calculate the specific financial contribution of an individual teacher to the income of the whole institution of the HEI. We tested this calculation for the selected department of the Comenius University in Bratislava.

Table 4 depicts the contribution of university teachers' research outputs to the allocation of subsidies from the state budget. Individual contribution is calculated from an employee's scientific performance.

Example of the methodology: a work published in CC journal is awarded with 4 121 euro per unit. According to the employee's workload share for the publication, the funding allocated to the school is counted. If the author's share is 33%, the author has earned 1360 euro for the next annual budget of the institution. Amounts per unit performance are based on the table no. 2. We have counted contribution of employees to the budget based on their individual performance in the years 2009, 2010 and 2011. The budget for 2012 is calculated as the performance for the years 2009 and 2010. 2013 will be calculated from the performance for 2010 and 2011.

Table 4: Revenue generated individually by university teachers for the university budget by research (EUR)

Academic rank	Name	Performance per year			Earnings as reflected in the annual budget of the institution	
		2009	**2010**	**2011**	**2012**	**2013**
Professor	A	139.2	1355.85	436.5	1495.05	1792.35
Associate professor	B	11521.44	6051.36	5116.5	17572.8	11167.86
Associate professor	C	6344.62	4511.17	6765.9	10855.79	11277.07
Associate professor	D	11677.05	3426	2161	15103.05	5587
Associate professor	E	291	291	6270	582	6561
Associate professor	F	0	621.5	4121	621.5	4742.5
Assistant professor	G	969.5	3236.85	0	4206.35	3236.85
Assistant professor	H	4237	1931	0	6168	1931
Correlation with the previous year			0.80	0.18		
TOP3 performers		B, C, D	B, C, D	B, C, F		
Share of the TOP3 performers		84	65.3	73		

What can be drawn from the data on HEI financing at the micro level:

- Performance of individuals is volatile on the individual level. In consecutive years, individuals can "earn" as much as tenfold compared to the previous year.

- However, it is possible to identify consistent top performers, who occur in TOP3 in all three consecutive years or in two of three years.

- TOP3 performers substantially affect the scientific and financial performance of the department, since they account for 65-84% of the research output.

- The differences between the top and the bottom performers are abysmal.

Results and Discussion

At the macro level we have shown that the performance part of the funding formula significantly contributes to the differentiation among the universities. This might serve as a contribution to the qualitative evaluation between the same types of HEIs (e.g. comparison in performance-based earnings of various technical universities). It helps to refute the myth about the rigid normative-based HEI financing in Slovakia, which supposedly impedes the pressure on quality. Our findings may also shift the accountability for quality of the HEIs more to the local authorities and self-governing HEI bodies.

At the micro level we have proved that the teacher's research outputs do not translate into wage differentiation, which indicates a lack of just performance appreciation.

Conclusions

The reform of higher education financing in Slovakia in 2002 strategically transformed the flow of financial support so that public institutions of higher education were incentivicized to increase their quality and flexibility. Even before the reform, Slovak HEIs included important elements of trust (let the professionals do their job) and a strong autonomy. Students indirectly participated in the management of universities. The reform of 2002 allowed for a freer allocation of funding for school's own activities, but also left the institutions with higher autonomy with stronger emphasis on choice and competitiveness among schools that have begun to actively fight for more students.

This reform, through which the state assigned prices for the products considered important (number of students, graduates, research outputs, staff qualifications), significantly influenced the behaviour of the institutions. During the six years following the reform, the number of full-time students increased by 40% and the number of PhD students has doubled. This can be explained by the low absolute number of doctoral students, low costs of admission of these students and disproportionately high subsidy for doctoral students compared with students in the lower levels of study.

The reform of higher education in Slovakia is an example of a quasi-market approach, which mimics the market with public sector subsidization. Quasi-markets, as opposed to real markets, are often vulnerable to undesirable behaviour of its participants and the undervaluation of hard-to-reach quality outputs. Private HEIs in Slovakia are not subjected to state funding, thus the competition between public and private schools is weakened.

Our findings demonstrate that different funding of individual HEIs is primarily reflected in the number of teachers / other costs, but it is not reflected in the average salary of teachers, the predisposition of a true differentiation. We have also a case study of an academic department showing substantial and consistent differences in scientific performance of the teaching staff - reflected through the „earnings" of the individuals for the institutional budget. For the future, it is advisable to link the individual's outputs more strongly to their respective pay.

References

Academic Library of Comenius University in Bratislava. (2012) [online] Available at: http://alis.uniba.sk:8000/cgi-bin/gw_49_3_8/chameleon?skin=epc [Accessed October 2011].

BARR N. (1993) Alternative Funding Resources for Higher Education. The Economic Journal. Vol. 103. No. 418. Blackwell Publishing. pp. 718-728.

BEBLAVÝ M., MEDERLY P. and BEBLAVÁ E. (2010) Innovations in Financing Higher Education in Slovakia. Innovations in Financing Public Services: Country Case Studies. Stephen. J. Bailey. Pekka Valkama and Ari-Veikko Anttiroiko. eds.. Palgrave Macmillan.

GENUA A. (2001) The changing rationale for European University research funding: Are there negative unintended consequences? Journal of Economic Issues. Vol. 35. Iss. 3.

JONGBLOED B. (2008) Funding higher education: a view from Europe. Center for Higher Education Policy Studies.

Ministry of Education, Science, Research and Sport of the Slovak Republic. (2012) HEI Financing - Annual Report on State of Higher Education for 2011. (2011) [online] Available at: <http://www.minedu.sk/rozpis-dotacii-zo-statneho-rozpoctu-verejnym-vysokym-skolam-na-rok-2011/> [Accessed October 2012].

Ministry of Education, Science, Research and Sport of the Slovak Republic. (2012) HEI Financing - Description of State Subsidy to Public Higher Education Institutions for 2012. [online] Available at: http://www.minedu.sk/data/att/1824.zip [Accessed October 2012].

Development of Public Cultural Services Management: Study of the Night of Museums

Dedova Mariya

Abstract

This paper addresses the issue of public cultural services management by the example of event organization in cultural institutions. The Night of Museums event has been held annually in St. Petersburg and attracted more than 100 000 visitors for its fifth edition in 2012. A multistage study on this event has been organized aiming at exploring the potential of the large-scale event in development of public cultural services management both from the side of audience and cultural entities. The findings of the study indicate audience development within the event, implementation of innovative solutions through application of creative methods by cultural institutions and develop recommendations for effective provision of public cultural services.

Keywords

Introduction

This paper studies management of public services in cultural sphere by the example of the *Night of Museums.* This event is annually arranged in St. Petersburg (Russia). The starting point is the following: services produced within this particular event are both typical for museums and of cross-sectoral nature. Within this event various types of cultural institutions such as museums, libraries and galleries, and lofts offer innovative solutions for audience development. Through organizing special events devoted to one theme they develop public cultural services. Within the Night of Museums libraries and other non-museum institutions present themselves with different types of exhibiting activities. For this reason these are studies on museum's activities that are considered within the research.

Much of academic literature highlighted the changing role of museums in post-modern society and discussed main challenges for their further development (See: Kotler, 2001; Van Aalst, Boogaarts, 2002; Burton, Scott, 2003; Anderson, 2004). Increasing museum audience is a key issue in this respect. One of a specific approach used by practitioners for this purpose is organization of events. Events can contribute to audience development in different manner. They strengthen community ties, enhance a sense of belonging and raise interest among public (Kotler, Kotler, 2000, p.283). More informal atmosphere created by the events (Tobelem, 1998, p. 339) encourages newcomers for visiting museums (Barbosa, Brito, 2012, p.10) and in general attract wider audiences

(Kolb, 2005, p.39; Gyimothy, 2009, p.201). Most commonly museum audience is characterized as well educated and wealthier than average citizens (Kawashima, 1999, p.23). However, some

specifications in characteristics of visitors occur when it concerns events. Frequent event visitors, who are interested in culture, also set a value upon leisure and socialization (Prentice and Andersen, 2003, p.27). Furthermore, those event visitors, who come to museums for entertainment or social activity can't be automatically considered as museum visitors (Barbosa, Brito, 2012, p.15).

The impact of Night of Museums event on a city has been studied by a few international scholars. Jiwa et al. (2009) explore economic, cultural and social benefits of Light Night and Nuit Blanche, as it is called in the UK and France, on community cohesion, tourism and regeneration. The authors use a case study approach to demonstrate an effect of such an event for revitalization of town centers. Krause (2007) studied this event as a tool for city marketing in Germany. This paper explores the approaches used for management of public services in cultural sphere by the example of the Night of Museums event.

In May 2012 an annual event Night of Museums was held in St. Petersburg for the fifth time. The idea of the event organized annually throughout 157 countries originated from Germany, where the Long Night of Museums (Lange Nacht der Museen) was arranged in Berlin for the first time in 1997. This distributed event (Schaller et al. 2012) is characterized by a number of single events arranged in the same time and devoted to the same theme during late hours (some part of institutions stay open till 6 a.m.). For the last five years the number of cultural institutions (i.e. museums, libraries, lofts etc.) taking part in the event in St. Petersburg has increased from 33 to 77 entities and the number of visitors has increased from 24 000 in 2008 to 100 000 visitors in 2012.

Despite of the high popularity of the event among visitors and cultural institutions and the fact that the event is held in more than twenty Russian cities, to author's knowledge, none of studies has been done on this particular event in Russia. However, innovative solutions offered by different kinds of events have been addressed by scholars taking the example of St. Petersburg (Gordin and Matetskaya, 2010). The purpose of this research is to contribute to an understanding of management of public cultural services. The objectives of the study can be described as follows: to explore the effect of the Night of Museums on audience development; examine approaches of St. Petersburg cultural institutions in raising their attractiveness; provide recommendations for effective provision of public cultural services.

Getz (1997) points out two main traits of special events organized in museums: they are occasional and usually differ from typical organization's activities. This is partially relevant for the Night of Museums as once a year cultural institutions arrange different kinds of activities connected to their main theme using more creative approach.

For instance, it can be expressed through organization of interactive sessions in those institutions that primarily serve for conserving and exhibiting. In other cases some changes in target audience can be observed (for more information see Results and Discussion section).

Events attract wider audience to museums (Kolb, 2005, p.39; Gyimothy, 2009, p.201) and diversify patterns of museum attendance (Barbosa, Brito, 2012, p.15). In this regard our first research hypothesis (H1) is formulated as follows: events organized in museums attract non-frequent visitors.

Out third research hypothesis deals with management of public services in big cities during organization of distributive events. St. Petersburg lacks synergetic approach in management of culture that in some particular cases is very relevant for organization of urban celebrations, festivals and etc. (Gordin, Khoreva, 2012, p. 163). Organization of an event not only contributes to development of public cultural services, but also to development of a cultural institution itself (H2).

Material and Methods

For the purposes of the research a multistage study devoted to the Night of Museums was organized. The authors would like to emphasize that the study is still being processed.

In the first stage of the study a survey of visitors, who attended the event in May 2012, was organized in pre-selected 11 museum clusters of the city. Museums and other cultural institutions were assigned to a set of clusters based on primarily geographical factor guided by previously made research on cultural clusters in the city (Gordin and Matetskaya, 2010). Within these clusters institutions distinguish by the organizational (museums, libraries, lofts) and legal (state and private-owned) forms. In total 383 visitors (resulted in 370 valuable questionnaires) of 39 cultural institutions were interviewed. Every tenth visitor in each institution was interviewed. Due to high popularity of the event, almost at every institution there was a line of visitors waiting for entering a building. Interviewers approached visitors, when they were queuing. The survey consisted of 13 open-ended and closed-ended questions covering visitors' behavior (number of annual visits and to hosting institution), satisfaction (event satisfaction, public services satisfaction, expectation fulfillment) and demographic questions (age, gender). For the analysis of the survey results a correlation analysis was conducted. In case of open-ended questions the answers were first categorized and then recoded.

In the second stage an expert survey of cultural institutions managers' engaged in preparation and organization activities of the event was conducted. An expert survey consisted of 12 open-ended question covering motivation, expectations and impact of the event for the particular institution. At the present time 16 surveys have been

completed. A survey has two versions: for those institutions that take part in the event for the first time and those, which had participated before. The reason for this division is the assumption that motivation for participation in the event for institutions, which already participated in the event and which did not can be different in terms of their expectations and commitment.

Here we need to explain briefly what types of museums and other cultural institutions tend to take part in the Night of museums in St. Petersburg. According to Committee of Culture of the City of St. Petersburg there are more than eight thousand objects of cultural heritage preserved by the state, 182 of which are museums. The most popular museums among tourists are a few well-known across the world museums such as Hermitage, the Russian Museum etc. The significant part of museums is hardly ever visited by tourists, who usually come just for a couple of days and aspire to visit those sites that have become the brands of the city. Hence, the target audience for less popular museums is residents. Nevertheless, due to specificity of some museums (e.g. Museum of Pedology, Museum of Urban Electric Transport, and Military Medical Museum) local residents don't even know about their existence. Thus, for some of museums the Night of Museums is a unique opportunity to attract attention of potential visitors by means of advertising within the event.

As it was mentioned above the research is being continued and will be further developed by the study of the Internet discussions devoted to the event. The semantic analysis of visitors' posts on the event will contribute to achievement of the research objectives. Moreover, it is planned to organize a longitude research on the topic and to continue the research next year during the Night of Museums 2013.

Results and Discussion

In this section we present findings relevant for an each of hypothesises stated above.

(H1): Events organized in museums attract non-frequent visitors

Results of analysis for visitors' survey don't strongly support the hypothesis about the attractiveness of the event for non-frequent museum-goers: the most part of respondents – 35% visit museums "once-twice a month". However, the second most large group – 26% visit museums "once-twice a year". Almost a half of respondents (49,5%) for the question "Why do you come to the Night of Museums?" ticked the answer "For interesting activities in museums".

There are also some important findings on audience development based on the results of expert surveys of those managers, who were directly engaged in preparation and organization of the event in cultural intuitions. A number of managers emphasized changes in demographic characteristics of visitors during the event and, consequently, shifts in target audience occur at particular institutions:

"...Youngsters in contrast to our generation are not used to visit museums, but this form

of the event encourage them to discover this wonderful world" (Head of the Local Studies Department, Library "Old Kolomna");

"...We try to organize everything in such a manner that everyone would find something interesting and enjoyable. Moreover, we are interested in attraction of visitors in the age from 20 till 40 years old" (Head of Cultural Programs Department, Central Municipal Public Library named after V. Mayakovskiy);

"...It is obvious that children are our main target group in day-time, especially during working days. During the Night of Museums there are much fewer children. Therefore, the main target group within this event is elder people" (Deputy Head of the Museum of Arctic and Antarctic);

"...In the first turn we wanted to see people, who rarely visit us. Our audience is the intellectuals of St. Petersburg, those who are pensioners or near this age, obviously creative intellectuals and students, especially of creative specializations. We wanted to see during the Night middle aged people, 25-35 years old, working in absolutely different spheres, not related to the art. And those people indeed came and there were many" (Art Director of the Fund of M. Shemyakin).

Thus, we observe audience development within the event caused by increased interest among non-visitors and shifts in target audience for some of institutions.

(H2) Organization of an event not only contributes to development of public cultural services, but also to development of a cultural institution itself

Based on the results of the managers' expert survey three main effects of the event organization for institution development were identified:

- Positive development of internal communication network:

"...For personnel this is a creative and organizational cohesion, when everybody knows what happens and contributes to the common goal" (Director of the Literature Museum "XX century");

"...For the positive effect I can name the experience of joint work of all the departments" (Head of Cultural Programs Department, Central Municipal Public Library named after V. Mayakovskiy);

"...Night of Museum is an excellent way to exercise team activity – almost everyone works for this event, all personnel, regardless the department" (Project Coordinator in Museum of Anna Akhmatova).

- Extension of museum space:

"...The fact that we by reclaiming the space around the yard and building, develop our communicate with neighbors, residents of the building and housing cooperative, gives

as the opportunity to reclaim more and more of non-museum space – this is our direction for further development" (Director of the Literature Museum "XX century").

"…We'd like to utilize the space in front of the museum, but this bears against accommodation, because this territory doesn't belong to us. We wished to put there some installations. We would be happy to have some simplified order of accommodation for these purposes and support of other institutions" (PR-manager of the Erarta Museum).

The potential for museums to reclaim the non-museum space is very high in the city (Gordin, Matetskaya, 2011), but in the same time, as we can observe, it can be challenging. Nevertheless, such events contribute to tackling this issue.

- Development of cooperation with other cultural institutions

Within a large-scale event organization institutions also develop cooperation with other entities that positively affects internal development:

"…I agree that every possible cooperation with other cultural institutions of other organizational forms is always useful, it is not harmful to learn how other entities work, which methods they use, which innovative solutions they can share" (Head of Organizational and Methodic Department of Central Library named after M. Lermontov).

"…Night of Museums is the event, when we can learn and share experiences" (Exhibition Project Manager in the State Centre of Photography RosPhoto)

Conclusion

The purpose of this research was to contribute to an understanding of management of public cultural services. Taking the example of the Night of Museums in St. Petersburg we explored the potential of the large-scale event in development of public cultural services management both from the side of audience and cultural institutions.

We have explored the effect of the event on audience development and found additional support for the results of previous studies. Events attract wider audience to museums (Kolb, 2005, p.39; Gyimothy, 2009, p.201) and lead to shifts in structure of target audiences for particular cultural institutions.

Further, we have determined three main effects that occur within preparation and conduction of the event: positive development of internal communication network; extension of museum space and development of cooperation with other cultural institutions. Intensification of activities in cultural institutions and between them on a routine basis will significantly contribute to development of public cultural service management.

At the end, we would like to highlight that the research is still in the process and we collect other qualitative and quantitative data to discuss further different approaches for management of public cultural services.

Acknowledgements

References

ANDERSON, G. (2004) Reinventing the Museum, Historical and Contemporary Perspectives on the Paradigm Shift, Altamira Press, Oxford.

BARBOSA, B. and BRITO P.Q. (2012) "Do open day events develop art museum audiences?" *Museum Management and Curatorship*, Vol. 27, No. 1, pp. 17-33.

BURTON, C. and SCOTT, C. (2003) "Museums: Challenges for the 21st century", *International Journal of Arts Management*, Vol. 5, No. 2, pp. 56-68.

FREY, B. (1998) "Superstar museums: an economic analysis", *Journal of Cultural Economics*, Vol. 22 Nos 2/3, pp. 113-25.

GETZ, D. (1997) *Event management and event tourism*. New York: Cognizant Communication Corporation.

GORDIN, V.E. and KHOREVA, L.V. (2012) "Innovative strategy of cultural development and increase in living standards of the population", In *"XII International academic conference on Economic and Social Development", in 4 volumes, vol.3. Moscow: HSE, pp. 158-166.*

GORDIN, V.E. and MATETSKAYA, M.V. (2010) Saint Petersburg festivals: aspects of cultural policy and cultural tourism. *Paper presented at the Global Events Congress IV: Festivals and Events Research: State of the Art. Leeds Metropolitan University, 14-16 July 2010.* http://www.eventsandfestivalsresearch.com/global-events-congress-ivproceedings.html

GORDIN, V.E. and MATETSKAYA, M.V. (2011) Development of creative tourism in St. Petersburg and goals of St. Petersburg's museums*, Proceedings of the Round Table at the State Hermitage, St. Petersburg (In Russian).*

GYIMOTHY, S. (2009) "Casual observers, connoisseurs and experimentalists: A conceptual exploration of niche festival visitors", *Scandinavian Journal of Hospitality and Tourism,* Vol. 9, no. 2-3, pp. 177-205.

JIWA, S., COCA-STEFANIAK J.A., BLACKWELL, M. and RAHMAN, T. (2009) Light Night: an "enlightening" place marketing experience, *Journal of Place Management and Development,* Vol.2, no.2, pp.154-166.

KAWASHIMA, N. (1999) "Knowing the public. A review of museum marketing literature and Research", *Museum Management and Curatorship*, Vol. 17, no. 1, pp. 21-39.

KOLB, B.M. (2005) Marketing for cultural organisations: New strategies for attracting audiences to classical music, dance, museums, theatre and opera, 2nd ed. London: Thomson Learning.

KOTLER, N. (2001) "New ways of experiencing culture: the role of museums and marketing implications", *Museum Management and Curatorship*, Vol. 19 No. 4, pp. 417-25.

KOTLER, N. and KOTLER. P. (2000) Can museums be all things to all people? Missions, goals, and marketing's role. Museum Management and Curatorship 18, no. 3: 271-87.

KRAUSE J. (2007) "Lange Nacht der Museen" als Instrument des Stadtmarketing: [Hauptseminararbeit]. : Grin.

PRENTICE, R., and ANDERSEN, V. (2003) "Festival as creative destination", *Annals of Tourism Research*, Vol. 30, no. 1, pp. 7-30.

SCHALLER, R. and HARVEY, M. and ELSWEILER, D. (2012) Out and About on Museums Night: Investigating Mobile Search Behaviour for Leisure Events. *In: Searching4Fun Workshop, ECIR2012, 1. - 5. April 2012, Barcelona.*

TOBELEM, J. (1998) "The marketing approach in museums", *Museum Management and Curatorship* 16, no. 4, pp. 337-54.

VAN AALST, I. and BOOGAARTS, I. (2002) "From museum to mass entertainment: the evolution of the role of museums in cities", *European Urban and Regional Studies*, Vol. 9 No. 3, pp. 195-209.

Identifying the Importance of Measuring Monetary Value of Volunteering in the Czech Republic

Dostál Jakub, Hrůza Filip

Abstract

Identifying and measuring of the nonmarket activities not captured by standard economic indicators while still being part of the economy still remains among the actual questions to be solved. The aim of this paper is to identify the importance of researching the economic value of volunteering in the Czech Republic through the identification of main reasons, suitable ways and approaches and relevant areas. The findings of the research were used for formulation of practical recommendations. Presented outcomes are based on foreign and domestic sources.

Keywords

volunteering, Czech Republic, monetary value, approaches, nonmarket

Introduction

Volunteering activities in terms of theory and practice is an up to date topic. A number of specific issues in this area were addressed recently. They are subject to a number of both theoretical and practical research and studies. This paper deals with the quantification of volunteering through monetary value in case of Czech environment and conditions.

Sozanská and Tošner (2005) define volunteering as a conscious, freely chosen activity for the benefit of others, provided by citizens free of charge. According to them, volunteering can be professionally organized, without losing its spontaneity. Unpaid non-compulsory work, meaning the time individuals give without pay to activities performed either through an organization or directly for others outside their own household (ILO, 2011). There exist many different definitions of this specific activity and area. Volunteering produces many different impacts affecting volunteers themselves, the beneficiaries of their activities, the organizations organizing volunteer activities and generally the societies in which the volunteers operate (Salamon, Sokolowski and Haddock, 2011). We see specific problem related to this area in the fact that only few of these impacts are captured in a systematic form with the exception of a few industrialized countries (Australia, Canada, the UK, Switzerland, Norway, and the United States).

Stiglitz, Sen and Fitoussi (2009) recently dealt with the importance of precise measurement and valuation of goods and services produced within society regard to GDP. They argue that GDP is the most widely used measure of economic activity

and express the measurement of economic well-being through international standards for its calculation. On the other hand they criticized that GDP mainly measures only market production. According to their further argumentation this interpretation can lead to misleading indications about how well-off people are, which may consequently lead to making the wrong policy decisions. Monetary valuation and measurement provide useful information about production and consumption through a single figure. Stiglitz, Sen and Fitoussi (2009) say that valuing products and services with their prices would thus seem to be a good way of capturing, in a single number, how well-off society is at a particular moment.

Nevertheless, there are several other arguments that speak for measuring the volunteer work. For example ILO (2011) provides following arguments:

- volunteer work is sizable and creates significant economic value
- a growing number of international organizations has come to recognize the contribution and importance of volunteer work
- volunteer work is of special importance to the labour force statistical community
- despite the contributions that volunteer work makes both to the volunteers themselves and to the beneficiaries of their generosity, little sustained effort has gone into the measurement of the scope, scale, or distribution of such work, and this impedes policy-making and our general understanding of labour dynamics
- what is not counted cannot be effectively managed
- out of sight/ out of mind
- establishing a system for improving the data available on volunteer work will thus serve a variety of useful purposes

Ironmonger (2008) expands these general arguments and places them on practice in case of Australian state Queensland. According to him, calculation of the economic value of volunteering in Queensland is important because it can:

- emphasize to government and policy makers that voluntary work makes a significant contribution to the Queensland community
- encourage Queensland people to become volunteers by demonstrating the economic benefits of volunteering
- inform the media and the community about the value of volunteer time to the Queensland economy

Approach to this issue has gradually evolved from recognition of the non-zero value of volunteering. Some approaches highlighted the explicit costs associated directly with volunteering, such as Sues and Wilson (1987), who argued that volunteers

are not totally free and related costs are represented by recruitment, administration, liability, supervision and recognition. This general opinion was confirmed from a microeconomic perspective by Emanuele (1996), who estimated a downward sloping curve for volunteer labor and therefore confirming that volunteers are not free.

Other approaches were not limited to explicit simply measurable costs, but focused also on capturing the implicit part of the value of volunteer work (not directly by market valuated). For example Steinberg (1990) dealt with the costs of volunteers. Much of the research on solving this issue is applied in healthcare, for example hospitals and their staff. Femida and Narasimhan (2004) determined that the benefits and costs incurred by volunteers (out-of pocket expenses and opportunity cost). Brown (1999) and Ross (1994) agreed with non-zero opportunity costs. Montmarquette and Monty (1987) confirmed the importance of opportunity costs of time in connection with the levels of volunteers' education. Hodgkinson and Weitzman (1996) and U.S. Bureau of the Census (1995) went further and argued that volunteer workforce is on average more educated than employed workforce and thus average hourly wages may tend to understate the value of volunteer time.

The aim of this paper is the identification of the importance of researching the economic value of volunteering in the Czech Republic through the identification of main reasons, suitable ways and approaches and relevant areas.

Material and Methods

From methodological view this paper uses positive and qualitative approaches and also some normative recommendations as research outcomes. The core of the research is based on literature review of foreign and domestic sources with recent and historical knowledge from theory and practice. Positive approach was used and based on literature review.

Data was gathered from domestic sources like Czech volunteer web, Czech statistical office and other local sources. We focused on these three elements: area of volunteering, numbers of volunteers, and estimated monetary value. We found out that data about numbers of volunteers and estimated monetary values are available almost only at the national level. We faced the problem of data inconsistency and discuss it further in the paper. Data is from period 2009 to 2012.

Further used were the methods of deduction and synthesis of acquired knowledge for the identification of research outcomes. The last part of this paper has normative character and contains recommendations for further research in this area. Subsequently the appropriate adaptation of research findings to the specific conditions of the Czech Republic was done.

Results and Discussion

Considering why police makers should know the monetary value of voluntary work, Colman (1998) presents interesting argument. He claims that what is not counted and measured is often insufficiently valued and thus given secondary priority in policy planning. He adds that this can be dangerous because important unpaid work may not receive the necessary support, and because individuals under financial or time stress may first cut back on voluntary commitments as "luxuries" they can no longer afford.

There are two main issues in this research area: what to measure and how it should be measured. An important prerequisite for solving this issue is the identification of potential areas of use in theoretical perspective. It is necessary to answer the question of why these specific areas were chosen. Based on the current knowledge of theory, research and practice, it is possible to examine the possibilities of applying this approach to the environment in the Czech Republic with its specific conditions of public policies, services, volunteer or nonprofit sector. Just the difference in conditions and functioning of the systems within a particular environment requires certain adjustments for the correct application of approach.

For further procedure it is necessary to identify the areas of volunteering in the Czech Republic which may be the relevant subject for this issue:

- *Healthcare*: In the end of 2009, there were more than 40 health and social-health facilities. Only in program called Volunteers in hospitals serve more than 1000 registered volunteers per year (Dobrovolnická centra a programy, Czech volunteer web). Many others volunteers served also in other type of these facilities as well as in health-social terrain (Šimková, 2011).

- *Social services*: According the research from 2012, half of the social institutions have long term experience with volunteers and another one fifth would like to (Janíková 2012). Overall in social services, there were 9278 volunteers (2009) in various types of facilities, e. g. retirement houses and facilities for disabled people, facilities for children and youth and many others (Návarová, 2011).

- *Culture*: Ministry of Culture in Czech Republic presents two main areas of application of volunteering in culture – Care of tangible and intangible cultural heritage and Public cultural services.

- *Sport*: The Czech Sports Association involves about 200 000 volunteers who participate both on an ongoing (competitions) or one-time activities (events, tournaments). Ministry of Education, Youth and Sports (2009) states that volunteering is the basis of activity in sport environment and demonstrably brings economic profit of several hundreds mil. USD per year to the State. According to CSTV, the estimated value of volunteers achieved through various

methods of valuation is 60-200 mil. USD, while the annual support from the budget of the Czech Republic is around 110 mil. USD.

- *Work with children and youth*: About 30 000 long-term volunteers participate in this area while in the long run is the number of volunteer almost double. These volunteers are also very important, because they provide the care of about 400 000 children and youth (Sedláček, 2010)

- *Ecology and environmental protection*: Tenth of thousands of volunteer take care about the environment and their volunteering produces long-term benefits in many areas. Volunteers take care of many protected areas and help to preserve them. They also contribute to the protection or rescuing of many animals (Toman)

- *Emergencies*: Volunteering in emergency management has various forms and became really popular. Only in associations of volunteer firefighters there are about 400 000 member, and according to the estimations about 75 000 are ready to serve as firefighters. Moreover, there are many other volunteer rescuers of all kinds, plus many people serve as volunteers when floods occur.

- *Church and religious societies*: Accurate data about volunteers in Church and Religious Societies are missing, but we can say that it is very widespread. We can find volunteers participating in activities of churches and religious societies every week in almost every church in the country. They serve as volunteer singers, preachers, economists or altar servers and also all over the country during the Night of Churches, which is based on volunteer work (Volunteering in Church and Religious Societies).

- *Protection of human rights*: There are no official data about volunteering in human rights, but it is becoming quite common. For example, UNICEF has about 700 volunteers in the Czech Republic. Many other organizations like League of Human Rights are working with volunteers regularly too.

- *Research activities* (usually volunteers as a sample): These activities require spent time of people and the cost of this spent time should be part of the total costs of the research. There exist various specific researches requiring different inputs (time, samples, tools)

- *Army and civil safety*: Here, for example, the militia, which are created either preventive or ex-post as a tool for reducing crime in a certain area. It is composed of volunteers from the community residents serving in their spare time. However, they have neither official competence nor relationship with the local government. Randomly they arise based on immediate needs and, in some aspects, partly replace the police.

- *Other*: Volunteering randomly appears in other areas such as public

administration and replace production of public goods in case of financial distress or other problems of administrative units (for example municipalities).

If we look at the official data, we see interesting contradiction. According to the Czech statistical office, in 2009 (last available data) were in the Czech Republic 27 155 volunteers, who worked 47 194 363 hours and value of their volunteer work was 335 mil. USD. Looking at the data from particular areas, we can say that the overall data is roughly underestimated. Another important aspect of the research is to answer the question in what forms volunteering takes place, if it is only manual work for average related wage, or it is more sophisticated work, where it would be more appropriate to consider the relevant payroll costs (e. g. what volunteer earns at work equals to the price of his voluntary work).

Then we precisely value his work and minimize a paradox, or phenomenon, of volunteering where the exact same work performed by two persons with highly different market wage. For example same work done by nuclear engineer and bus driver would be valued according to their market wage in their regular job and not based on the actual work value. It would be rational to pursue more efficient solution where the nuclear engineer prefers to work for the market wage in his job and earns money instead of volunteering and donated some of his wage to pay for other less "expensive" volunteers. In certain areas, this may have relevance to the issue of cost-effectiveness, particularly in those where there is some uncertainty (e. g. firefighters). In the operative part of the research it is necessary to choose appropriate methods of measuring the economic value of volunteering. Based on the analysis of relevant resources, following research methods can be used (ILO, 2011; Salamon, Sokolowski and Haddock, 2011):

- opportunity costs – assigns to hours of volunteer work the average wage that the volunteer would earn if he had worked at his regular job the same hours.

- replacement costs – assigns to hours of volunteer work what it would cost to hire someone to do the work of the volunteer.

- willingness-to-pay – measured at a particular augmented level of income. (connected with virtual currency approach and non-profit market valuation of volunteering through which we can value the volunteer wage)

- societal benefits – assumes that the extra amount of output resulting from the volunteer activity can be determined, this can be considered as a reasonable estimate of the economic value of volunteer work.

Conclusion

Volunteering in the Czech Republic is the area in which large numbers of people take part. However, these working activities are not included in standard economic indicators such as GDP. Although the Czech Statistical Office provides data

on volunteering, in our opinion they grossly underestimate the current situation. There are notably more volunteers in some of the areas than the official data say. Knowing the value of volunteer work is particularly important for policy makers, because what is not counted and measured is often insufficiently valued and given secondary priority in policy planning. Moreover, unpaid work may not receive the necessary support because individuals under financial stress may first cut back on voluntary commitments.

If we look at the available estimates of volunteer work in the Czech Republic, according to the Czech Statistical Office, despite the probable underestimation, the overall value is around 350 mil. USD annually. This situation calls for a more accurate measurement of volunteering, both in general and individual areas. This is an opportunity for further research, both for scientists, who could perform it, as well as for voluntary organizations, which would acquire currently unavailable data to the more accurate data aggregation. Due to the non-homogeneity of volunteering, it seems appropriate to have data in different areas, as the individual benefits can vary considerably – not only because of the different activities of volunteers.

References

Areas of Volunteering. (2012) [online]. Czech volunteer web. Database of volunteer opportunities in the Czech Republic. [cit. 20.8.2012] Available from WWW: http://www.dobrovolnik.cz/oblasti-dobrovolnictvi/

BROWN, E. (1999) Assessing the value of volunteer activity. Nonprofit and Voluntary Sector Quarterly, 28(1), 3-17. ISSN: 0899-7640.

COLMAN, R. (1998) The Economic Value of Civic and Voluntary Work in Nova Scotia, GPI Atlantic, Halifax, 1998. [cit. 25.8.2012] Available from WWW: http://dspace.cigilibrary.org/jspui/bitstream/123456789/19539/1/Economic%20Val ue%20of%20Civic%20and%20Voluntary%20Work%20in%20Nova%20Scotia.pdf?1

Dobrovolníci mění svět: sborník příkladů dobré praxe. (2011) Editor Svatava Šimková. Praha: Národní institut dětí a mládeže MŠMT, 119 s. ISBN 978-808-7449-158.

EMANUELE, R. (1996) Is there a downward sloping curve demand curve for volunteer labor? Annals of Public and Cooperative Economics, 67, 193-208. ISSN: 1467-8292.

FEMIDA, H., NARASIMHAN, S. (2004) Valuing Volunteers: An Economic Evaluation of the Net Benefits of Hospital Volunteers. Nonprofit and Voluntary Sector Quarterly, March 2004, vol. 33 no. 1 28-54. ISSN: 0899-7640.

HODGKINSON, V. WEITZMAN, M. (1996) Giving and volunteering in the United States. Washington, DC: Independent Sector.

International Labour Organization (2011) Manual on the Measurement of Volunteer

Work. International labour office Geneva. March 2011. [cit. 28.8.2012] Available from WWW: www.ccss.jhu.edu

IRONMONGER, D. (2008) The economic value of volunteering in Queensland, Updated report – May 2008, Queensland Government, Department of Communities, Brisbane.

JANÍKOVÁ, E. (2012) Dobrovolnictví v sociálních službách. Výsledky průzkumného šetření [cit. 23.9.2012] Available from WWW: http://www.dobrovolnik.cz/res/data/018/002154.ppt

Ministry of Culture CR (2012) [online]. Metodické doporučení Ministerstva kultury ČR pro dobrovolnictví v kultuře a umění [cit. 15.9.2012] Available from WWW: http://www.dobrovolnik.cz/res/data/023/002794.pdf

Ministry of Education, Youth and Sports (2009) [online]. Koncepce státní podpory sportu v České republice [cit. 8.9.2012] Available from WWW: http://www.msmt.cz/sport/koncepce-statni-podpory-sportu-v-ceske-republice

MONTMARQUETTE, C., MONTY, L. (1987) An empirical model of a household's choice of activities. Journal of Applied Economics, 2, 145-158.

NÁVAROVÁ, J. (2011) Dobrovolnictví v sociálních službách. MPSV [cit. 7.9.2012] Available from WWW: <www.dobrovolnik.cz/res/data/015/001793.ppt>

ROSS, D. (1994) How to estimate the economic contribution of volunteer work. Ottawa, Canada: Voluntary Action Directorate, Department of Canadian Heritage.

SALAMON, M. L., SOKOLOWSKI, W., HADDOCK, M. A. (2011) Measuring the Economic Value of Volunteer Work Globally: Concepts, Estimates, and a Roadmap to the Future. September 2011. Annals of Public and Cooperative Economics, 82(3): 217-252. ISSN: 1467-8292.

Satelitní účet neziskových organizací ve zkrácené verzi účtu. Český statistický úřad, 2012. Dostupné z: http://apl.czso.cz/nufile/SUNI.pdf

SOZANSKÁ, O., TOŠNER, J. (2005) Metodika dobrovolnictví nezaměstnaných z hlediska projektů Job Rotation. HESTIA – Národní dobrovolnické centrum, Praha, únor 2005, str. 8-9.

STEINBERG, R. (1990) Labor economics and the nonprofit sector: A literature review. Nonprofit and Voluntary Sector Quarterly, 19, 151-169. ISSN: 0899-7640.

STIGLITZ, J. E., SEN, A., FITOUSSI, J.-P. (2009) Report by the Commission on the Measurement of Economic Performance and Social Progress. Paris: CMEPSP (September).

SUES, A. M., WILSON, P. (1987) Developing a hospital's volunteer program. Health and Social Work, 12(1), 13-20. ISSN: 0360-7283

U.S. Bureau of the Census, 1995. Statistical abstract of the United States. Washington, DC: Department of Commerce.

Areas of Volunteering. Czech volunteer web. Database of volunteer opportunities in the Czech Republic. [online] [cit. 5.9.2012] Available from WWW: http://www.dobrovolnik. cz/oblasti-dobrovolnictvi/

Česká asociace hasičských důstojníků, Hasičská a záchranná služba v České republice. [online] [cit. 5.9.2012] Available from WWW: http://www.cahd.cz/cahd-old/Cz-CTIF-CZ.html

Dobrovolnická centra a programy. In: Czech volunteer web [online]. [cit. 2012-10-15]. Available from WWW: http://www.dobrovolnik.cz/management-dobrovolnictvi/ dobrovolnicka-centra-a-programy/s

Dobrovolníci. In: Liga lidských práv [online]. [cit. 2012-10-15]. Dostupné z: http://llp.cz /zapojte-se/dobrovolnici/

Volunteering in Church and Religious Societies. [online] [cit. 5.9.2012] Available from WWW: http://www.dobrovolnik.cz/res/data/013/001598.pdf

Rozhovor s Pavlou Gomba. In: Lidská práva [online]. [cit. 2012-10-15]. Available from WWW: http://www.lidskaprava.cz/student/vsechna-temata/virtualni-rozhovory/327

SEDLÁČEK, A. (2010) Dobrovolnictví s dětmi a mládeží. In: Czech volunteer web [online]. [cit. 2012-10-15]. Available from WWW: http://www.dobrovolnik.cz/oblasti-dobrovolnictvi/dobrovolnictvi-s-detmi-a-mladezi/

TOMAN, Dalimil. Dobrovolnictví v ekologii. In: Czech volunteer web [online]. [cit. 2012-10-15]. Available from WWW: http://www.dobrovolnik.cz/oblasti-dobrovolnictvi /dobrovolnictvi-v-ekologii/

Green Procurement of Public Contracts
– Introduction and Present Situation

Jurčík Radek

Abstract

Green economy is a new trend in all fields of products. Also in public economy, there are political discussions about passing rules concerning ecological standards. On the other hand, respecting these rules costs money. The main aim of this article is giving recommendation of how to improve green procurement based on analyses of the present situation of green rules and green contracts in the Czech Republic. We want to show the ways if and how it is possible to get preference for green procurement. There are many ways to do it in practice. Firstly it is necessary to define what the green procurement is and make public choice about supporting it. It is possible to think about three ways to do it: through tender conditions, evaluations (ecological choice of criteria and their weight which should be at 30 % in the framework of the most advantageous offers), and "green" variants. Public choice for green procurement should have economic reasons.

Keywords

green economy, Sustainable development, tender documentation, award of contract, ecological criteria, "green" variants

Green procurement rules and situation in the Czech Republic

The connection between public purchasing and the environment is following. According to European statistics, public procurement authorities are major consumers in Europe, spending some 16 % of the EU's gross domestic product which is a sum equivalent to hundreds billions EUR (Ostřížek, 2007). The purchasing power can be used to opt for goods and services that also respect the environment. They can make an important contribution towards sustainable development (Jurčík, 2007a).

Green public procurement covers areas such as purchase of energy-efficient computers and buildings, office equipment made of environmentally sustainable timber, recyclable paper, electric cars, environment-friendly public transport, organic food in canteens, electricity from renewable energy sources, and air conditioning systems complying with state of the art environmental solutions. Green purchasing is also about setting an example and influencing the market. By promoting green procurement, public authorities can provide industry with real incentives for developing green technologies. In some product, work and service sectors, the impact can be particularly significant, as public purchasers command a large share of the market (in computers, energy-

efficient buildings, public transport, and so on). Green procurement covers a large area of public economy. The examples are from the area of agricultural products.

Contracting authorities consider life-cycle costs of a contract. Green public procurement allows you to save money and protect the environment at the same time. This is the main economic aspect: sustainable development. By purchasing wisely, contracting authorities can save materials and energy, reduce waste and pollution, and encourage sustainable patterns of behaviour.

According to the European Commission, if all public authorities across the EU demanded green electricity, it would save the equivalent of 60 million tonnes of CO_2, which is equivalent to 18 % of the EU's greenhouse gas reduction commitment under the Kyoto Protocol. Nearly the same saving could be achieved if public authorities opted for buildings of high environmental quality. If all public authorities across the EU were to require more energy-efficient computers, and this led the whole market to move in that direction, this would result in a saving of 830,000 tonnes of CO_2 (European Commission, 2004). If all European public authorities opted for efficient toilets and taps in their buildings, this would reduce water consumption by 200 million tonnes (equivalent to 0.6 % of total household consumption in the EU).

One of the aims of this article is to express an opinion on the correctness of this statement of the European Commission. Further, it is necessary to discuss ways to implement rules for green procurement effectively. Consider which products, services or works are the most suitable on the basis both of their environmental impact and of other factors, such as the information you have, what is on the market, the technologies available, costs and visibility (European Commission, 2001). Analyses how to implement green procurement rules into public economy in practice (public procurement) are the main aim of this article.

Realisation of green procurement policy

Contracting authorities have the responsibility to get the best value for taxpayers' money for everything they procure. Best value for money does not necessarily mean going only for the cheapest offer. It means you have to get the best deal within the parameters you have set. The protection of the environment can be one of these parameters and can, therefore, act as an equal factor among others for awarding of the contract (Jurčík, 2007b). Therefore, value for money does not exclude environmental considerations.

There are several ways to take environmental considerations into account (see table 1).

Table 1: Methods of green procurement

Method	Czech law (law no 137/2006 Coll., on Public Contracts)	European procurement directives for public authorities (2004/18/EC)
Technical specification in tender documentation	§ 44 - § 49	Art. 23 - 27
Qualification	§ 50 - § 66	Art. 45 - 52
Evaluation	§ 78 - § 81	Art. 53 – 55
"Green" variants	§ 70	Art. 24

Source: Author

Tender documentation shall be the totality of documents, data, requirements, and technical specifications of the contracting entity delimiting the subject-matter of a public contract in detail necessary for drawing up a tender. The contracting entity shall be responsible for correctness and completeness of the tender documentation (Hacket, 2003). What a product is made of, and how it is made, can form a significant part of its environmental impact.

Qualifications of economic operators shall be understood as suitability of economic operators to perform public contracts (it consists of four types: basic qualifications prerequisites, professional qualifications prerequisites pursuant, economic and financial qualifications prerequisites pursuant and technical qualifications prerequisites pursuant, e.g. requirements for ecological procedures into fulfilment of public contracts. In the framework of business (tender) conditions, it is not excluded or prohibited to ask ISO 9001 or ISO14001 certificates.

Variants of a tender shall be authorised if a public contract is awarded on the basis of the basic evaluation criterion of the most economically advantageous tender, and where the contracting entity has authorised variants in advance in tender conditions. If the variants of a tender are admissible, the contracting entity shall indicate the requirements to be met by such variants in tender documentation or, where applicable, together with any special requirements regarding drawing up the tenders. One of allowed variants should be "green" variants, e.g. food for school canteens without using chemical fertilizers.

The evaluation committee shall assess the tenders submitted by tenderers from the point of view of the fulfilment of statutory requirements, and requirements of the contracting entity indicated in tender conditions. The tenders that fail to meet such requirements shall be rejected.

The basic evaluation criteria for the award of a public contract shall be

- economic advantageousness of the tender, or
- the lowest tender price.

The basic evaluation criterion in competitive dialogue shall be the economic

advantageousness of the tender only. The contracting entity shall select the basic evaluation criterion according to the type and complexity of the public contract and indicate it in the contract notice, or in the call for competition. If the contracting entity decides to award a public contract according to the basic evaluation criterion of the most economically advantageous tender, it shall always establish partial evaluation criteria. Such partial evaluation criteria shall be linked to the performance of the public contract offered and, in addition to the tender price, they may, in particular, be quality, technical merit of the performance offered, aesthetical and functional characteristics, environmental characteristics, operational costs, cost-effectiveness, sales and after-sales service, technical assistance, delivery period or period of completion. If the basic evaluation criterion of the most economically advantageous tender is applied, the contracting entity shall accord relative weightings expressed in percentages to the individual partial evaluation criteria. The established relative weighting accorded to individual partial evaluation criteria may be identical. The contracting entity shall indicate the partial evaluation criteria and the weightings thereof in the contract notice, in call for competition, the tender documentation or, where appropriate, in the invitation to submit tenders in a restricted procedure, in a negotiated procedure with publication, in the invitation for negotiations in negotiated procedure without publication or, if appropriate, in the invitation to confirm an interest to participate, or in the competitive dialogue documentation.

One of the evaluation criteria should be ecological requirements. This is not possible when the basic evaluation criterion is the lowest tender price. This is possible just in such cases when the basic evaluation criterion is economic advantageousness of the tender.

Under Directives 2004/17/EC and 2004/ 18/EC, production methods can explicitly be taken into account when defining the technical specifications, but this is also possible under the previous directives. Contracting authorities have the right to insist that the product you are purchasing has to be made from a specified material, provided the Treaty principles of non-discrimination, and the free movement of goods and services are respected. Statement that is possible to set conditions concerning environmental considerations is contained in decision making practice of the European Court of Justice. The Court of Justice further clarified those possibilities in, for example, judgments of the Court of Justice of 17 September 2002 in case C-513/99 and of 4 December 2003 in case C-448/01. In case from September 2002 (C-513/99) Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab, and Helsingin kaupunki, HKL-Bussiliikenne, the court takes into account criteria relating to the protection of the environment to determine the most economically advantageous tender. Helsinki city council decided on 27 August 1997 to introduce tendering progressively for the entire bus transport network of the city of Helsinki, in such a way that the first route to be awarded would start operating from the autumn 1998 timetable. Under the rules governing public transport in the city of Helsinki,

the planning, development, implementation and other organisation and supervision of public transport, unless provided otherwise, are the responsibility of the Joukkoliikennelautakunta (public transport committee) and the Helsingin kaupungin liikennelaitos (transport department of the city of Helsinki, 'the transport department') which is subordinated to it. The commercial service committee decided on 12 February 1998 to choose HKL as the operator for the route in lot 6, as its tender was regarded as the most economically advantageous overall. According to the order for reference, Concordia (then Swebus) had submitted the lowest-priced tender, obtaining 81.44 points for its A offer and 86 points for its B offer. HKL obtained 85.75 points. As regards the bus fleet, HKL obtained the most points, 2.94 points, Concordia (then Swebus) obtaining 0.77 points for its A tender and -1.44 points for its B tender. The 2.94 points obtained for vehicle fleet by HKL included the maximum points for nitrogen oxide emissions below 2 g/kWh and a noise level below 77 dB. Concordia (then Swebus) did not receive any extra points for the criteria relating to the buses' nitrogen oxide emissions and noise level. HKL and Concordia obtained maximum points for their quality and environment certification. In those circumstances, HKL received the greatest number of points overall, 92.69. Concordia (then Swebus) took second place with 86.21 points for its A offer and 88.56 points for its B offer.

Table 2: Steps concerning preparation of tender documentation

Definition of public need (it is also necessary to think about social and ecological policy which have indirect economical benefit for the state)

↓

Define of subject of the tender in tender documentation (legal Framework of EC directives)

↓

Draw up clear and precise technical specifications

↓

Establish selection criteria

↓

Establish award criteria

↓

Define weights
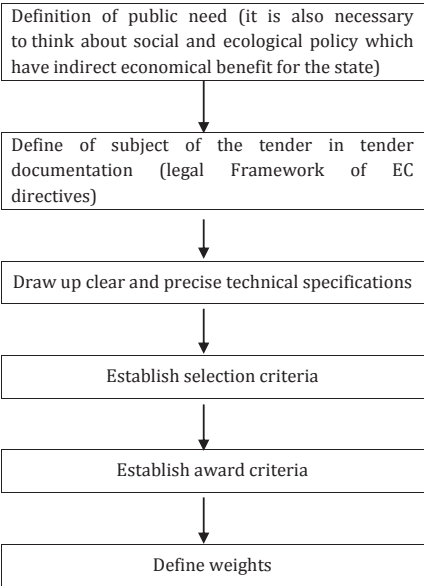
Source: Author

Green procurement and food from organic agriculture

The production of organic food is a specialised process. For a food product to be marketed as organic in the EU, it must fulfil certain requirements and be certified by an approved inspection body. In the EC, these requirements are laid down by the Council Regulation (EEC) No 2092/91 on organic production of agricultural products. Contracting authorities can make the requirements of your technical specifications even stricter than those in the Council Regulation (EEC) No 2092/91. It is possible to require that a service contract for a canteen provides a certain percentage of organic food or that certain foodstuffs are organically produced. Finally, it is obviously possible for public authorities to reduce environmental impact through seasonal purchasing, i.e. by providing in their canteens only those varieties of fruit and vegetables that are available in the area at the time.

These include cereals, dairy products, fruit and vegetables (according to season) and meat. Organic food is offered in hospitals, old peoples' homes, schools and kindergartens. The defined share of organic food can differ depending on the kind of institution: e.g. 30 % in kindergartens with the plan to increase this percentage to 50 % within the next two years (3).

Some EC countries had passed methodologies (how to procure some agriculture products), such as dressings and enteral nutrition, such as tube feeding sets, Nasogastric tube, gastrostomy, port (Knapp), extension tube – Knapp, gastrostomy catheter, peg, jejunostomy (SEMC, 2007).

Articles for enteral nutrition affect the environment and health primarily in three ways, according to present knowledge:

- chemical additives hazardous to health and the environment
- use of finite resources
- generation of waste

Examples of tender conditions

- The products shall be free from phthalates (<=1000 ppm)
- Packaging material shall be free from PVC.
- Paper/cardboard in transport and internal packaging shall be unbleached or bleached without chlorine
- extension tubes for gastrostomy ports (Knapp) free from phthalates (<=1000 ppm)

In the agriculture products (such as milk, fruit and vegetables, milk and meet preparations, drinks, aquaculture products) it is possible to establish these criteria:

- using fertilizers incorrectly,

- causing erosion and destroying of woods

- water pollution

- torture of domestic animals

- high consumption of energy and water e.g. in the process of food production

- requirements for packaging

- high level of pollution at the transport of food

- level of energy consumption at contracts on kitchen equipment.

Next criteria concerning food

- requirements or evaluation on some % of food from ecological sources. There exists the regulation EC No 834/2007 on ecological production

- on case of sea food some % or all contracts: all fish was hunted by allowed methods and does not contain chemical products (or it should be holding up some limit for chemical substances)

- packing should be full or part of recycle materials

- kitchen equipment fulfil requirement for the ENERGY Star level (classification A)

- existence of good life conditions for animals.

These "agriculture" conditions should be established by contracting authorities as tender conditions or in the framework of evaluation or as conditions concerning "green" variants. It is also possible to use some ecological qualification or conditions, such as ISO 9001 or ISO 14001 which are allowed by law. Further certificate such as ISO 14021, ISS 14024 or ISO 14025 are not allowed by public procurement law and de lege ferenda it is possible to recommend discussion about changes of law.

Statistics

There are buying individual offices and ministries. In the following figures, there is a total of buying (purchase) of products and buying of products marked with one of followed eco symbol, or rather percentage, the total share of products marked of followed eco symbol to the total purchase.

Table 3: Purchases made by individual offices (in EURO)

Office	Purchase in 2010		Share
	With eco marks	*Total*	
Ministry of the Environment (www.mzp.cz)	4842271.00	5102138.00	95%
Ministry of Transport (www.mdcr.cz)	8951575.00	20785363.00	43%
Ministry of Industry and Trade (www.mpo)	3567204.00	4420384.00	81%
Ministry of Education, Youth and Sports (www.msmt.cz)	3146174.00	3351621.00	94%
Ministry of Defence (www.army.cz)	16795619.00	42747216.00	39%
Ministry of Culture (www.mkcr.cz)	10037862.00	30705786.00	33%
Ministry of Regional Development (www.mmr.cz)	X	X	X
Ministry of the Interior (www.mvcr.cz)	101085789.00	172997787.00	58%
Ministry of Justice (www.justice.cz)	165314040.00	342808223.00	48%
Ministry of Foreign Affairs (www.mzv.cz)	42029350.00	44459050.00	95%
Ministry of Agriculture (www.eagri.cz)	3853238.00	3842238.00	100%
Ministry of Health (www.mzcr.cz)	X	X	X
Ministry of Finance (www.mfcr.cz)	66789373.00	84094744.00	79%
Ministry of Labour and Social Affairs (www.mpsv.cz)	166709571.00	190191769.00	88%
Czech National Bank (www.cnb.cz)	677994.00	1764942.00	38%
Government Office	2762488.00	3499080.00	79%
Public Defender of Rights (Ombudsman)	836817.00	1746811.00	48%
Total	597399365.00	952517152.00	63%

Note: Ministry of Health and Ministry of Regional Development these ministries were not sent correct data.

Source: Ministry for of Environment and own calculation

Table 4: Purchase of some products in 2010 (in EURO)

Product	Purchase		Share
	With Eco Mark	*Total*	
Boilers and other sources of heat	1 559 496,00	4 231 693,00	37%
Paper and writing materials	43 048 777,00	102 378 528,00	42%
Furniture	100 815 344,00	189 126 585,00	53%
Office electronics	435 031 190,00	560 661 554,00	78%
White electronics	1 821 068,00	7 495 973,00	24%
Washing and clean means	4 199 033,00	20 302 343,00	21%
Grease	642 290,00	1 985 886,00	32%
Workroom and garden	2 339 390,00	6 828 499,00	34%

Product	Purchase		Share
	With Eco Mark	*Total*	
Textile	5 039 403,00	54 999 378,00	9%
Fuel	15 456,00	145 212,00	11%
Others	2 887 918,00	4 361 501,00	66%
Total	**597 399 365,00**	**952 517 152,00**	**63%**

Source: Ministry of Environment and own calculation

Table 5: Purchase of Computer Technology

Year	Purchase with Eco Mark	Total Purchase	Share
2009	345 595 951,00	462 524 526,00	74%
2010	358 646 128,00	470 021 738,00	76%

Source: Ministry of Environment and own calculation

Table 6: Purchase of Furniture

Year	Purchase with Eco Mark	Total Purchase	Share
2009	70 214 164,00	182 548 633,00	35%
2010	66 035 057,00	114 454 441,00	53%

Source: Ministry of Environment and own calculation

Table 7: Purchase contained in Information system of Public Contracts

	Computer technology 31October - 31December 2010	Furniture 31 October – 31December 2010	Computer technology 1 January 2011 – 31 October 2011	Furniture 1 January 2011 – 31 October 2011
Total number of purchase	20	13	36	14
Number of Green Purchase	1	0	1	0

Source: ISVZ (www.vestnikverejnychzakazek.cz)

From these figures, it follows that the significant parts of ministries consider green procurement as a suitable tool. Some of these offices implement purchases of the ecological saving products into their internal methodological regulations. The regulation of the Czech government no 465/2010, on green procurement, is not respected in general.

Conslusion

There are new trends in the field of public economy in the European Union. One of the trends is a procedure supporting environmental requirements. Public choice

for green procurement cost on one hand, rather expensive, on the other hand it enables sustainable development. There are problems with proving ecological conditions and lack of ecological standards in the field of agriculture products. There is the standard ENERGY Star in the field of electrical products (e.g. computer). Because of it, it will be necessary to statement ecological requirements by statement. Respecting green procurement rules would have an influence on behaviour of agriculture firms (Tomšík, 2008) and market positions of these firms (Kučerová, Žufan, 2008). Green procurement is not a modern trend just in the European Union and has a big influence on consumer behaviour (Stávková, 2008). Also e.g. China's state council is to force local governments in the country to take a greener approach to procurement. According to Chinese authorities new rules concerning green procurement will give eco-friendly and energy saving products priority in future public purchases. The country introduced a compulsory procurement list aimed at encouraging the purchase of greener products in 2007, and the latest move is seen as a key piece of state strategy in cleaning up the country's act. "The country's requirement for strict implementation of the compulsory green procurement list will encourage more suppliers to go green and have their names on the green procurement list" (Conghu, 2009). This procurement policy is a good example for both EC and Czech Republic's procurement policies. The Czech Ministry of Environment was preparing rules for green procurement. The author was a part of the team preparing these rules. This is one way to support green standard in the public administration and to realize one of the EC and government policy in the public economy.

There are some barriers for significant use of ecological saving products. We can mention these:

- higher price of ecological products,
- lower quality of products with eco label and unsuitability for some offices,
- outsourcing of the services (e.g. facility, cleaning) – it is not possible to purchase from external suppliers.

The recommendation how to increase green procurement purchase:

- simplification of green procurement evidence system,
- decrease of administration in the field of green procurement,
- better methodological support – more methodological materials (e.g. examples of tender documentation on green contracts).

Acknowledgements

References

CONGHU, W. (2009) available from http://www.procurementleaders.com/learning groups/corporate-social-responsibilty/csr-news/procurement-green-china/

European Commission (2004) Buying green. Belgium. Office for Official Publication for European Communities.

European Commission (2001) interpretative communication of 4 July 2001 (3) set out the possibilities offered by Community law to integrate environmental considerations into public procurement procedures.

HACKETT, M., ROBINSON I., STATHAM G., LONGDON D. (2003) The Aqua Group to Procurement, Tendering & Contract Administration. Blackwell Publishing.

JURČÍK R. (2007a) The economic impact of the EC procurement policy. Agriculture Economics, 7: 333-337.

JURČÍK, R. (2007b) Zadávání veřejných zakázek a udělování koncesí v ČR a v EU. Praha: C.H.Beck. ISBN 978-80-7179-575-9

KUČEROVÁ, R. and ŽUFAN, P. (2008) Market position of selected competitiors of the Czech wine market. Agriculture Economics, 7: 343-346.

OSTŘÍŽEK, J. (2007) Public Private Partnership příležitost a výzva. Praha: C.H.Beck. ISBN 978-80-7179-744-9

STÁVKOVÁ, J., STEJSKAL L., TUOFAROVÁ Z. (2008) Factors influencing consumer behaviour. Agriculture Economics, 6: 276 – 284.

Swedish Environmental Management Council SEMC (2007) Procurement criteria for dressing.

TOMŠÍK, P., MINAŘÍK, B., SOMERLÍKOVÁ, K. (2008) Factors affecting the methods of employees management in agribusiness companies in the region Vysocina. Agriculture Economics, 7: 293-300.

Solidarity and Equivalence in Social System – Current Problems

Krebs Vojtěch, Průša Ladislav

Abstract

Solidarity and equivalence are long-term issues in all social systems in advanced countries. At first glance it may appear that the two principles act against one another, though in reality there are lots of very close ties between them – to the extent that social systems are constructed as universal the principle of solidarity asserts itself, while to the extent that social systems are constructed according to levels of income from economic activities the principle of equivalence asserts itself. It is just the extent to which those individual principles should be enforced that makes it such a fundamental question when deciding on modifications to individual social systems. The paper is thinking of theoretical solutions of the principle of equivalence and solidarity and their use in individual social systems in the future. It brings arguments the extent of solidarity is too large and that is why the principle of equivalence needs to be strengthened.

Keywords

Introduction

Social system (here means a social sphere - the part of the system of society which forms a reference frame for social policy with its internal relations and connected with social background as well) not only in our society but also nearly in all European advanced countries faces a necessity of a crucial change (reform). It is expected to contribute to a recovery of public finance and will support sources and incentives of the efficient economic development in postmodernist society without the heart of its social cohesion being disturbed. Even though it is impossible to state if there are any effects, the changes are inevitable. Continuing development of the current social system is not sustainable even in a mid-term horizon. There are lots of causes. In summary, we can classify them as a risk of blocking following social development which is related to a threatening of the effective economic development and possible negative impacts on creating sources of its growth and also with negative impacts on living conditions and improvement in their quality.

Radical changes must be based on what is crucial for their structure - which are undoubtedly two basic (absolutely different) principles: of equivalence and solidarity. It will be not only the problem of viewing them, but also a change in their position (importance) in the social system.

The aim of the paper is to point out the necessity to strengthen the principle of equivalence in individual social systems.

Most importantly, as it has been said, let´s suppose two important principles in social systems play an important role, although both are supported by different ideologies and different economic and social impacts are expected from them. On the other hand, all other trajectories, including our social system, must be focused on optimum combination and cooperation and contribute to harmonious development of the whole society.

Material and Methods

The main strategic approach for the preparation of this paper was a secondary analysis of the literature focused on the characteristic trends of social systems in European countries. We used a kontent analysis of the literature, laws and program documents of selected Member States of the European Union.

Results and Discussion

Principle of equivalence

1 Common solution

The concept of equivalence means an equal value, something having the same effect and value. In social policy, the principle of equivalence is often applied mainly in systems of insurance and is defined as a principle according to merits or efficiency. It supposes distribution of pensions, possessions, conditions etc to individuals will be equal, consistent with their performance, according to their merits (Krebs, 2010).

We can state, the principle of equivalence is currently in a process of a revival. Definitely, it is connected with the fact the present modern society is strongly influenced by the idea of individualism. More and more abilities of individuals, their performance, competitiveness, intellect and social qualities (communicative abilities, cooperation, personal responsibility, ethical behaviour...) are relied on. Economic theory promotes the individualistic concept as well. Ideology of neoliberalism puts the emphasis on individuals, their freedom, rights for property and responsibility is viewed individualistically. It supposes that the principle of equivalence meets requirements for economic growth and its stimulation better. That is why it is openly against publicly organised solidarity and social redistribution, respectively against its "excessive" dimension (despite the fact it cannot define that quantitatively). (Keller, 2005)

2 Equivalence in social insurance

Although the principle of equivalence may seems to be in opposition to set social systems whose the most characteristic feature is, on the other hand, redistribution and the principle of solidarity. But the principle of equivalence is relatively widely used

and above all in insurance area. Equivalence is, for example, a condition of an overall balance in all insurance systems and its macroeconomic equivalence guarantees its functioning, continuity and even whether the clients succeeded in revaluation of their deposited means. It applies both to private and public insurance (it is not influenced by the fact that possible deficits of a public insurance will be compensated from state revenues). The requirement for equivalence is very categorical and it is necessary to be met. The principle of equivalence in insurance is used as a tool which helps to achieve a balance between a height of insurance and expected risk (loss) which can be compensated by it either the equivalence between individual risks and a height of adequate insurance (the principle of individual equivalence) or equivalence between homogenous group of risks and insurance of adequate group of the insured (the principle of collective equivalence). In the case, we must take into account problems of solidarity because the basis of every insurance consists in a willingness to join together to solve common problems. Insurance systems are examples how both principles are closely interconnected.

At first, the development was focused on the private insurance. Increases in risks, responses to originated demands of industrial development for insurance sector and the fact that that the analysis of individual risks was becoming very difficult they resulted in gradual application of collective equivalence, applied to a big group of heterogeneous risks (similar risks were linked together). Bismarck acted with his concept of social insurance in the same way. Social and private insurance were similar to one another and based on - to a certain extent - solidarity (probability model). During the time both insurances and their development started to differentiate.

Reforms by W. Beveridge became a turning point in the development. By means of these, the principle of solidarity was strengthened and social insurance was formed in practically the same shape which is known nowadays. Strengthening of solidarity was closely connected with the adoption of insurance derived from incomes. New fixed minimal benefits and a fixed contribution for all insurance holders were set. Dependence of insurance on incomes, especially if no limits the insurance is paid from are set, puts pressure on solidarity and its acceptance not only by the high income insured but also the society as a whole.

Private and social insurance have started to go on their own ways. Private insurance is aimed at strengthening of the principle of individual equivalence. By means of improved methods and computers, it is possible to carry out highly differentiated analyses of risks which enable insurance differentiation and it is possible to adapt it to clients´ requirements. Better living standard and income level of some groups encourage its development as well. It must cope with some obstacles, income differentiation in society, it means social and economic conditions of the lowest income groups for which the private insurance might not be available. On the other hand, goals of social insurance and the insurance dependent on incomes and due to a solidarity is available

even to groups which are excluded from the private insurance. But its price for the society is very high. The system prompts undesirable development: solidarity is too high, relation between insurance and contribution is vague, motivation is low, incomes are lower than costs, the system is permanently unbalanced, deficits grow and macroeconomic equivalence is damaged.

Currently, the difference between the private and social insurance is becoming topical. The principle of equivalence should be involved even in the social insurance.

3 Preferences and risks of equivalence

What are the preferences and risks in social systems? Most importantly, let´s say a current glorification of social self-sufficiency which is supported by the ideology of individualism and its principle – the principle of equivalence can be, in our opinion, beneficial for some its parts. It concerns mainly our current system of pension insurance which shows excessive solidarity and besides supplementary systems it offers only limited possibility of the equivalence of deposited insurance. High income people have relatively low pensions because pension ratio to their wages decreases with higher wages. In newly set pensions, the ratio, after 40 year insurance and with the wage equal to 0.5 multiple of average wage in the national economy, is 84%. With the wage equal to four-multiple of average wage is only 17%. It is caused by a significant reduction in individual basis of assessment. The system is too generous, in favour of low incomes and provides insufficient compensation for pensions constructed from high incomes. The situation was a subject of the complaint sent to the Constitutional Court which decided that it is necessary to change the method of calculation of pensions (its findings resulted in so called "small pension reform" which came into force on the 1st October 2011).

Due to the growing labour costs the current basic system of pension insurance increases growing production costs and make the competitiveness of Czech producers worse. It is caused by insufficiently applied principle of equivalence (benefits respond to paid insurance insufficiently especially as regards mid and high income groups). It does not motivate even economically active citizens. Forthcoming reform should strengthen the requirement for the equivalence in the pension system.

Anyway, these positive aspects connected with the strengthening of equivalence have its obstacles and risks. Above all, the principle of equivalence is hard for so called "non self-sufficient". In all societies there are and will be such people who will not be able to secure their existence in the system based on the principle of equivalence whose application represents high financial barriers for someone. The private insurance is sometimes unaffordable for those who are most dependent and need it most. A part of people is often dependent on other people´s help, their tolerance, sympathy, solidarity and it is impossible to refer them simply to charity how the neoliberal doctrine thinks.

Charity activities are not able to meet people´s requirements, we have to respect multinational commitments, legislation, possible growth in social tension in society.

Principle of solidarity

1 Background

Solidarity (cohesion, mutual support) is an essential element in structures of all social systems and how it is nowadays understood, it is not only mutual understanding and help, but also mutual responsibility. It is considered as a significant momentum not only of material but also moral and spiritual development and a condition of the progress (Krebs, 2010). "It is a reflection of the fact the person is dependent on the coexistence in the society he/she helps to create and which provides him/her with some benefits. It expresses human sympathy and responsibility for themselves and the others as well. In democratic countries is based on a free will and willingness to respect interests of a wider community. This is expressed in representative democracy in democratic countries." (Krebs, 2009)

This mostly accepted definition characterises its heart of the matter. It might not be changed even in the future: it means it should stay in our country (in the EU as well) as a value which can help to guarantee worthy living conditions to all citizens, it should contribute to a prevention of social tensions and conflicts and to support social cohesion in the society. But we must say it cannot be on the same scale so as not to damage the idea of self-sufficiency and   economic effectiveness and prosperity.

Solidarity, as we know, is not a definite term. It can have many forms, ways of implementation, different size, impacts etc. We can see solidarity has a lot of meanings and therefore it demands a deep analysis and research of different motives, relations and consequences which are, of course, different. Only if we proceed this way we can reach the functionality and sustainability of the whole social system in the long-term horizon. Without such analysis, there is the risk that the thoughts of solidarity will lead to non effective generalization aimed at e.g. a tendency to understand the solidarity as an entirely positive intellectual concept having only positive features or on the other hand, it will be rejected as a concept encouraging dependence, non-self-sufficiency, demotivation and low effectiveness of the economic system. But of course, the solidarity can be both desirable, positive, encouraging and supporting prosperity even in a social harmony and undesirable, demotivating and supporting parasitism and social erosion and resulting in delayed impacts on economic growth. It is important to recognise these effects in concrete social and political measures and make a deliberate choice.

As long as we speak about specificity of the phenomenon of solidarity, we cannot ignore the differences between the spontaneous, voluntary solidarity (some authors view that as the real one) and the forced, involuntary, real. The topic must be paid more attention to since it seems there are some ways out how to solve social problems.

2 Voluntary solidarity

Voluntary solidarity is appreciated by everyone because it is natural to give up some profits in favour of someone else either the motive is consanguinity, affection, sympathy or only the fact he is expected to do that. Someone regards it as the only acceptable one. There is a quotation: "There is either spontaneous solidarity or none. To dictate it means to damage it. A law can make people avoid immoral behaviour but the effort to force them to show their solidarity is useless." (Baldwin, 1990). Of course, the voluntary solidarity (supported by liberal thinking) plays an important role in social systems apart from other things, it does not create so big pressure on redistribution. It has probably higher ethical value than the forced one. It is also a base of all charity activities. But the problem is, it is impossible to guarantee the functioning neither of the social security system nor the social system as a whole.

3 Forced solidarity

The non voluntary, forced solidarity means the solidarity forced by the state in the form of taxes and obligatory public insurance and the state obligation to guarantee even solvency of relevant funds. After the second world war- and so far - the solidarity of the society organised by the state has significantly participated in the development in social systems in our country (and in some other European countries) either in the form of taxes or insurance. Large social security of citizens needs a high rate of redistribution. When setting it, the state must be aware of the antimony between performance and equality and must take into account that the high rate of redistribution could have a negative impact on the economy and will lead to a demotivation of individuals and lower responsibility for their own living conditions. It is a notorious fact that the forced redistributions are not desirable or acceptable. The real development in the last years shows that the risk of "the incautious rate of redistribution" has become very topical in the CR (Krebs, 2009).

Currently, we can see they were not sufficient (Aspalter, 2003). We cannot accept them and we must insist on a state shift towards some restrictions in the forced solidarity in some elements of the social system. We must consider that the viewing solidarity is not restricted only to it.

Mainly, as far as the *extent of solidarity of society* the size of the forced solidarity is too wide (Decision, 2010). Such solidarity is desirable where a person in need and without means is provided a help. It is desirable and ethical so that such burden will be shared by the state (by fellow citizens). On the other hand, there is question whether the same solidarity should increase many citizens´ incomes (e.g. of mid and high income groups) by means of miscellaneous benefits.

It is obvious that the ideas on long-term stability of the system coming from different ideological solutions, attitudes to health care cannot succeed. The solution may insist in an acceptance of a certain complex of objectively respected requirements for health

care (This one was developed in compliance together with new advantages and disadvantages of models of health care, based on ideological solutions above all in the European region and they consider even the situation in our medical care after the year 1989.).

Finally, a very important fact of excessive solidarity in the system of basic pension insurance is necessary to be mentioned. Here we must only emphasize that the system of pension insurance is an area which definitely meets requirements for strengthening the principle of equivalence best: paid insurance give the right to an adequate benefit, but at the same time it is an area which is in the social security system most closely connected with a participation (and reintegration) of people in the area of work and which provides wide space for partial compensation of the principle of solidarity by the principle of equivalence (expenditures on pension insurance accounted for about 359bn crowns in the year 2011 and represented about 75% of all expenditures on social security, 9.4% GDP). It could relieve a resource of society e.g. to finance development in education which is most suited to balance limited life chances. Therefore, it is not possible to make only "cosmetic changes" in the current basic system but restructure it and strengthen the weight of equivalence.

One thing is certain, the present methods in the social system have not been sufficiently significant so that they could set a trend heading towards an acceptable solidarity of society. So that is why such objective is hard and redistributions are always a political decision of the government where not only ideas but also interests of various groups and lobbies are met. In addition to that, we are still influenced by our socialistic past and the idea of equality is deeply rooted in our society. That is why not only the social development brings crucial changes in new technologies and their application in production but also changes in social relations, life style, labour market, education ... whose consequences cannot be fully predicted or we do not want to imagine them because they do not concern us directly. These changes as the whole expect a revision of the current social state and its functioning and necessarily change opinions on redistribution of the society.

Conclusion

Most importantly, we should say the development of a society (not only ours) currently faces a certain friction between economic and social area. The turning point between them is far from a balance between an economic effectiveness and social thoughtfulness, (which were more common in the beginning of a development of the welfare state and social market economy in west European countries after the 2nd world war). Each of these areas - despite obstacles and their approaches - works according to its own logic: effectiveness and performance is a domain of the economy, a passive social state mainly based on the forced solidarity is a domain of the social sphere. To a large extent, both areas are functioning so that they destroy

each other. What is the way out of the vicious circle? Either higher and higher economic performance, supporting growing and never ending demands for a solidarity how they were accepted by the industrial society in the last century or an effort to optimize the rate of the solidarity connected with a revaluation of its extent, purpose, effects etc, connected with a strengthening of the principle of equivalence and preferring other life values which will meet requirements of modern post-industrial society better. We cannot ignore the fact that opinions on the development in the world which advances and is in the permanent process of reassessment. Dominant values in a specific society are always connected with the history, reached degree of social development, with commitments and mission of a given stage, with other perspectives of development etc. They are not definite for ever which applies to the Czech social system as well. In our opinion, changes in hierarchy of values, other conditions of social development, its mission and goals must be reflected in attitudes to the solidarity and equivalence in social systems. But so far it has not happened (as long as we do not specify solidarity, we have the solidarity forced by the state – in the form of taxes and obligatory insurance in mind).

We can summarize: current social system and especially changes in the social security system reflect conditions in which relatively generous social system was developed and has been working till now. The etatist concept of solidarity, we are still based on, is sharply inconsistent with requirements of the future post-industrial society. Not only the state of public finance, but also the increasing impact of individualism which relies on individuals more and more, his/her abilities, performance, intellect and social qualities confirm that. The change in perception of the sense and the role of solidarity and equivalence in social system and necessity to change proportions to strengthen the principle of equivalence are connected with it (Krebs, 2009).

Summarize your paper and stress the most important points of it. Think about topics for the future work.

Acknowledgements

References

ASPALTER, CH. (2003) The Welfare State in Emerging Market Economies: Case Verde Publishing. ISBN 978- 1-933-284-73-6

KELLER, J. (2005) Soumrak sociálního státu. Praha: SLON, 2005. ISBN 80-86429-41-5
KREBS, V. a kol. (2010) Sociální politika, Praha: Wolters Kluwer Česká republika, ISBN 978-80-7357-585-4

KREBS, V. a kol. (2009) Solidarita a ekvivalence v sociálních systémech. Praha: VÚPSV, ISBN 978-807416-044-8

Decision of the Constitutional Court No. 135/2010 Coll.

The Sense and Rationality of Non-profit Sector in Social and Health Services

Mertl Jan

Abstract

This paper is focused on the sense of non-profit sector in social and health services. After transition to market economy, the problem of financing and provision of those services, in the past done under the direct control of the government, clearly arose. However, the market solutions proposed were not bringing satisfactory results. In this regard, the concept of non-profit organizations emerged in both theory and practice of developed countries. This paper will focus on the main concepts and reasons behind those organizations, which give economic and social rationality for their existence. Special attention will be paid to the situation in social and health services sector and some specific problem of the situation in the Czech Republic.

Keywords

Introduction

Between years 1960-1970 in European countries began the process of objectification of the legislative status (activities and content) of various institutions and organizations controlled by government. These entities have been authorized either by legal entities or individuals engaged in a particular activity. The acquisition of legal personality tried to extend the possibilities of these entities and increase their autonomy. Activities for which they were registered were often of public or generally availability nature, which were previously in the direct jurisdiction of the government or municipality (e.g. education, health care, social services).

Budgetary and contributory (in Czech language "rozpočtová a příspěvková") organizations are one of the forms of not-market-based organization, which were established under the centrally-planned economy. In most other European countries those organizations do not exist in this form. They were conceived as largely dependent on state funding and could perform under the budget rules own economic activity. They could not manipulate with their assets because it was not their property, but the property of their founders. These basic characteristics persisted up to now. During the economic transformation, and in particular in the context of the reform of local governments is to change the perception of these organizations active in the field of social and health care. Although still being largely financed from public funds (including public health insurance) are recorded in the national accounts according

to ESA 95 in non-financial institutions, such as public enterprises. From this understanding is not impossible for them to have been converted into commercial companies.

The theoretical background behind this concept include the approaches of public and social policy and the civil society (Potůček, 1997) and the economic analysis of the non-profit principle and things behind it (Arrow, 1963). The position of the non-profit sector in society was clearly recognized by Pestoff (Pestoff, 1995). At the same time, this concept falls into the branch of social economy (Dohnalová & Průša, 2011). Significant international research has been conducted in this area and the definitions of non-profit sector emerged from the cross-national comparison (Salamon & Anheier, 1997). These results are maintained and expanded up to now (Center for civil society, 2012).

Institutionally, the concepts of government and non-government owned, for-profit and non-profit based, publicly and privately financed organizations (Goulli, 2001) are useful for the topic. It is worth recognizing, that the classic economic classification approach of public and private goods is not enough for this approach, because it says nothing about how they are provided and financed in social reality. In this sense also the approach of institutional goods classification is highly relevant (Bénard, 1985).

The aim of this paper is to analyze the sense and rationality of non-profit organizations in social and health services. In the Czech Republic, we still have not generally understood and productively utilized the benefits and positive aspects of non-profit organizations in various institutional forms. It is therefore useful to analyze and emphasize their significance, economic and social logic behind them.

Material and Methods

This paper is based on theoretical analysis of the attributes of non-profit sector and selective comparative analysis of different mechanisms for social and health care provision and financing, including careful view of the subjects that are financing and providing those services. Theoretical literature used is summarized in the included reference list. Empirical data used include the OECD health database about the number of hospitals, as they are documenting the share of non-profit organizations in this industry in selected OECD countries. Also indirectly, the results of international cross-country analysis done by Salamon are used (Salamon & Anheier, 1997), because they resulted in more exact definitions of the non-profit organizations. The paper is however focused primarily on theoretical arguments and this way also the conclusions are made.

Results and Discussion

The basic economic principle behind the non-profit organizations can be explained in a relatively simple way. At the same time, it is strange, that this principle is often misunderstood by general public, but also by some researchers. Thus it is worth to emphasize, that the non-profit principle does not exclude the possibilities of actually gaining a profit: the important rule is, that if this profit is created, it has to be returned into the organization, either in the form of re-investment resulting in the expansion of the services, or by lowering the price of existing services.

Non-profit organizations thus strive for rational economic allocation the same way as other economic subjects do; however, they are not pushed by their owners to maximize profits and allocate them to shareholders or trade their stocks on the exchange. Also the non-profit principle guarantees that the money is kept in the enterprise of its origin; this is especially important for the social and health services, as empirically here a pressure for allocating money elsewhere is seen. Also, it brings an important element of autonomous budgeting, which is a large difference to the contrary of subjects directly financed from the government budgets and even returning the possibly created surpluses back to their founders, as it has been observed in the Czech republic.

As for the financing sources of non-profit organizations, it highly depends on the branch they operate in and the degree of public service they fulfill. The most general statistics (average from 7 OECD countries) shows that Public sector payment is 41%, Private fees 49% and Private giving (fundraised) is 10%   (Salamon & Anheier, 1996), however he situation varies and for example in health care, the share received from health insurance funds will be always the dominant share of the income.

From the rich overall typology of nonprofit organizations (Salamon & Anheier, 1997), the three main types are the most important in the social and health services: nonprofit organizations organizing and providing social and health care and services, the charities and foundations doing primarily fundraising and social work and health insurance companies that will deal with social health insurance contributions. The latest example is highly controversial in the Czech public debate: after 2006, the suggestions of privatization of health insurance companies was discussed heavily, even in the form of regulated profit amount in exchange for gaining the right to collect and allocate social health insurance contributions. Currently, the public health insurance companies behave like non-profit, however their status does not explicitly state it and the government influence together with the situation on the market (one big General Health Insurance company and 7 smaller others) decreases the level of their autonomy very much. This does not imply that the theoretical transformation to the "ideal nonprofit" in the case of health insurance companies is at all cost desirable; the models of those institutions in the health care system vary and it is out of the scope of this paper to analyze it.

There are several reasons why particularly in social and health services, similarly to some other branches of economy like education etc., the non-profit principle is suitable for general use. These include

- the problem of trust and confidence,
- low demand elasticity and problem of time-based decisions,
- market failure,
- information asymmetry,
- public interest on provision and availability of those services.

Many of these aspects were already analyzed in literature, we can quote Arrow, that "The very word, 'profit,' is a signal that denies the trust relationship." and also "as a signal to the buyer of his intention to act as thoroughly in the buyer's behalf as possible, the physician avoids the obvious stigmata of profit maximizing" (Arrow, 1963). This means, that those services require for their successful application a high level of relationships, which could be possibly harmed by the pressure for making profits.

Since Arrow has formulated those issues for the economic theory they have been subject to hot debates. It was argued, that the social and health care itself is not as special goods, that there is also other goods inevitable for human life, such as food, that are produced using for-profit principle and their production and allocation works adequately. Also, the institutional framework of health and social services provision has advanced, being able to separate the management and financing of organizations from the actual provision of these services and direct patient-doctor relationships. This may seem – together with the empirical existence of some for-profit subjects in this area – to weaken the Arrow's arguments.

A simplified economic approach could also suggest that when having adequate competition on the market, we do not need the concept of non-profit organizations at all. The suggested mechanism is relying on the competitive market as the factor of decreasing the market prices theoretically up to the point where the profit will be zero, thus realizing a "true non-profit" environment. However, in reality, this rarely happens, as the degree of competition is almost never like that. Also if it eventually happens, it would prevent the mechanisms of reinvesting the gained profits into the enterprise, because the industry would not be able to generate them at all. The last argument in this area is that the nature of competition on the market could be, especially without adequate regulation, very rough and ethically unsuitable for areas like social and health services (see also previous arguments of Arrow that also can be transposed to the nature of competition on those markets). Thus, even if the questions of effectiveness of the nonprofit organizations in terms of wages, transparency etc. could

be raised, we cannot simply abandon this concept saying that the for-profit principle with adequate market competition will replace the non-profit one.

Moreover, we can see that in the times of globalization and pressure of the financial markets on the economy, as well as with increased demand on health and social care services general availability, on the other hand, some of those arguments were even strengthened. The result is, that we currently can say, that the non-profit principle is very important for the effectiveness and availability in this sector and has to be considered as a crucial component of the institutional structure here. And this has its own empirical evidence: social and health services sector was in the 1990s dominant source of growth of the non-profit institutions in the economy (Salamon & Anheier, 1997).

Institutionally, the concept of non-profit social and health services is rooted in many documents at the European level, such as the Amsterodam Treaty and the Green (EU, 2003) and White Book on the services of general interest (EU, 2004). In the Czech Republic, there is general legislation in this area, which can be utilized e.g. for social services, however in health care, the situation is different and not using these possibilities. The ambulatory care is nearly 100 percent private and the legal form is for-profit independent businesses (economically operating on the principle of high degree of competition and strong regulation by health insurance companies]. The hospital sector remained primarily government-owned, even the corporatization was taking place and in 2006 the big discussion of the non-profit hospital laws happened. The new Act No. 245/2006 Coll., on Non-Profit Hospitals was enacted in April, and it brought some steps in modernization in terms of applying corporate governance and management to hospitals, which absence was the main shortcoming of the previous, contribution from the government health budget based mode of operation. However, the political changes and inadequate institutional environment stopped the successful implementation of this law, which resulted in the fact that no hospitals really were transformed by the rules that this law predicted.

This situation – as an empirical example – has clear consequences when doing statistical comparison, as shown on the next figure.

Figure 1: Share of hospital types by type of organization, OECD
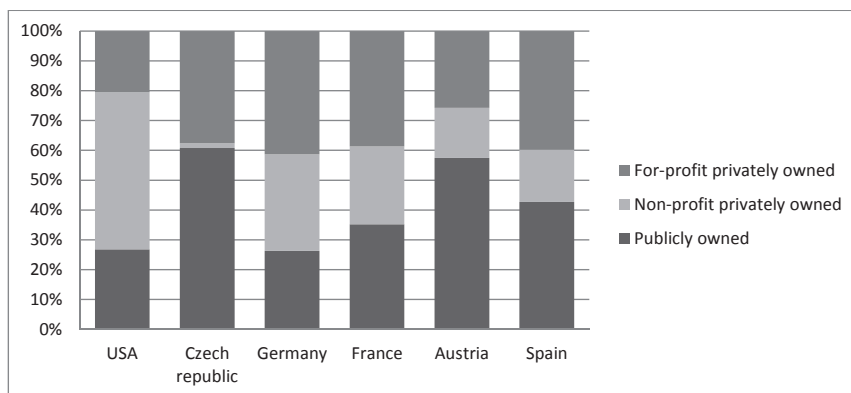
From the figure above we can see the situation in hospitals typology, being one of the largest institutions in health care industry. Comparison between USA and Czech Republic shows, that American structure of hospitals is heavily based on non-profit ones; the Czech structure nearly has not utilized them at all. Other countries come between those extremes. As an interesting example, Mayo clinic, one of the largest hospitals in the United States, is a non-profit one.

We can conclude that although there are a number of economic and institutional reasons and rational approaches that support the usage of the non-profit organizations in social and health services, especially in the health ones they have not been utilized in the Czech Republic much. This does not mean that they are a "one size fits all solution", just suggests that they should have stronger position in the mix. Their effectiveness and/or efficiency are debatable similarly to the for-profit institutions and depend on the market structure, regulation and institutional framework; the absence of the for-profit motive does not mean that they do not provide rational economic allocation of resources just like any other economic subject.

Conclusion

Non-profit organizations are generally perceived especially in Czech public discourse as belonging to charity and non-market allocation of resources. This surely is one of the branches they can work at, but there are further possibilities of the usage of this concept on standard market relationships and transaction together with high corporate culture and governance level.

This is closely connected with the principle of concentration on actual services provision and trustful operation on the market. An imperative to allocate the profits

for the development and availability of the services provided together with the long-term stability and economic rationality is something that is highly needed and can be also said missing in economy today, where the conflict between inflexible government and global markets exist.

The nature of social and health services is heavily suited for the non-profit principle application. High level of trust required the inadequacy of profit motives in the relationships between the actors of transaction, importance of actual quality and concentration on the real operation of an enterprise all contribute to this. This does not mean that another ways are not possible theoretically; it just justifies that the non-profit principle should have strong role in the mix, giving those organizations autonomy from the direct auspices of the government and freedom from the market pressure for profits maximization at all costs. Empirically this results in non-profit organizations having strong position in social and health care sector worldwide.

In the Czech republic after the year 2000, strong demand for the transformation of the organizations financing and providing social and health services arose, as the original forms of budgetary and contributory organizations has not been suitable in many cases for the new environment. Especially in health services, however, this process was not successful and the conflict described above resulted in either keeping things under the direct control of the government, or the attempts of "full" privatization. As seen from the international comparison, this radical approach is not usually employed in health care systems of the world and a mixture of institutional forms in providing health care exists, where the non-profit organization usually take significant portion of the "market".

Acknowledgements

References

ARROW, K. (1963) Uncertainty and the Welfare Economics of Medical Care. *American Economic Review*, 53(5), pp. 941-973.

BÉNÁRD, J. (1985) *Economie Publique.* Paris: Economica.

Center for civil society, (2012) *Comparative nonprofit sector.* [Online] Available at: http://ccss.jhu.edu/research-projects/comparative-nonprofit-sector [Accessed 11 10 2012].

DOHNALOVÁ, M. and PRŮŠA, L., (2011) *Sociální ekonomika.* Praha: VÚPSV.

EU, (2003) *Green Paper on services of general interest.* [Online]

Available at: http://eur-lex.europa.eu/LexUriServ/site/en/com/2003/com2003_027 0en01.pdf [Accessed 11 10 2012].

EU, (2004) *White Paper on services of general interest.* [Online] Available at: http://eur-lex.europa.eu/LexUriServ/site/en/com/2004/com2004_0374 en01.pdf [Accessed 11 10 2012].

GOULLI, R. and FRIČ, P., (2001) *Neziskový sektor v České republice.* Praha: Eurolex Bohemia.

OECD, (2012) *OECD Health Data Statistics.* OECD ILibrary: OECD.

PESTOFF, V. (1995) *Citizens as co-producers of social services in Europe - from the welfare state to welfare mix.* Krakow, Krakow Academy of Economics.

POTŮČEK, M. (1997) *Nejen trh.* Praha: Slon.

SALAMON, L. and ANHEIER, H. (1997) *Defining the Nonprofit Sector: A Cross-national Analysis.* Manchester: Manchester University Press.

SALAMON, L. and ANHEIER, K., (1996) *The Nonprofit Sector: A New Global Force.* Baltimore: John Hopkins Institute for Policy Studies.

Measuring Waiting Times in Slovakia

Mužik Roman, Szalayová Angelika

Abstract

On the waiting list are queuing patients with indicated health care, which is impossible to provide because of financial reasons, capacity value or other reasons. As a rule, there are patients who do not require acute care and which deferral do not deteriorate their health. The aim of our research was to find out how long patients have to wait depending on their diagnosis, health insurance company and the type of provider and also how has changed the length of waiting times in comparison with 2008. We found out that in Slovakia most patients on waiting lists wait with gonarthrosis, coxarthrosis and cataract. For the total hip or knee replacement patients in Slovakia wait on average about 15 months and for cataract surgery about 3 months. Since 2008, waiting time for total hip replacement had increased by about 6 weeks and for cataract surgery was extended by more than 40%.

Keywords

Introduction

According to Act no. 581/2004 on health insurance, health care supervision and on amendments to certain laws, health insurance companies queue policy holders on the waiting list based on proposals from health care providers, who maintain a list of such insured. Waiting lists are defined in this Act, however, the specifications and details are provided by Decree of Ministry of Health no. 412/2009, which provides details on the list of insured persons waiting to receive planned care, and by its amendment, the Decree of Ministry of Health no. 151/2011.

In accordance to this Decree, provider adds to waiting list policyholder for planned health care if he would have to wait longer than three months for the intervention. On the waiting list are queuing patients only with indicated planned health care, which deferment will directly not threat the patient's life or complicate patient's condition. Health Insurance Company can offer to its policyholder health care by other provider in the interest of reducing the waiting time. Acute patients should not wait for intervention. If the patient's condition requires urgent surgery is it possible to manage it in a very short time. In terms of this Decree on waiting lists, it is compulsory provide waiting lists for patients with eye diseases and its adnexa requiring implantation of medical device, diseases of the circulatory system, diseases of the

musculoskeletal system and connective tissue requiring implantation of medical device, congenital malformations, deformations and chromosomal abnormalities and patients who are waiting on radiological examination - mammogram and radioiodine treatment for thyrotoxicosis. For providing some other intervention patients also have to wait. However, they are not included in the official waiting lists and their monitoring is therefore impossible. Surveys by OECD (Siciliani, Hurst 2003), Health Consumer Powerhouse (Eisen, Björnberg, 2009) and other organizations prove that the waiting lists are serious issue in many countries. In Slovakia, there are currently no accessible exact data on waiting times for the individual treatments. Therefore we have decided to do field research for three interventions with most patients on waiting lists.

Material and Methods

View of the fact that there is not available accurate information on waiting times with a certain diagnosis of individual providers; we have decided to find out the length of waiting in selected health care providers with the help of research methods "mystery shopping". According to the data from Health Care Surveillance Authority, most patients on a waiting list are patients with gonarthrosis, coxarthrosis and cataract. Therefore, our goal was to find out the length of the waiting period for treatments related to these diseases. By acquired data we could compare single providers and insurance companies, what can result in reducing information asymmetry and strengthening competition. In the research we have randomly chosen representatives from different providers: University Hospitals, Faculty Hospitals, hospitals administrated by Higher Territorial Unit or Ministry of Health or private company and private clinic. Number of surveyed providers was 17 for total knee replacement (2 were excluded on the basis that this surgery is no longer performed in hospital), 17 for total hip replacement (1 was excluded for the same reason as in previous intervention) and 23 for cataract surgery (1 was excluded for the same reason as in previous interventions).

As a research method we chose Mystery shopping (fictitious purchase). Aim of this marketing research technique is to evaluate the level of services and subsequently initiate the improvement of these services. In accordance to this method, we contacted individual providers and pretended interest in the surgery. Mystery shopper followed the specified scenario. Immediately after the interview, researcher prepared objective evaluation of examined factors. Interviewed subject at the time of completion of mystery shopping does not know that he or she is studied. Our case scenarios were worded as follows: *"My mom/dad needs surgery (total joint replacement surgery or cataracts). Where she/he was at hospital they offered her/him the term not until XY months. When she/he could get the term for surgery in your hospital?"*

Research was realized from May 9, 2012 to May 16, 2012. We tried to compare the data with data from health insurance companies, but we have no response to our request. This type of research was chosen because the official data request could cause a garbling

of data, whereas providers want to be placed into a better position in any comparisons. In the research on waiting times for total hip replacement in 2008, no private clinic was included. In 2012, there was included a private clinic "Clinica Orthopedica", which has the shortest overall waiting times. For eye care providers performing cataract surgery, the ratio of private to government facilities was 6:9 in 2008 and 8:14 in 2012. During interview over the phone, we could not verify whether the interviewed doctor was sufficiently knowledgeable, do not mislead or deliberately lied.

Results and Discussion

Total knee replacement

Figure 1 shows the waiting times for total knee replacement. The longest waiting period from selected sample of hospitals, approximately 3 years, is in teaching hospitals in Trenčín and Prešov. The shortest period is at a private clinic; however, there are high patient fees in place. Length of the waiting period varies considerably depending on provider. It does not matter whether it is a teaching or University hospital likewise in which is part of Slovakia is hospital settled. This means that the type of facility and the place of residence are not the key parameters for the length of waiting period. Overall, regardless of the type of provider and health insurance company, the average waiting time for total knee replacement is about 15 months.

Figure 1: Waiting times for total knee replacement (days)

Type of facility	Name or city	VšZP	Dôvera	Union	average	average (monhts)
Teaching hospital	Trenčín	1 095	1 095	1 095	1 095	35,9
Teaching hospital	Prešov	1 095	1 095	1 095	1 095	35,9
University hospital	Ružinov - Bratislava	1 642	548	548	913	29,9
General hospital	Topoľčany	1 278	???	365	822	27,0
Teaching hospital	Nové Zámky	730	730	730	730	23,9
Teaching hospital	Žilina	730	730	730	730	23,9
University hospital	Martin	396	365	128	296	9,7
Private hospital	Košice - Šaca	275	275	275	275	9,0
General hospital	Piešťany	244	244	244	244	8,0
General hospital	Bojnice	192	177	177	182	6,0
Teaching hospital	Nitra	174	128	128	143	4,7
University hospital	Košice	113	168	113	131	4,3
General hospital	Poprad	183	54	122	120	3,9
General hospital	Michalovce	50	114	114	93	3,0
Private clinic	Clinica Orthopedica	21	21	21	21	0,7
Average		**547,9**	**410,3**	**392,3**	**459,3**	**15,1**

Source: Authors

Note: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company)

Total hip replacement

Waiting times for total hip replacement are not significantly different from waiting times for knee replacement. Figure 2 shows that short waiting period may be at major state owned hospitals and also at smaller hospitals administrated by Higher Territorial Unit or a private company. The longest average time for hip or knee replacement is at Teaching hospitals. Overall, regardless of the type of provider and health insurance company, the average waiting time for total hip replacement is about 14 and a half months.

Figure 2: Waiting times for total hip replacement (days)

Type of facility	Name or city	VšZP	Dôvera	Union	average	average (monhts)
Teaching hospital	Trenčín	1095	1 095	1 095	1 095	35,9
Teaching hospital	Prešov	913	913	913	913	29,9
Teaching hospital	Nové Zámky	730	730	730	730	23,9
Teaching hospital	Žilina	730	730	730	730	23,9
General hospital	Topoľčany	1278	365	365	669	21,9
University hospital	Ružinov - Bratislava	1460	153	153	589	19,3
General hospital	Bojnice	584	584	584	584	19,1
General hospital	Piešťany	244	x	x	244	8,0
University hospital	Martin	397	244	76	239	7,8
General hospital	Poprad	244	212	A	228	7,5
Private hospital	Košice - Šaca	183	183	49	138	4,5
Teaching hospital	Nitra	168	92	92	117	3,8
General hospital	Michalovce	92	x	x	92	3,0
University hospital	Košice	76	NA	NA	76	2,5
General hospital	Považská Bystrica	61	61	61	61	2,0
Private clinic	Clinica Orthopedica	30	30	30	30	1,0
Average		**517,8**	**414,8**	**406,5**	**446,4**	**14,6**

Source: Authors

Notes: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company), NA – Not found, A – After completing the application the term is assigned by Health Insurance Company, x – The term to be determined after a personal consultation

Cataract surgery

Waiting times for cataract surgery as compared to waiting times for total endoprosthesis are several folds shorter. The average waiting time for cataract surgery is 3 months. Its length depends on the Health Insurance Company and type of medical facility (Figure 3). The length of waiting is also affected by fees (€ 70 - 200) that could significantly reduce the waiting period at private clinics and some non-state hospitals.

Figure 3: Waiting time for cataract surgery (days)

Type of facility	Name or city	VšZP	Dôvera	Union	average	average (monhts)
General hospital	Topoľčany	229	229	229	229	7,5
University hospital	Martin	198	243	198	213	7,0
Teaching hospital	Prešov	210	210	210	210	6,9
Teaching hospital	Trenčín	275	214	82	190	6,2
Private clinic	Oftal s.r.o.	183	183	183	183	6,0
Teaching hospital	Banská Bystrica	143	205	143	164	5,4
Teaching hospital	Nitra	129	129	129	129	4,2
General hospital	Poprad	1	158	158	106	3,5
Private hospital	Malacky a.s.	82	82	82	82	2,7
Private clinic	Neovízia	153	45	45	81	2,7
Private clinic	3F s.r.o.	90	60	60	70	2,3
General hospital	Bojnice	30	92	30	51	1,7
University hospital	Košice	35	35	35	35	1,1
Private clinic	Oftum Košice	30	30	n	30	1,0
Private clinic	Centrum mikrochirurgie oka	21	30	30	27	0,9
General hospital	Rimavská Sobota	21	28	21	23	0,8
General hospital	Trebišov	21	21	21	21	0,7
Private hospital	Košice - Šaca	14	18	18	17	0,5
Private clinic	Dom Oka s.r.o.	15	15	15	15	0,5
University hospital	Bratislava - Petržalka	14	14	14	14	0,5
Private clinic	VIKOM, 1. Žilinské očné centrum	10	10	10	10	0,3
Private clinic	Mediklinik s.r.o.	1	1	1	1	0,0
Average	**86,6**	**86,6**	**93,3**	**81,6**	**87,2**	**2,9**

Source: Authors

Note: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company), n – No contract with Union health insurance company

Comparison of insurance companies

Waiting time for the planned health care depends on Health Insurance Company, where the policyholder is insured. Figure 4 shows the difference between the lengths of waiting time for the three above mentioned interventions.

Figure 4: Comparison of waiting times for each disease by insurance companies (days)
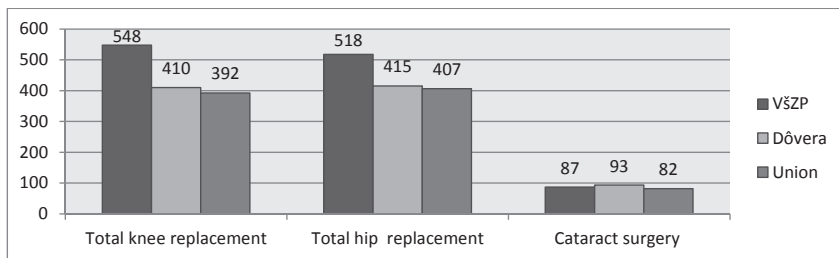
Note: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company)

For total knee replacement policyholders of General Health Insurance Company (Všeobecná zdravotná poisťovňa) have to wait the longest, approximately 18 months. Compared to Dôvera and Union health insurance companies, whose policyholders wait approximately 13 months, is it by 5 months longer. Also for total hip replacement policyholders of General Health Insurance Company have to wait the longest, almost 17 months. Compared to Dôvera and Union, whose policyholders wait approximately 13 and half months, it is almost 4 months longer. Waiting period on cataract surgery is almost equal without significant variations between insurance companies; about 3 months. For all three diseases, private health insurance company Union has the shortest waiting times. This only convinces us that the effectiveness of policies of individual insurance companies can be various.

Comparison over time

Data on waiting times for hip and cataract surgery from 2012 were compared with data from 2008. In 2008, was used the same survey methodology and studied sample was very similar (see Material and Methods). Comparison is shown in figures 5 and 6.

Figure 5: Comparison of waiting times for total hip replacement (days)

Note: Data are weighted by the number of policyholders in insurance company
Note 2: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company), HIC = Health Insurance Company

General Health Insurance Company as the only one insurer was able to keep the length of waiting time unchanged or even slight decreased (about 3 weeks) for hip replacement in the last four years. The average waiting time for private insurers prolonged about 3.5 months for Dôvera and less than 3 months in the Union. Although, the General Health Insurance Company policyholders on average still have to wait the longest for intervention; about 17 months. The average waiting period for hip replacement had increased since 2008 by about 6 weeks. In 2008, policyholders had to wait for hip replacement surgery on average of 441 days; in 2012 is it 481 days. Over the past four years the huge differences between health insurance companies have reduced.

Figure 6: Comparison of waiting times for cataract surgery by insurance companies (days)
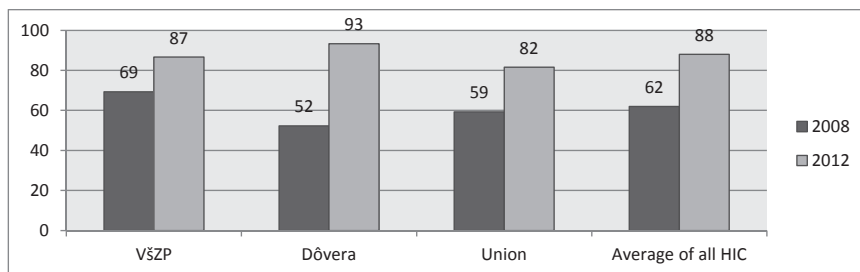
Source: Authors by Szalayová A et al. (2008). Same same. But different. 2008.

Note: Data are weighted by the number of policyholders in insurance company
Note 2: VšZP = Všeobecná zdravotná poisťovňa (General Health Insurance Company), HIC = Health Insurance Company

Since 2008, waiting times for cataract surgery were extended by more than 40%; what means less than 4 weeks. The most extended waiting period is in Dôvera; by almost 80%. In 2008, Dôvera's policyholders had to wait for the shortest (52 days) and in 2012, the longest (93 days). General Health Insurance Company shows the smallest increase, by 25%. In 2008, it had the longest waiting times, but in 2012, the waiting period is equal to the average of all insurers. In Union, the waiting period was extended by about 40%. Despite this fact, their policyholders wait for cataract surgery the shortest. The differences between health insurance companies after four years have slightly reduced. The difference between the longest and the shortest waiting period among insurance companies was 17 days in 2008 and 11 days in 2012.

Recommendations

Analysis of waiting lists has convinced us that it is necessary as soon as possible to establish a legal right for patients to know what services they are entitled to, in what timeframe and with what degree of financial participation. This right must be defined at three levels: (1) Factual; which defines health services, which are entitled by the public health insurance. Each policyholder must know even before entering

the doctor's office what is his or her indisputable legal right, and vice versa, what he or she may or may not get. (2) Timeframe; which defines in what timeframe health services should be provided to each policyholder. It is unfair to patients that in one city man wait for surgery for four years, while in the neighboring town wait only 2 months. It is necessary to set a maximum waiting time for each service, during which the service will have to be done. The time limit will guarantee access to health care in real time for all policyholders. (3) Financial; which defines patient participation for various health services. One of the common problems in health care is that patients do not know how much, to whom and for what for they have to pay, what can be easily misappropriated. Each levels of legal right are defined in many countries in various ways, such as Sweden, Netherlands or USA. It is important for us to create the best one for our health care system.

The management of waiting lists in its current form creates an ideal environment for corrupt behaviour. Uniquely determined transparency rules and publicising of waiting lists will reduce the incidence of opportunities for "failure of individuals." This space for corruption is there because of two reasons. Firstly; it is not published how many patients and for how long are waiting. Therefore, nobody can monitor if there are no transfers on the waiting list by unofficial payments. Secondly; there is big power of individuals; in this case it is the head of department who "decides on everything."

Conclusion

For total hip or knee replacement in Slovakia patients have to wait an average about 15 months and for cataract surgery about 3 months. For the knee replacement, the policyholders of General Health Insurance Company have to wait the longest (548 days) and the policyholders of Union Health Insurance Company the shortest (392 days). For total hip replacement, the policyholders of General Health Insurance Company also have to wait the longest (518 days) and the policyholders of Union the shortest (407 days). For cataract surgery, waiting times for all policyholders are within a small difference (11 days); the longest have to wait the policyholders of Dôvera (93 days) and the shortest the policyholders of Union (82 days). Overall, the shortest waiting times for the most common intervention on waiting lists have Union. Since 2008, waiting time for hip replacement had increased by about 6 weeks, from 441 to 481 days. Waiting time for cataract surgery since 2008 had increased by more than 40%, from 62 to 88 days.

The analysis pointed out that it is necessary to establish a legal right for patients to know what services they are entitled to, in what timeframe and the extent of their participation. It is necessary to set clear rules for the formation of waiting lists and make them available to the public. Such increase of transparency can reduce the incidence of corruption.

Acknowledgements

References

Act No. 581/2004 Coll. on Health Care Insurance Companies and Surveillance over Health Care and on Amendment and Supplementation of Certain Acts

Decree of Ministry of Health no. 151/2011 Coll., which amends and supplements Decree of Ministry of Health no. 412/2009 Coll., which establishes details on the waiting list for policyholders who are waiting for provision of planned healthcare.

EISEN, B., BJÖRNBERG, A., (2009) *Canada Health Consumer Index 2009*, Frontier Centre for Public Policy, ISSN 1491-78

SICILIANI, L., HURST, J., (2003) *Explaining Waiting Times Variations for Elective Surgery across OECD countries,* OECD, DELSA/ELSA/WD/HEA(2003)7

SZALAYOVÁ, A et al. (2008) *Same same. But different. Health insurance companies rating*. Bratislava, Health Policy Institute.

Dancing to the Same Tunes?
Comparison of Czech and Slovak Citizens´ Engagement in Civil Advocacy Twenty Years after the Divorce

Navrátil Jiří

Abstract

This paper aims at exploration of individual participation in civil advocacy activities in the Czech Republic and Slovakia. It differentiates between two main competing explanations of civic participation - the institutional, and the cultural one. Building upon two surveys, paper shows that despite the different trajectories of institutional politics in both countries, the extent, forms and issues of civil advocacy participation on the individual level are strikingly similar. Consequently the cultural factors – as more enduring and resistant to changes in the short term - are identified as the key to understanding the shape and character of civil societies in two countries.

Keywords

Introduction

This paper aims at exploration of the problem of individual participation in civil advocacy activities in the Czech Republic and Slovakia. It differentiates between two main competing explanation of civic participation - the political-institutional one, and the cultural one, and builds upon the assumption that while institutional factors may change (and indeed changed in both countries) quite quickly and significantly, the cultural factors are much more enduring and resistant to changes in the short term. The paper asks whether we may find significant differences between the levels, forms and issues of civil advocacy in two countries and consequently ascribe these changes to different institutional development or whether the two nations still share key features of political culture and patterns of civic participation continue to resemble each other.

The Czech and Slovak Republic represent a felicitous laboratory for such an exploration. On the one hand, they shared historical, cultural and political traditions almost for 74 years when they were part of a single state and formed a single society. On the other hand, it has been 20 years after these two nations divorced and separated their political institutions. Since 1992, institutional and political development

of both countries started to diverge and indeed started to provide different incentives and opportunities for individual civic participation.

The structure of the paper is following: first, the theoretical framework of the paper is introduced and concepts of political (opportunity) structure and political culture are described. Next, the differences in the evolution of political structures of both states after 1992 are depicted. Furthermore, data and empirical results are introduced and compared. The paper concludes with brief discussion of results.

Theoretical framework

This paper aims at de-composing the problem of "weakness of post-communist civil societies" (Rose, 1999; Rose, Mishler, Haerpfer, 1996; McMahon, 2001; Howard, 2002) into the problem "citizens' organizational passivity" and their relation to "transactional" CSOs without members (Petrova, Tarrow, 2007; Císař, 2008). It focuses solely on the advocacy oriented civil activities - aiming at changing policies, linking individual and broader political process or securing collective goods (Jenkins, 1987; Salamon et al., 2000).

Two broad competing perspectives of individual participation both in institutional politics and in civic sphere emerged in social sciences - institutional or cultural one. The importance of institutional environment for political behaviour have been theorized and confirmed by many studies (Tilly, 1978; Kriesi, et al. 1995; Tarrow, 1998; Meyer, 2004; Snow, Soule, 2010). Political opportunity structure is analysed in order to explain how the institutional setting of a given polity motivates or discourages the challenging groups that pursue some political or social change. This paper claims that both the attitudes of government towards civil society, and the strategies of CSOs towards elites represent key political opportunities for individual engagement in civil advocacy.

Apart from institutional explanation of individual action, there are alternative approaches that point to the importance of "soft" factors in shaping the extent and character of civil participation (cf. Almond, 1983). Political culture may be depicted e.g. as collective identity of citizens, of large cultural frames, ideologies, discourses, or as inherited set of beliefs, norms, values, opinions or attitudes that citizens have or hold about the political issues in the society (cf. Almond, Verba, 1989). According to this perspective, it is primarily the cultural configuration of a given polity that determines its political features (Almond, 1983; Almond, Verba, 1989; Inglehart, 1988). Most importantly, this perspective claims that "prior set of attitudinal patterns will tend to persist in some form and degree and for a significant period of time, despite efforts to transform it (Almond, 1983, p. 127) and thus impose "significant constraints" on citizens´ behaviour despite the substantial changes that may take place

on the level of political system, political institutions or political process (cf. Almond 1983, p. 128).

To conclude, this paper builds upon the assumption, that political culture is much more long-term and enduring factor influencing the citizens´ participation in civil advocacy than relevant political opportunities, and it is the factor that may explain their common features in the case of Czech and Slovak Republic. In other words, it expects that the while the similarities in the patterns of civic advocacy engagement shall be attributed to shared historical, cultural and political past of the two societies, the differences are the outcomes of institutional reforms, twists in political process and transformations of CSO sector after the divorce of the two countries in 1992.

Evolution of the political opportunities (1992 - 2010)

Evolution of institutional context for individual participation may be analysed within two main layers: government and CSOs.

Attitudes of Czech governments and advocacy CSOs have changed a lot, but never become openly and politically hostile – we may speak of continual improvement of mutual relations. Initial enthusiastic attitude changed after the 1992 with Klaus´s government´s closing the political opportunities for advocacy CSOs (Frič, 2005, p. 35). This slowly changed after 1996 when some important institutional settings for communication and resource distribution were established and the process of preparation for EU membership started. After the first left-wing government since 1989 took office in 1998 both the political discourse and the practical measures started to change. The introduction of regional self government in 2000 multiplied the access points for CSOs for entering the policy making processes and funding. The government also established permanent Government Council for Non-State Non-profit Organizations (see below) (cf. Frič, 2005, p. 35). After elections in 2006, the central-right-wing parties for the first time invited the Green Party into the Cabinet. As the party continuously participated within the personal and inter-organizational networks of non-profit sector, the major part of advocacy CSO – the environmental CSOs – tamed its critique of the activities of government and replaced it with systematic cooperation with political institutions. Consequently, the process of establishment of the third sector as a source of alternative expertise for the state executive was accomplished.

The strategies of Czech CSOs may be described as largely non-confrontational and non-political: CSOs were seldom forced to develop public position towards the government and its policies and expressed continuous efforts to keep their distance both from institutional and "street" politics. Continuous and successful incorporation Czech CSOs into the political process enabled them to use more covert and unimpressive tactics and tendencies to see citizens as the target audience of their highly

professionalized activities, and to be very sceptical about their motives, willingness and capacities to take part (Navrátil, Pospíšil 2010).

Evolution of government attitudes toward civil sector in Slovakia differed significantly. After Vladimír Mečiar´s second government took over office, it quickly became accused of dictatorial practice, non-transparent treatment of public resources and effort to gain control over civic sector (Strečanský, 2004; Szeghy, 2010). After the end of Mečiar´s period in 1998, the situation largely calmed down and the opportunity structure quickly opened up. Part of the sector gained the close access to the political process; advisory bodies were established to enable CSOs to express their concerns and opinions on various issues within political institutions. The final period of political opportunity structure started in 2006 and lasting to 2010 Fico's government was accused of „etatism, centralization of the state power, insufficient respect arrogance towards third sector, which provoked reaction of CSOs" (Szeghy, 2010).

The advocacy strategies of Slovak CSOs were completely different than in the Czech Republic: the threat of undemocratic measures of Mečiar´s government provoked unexpectedly strong resistance and mobilization of non-governmental sector. With some help from foreign authorities and non-states actors Slovak CSOs succeeded in unifying CSOs from different sectors in explicitly political struggle for the character of the state, and probably succeeded in causing the fall of Mečiar´s government (Strečanský, 2004). After the calm period of 1998-2006, advocacy CSOs again showed their preparedness to engage in political issues and succeeded in large mobilizations of citizens against the new non-profit legislation.

Vis-à-vis these two different paths of development, one would expect also different extent of citizens´ participation in both countries, different forms of this participation and probably also the different issues of civil advocacy activities (e.g. non-political vs. political issues etc.).

Material and Methods

Paper draws on survey data that were collected in Czech and Slovak Republic in April 2010 that was funded by the CEE Trust within the project "Has our dream come true? Comparative research of Central and Eastern European Civil Societies". 800 respondents participated in survey in CR and 796 in SR. The survey was conducted via CATI. The quota sampling was used to cover nationally representative population aged 18 and more. The survey consisted of 19 standardized questions focusing on the extent and character of participation in civil advocacy activities. Data were processed in IBM SPSS Statistics software.

Results and Discussion

To assess the extent and character of Czech and Slovak citizens´ individual engagement

in civil advocacy, we compare following aspects: first, the very (reported) activity of citizens, form of their activity, and issue area, where they are active in.

Data show that the level of citizens´ involvement in civil advocacy in both countries is very similar (see Table 1): around one third of respondents declare that they are active, and two thirds report that they are not involved. Indeed the significance test for two population proportions show that there are not differences among the Czech and Slovak population regarding the share of active citizens.

Table 1: Personal engagement in civil advocacy in the Czech and Slovak Republic (%)

Engagement	Czech Republic	Slovakia
yes	32,9	36,4
no	66,9	63,5
refuse	0,2	0,1
total	100	100
N	800	796

(Q: Are you personally active in one or more of the above activity areas or organizations?)

Source: Author

Next we look at forms of activities in civil advocacy of those who are active (see Table 2). Again, the data show very similar patterns: donation is by far the most favourite form of personal involvement in both countries. Overall ranking of popularity of various forms of protest is identical in both countries. However, some categories differ more in both countries: these are the proportions of citizens that are participating in the campaigns and/or that were engaged in voluntary work. Both these proportions are significantly higher in the case of Slovak citizens.

Table 2: Forms of personal engagement in civil advocacy in the Czech and Slovak Republic (%)

Form of activity	Czech Republic	Slovakia
donation	89,8	87,2
supporter (signing petitions, participating in campaign) *	52,4	70,3
voluntary work *	37	51,9
chatting, blogging etc.	26,5	27,5
member of an NGO	20,3	20,5
other (promoting ideas and attitudes)	5,3	1,6
don´t know	0,2	0
N	263	290

(Q: In what way did you get involved in a civil activity?)

Source: Author

Note: Asterisk denotes statistically significant differences in proportions between two countries

The next step is to look at the personal engagement according to different issue areas (see Table 3). The level of match between two countries is even more impressive

than in the case of forms of their engagement. Only 1 out of 15 issue areas seems to have significantly different attractiveness for citizens in both countries, and even in this case (women rights), the difference is not extreme but only limited. In other words, it seems that there are some differences between two countries regarding the issues of engagement but these are rather small, insignificant and not substantial.

Table 3: Personal engagement in civil advocacy areas in the Czech and Slovak Republic (%)

Advocacy area	Czech Republic	Slovakia
rights of children	55,6	51,9
disabled people's rights	55	49,9
animal rights	48,6	40,9
environment	43,4	50,1
human and citizens' rights and freedoms	32,8	39,7
education, health, social policy	32,5	38,8
citizens' security	23,3	27
international and global issues	22,2	23
consumer protection	18,8	26
anti-corruption	18,4	21,8
women rights *	17,7	30,3
work of democratic institutions	16,7	13,4
national minority rights	16,6	15,8
economic policy	12,6	14,2
LGBT rights	5,9	7,9
N	263	290

(Q: In which advocacy area are you active in?)

Source: Author

Note: Asterisk denotes statistically significant differences in proportions between two countries.

Conclusion

Presentation of the data revealed surprisingly deep similarities in the level, forms and areas of civil advocacy engagement in both countries. Despite the fact, that the development of political opportunities for individual engagement in civil advocacy in both countries significantly differed after 1992, the similarities of individual citizens´ involvement are dominant. Drawing back to the theoretical framework of the paper, we may conclude, that it is the cultural argument that could provide us with deeper understanding of patterns of civil engagement in different countries. Nonetheless, it seems that at least some of the differences that were explored as significant may be attributed to the political-institutional developments in both countries: higher importance of voluntary work and support of advocacy campaigns are quite clearly result of unusually large-scale political mobilizations against Mečiar´s governments. On the other hand, relatively lower preference of advocacy of women rights in Czech society may be connected with the overall perception of over-

representation of this issue within society, or by much better organizational infrastructure of feminist CSO in Slovakia. However, this is the problem for future research.

Acknowledgements

References

ALMOND, G. A. (1983) "Communism and Political Culture Theory." *Comparative Politics* vol. 15, no. 2, pp. 127-138.

ALMOND, G. A. VERBA, S. (1989) *The Civic Culture Revisited*. London: SAGE.

CÍSAŘ, O. (2008) *Politický aktivismus v České republice. Sociální hnutí a občanská společnost v období transformace a evropeizace (Political Activism in the Czech Republic: Social Movements and Civil Society in the Periods of Transformation and Europeanization).* Brno: CDK.

FRIČ, P. (2005) "The third sector and the policy process in the Czech Republic." *Third Sector European Policy Working Paper 6.*

HOWARD, M. M. (2003) *The Weakness of Civil Society in Post-Communist Europe.* Cambridge: Cambridge University Press.

INGLEHART, R. (1988) „The Renaissance of Political Culture." *The American Political Science Review,* vol. 82, no. 4, pp. 1203-1230.

JENKINS, J. C. (1987) Nonprofit Organizations and Policy Advocacy. The Nonprofit Sector: A Research Handbook. New Haven: Yale University Press.

MCMAHON, P. (2001) "Building Civil Societies in East Central Europe: The Effects of American Non-governmental Organizations on Women's Groups." *Democratization* vol. 8, no. 2, pp. 45-68.

MEYER, D. S. MINKOFF, D. C. (2004) "Conceptualizing Political Opportunity." *Social Forces* vol. 82, no. 4, pp. 1457–1492.

NAVRÁTIL, J. POSPÍŠIL, M. (2010) "COUNTRY REPORT - CZECH REPUBLIC." Final report prepared for the project „Has our dream come true? Comparative research of Central and Eastern European Civil Societies". Unpublished manuscript.

PETROVA, T., TARROW S. (2007) "Transactional and Participatory Activism in the Emerging European Polity: The Puzzle of East Central Europe." *Comparative Political Studies* vol. 40, no. 1, pp. 74-94.

ROSE, R., MISHLER W., HAERPFER Ch. (1996) "Getting Real : Social Capital in Post-Communist Societies." Conference on The Erosion of Confidence in Advanced Democracies. Brussels, November 7-9.

ROSE, R. (1999) "What Does Social Capital Add to Individual Welfare? An Empirical Analysis in Russia", SCI Working Paper No. 15. Washington DC: The World Bank.

SALAMON, L., HEMS L., et al. (2000) The Nonprofit Sector: For What and for Whom? Working Papers of the Johns Hopkins Comparative Nonprofit Sector Project, no 37. Baltimore: The Johns Hopkins University Centre for Civil Society Studies

STREČANSKÝ, B. (2004) *Občianska advokácia a mimovládne organizácie (Civil advocacy and non-governmental organizations)*, in: Majchrák. J, Strečanský B., Bútora M., eds.: *Keď ľahostajnosť nie je odpoveď (When indifference is not an answer).* Bratislava: IVO.

SVITKOVA, K. (2004) "The Evolution of the Third Sector in Slovakia." Research Report CERGE-I, Charles University in Prague.

SZEGHY, P. (2010) "COUNTRY REPORT - SLOVAKIA." Final report prepared for the project „Has our dream come true? Comparative research of Central and Eastern European Civil Societies". Unpublished manuscript.

TARROW, S. (1998) *Power in movement: social movements and contentious politics.* Cambridge: Cambridge University Press.

TILLY, C. (1978) *From Mobilization to Revolution.* Reading, MA: Addison-Wesley.

Sport Clubs and Economic Aspects of their Relations with Municipalities and Sport Federations

Pavlík Marek

Abstract

There is a running discussion about the system of financing sport from public budgets and there are opinions that sport is not sufficiently supported. We know surprisingly little about the situation of sport clubs and to find a better support system we have to gather information about the environment of sport clubs. What do we know about relations of sport clubs with public authorities and their own sport union/federation and why do we need to know? The aim of this paper is to analyze relationships between sport clubs and municipalities/sport federations and discuss economic consequences of these relations for the efficiency of public resources allocation.

These relationships are important for the evaluation of the system of sport support. Both public authorities and sport unions are partners for sport clubs in the area of financial and non-financial support. We gathered data from sport clubs and performed an analysis especially for three selected sport branches (athletics, basketball, karate).

We discovered a significant "failure" in the relationship between sport clubs and their own sport federations. We conclude that before increasing or changing public grants system the "self-organization" of sport clubs in sport unions/federations should be improved, especially in some sport branches.

Keywords

sport, sport federation, municipality, public budgets, relationship

Introduction

Sport is a phenomenon which affects the majority of every society; even the EU recognized sport as an important part of its objectives of solidarity and prosperity (Commission of the European Union; 2007a). Sport clubs are basic units where both professional and amateur sportsmen are organized. Most sport clubs operate as non-profit organizations (NPOs), which is a result of tradition, tax incentives and public grants conditions (see e.g. Novotný 2011, Hodaň, Hobza 2010). NPOs as providers of most of these activities are accepted as important actors of economic as well as political development (Brown, D.,L., Kalegaonkar, A. 2002).

The EU also believes that "*grassroots sport, equal opportunities and open access to sporting activities can only be guaranteed through strong public involvement*" (Commission of the European Union; p. 13, 2007a). On the other hand, research gives us

also arguments against the support of sport activities/organizations from public budgets (e.g. Martin 2001, Jones 2002) and we can also accept the claim that the process of grant allocation is more a political than a rational economic process (Kantor 1995).

The issue of relations between sport clubs and public authorities and their own sport unions/federations has been selected for analysis to explore the situation in the Czech Republic. There is a running discussion about the system of financing sport from public budgets and there are opinions that sport is not sufficiently supported. We know surprisingly little about the situation of sport clubs and to find a better support system we have to gather information about the environment of sport clubs.

The aim of this paper is to analyze relationships between sport clubs and municipalities/sport federations and discuss economic consequences of these relations for the efficiency of public resources allocation. We set the following research questions:

- How often do sport clubs receive support (financial grants or non-financial support) from the municipality and from their own sport union/federation?

- What are the differences between total results and selected sport branches? Are there any anomalies based on a given sport branch?

- What are potential economic consequences of revealed quality of relations for sport clubs and public budgets?

We assumed that relations with sport federation/union could be better than relations with public municipalities; however, our results proved this assumption wrong.

Methodology

The author performed the questionnaire research among sport clubs in the Czech Republic in spring 2011. The list of 19 questions was sent to 1,567 sport clubs and 430 completed forms were returned. Non-profit legal form was listed by 406 respondents. It is difficult to estimate the total number of sport organizations in the Czech Republic, hence we cannot evaluate if the answers are sufficient for a representative sample. A questionnaire was sent to approximately 60% of sport organizations enrolled in the Czech Union of Sport (ČSTV). ČSTV associates 72 sport federations and it is estimated that 70% of athletes are members of the ČSTV. We estimated that respondents' answers (430) represent approximately 58,000 registered members of sport clubs. However, there is an estimate of 2.5 mil. members of sport organizations. The percentage of respondents according to size category and the number of inhabitants in the municipality where the club is situated can be seen in Table 1.

Table 1: Characteristic of the respondents

Number of members	% of respondents	Inhabitants in the municipality (in thousands)	% of respondents
1-30	18,4	less than 5	11,6
31-70	27,9	5-10	10,7
71-150	23,5	10-50	32,3
151-300	19,5	50-150	19,3
301-500	5,1	150-400	7,2
501 and more	5,6	over 400	18,8

Source: Author

In this paper we analyze responses to four questions: (1)"Did you receive support (it means financial grants or/as well as non-financial support) from your municipality?"; (2) "Did you receive support from your sport union/federation/association?"; (3) "Was your last grant request successful?"; (4) "What was your last economic profit/loss?". All results (430 respondents) were filtered for three selected sport branches: (1) athletics – 74 respondents; (2) basketball – 29 respondents; and (3) karate – 26 respondents. All answers were anonymous.

Results and discussion

Public financing of sport organizations in the Czech Republic

There are many possibilities for Czech sport organizations to receive some kind of grant (see Table 2). Usually there is a condition of non-profit legal form to enable the organization to receive public grants. However, at the level of professional sport clubs, for profit legal form is also accepted. Allocation rules inside sport federations are not usually connected with the legal form of a potential grant recipient. The legal form of a strong majority of sport organizations is non-profit and also 94,7% of our respondents have a non-profit legal form.

Table 2: Review of sport clubs and their public sector partners

Type of sport NPO	Description	Subsidizer	Decision maker
General Sport Associations (GSA)	There are nine GSAs which encompass all sport branches unions/federations in the Czech Republic. These "Nine" were stakeholders of the biggest lottery company in the Czech Republic. Their role consists in provision of financial and non-financial support for sport unions/federations. It seems that their role has been decreasing since 2011.	Ministry of Education, Youth and Sport Ministry of Defense Ministry of Interior EU funds/projects	Ministry committee

Type of sport NPO	Description	Subsidizer	Decision maker
Sport branch federations / unions / associations	Members of one of the GSAs. Each sport union/federation incorporates sport clubs in the given sport branch. These unions/federations can be divided also into regional sub-unions/federations.	Regional municipalities Ministry of Education, Youth and Sport EU funds/projects	Representative body
Sport clubs	Basic unit. Most sport clubs are NPOs; however, some of them operate as Ltds, joint stock companies or sole proprietors.	Regional and local municipalities EU funds/projects *Sport branch federation/ unions / associations*	Representative body National authority Executive board of sport union /federation

Source: Author

The role of municipalities in the process of subsidizing sport NPOs is all the more important because we found out that sport NPOs receive grants and non-financial support from municipalities more frequently than they receive support from their own sport federation/association – see results in Fig. 1. The results also show important information about a failing system of "internal" support inside the sport federations. It could be expected that sport federation and association "internal" support system is more supportive and generous than municipality support. However, sport federations can also be recipients of public grants; the only difference is the system of redistribution. Nemec (2009) showed that there is a risk of high dependence on public budgets for sport clubs, using the case of the Slovak Republic.

Figure 1: Comparison of received support from local municipalities and sport unions/ federations in %
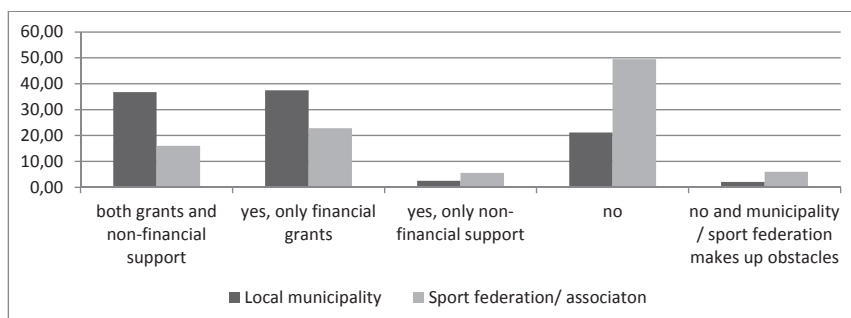
Source: Author

Seeing that only 23% of respondents did not receive any support from municipality and respecting that 18% of respondents did not ask for grants in the last two years (2009, 2010); we can conclude that relations between sport clubs and municipalities are surprisingly very good. The real problem is that almost 50% of respondents did not receive any support from their own sport unions/federations. This result raises two important questions:

- Why is non-financial support from sport unions/federations so low? We can accept that the lack of financial resources is an obstacle to increasing financial support; we can, though, hardly accept that an organization created by (and for) sport clubs does not provide support or even occasionally creates obstacles for its own members (6% of respondents).

- Is this situation the same for all sport branches (system failure) or can we identify specific sport federations which are failing? To answer this question, we selected three sport branches with a higher number of respondents. Considering the findings, we can ask if the public grants allocated to these "wrong" sport federations are meaningful!

Partial results for selected sport branches

We selected three sport branches to be analyzed in detail. Sport clubs in these three branches are different in average number of members as well as in the price of membership dues. These differences are caused by the character of the sport branches (see Tables 3 and 4).

Table 3: Number of members

in %	athletics (74)	basketball (29)	karate (26)
1-30	17,57	6,90	**38,46**
31-70	**28,38**	10,34	**38,46**
71-150	20,27	**41,38**	7,69
151-300	25,68	34,48	15,38
301-500	4,05	3,45	0,00
501 and more	4,05	3,45	0,00

Source: Author

Table 4: Membership dues

in %	athletics (74)	basketball (29)	karate (26)
No membership dues	6,76	0,00	7,69
till 200 CZK/year	8,11	0,00	0,00
201-500 CZK/year	22,97	6,90	11,54
501-1.500 CZK/year	**41,89**	17,24	19,23
1.501-4.000 CZK/year	18,92	**55,17**	**57,69**
4.001-10.000 CZK/year	0,00	20,69	3,85
More than 10.000 CZK/year	1,35	0,00	0,00

Source: Author

Differences can be found also in the clubs' approach to public grants. Significantly fewer of karate clubs ask for grants and a higher portion of karate clubs did not succeed with their grant request. It seems that there can be a connection between the number of members and success of the grant request, as it is information that the municipalities always want to know when deciding about grants (Pavlik 2012).

Table 5: Were you successful with the last municipality grant request?

in %	Athletics (74)	Basketball (29)	Karate (26)
Yes, we get what we asked for	28,38	31,03	7,69
Yes, but we get less than we asked	60,81	65,52	50,00
No	5,41	0,00	11,54
We didn't ask for the grant	5,41	3,45	30,77

Source: Author

Relations with sport federation and municipality are shown in Figure 2. It provides a few interesting findings in comparison with the results in Figure 1. The basketball sport federation provides significantly less support than the average and also than unions or federations in the other two sport branches. Karate did not receive non-financial support from its sport federation; however, karate is in a different position to others – there is more than one karate union/federation in the Czech Republic.

Figure 2: Comparison of support received from local municipalities and sport unions/ federations in % for three selected sport branches
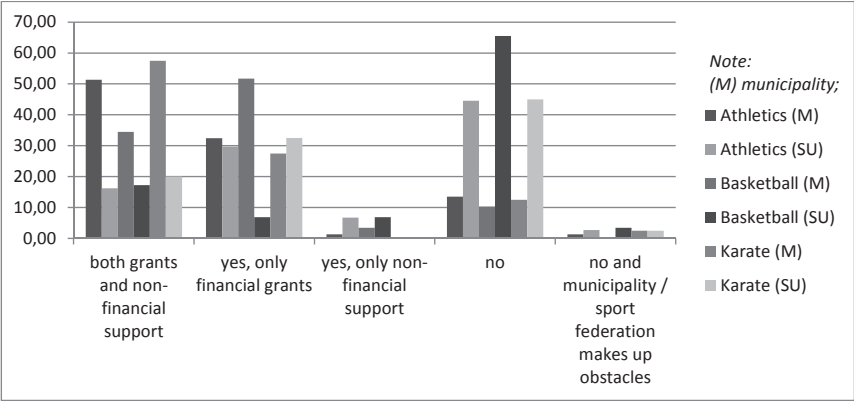
Source: Author

What are the economic consequences of a "failing" system of support from the sport's own organization? We accept that both municipalities and sport federations have a financial limit for the grants. We assume that the role of municipalities is wider than just provision of non-financial support for NPOs. Why do sport federations provide

such a low level of non-financial support? We can identify and discuss three answers:

1. They do not want to do it – in this case, we would see the system failure. Why do those who are elected by sport clubs not want to be helpful to sport clubs?

2. They cannot do it – in this case, we have to seek reasons for such obstacles – although we cannot ask (or expect) anyone else to do it than sports clubs.

3. They are not asked for such support by sport clubs – in this case, the lack of support cannot be perceived as a problem.

The first obvious effect of this situation is that the sport clubs consider themselves not sufficiently supported and assume that it is because of a lack of resources. They may believe that limited financial resources lie at the root of the lack of support from their own sport federation.

Additional information about the situation of sport clubs is shown in Table 6, which illustrates the profit the sport clubs made in relation to the grants. The results (see Tab. 6) can be interpreted in three ways: (1) They serve as evidence of high dependence on public grants; (2) They show poor economic skills of sport clubs; (3) They can be affected by the effort of sport clubs to be seen as "poor" and "non-profit", even if being non-profit does not mean that the club cannot have higher revenues than expenditures, as that is a necessary condition for long-term operation.

Table 6: Economic profit

in %	athletics (74)	basketball (29)	karate (26)	Total results (430)
Expenditures exceeded revenues (grants received)	14,86	27,59	11,54	20,93
Expenditures exceeded revenues (no grants)	8,11	6,90	38,46	17,67
Revenues equal to expenses (grants received)	**68,92**	**48,28**	**34,62**	**50,23**
Revenues equal to expenses (no grants)	1,35	0,00	0,00	1,16
Revenues exceeded expenditures (grants received but without effect on profit)	0,00	0,00	7,69	3,26
Revenues exceeded expenditures (grants received and having a positive effect on profit)	6,76	17,24	7,69	5,12
Revenues exceeded expenditures (no grants)	0,00	0,00	0,00	1,63

Source: Author

Conclusion

We found that there is a significant problem with the system of financial and non-financial support hidden inside the sport federations. Although it is generally accepted that self-organization could be more effective in the non-profit sector, our findings showed a failure.

The results also showed that the strategy of most municipalities is to accept more grant requests but allocate smaller sums of money than requested. In the short term, such

behavior can be seen as a good solution, because more clubs receive support. However, in the long-term view, there is a risk of "inflation," because clubs adapt to the usual municipality strategy "to cut" and they will be asking for more money. The pressure on public resources as well as the illusion of a lack of resources will probably arise in the long term.

A discussion of economic consequences for sport clubs is connected with the question "what happens if sport clubs do not receive the grant?" In other words, does it mean that absence of the grant can cause a deficit situation or do clubs simply decrease their expenditures? Grants usage is dependent on rules given by the municipality; but receiving a grant enables reallocation of newly free resources to other expenditure opportunities. Without detailed accounting data, we cannot give a strong answer. It is usually argued that without grants most clubs cannot survive. The results of this research are partly supportive of that assumption. But there is a probability that clubs have insufficient financial skills or it could be a result of strategic behavior.

Before implementing any changes in the system of sport support we should seek the root of the failures revealed in this paper. Why is support from sport federations so small? Why are economic results of sport clubs so poor? Without answers to these questions, we probably cannot suggest any rational changes in the system of sport support.

References

BROWN, D.,L., KALEGAONKAR, A. (2002) Support Organizations and the Evolution of the NGO Sector *Nonprofit and Voluntary Sector Quarterly June 2002 31: 231-258, doi:10.1177/0899764002312004*

Commission of the European Union (2007a): *White paper on sport*. Brusel. [online] http://ec.europa.eu/sport/white-paper/doc/wp_on_sport_en.pdf

JONES, C. (2002), Public cost for private gain? Recent and proposed 'national' stadium developments in the UK, and commonalities with North America. *Area*, 34: 160–170. doi: 10.1111/1475-4762.00068

KANTOR, P. (1995). *The dependent city revisited: The political economy of urban development and social policy*. Boulder, CO: Westview. ISBN 081331903X

MARTIN, F. (2001), Should Cities Subsidize Nonprofit International Organizations?: A Case Study and Cost Benefit Analysis. *Journal of Urban Affairs*, 23: 361–373. doi: 10.1111/0735-2166.00094

NEMEC, J., MEDVED, J. ,ŠAGÁT, V. (2009) Public finance and sports in Slovakia, selected problems and their developments under the economic and financial crisis. *In: Teoretické a praktické aspekty VF. VŠE Praha*, 2009,

NOVOTNÝ, J. (2011) *Sport v ekonomice*. Vyd. 1. Praha: Wolters Kluwer Česká republika, 2011, 512 s. ISBN 9788073576660.

HODAŇ, B., HOBZA, V. (2010) *Financování tělesné kultury jako složky občanské společnosti*. 1. vyd. Olomouc: Univerzita Palackého v Olomouci, 2010, 214 s. ISBN 9788024426587.

PAVLÍK, M. (2012) Transparency of allocation of Public Grants for Czech sport organizations. *In Proceedings of the 16th international conference - Modern and current trends in the public sector research*. Brno: Masarykova univerzita, Ekonomicko-správní fakulta, 2012. od s. 252-260, 8 s. ISBN 978-80-210-5822-4.

Economic Crisis: A Hard Blow or a Challenge for Non-profits?

Pospíšil Miroslav, Prouzová Zuzana, Škarabelová Simona,
Tůmová Almani Kateřina

Abstract

To analyse the impact of the economic crisis on the Czech nonprofit sector is a complex task, for which there are not sufficient data available to date. In this paper we limit ourselves to a probe into the level of giving as an important indicator of the support for Czech NPOs. We use several indicators to estimate the impact of the current economic crisis on the funding for NPOs from individuals, businesses and the state. While the support from individuals and from businesses has been largely unaffected by the crisis, or has only been affected very briefly, the funding from the state has decreased, even though not very dramatically. By way of conclusion, we suggest that the crisis can not only be a threat but also an opportunity for NPOs if they want to emancipate themselves from too much dependence on the state.

Keywords

economic crisis, impact, nonprofit sector, Czech Republic

Introduction

It can be reasonably expected that the 2008–2012 global recession will have affected all society and all walks of life, including the private nonprofit sector. The worsening economic and social situation and the austerity measures introduced by the government will increase the demand for the services provided by nonprofit organisations (NPOs) on the one hand but reduce the amount of finances available to NPOs from public budgets on the other. There will be more people in social need and there will be less public funding for the social safety net, which will increase the demands on NPOs. In this situation, will they be able to sustain the extent and the level of their services, to say nothing of extending and expanding them to meet the increased demand? Will the government, business and the public be willing, and be in a position, to continue to support NPOs or will their support inevitably decline?

To analyse the impact of the economic crisis on Czech nonprofit organisations will require future work, when reliable data become available and when more indicators can thus be included in the analysis. For the first tentative assessment of the situation, we limited ourselves to a probe into the level of giving as an important indicator of the financial situation in Czech NPOs, leaving aside other measures such as assets and income from assets, earned income, volunteering etc.

Material and Methods

In our previous paper (Pospisil et al, 2012) we used data for the main sources of revenue for NPOs (individuals, businesses and the state) drawn from the Czech Satellite Account on Nonprofit Institutions (CZSO, 2009). As these revenue data (Transfers received - D.75) are consolidated (EUROSTAT, 1995, p. 106), in this paper we examine not only these three sources of funding but also grants made to nonprofit organisations by philanthropic foundations.

For assessing the impact of the economic crisis on the Czech nonprofit sector we focus on the developments in the giving environment for NPOs. Our basic method of collecting existing materials, research findings and their metadata was desktop research. The sources of data for individual giving used in this article were the Czech Donors Forum, which administers SMS Giving in the Czech Republic, and financial information about well-known public charitable appeals. Data on individual and corporate donors come from information from their income tax returns. These data were collected by Nadace Via. The source of data on public funding was the "Analysis of Funding for Non-State Nonprofit Organisations from Public Budgets", which is prepared annually by the authors and published by the Czech Government. Finally, data on foundations were taken from "Information about the activities of foundations that were recipients of funding from the Foundation Investment Fund", which is prepared annually by the Czech Donors Forum and published by the Czech Government.

Analysis of Developments in Funding for NPOs

Individual donors

There are no statistical data on individual giving available in this country. We have therefore looked at three separate indicators, which will not give us the full picture of individual philanthropy, but can at least indicate its trends in the past several years. First, Table 1 shows the income of selected well-known public charitable appeals and collections that collect money from individual citizens (and businesses too) and which are repeated annually and give thus a time series indicating the willingness and ability of the public to give for public beneficial causes over time. The figures do not seem to indicate any clear pattern of change in giving in the past seven years.

Table 1: Income of selected public charitable appeals (CZK million)

Appeal	2005	2006	2007	2008	2009	2010	2011
Caritas: Twelfth Night Appeal (general humanitarian)	62,3	54,7	58,1	60,2	65,0	68,7	72,7
Children in Need (general children)	11,9	15,1	16,2	15,2	15,0	19,0	15,7
League against Cancer	12,6	11,6	13,6	14,6	14,6	14,8	14,2
Barriers Account (general health)	18,2	19,0	26,6	28,0	19,2	23,3	18,2
Paraple (paraplegia patients)	7,8	10,9	9,6	10,7	12,3	11,1	15,1
Světluška (the blind)	7,0	10,9	10,2	8,8	8,4	9,4	9,0

Source: Annual reports of the NPOs, table created by authors

Table 2 offers a look at individual people's giving via SMS, which is at the moment probably the most popular way of making a donation. If we exclude the exceptionally "generous" years of 2005 (Indonesian tsunami), 2009 (floods) and 2010 (Haiti earthquake and floods in Central Europe), when people spontaneously reacted to big natural disasters, both the number of donors and the sum total of donations have remained fairly stable over the past several years.

Table 2: Individual donations to NPOs through SMS Giving (CZK million)

Year	Number of SMS messages	Total amount raised
2004*)	936 522	25,3
2005	3 270 413	88,3
2006	1 392 112	37,6
2007	1 336 806	36,1
2008	1 323 402	35,7
2009	1 796 096	48,5
2010	2 256 690	60,9
2011	1 429 025	38,6

*) Inaugural year of SMS donations in the Czech Republic

Source: Czech Donors Forum

Finally, we can find some indication about individual giving in the statistics of the Ministry of Finance about applications by natural persons for tax deductions on charitable donations made to NPOs. Most individual donations in the Czech Republic are made to collection boxes in the street and through the SMS, i.e. without a consequent request for a tax deduction, but the time series could indicate a trend if there was one. The number of individual donors dropped slightly in 2009, but has been rising again since. A similar drop in 2009 appears in the total sum donated, which has since returned to almost pre-2009 levels. All these changes are relatively small, however, so that the level of individual giving seems to have remained stable.

Table 3: Individual donations to NPOs by persons applying for tax deduction

Year	Number of donors	Total amount donated (CZK million)	Average amount donated (CZK)
2007*)	141 093	1 469	10 412
2008	110 614	1 425	12 884
2009	107 898	1 198	11 103
2010	112 272	1 387	12 35
2011	116 993	1 342	11 466

*) The last year of joint tax declaration of married couples

Source: VIA Foundation

The data for 2007 should be excluded because they are influenced by the fact that married couples were able to submit joint tax declarations, which made tax deductions on charitable donations more advantageous and may thus have influenced the total number of donations made. Without the year 2007, there is a drop in both the number of donors and the total sum donated in 2009 but both measures have since recovered.

Public funding

Since funding from public budgets is the most important source of finances for Czech NPOs, together with funding from households, the development of funding by the state is the other most important indicator of whether or not NPOs have been impacted by the austerity measures introduced by the government as a response to the economic crisis.

Table 4: Public funding for NPOs (CZK million)

	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
State budget	3 509	5 569	6 600	6 311	5 701	5 767	5 741
Regional budgets	1 413	1 931	1 094	1 483	1 578	1 419	1 612
Municipal budgets	N/A	N/A	3 165	3 731	2 672	2 579	2 727
State funds	N/A	N/A	300	179	225	574	782
TOTAL			11 159	11 704	10 176	10 339	10 862

Source: Czech Government, Analysis of Funding for Non-State Nonprofit Organisations from Selected Public Budgets in 2005-2010, plus preliminary data for the year 2011

Table 4 shows that there is indeed an approximately 9 % decline in government support between the years 2007-2008 and 2009-2011. This does not appear very dramatic, but if we also consider the inflation rate, which was 2.8 %, 6.3 %, 1,0 %, 1.5 % and 1.9% respectively for those five years, the decline represents a considerable drop in NPOs' income.

Corporate donors

Several newspaper articles published towards the end of 2010 suggested that the level of corporate giving had been going down, by around 10 % between 2009 and 2010 (e.g. Czech TV 2010). This is very difficult to verify, but we can get some indication of the truth from the data provided by the Ministry of Finance, which records applications for tax deductions by companies that have given finances for public beneficial purposes. Not all donors ask for the deductions, not all the donations are for NPOs, and direct donations are only one way that companies use to support NPOs, besides corporate sponsorship, corporate volunteering, purchase of services,

and others. But it is a good indicator of the overall tendency, and as is apparent from Table 5, the total sum donated did go down between 2008 and 2010, by 12 %, but, to everybody's surprise, rose again in 2011, and to un unprecedented level at that. What remained lower than the figures for 2007-2008, however, was the number of companies that had made donations to NPOs.

Table 5: Corporate donations to NPOs by companies applying for tax deduction

	2007	2008	2009	2010	2011
Number of companies applying for tax deduction	18 845	19 251	16 732	15 634	16 296
Total amount donated (CZK million)	2 509	2 415	2 334	2 225	2 465
Average amount donated (CZK thousand)	133	125	139	142	151

Source: VIA Foundation

Philanthropic foundations

Income from foundations only makes up a small fraction of Czech NPOs' total income, but it is an important source in some activity areas and for some types of NPO. Foundations have been affected by the crisis quite badly, above all because due to the fall of the financial markets the revenue from foundation assets is so low that foundations have very little pay-out money to make grants to NPO applicants (see Figure 1).

Figure 1: Annual Payout of 65 Largest foundations
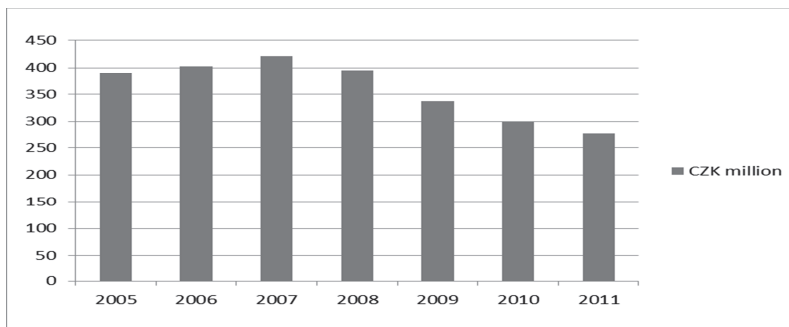
Source: Czech Government, Information about the activities of foundations that were recipients of funding from the Foundation Investment Fund 2010, plus preliminary data for the year 2011

Results and Discussion

We have only looked at giving as one indicator of the impact of the economic crisis on NPOs, but giving is an important one, which very likely reflects the overall trend

in the availability of funding for NPOs. From the data introduced above, however sparse they are, we can make some tentative conclusions:

(i)   The impact of the crisis in the Czech Republic has so far not been as hard as in some other countries. The Czech economy has slowed down, but not slumped into recession. That is why the (mediated) impact on the nonprofit sector has not been very serious, NPO leaders report that they have not felt serious financial shortfall in their organisations.

(ii)   Funding from the state for NPOs has decreased, but only slightly.

(iii)   Due to the crisis, the revenue of foundations from endowments and other financial assets has decreased quite dramatically between 2007 and 2011 so that the total amount of grants made by Czech foundations in 2011 was only 66,04 % of that in 2007.

(iv)   There seems to be no significant downturn in private giving however: after as light "hesitation" in/around 2009, both individual citizens and businesses remain as willing and able to make charitable donations as before.

Conclusions

This last finding is an important one and offers a good argument to those who believe that the crisis is an opportunity, not a disaster, for the nonprofit sector. There is a large group of nonprofit leaders that see the crisis and the resulting decreased support from the state as a chance to deal with two related phenomena that they perceive as ills and weaknesses of the Czech nonprofit sector. The continued support for NPOs from private individuals is a chance to improve the relations with the public, to attract more people to nonprofit activities, to win more participation and support from them and to increase the level of civic engagement. And if the nonprofit sector can no longer rely on state support to the same degree as before (and if it gets more support from individuals at the same time), it is a chance for Czech NPOs to build a strong, autonomous civil society and nonprofit sector, which is a real partner to the state and to business, overcoming thus the legacy of the paternalistic state, in which NPOs only play a subservient role and are far too much dependent on the state. Finally, a time of crisis is also a unique chance for NPOs to demonstrate their worth; they can show how much they can do for society in hard times, boosting thus their self-confidence as well as their image in the eyes of the public. It will be very interesting to see in the next few years if these arguments of the nonprofit leaders have fallen on fertile ground and if the chance that the crisis offers will have been taken up by Czech NPOs.

References

Czech Donors Forum (2012) Dárcovské SMS za osm let přinesly téměř čtyři sta milionů

[online]. [SMS giving has brought almost four hundred million in eight years]. Prague: Fórum dárců [Czech Donors Forum]. [cit. 2012-10-15] Available from WWW: http://www.donorsforum.cz/aktuality/139/darcovske-sms-za-osm-let-prinesly-temer-ctyri-sta-milionu.html.

Czech Government (2010a) Rozbor financování NNO z veřejných rozpočtů v letech 2005-2010 [online]. [Analysis of Funding for Non-State Nonprofit Organisations from Public Budgets in 2005-2010]. Prague: Úřad vlády ČR [Office of the Czech Government]. [cit. 2012-10-15] Available from WWW: http://www.vlada.cz/scripts/detail.php ?pgid=332.

Czech Government (2010b) Hodnotící informace o činnosti nadací – příjemců příspěvku z nadačního investičního fondu v roce2010 [online]. [Information about the activities of foundations that were recipients of funding from the Foundation Investment Fund in 2010]. Prague: Úřad vlády ČR [Office of the Czech Government]. [cit. 2012-10-15] Available from WWW: http://www.vlada.cz/assets/ppov/rnno/dokumenty/HI_ 2010.pdf.

Czech TV (2010) Na mecenáše dolehla krize, darovali méně [online]. [Donors hit by the crisis: they donate less]. Prague: Czech Television. [cit. 2012-10-15] Available from WWW: http://www.ceskatelevize.cz/ct24/ekonomika/102335-na-mecenase-dolehla-krize-darovali-mene/.

Czech TV (2012) Po letech útlumu se dárcovství v ČR vrátilo na předkrizovou úroveň [online]. [After a few years of downturn, giving in the Czech Republic is back to the pre-crisis level]. Prague: Czech Television. [cit. 2012-10-15] Available from WWW: http://www.ceskatelevize.cz/ct24/ekonomika/195876-po-letech-utlumu-se-darcovstvi-v-cr-vratilo-na-predkrizovou-uroven/.

CZSO (2009) Satelitní účet neziskových institucí 2005-2009 [online]. [Satellite Account on Non-Profit Institutions 2005-2009]. Prague: Czech Statistical Office. [cit. 2012-10-15] Available from WWW: http://apl.czso.cz/pll/rocenka/rocenka.indexnu_sat?mylang =EN.

Eurostat (1995) Evropský systém účtů ESA 1995. [on-line].[European system of accounts]. Eurostat, překl. ČSÚ, [cit.:2012-10-15] Available from WWW: http://apl .czso.cz/nufile/ESA95_cz.pdf

Nadace VIA (2012) Vývoj soukromého dárcovství v České republice v letech 2007 až 2011. [The development of private giving in the Czech Republic 2007-2011]. Prague: Nadace VIA.

POSPÍŠIL, M., PROUZOVÁ, Z., ŠKARABELOVÁ, S., ALMANI TŮMOVÁ, K. (2012) Czech non-profit sector twenty years after: current developments and challenges. *CIVIL SZEMLE*, Budapest, Hungary. ISSN 1786-3341, 2012, vol. 2012, no. 3, pp. 5-22.

The Nonmonetary Compensation Structure for Volunteer Work in the Non-profit Sector

Richea Maria-Magdalena

Abstract

Nowadays, the hallmark of the international working environment is defined by continually changing of economic and social processes. The dynamic of change generates new requirements in terms of human resources management strategies for public, nonprofit and for profit organizations, in order to meet high performance standards set by the new rules of economic game. Thus, considering the fact that payment system in the nonprofit sector is limited by nondistribution constraint, this study aims to identify the nonmonetary compensation structure for volunteer work.

In this respect, the main research objectives of this study are: (1) to highlight the perception of managers from nonprofit field regarding extrinsic rewards for volunteer work and (2) to identify non-wage motivational strategies adopted within nonprofit organizations.

Keywords

Introduction

Currently, the hallmark of the international working environment is defined by constantly changing of economic and social processes. Thus, the dynamic of change generates new requirements in terms of human resources management strategies for public, nonprofit and for profit organizations. In this respect, "human resources management practices must create value by increasing the intellectual capital within the agencies" Pynes (2004, p. 43) and also must be focused on improving the resources of knowledge owned by the employees, in order to meet the high standards of performance imposed by the labour market. Therefore, a significant effect of the contemporary economic and social rules of the game are that "the policy relevance of questions relating to the nonprofit labour force is growing" Powell and Steinberg (2006, p. 159).

Given the new requirements imposed by the dynamic of change over the human resources management practices on a highly competitive labour market, in this paper I will present the research findings resulted from the pre-test stage of a qualitative research that I have conducted, in order to identify the nonprofit manager's perception

regarding the nonmonetary compensation structure for volunteer work in the Romanian nonprofit sector.

Literature Review

The main specificity of nonprofit sector is that it deals both with nonprofit workers or personal staff and for profit workers or paid staff, and in this regard, this study aims to identify the compensation structure of nonmonetary benefits for volunteer work.

Considering the fact that, management perspective regarding the compensation structure for volunteer work it is strongly connected with the idea that "people volunteer instrumentally in order to receive a byproduct of volunteer work; it is not that they enjoy volunteering *per se*, but their utility increases because they receive an extrinsic reward from volunteering" Meier and Stutzer (2008, p. 41), in the next section, I want to emphasize the nonmonetary benefits perceived in past researches as extrinsic motivational factors for volunteering.

First Theoretical Perspective of Nonmonetary Benefits for Volunteer Work

Taking into consideration that fact that nonprofit management models "represents one possible analytical framework that can be used to understand the various dimensions, dilemmas, and structures involved in nonprofit management" Anheier (2005, p. 247), in the following, I will present the first theoretical perspective related to nonmonetary characteristics of volunteering.

A very important theoretical statement of this perspective is that "if pay in nonprofits is limited by the nondistribution constraint, nonprofit workers may be compensated by better working conditions or nonmonetary benefits" Powell and Steinberg (2006, p. 165). Therefore, the human resource management policy for the nonprofit workers must be designed on a motivational structure, based on nonmonetary extrinsic motivational factors.

According to Powell and Steinberg, the nonmonetary compensation structure can be designed taking into consideration the following extrinsic motivational factors: (1) *a non-wage compensation or non-wage benefits*, defined by "an employer contribution to an employee's health plan or retirement fund, as well as paid leave and other possible benefits such as parking, transportation, or health club subsidies" (2006, p. 165) and (2) *the ethos of a workplace*, defined by "the degree of flexibility in scheduling work, the implementation of family friendly policies, the stability of employment, and the degree to which a workplace affords upward career mobility" (2006, p. 165).

Further on, in their description process of nonmonetary compensation for volunteer work, Powell and Steinberg, present the results of several studies in this research topic, revealing the following features: *(a)* nonprofit workers have a "higher flexibility in work arrangements than the government workers and receive significantly higher levels

of training" (2006, p. 166); *(b)* in the nonprofit sector, women have "more schedule flexibility (paid sick leave and the ability to take time off for personal matters) and more likely to report that their work promoted skill development, was less repetitive and offered more chances for promotion" (2006, p. 166); *(c)* nonprofit sector provides "flexible work arrangements, such as: flex-time, part-time work, or telecommuting meant to provide more flexibility for the employee" (2006, p. 166); *(d)* work in nonprofit sector gives "opportunities to work independently and to develop one own's skills, the quality of colleagues, the opportunities for social action…and allows for work-family balance" (2006, p. 166).

As we observed above in the Powell and Steinberg line of thought, their theoretical perspective of nonmonetary conditions of work can lead to a model of human resources management practice for the compensation structure of nonmonetary benefits for volunteering. Thus, considering the theoretical perspective of Powell and Steinberg, *the first model of human resources management practice on nonmonetary compensation structure for volunteer work* can be shaped as follows:

P1. Basic principles:

- (C1) *Nonmonetary benefits* – employer's contribution to a health plan or a retirement fund, paid leave, health club subsidies, transportation.
- (C2) *Working conditions* – the degree of flexibility in scheduling work, stability of employment, family friendly policies, upward career mobility.

P2. Conceptual structure of extrinsic motivational factors for volunteer work:

- (Ef1) *flexibility in work arrangements* => schedule flexibility => flex-time,

  part-time work, or telecommuting;

- (Ef2) *higher levels of training* => work promoted skill development => less repetitive => more chances for promotion;

- (Ef3) *opportunities to work independently* => develop one own's skills => opportunities for social action => work-family balance.

Second Theoretical Perspective of Nonmonetary Benefits for Volunteer Work

Nowadays, the new trends in the international labour market are part of a process of transition from a society characterized by standardization of work (Fordism), to a society characterized by individualization of work (PostFordism). This transition process involves certain changes in structuring the work activity, as follows: "the more work relations are 'deregulated' and 'flexibilized', the faster work society changes into a risk society incalculable both in term of individual lives and at the level of the state and politics" Beck (2000, p. 3). Under these conditions, could the political economy of insecurity generate alternative solutions, in order to inhibit the incalculable risks and their impact over the global work society?

A possible response it is given by Beck, according to which "the counter-model of work society is based not upon leisure but upon political freedom; it is a multi-activity society in which housework, family work, club work and voluntary work are prized alongside paidwork" (2000, p. 125). Therefore, the idea of civic labour is based upon the fact that "those who wish to escape the spell of the work society, must enter the political society…that gives material form to the idea of civil rights and transnational civic society" Beck (2000, p. 125). How can we define the concept of civic labour? Can we identify a model of structuring this work activity in the frame of the second modernity?

According to Beck, the theoretical statement proposed for the model of civic work activity is that "civic labour presupposes civil rights and…must be done for others, civil rights pass beyond the paper and become a palpable social reality in people's lives" Beck (2000, p. 126). In this respect, the author emphasize the the role of civic labour, which is "to place at the center of things the art of activity and becoming active-including the resource of time, space, money and cooperation necessary for that purpose" Beck (2000, p. 126).

Therefore, considering the nature and the features of civic work, this theorethical perspective leads to the fact that "civic labour is not paid work but is rewarded with civic money and thereby socially recognized and valued" Beck (2000, p. 126). Reaching to this point of this theoretical statements, we can advance the following legitimate question…but where is the nondistribution constraint that sets defined and strict boundaries regarding to the matter of nonmonetary compensation for volunteer work?

The answer is that the elementary condition of nondistribution constraint it is not altered by rewarding civic labour with civic money, because "civic money means a quantity for getting by with that at least matches the level for income support" Beck (2000, p. 126) and civic work "is voluntary self-organized labour" as Beck pointed out (2000, p. 127).

In this regard, extrinsic motivational factors for the volunteer work are civic money, but defined as a monetary resource which generates nonmonetary compensation for volunteering, through the fact that this source of revenue maintains continuous sustainability for civil society's existence. Therefore, the model of civic work: *(a) constitutes an alternative source of activity and identity* "which not only gives people satisfaction, but also creates cohesion in individualized society by breathing life into everyday democracy" Beck (2000, p. 127); *(b) represents a non-paid activity* "but it is rewarded both materially and non-materially through civic money, qualifications, pensions, entitlement and *'favour credits'*" Beck (2000, p. 130); *(c) civic money* "ensures the autonomy of civil labour…its minimum level is derived from the standards of unemployment benefit and income support…and it is added to out of community funds and resources generated through the civic labour itself" Beck (2000, p. 130).

As we observed in the theoretical perspective proposed by Beck for the nonmonetary

benefits of volunteer work, this model emphasizes motivational factors resulted from the service provision and the results of the work itself, by obtaining civic money as a resource for maintaining the social community's funds. Thus, considering the theoretical perspective of Beck, *the second model human resources management practice on nonmonetary compensation structure for volunteer work* can be shaped as follows:

P1. Basic principles:

- (C1) *Counter-model of work society* - it is a multi-activity society, in which the *civic labour* and civil rights are practical realities.

- (C2) *The model of civic labour* - is based on the fact that this type of activity is not paid work, but is rewarded with civic money.

P2. Conceptual structure of extrinsic motivational factors for volunteer work:

- (Ef1) *civil work constitutes an alternative source of activity and identity* => gives people satisfaction => creates cohesion in individualized society;

- (Ef2) *civil work is rewarded with civic money* => a form of social recognition and social value;

- (Ef3) *civil work represents a non-paid activity* => rewarded both materially and non-materially => civic money => qualifications => pensions => entitlement and 'favour credits';

- (Ef4) *civic money ensures the autonomy of civic labour* => standards of unemployment benefit => income support => civic labour itself.

Theoretical Approach of the Study

The research strategy that I have used to conduct the study on nonmonetary compensation structure for volunteer work, was grounded theory and therefore, the theoretical model of extrinsic motivational factors for volunteer work will be described after presenting the data analysis resulted from the pre-test stage of this study.

Methodological Design

The Research Theme

Considering the fact that the Romanian legal framework for volunteering doesn't stipulate clearly the nonmonetary compensation for volunteers, excepting some legal rights (such as: legal norms of labour protection, health and risk inssurances when the nature of volunteer activity imposes this, a volunteering contract, the reimbursement of expenses necessary to carry out the volunteer activity),

the research problem of this study is to identify the nonmonetary compensation structure for volunteer work in the Romanian nonprofit sector.

Pre-test stage of the study

In the investigation process of the nonmonetary compensation structure for volunteer work in the Romanian nonprofit sector, I have conducted a qualitative research. Data collection process consisted in conducting in-depth interviews with nonprofit managers within a nationwide network of volunteer centers. In the pre-test stage of this study, I have conducted two in-depth interviews with human resources managers of two of the volunteer centers, members of the national network of volunteer centers. Therefore, in this paper I will present the research results that I have discovered after conducting the pre-test stage of the study, in two empirical observed cases.

Material and Methods

The empirical research strategy it is based upon conducting a qualitative research in order to identify the nonprofit manager's perception regarding the nonmonetary compensations for volunteer work. The research strategy it is based upon the method of semi-structured in-depth interviews, and proposed the existence of one dependent variable, with the following level of measure – *the extrinsic motivational rewards for volunteering*.

Raised Research Questions

1. What are the components of the nonmonetary compensation structure for volunteer work?

2. The nonmonetary compensation structure for volunteer work includes other further motivational rewards than those that are stipulated in the legal framework?

Research Objectives of this study are:

- to highlight the nonprofit manager's perception regarding the extrinsic motivational reward for volunteering;
- to identify non-wage strategies adopted in nonprofit organizations.

Data Analysis

Figure 1: The first empirically observed case – manager's perception in the nonprofit field, regarding extrinsic motivational rewards for volunteer work

Extrinsic Motivation…we have it in mind, but in general, we have many sessions to help them find intrinsic motivation again and again because this type of motivation it is less expensive. But, to reach extrinsic motivation, we use many methods, such as: *we organize a volunteering gala* - called graduation day, where only volunteers who performed a predetermined number of volunteer activities receive certificates, in order to certify and recognize their volunteer work. *We organize camps*, mountain camps or sea camps, *where volunteers receive a discount fairly consistent*, and all volunteers that have won a prize within the volunteer gala, benefit from 100% discount for these camps. We have *social gatherings on weekends*, where they come to spent their free time, *we organize debates*, *discussions*, in order to help them to know each other better and to form a group. Also, *we celebrate the birthdays of volunteers*'…We award *the title called 'the volunteer of the month'*…This is all about our extrinsic motivational methods, rarely, (unless circumstances require this) in situations of high risk, when volunteers don't have enough financial possibilities to finish their studies, *we help them with study scholarships.*

Source: Author (qualitative research data collected in the pre-test stage of the study)

The research data in the first empirical case, present the nonprofit manager's strategy for rewarding volunteering, and points the fact that extrinsic motivation it is used as a strategic tool for determine intrinsic motivation. In this respect, the nonmonetary compensations for volunteer work, reveals extrinsic motivational factors, such as: a volunteering gala, a volunteering certificate, camps, the title called the volunteer of the month, social gatherings, help in the situations of risk.

Figure 2: The second empirically observed case – manager's perception in the nonprofit field, regarding extrinsic motivational rewards for volunteer work

We got a lot of *strategies* that are related with *the idea of merit recognition*. Our *volunteer staff it is valued for absolut any result they get*, and every time they have a failure the, the work strategy it's rethought. We try somehow *to motivate them*, in order *to outline personal development opportunities*, such as *recommendations for scholarships* and things like that, things that mean a lot to them. *The* whole *idea of motivation*, in our opinion, *is to match volunteers needs with the organizational needs* and then it occurs *a self-motivation process*. This strategy leads to a self-motivation process, because the volunteers shape their own personal development goals and they are trying to achieve them. Whether we are talking about volunteer staff or about paid staff, we always begin with *a motivational policy based upon principles of management by objectives*, and then *their motivation comes from getting the results* that *they have already designed*. They are always recognized, always appreciated, they always receive *different degrees of personal recognition*, such as *the volunteer of the month*, *the volunteer of the year*, simple things like this, which apparently aren's such a big thing, but for them are important motivators and therefore, it is very important to act in this way. We don't do anything special, we just *try to listen them when they encounter difficult situations*, to *understand their problems*…if they need some *time off*, then to offer them that time. We always design any strategy from them to the organization, not from the organization toward them, we always conceive things in this manner.

Source: Author (qualitative research data collected in the pre-test stage of the study)

The research data in the second empirical case, present the nonprofit manager's strategy regarding nonmonetary rewards for volunteering and it points the fact that extrinsic

motivation it is used as a strategic tool for the idea of merit recognition, emphasizing the following extrinsic motivational factors: volunteer staff it is recognized and appreciated, the title called the volunteer of the month or the volunteer of the year, volunteers have the freedom to shape their own personal development goals and try to achieve them, organizational strategies designed from volunteer (and personal) staff to organizational needs.

Results and Discussion

After carrying out the pre-test stage of the study, we can develop a theoretical perspective of nonmonetary benefits for volunteering, on the basis on the research findings, revealed in the two empirical cases presented in the previous stage. Thus, the *human resources management practice on nonmonetary compensation structure for volunteer work* can be shaped as follows:

The Theoretical Perspective of Nonmonetary Benefits for Volunteer Work Resulted from the Pre-Test Stage of the Study

P1. Basic principles:

- (C1) *Extrinsic motivation* it is operationalized as follows: (A) it is used as a strategic tool for determine intrinsic motivation =>"less expensive" and (B) it is used as a strategic tool of the idea of =>"merit recognition".

P2. Conceptual structure of extrinsic motivational factors for volunteer work:

- (Ef1) *different degrees of personal and social recognition* (Type A)=> the volunteer staff it is valued for work results =>"they are always recognized, appreciated" =>"the volunteer of the month, the volunteer of the year" and (Type B) =>a volunteering gala =>"a predermined number of volunteer activities" =>"a volunteering certificate" =>"to certify and recognize their volunteer work" => a further reward =>"100% discount for the camps" organized within the nonprofit organization;

- (Ef2) *to match volunteers needs with the organizational needs* =>"it occurs a self-motivation process" =>"the volunteers shape their own personal development goals" =>"they are trying to achieve them";

- (Ef3) *a motivation policy* =>"principles of management by objectives" =>the motivational incentive = "getting the designed results";

- (Ef4) *organizational strategies designed from volunteer (and personal) staff to organizational needs* (Type A) =>"every time they have a failure" =>"the work strategy it's rethought" and (Type B) =>"we listen them when they encounter difficult situations" =>"understand their problems" =>"offer some time off".

- (Ef5) *social gatherings* (Type A)=>"on weekends they come to spent their free

time" =>organized "debates, discussions" =>"to know each other better" =>"to form a group"; and (Type B)=>"we celebrate the birthdays of volunteers";

- (Ef6) *help in the situations of risk* =>"study scholarships".

After we developed a theoretical perspective resulted from the pre-test stage of the research, we may compare this theoretical model with the two theoretical models presented in the literature review stage of the study. Therefore, we conclude the fact that from the empirical research data, resulted a theoretical model that comprises elements from the both theoretical models presented in the early stage of this study. Therefore, the common points of the three theoretical perspectives on nonmonetary benefits for volunteering are the following: the extrinsic motivational strategy it is designed as groundwork for determining a process of intrinsic motivation; the *common extrinsic motivational themes* are: working conditions, opportunities to work independently, forms of social recognition and social value, non-materially rewards; the *new extrinsic motivational concepts* are: organizational strategies designed from volunteer staff to organizational needs, social gatherings, help in the situations of risk.

Conclusion

C1. The nonmonetary compensation structure for volunteer work includes other further motivational rewards than those that are stipulated in the Romanian legal framework.

C2. After carrying-out the pre-test stage of research, we can develop a theoretical perspective of nonmonetary benefits for volunteering, on the basis on the research findings, which means the nonprofit managers are aware of the importance of having motivated volunteer staff within their organizations.

C3. Within nonprofit human resources management policies we identified a common vocabulary of motivational rewards for volunteering.

Implications for Future Research

- to expand the study, in order to introduce in the research inventory further dependent variables.

Acknowledgements

References

ANHEIER, K. H. (2005) *Nonprofit Organizations. Theory, management, policy*, USA & Canada, Routledge, ISBN: 203-50092

BECK, U. (2000) *The Brave New World of Work*, Cambridge UK and USA, Blackwell, ISBN: 7456-2397-2

CRESWELL, J. W. (2009) *Research Design. Qualitative, Quantitative and Mixed Methods Approaches*, Los Angeles & London & New Delhi & Singapore, SAGE Publications, ISBN: 978-1-4129-6556-9

MEYER, S., STUTZER, A. (2008) 'Is Volunteering Rewarding in Itself?', *Economica*, vol. 75, Issue 297, pp. 39-59. ISSN: 1468-0335

PERRY, L. J. (2004) *Human Resources Management for Public and Nonprofit Organizations*, San Francisco, Jossey-Bass A Wiley Imprint, ISBN: 7879-7078-6

POWELL, W. R., STEINBERG, R. (2006) *The Nonprofit Sector. A research handbook*, New Heaven & London, Yale University Press, ISBN-13: 978-0-300-10903

THE ROMANIAN LAW ON VOLUNTEERING – LAW 195/2001. (2012) [online]. The Romanian National Network on Volunteer Centers [cit. 16.11. 2012] Available from www.voluntariat.ro/legislatie_voluntariat.htm#1

Power and Politics in the Innovation Process of the Integrated Rescue System in Slovakia

Staňová Ľudmila

Abstract

This paper deals with the implementation process of an innovative project aimed at modernization of the Integrated Rescue System (IRS) in Slovakia. The project was initiated in 2009 by the ministry of interior. The innovative side to it was not just in the content of the project, which was at that time not yet complete, but especially in the way it was supposed to be carried out – by a new administrative structure, a project team headed by a plenipotentiary for IRS. The project team consisted of various different actors with different interests with one actor eventually revolting against the project. Our goal was to find possible explanations for his uncooperative behavior in context of the power and politics theory by analyzing actor interests and looking at what deep structure games were employed by the agent of innovation in order to prevent potential opposition.

Keywords

Integrated Rescue System, innovation, power and politics, deep structure games

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Introduction

The IRS is a "system of cooperation of the rescue services with the goal to save a human life, health, property or the environment." (§2, section 1 of the Act on IRS, 2002) In other words, it is a system, in which all rescue services, ranging from the police through to mountain rescuers, should cooperate by means of integrated practices and work methods in order to secure a faster and more effective help in emergency situations. The IRS is a system with many actors. Strategically, the IRS is managed by the ministry of interior (MoI), more specifically, by one of its departments – Department of crisis management and civil protection (DCMCP), which prepares the conceptions for organization and development of the IRS, in close cooperation with the ministry of health (MoH), which also holds some competences in the field. The operational and tactical level are managed by the individual rescue services, which may be divided into primary and secondary. Primary rescue services are the fire brigade supervised by the Fire and Rescue Corps Presidium (MoI), ambulance service, supervised on the operational level by the National Emergency Centre (NEC, comes under MoH), on tactical level by healthcare providers (public and private providers, supervised by MoH institutions), chemical laboratories for civil protection supervised by the DCMCP (MoI), Mine rescue service, which is legally an NGO and Mountain rescue service, which comes under the ministry of interior on the level of a department.

The Police Force of SR (MoI) is a "cooperating service of the IRS" (§9a of the Act on IRS, 2002), which suggests they are not, at least not formally, equal to the primary actors in the IRS. Last but not least, the eight district offices, in charge of the Coordination centers or, in other words, 112 call centers, are also an important actor in the IRS. (§5 of the Act on IRS, 2002) Legally, they are the devolved central government.

Since its establishment in 2002, the functioning of the IRS on operational level has proved several problems, underpinned by the European Commission, which took legal action against Slovakia in this matter (Hmírová, 2010). The fragmentation of the actors in IRS popped up not just as the obstacle in solving problems in IRS, but also as the potential cause of those problems. The need to integrate the IRS actors became the justification of the creation of a new plenipotentiary and his project team consisting of the IRS actors, proposed to the government by the ministry of interior (Explanatory report, 2010). The innovative element hence lies in the new approach to solving problems in the IRS, which would otherwise have been solved by all actors individually or in inter-organizational cooperation. The actors all came under a new single organization – a project team, making them work together in designing the goals and means to fulfill the vision of a more integrated IRS (Explanatory report, 2010).

One of the most dominant ideas how to achieve that was to establish a Central management and monitoring centre (CMMC) as an independent organization or under the MoI. The centre was meant to integrate the national operation centers of the most frequently used rescue services – fire brigade, ambulance and police – and representatives of other departments performing tasks in the field of crisis management (Conception of the IRS for 2011-2015: 15). The centre was meant to gather and evaluate data required for the operational management, which is important for making strategic decisions based on comprehensive information about the activities of all the services in the IRS. The CMMC was, in other words, a new structure that would integrate the functions previously performed individually by the supervising national operation centers of different rescue services (Hmírová, 2010). This, although being still in the stage of ideas, could be considered as the actual innovation of the IRS as a product and service.

Throughout the duration of the project, most team members were cooperative except one – the NEC representatives. When it was clear that the future of the project depends on who wins the government elections, the NEC refused to cooperate at all. (Minutes of PT Negotiation No. 3, 25.2.2010). The successfulness of the project became uncertain after more than a year of regular project team meetings, where the NEC was present. This situation raised questions on what went wrong in the innovation process, which should have resulted in a common acceptance of the product and service innovation by the project team. The non-conformity of one of the NEC pointed our attention to the importance of the role actors play in successful adoption of the innovation and what may be the reasons behind refusal of innovation. We decided

to look to the organizational power and politics theory for more answers, as it deals with organizational behavior of actors.

Frost and Egri (1991) use the organizational power and politics perspective to explain the successfulness of the innovation process (p.229). They point to the importance of recognizing interests and power distribution among actors in an organization, because it is on their support that the successfulness of the innovation process depends on. If the innovation interferes with their powers, the power struggle, or political "games", as they call them begin (Ibid: 235). When talking about power, we can refer to one of the five sources of power proposed by French and Raven (2001): 1.Power to reward, 2.Coercive power, 3.Legitimate power, 4.Referential power, 5.Expert power.

The distortion of existing power distribution poses a challenge for the agent of innovation. He becomes an actor in these games as well, having to win conformity of problematic actors to his innovation (Frost, Egri, 1991: 262). The agent of innovation was, in our case, the General Director of the Legislative Department of the Ministry of Interior, who is also the author of the Statute of Plenipotentiary for IRS and the project team idea. When the team was established, she became the team leader and the "right" hand of the plenipotentiary. (Hmirova, 2010)

The project team may be perceived as a political arena, where all actors defend their interests and political games take place, either on the surface or undercover. Surface politics (Frost, Egri, 1991: 237) are everyday power games in organizations within known rules of the game. Deep structure politics, on the other hand, are less visible because they create the rules of the game, which involves change of power (Ibid). This means that the attitudes of the actors in this conflict are often radical and very critical. The gist of the conflict is more complex than in surface politics, which are usually about power struggles – the deep structure conflict is ideological, rational-critical, often suppressed and it usually lasts for a longer period of time. These games are more difficult to see and may be understood only by those who are familiar with the historical, political or social context of the actor. Deep structure games include: 1. Naturalization, 2. Neutralization, 3. Legitimization and 4. Socialization. (Ibid: 241)

We presume that the NEC for its long tradition and specialized environment is a deeply embedded structure, which means that deep structure political games would be required in order to make this actor comply with the innovation if his interests were not automatically in compliance with the idea of the project.

Material and Methods

Our research questions are the following: 1. Were the interests of the NEC in compliance with the project's vision? 2. If not, which deep structure games were employed

by the agent of innovation to secure NEC compliance with the project? 3. What are the possible explanations of non-compliance, despite the employment of these games?

Our first step was to define interests of the NEC. Inspired by French and Raven (2001), we listed four major competences of actors in IRS: 1.organizational, 2.HR, 3.methodic, 4.economical. Our assumption was that if the project interferes with all four, it threatens all powers of the actor, who will therefore not comply with the project under any circumstances. In this phase we used analysis of legislative documents as the main method of our research.

The next step was to look at different activities of the project team, as well as of its leader, the agent of innovation. We tried to identify different types of deep structure games in these activities and look at how the NEC reacted. The source of data for this phase was particularly the personal experience of the author of this research, as she was one of the project team members, though for a party, that had no competences in the IRS (the author was from the department of communication of the ministry and her duty was to communicate the goals and activities of the team to the media and public). Other sources of data include the interview with the team leader and official minutes of negotiations.

The major limit of this research is that the author works with data gained in majority from her own experience, although this data is supported by internal documents. On the other hand, as was mentioned above, studying deep structures requires insider knowledge of the historical, social and political context and familiarity with the interpersonal relationships in the organization. This is hardly imaginable without being "one of the group" for a longer period of time and that way gaining trust of the other team members to behave in their natural way.

Results and Discussion

Our research has shown that the CMMC, if set up as planned, would take on organizational, economical, HR and partially methodical competences in the area of operational management in case of three actors – the Police Force, Fire and Rescue Corps and the NEC. The difference between these three is that the main scope of activity of the NEC is in the area of operational management. If the project was successful, operational management would go in the hands of the CMMC, and that would question the justification and existence of NEC. In other words, why have the NEC if the CMMC can perform its functions? This gave the NEC a major incentive to boycott the project. Because the project was supported by the government personified in a plenipotentiary, the NEC could not openly refuse to cooperate, but could latently obstruct decision-making.

That would explain why the NEC refused all partial innovations, which were meant to gradually lead to once CMMC, such as the common compatible information-

communication infrastructure that the NEC rejected for "not suiting its specialist needs" (Minutes of PT Negotiation No. 3, 25.2.2010). The NEC procured its own infrastructure and adjusting to an infrastructure chosen by someone else would take away its economic competences in the area. Another example are PR activities aimed at promoting the single emergency number 112, although here the NEC used a legitimate argument of "why promote a number that does not work reliably" and therefore preferred to promote the national number for ambulance service 155.

The agent of the innovation was, in her own words, aware of this situation and therefore employed different ways of incorporating the NEC into the project. In her activities we can see several signs of deep structure games. (Hmirova, 2010)

The agent of innovation started off her games with the so called "Samizdat meetings" which began before the formal decision of the government was made about the project. These meetings were used to discuss current problems of IRS and brainstorm ideas on possible solutions. They were attended only by selected employees of the ministry, whom the agent could trust. The agent applied the game of legitimization by leading participants to realizing that the situation in the IRS is serious and needs solution. In legitimization, "higher utility values such as dedication, loyalty, country, religion, etc. for authorization or nourishment elite interests in the system." (Frost and Egri, 2001: 242) That "higher value" was in this case the human life, which could be saved more effectively if the IRS was modernized. This idea was used throughout the project to mobilize its members and make them more dedicated to serve project goals. This "tool" had greater effect on those that did not experience life and death situations in practice – bureaucrats, who perhaps for the first time had the opportunity to influence something as important as saving the human life. Practitioners, such as the NEC members, many of whom were former doctors or nurses that had personal experience with emergency situations were more immune to the life and death rhetoric. Unlike the bureaucrats, they could analyze the practical impacts of concrete solutions for themselves and had their own opinions on how the IRS could work better. Legitimization as a deep structure game had, therefore, no significant impact on the NEC.

Gaining the government approval for the project carries the signs of naturalization, where "existing forms and interest group privileges are considered inviolable and thus are not subject to discussion, debate and change" (Frost and Egri, 2001: 242). This helped the project to be perceived as a "natural order", i.e. something that cannot be questioned, at least not openly, because the government ordered it. The legitimacy of the project was proved indisputable by the full attendance at the first negotiation of the larger project team, where the highest officials turned up taking it as a duty to do so.

Naturalization had impact on the NEC in the sense that it did not reject cooperation, but it did refuse to take part in some activities such as were the above mentioned PR activities. Throughout the operation of the project we can notice a decline

in cooperation, which escalated by a meeting with the NEC director, who openly "expressed the determination of some NEC representatives to return the decrees appointing them project team members back to the Ministry of Interior." (Minutes of PT Negotiation No. 3, 25.2.2010: 2). This signaled a rebellion against the "natural order." Because this happened close to the end of term of the government in office, the conflict was not really resolved, but rather settled down.

Neutralization as another type of deep structure game assumes neutral agents innovation. Already "during the handing out of decrees designating the IRS representatives as members of the project team, the NEC director openly doubted the intentions to complete the tasks with the current IRS officials in office, as they are very much responsible for the negative state of the IRS, but were appointed regardless – this way the director expressed distrust towards them." (Minutes of PT Negotiation No. 3, 25.2.2010: 2). Neutralization could not have been successful with such a personal bias among team members, which included the former NEC director who as an employee of the ministry of interior closely cooperated with the agent of innovation on the strategic vision of the project.

In the advanced phase of the project trainings became more important – in the professional as well as social term. As it usually is with trainings, group lunches and dinners, as well as the informal evening program are all a very strong tool for building a sense of "one team". Informal discussions on IRS often lead to new realizations which were utilized the next day in negotiations. This is what Frost and Egri (1991) call socialization. It serves the agents of innovation to bring their followers to the correct understanding of their product (p.242). Socialization was applied by the agent of innovation on all actors, though the NEC was left out of a couple of activities – mainly for the ministry of interior not being able or competent to finance their participation.

Conclusion

In our research we have found that the project of modernization of the IRS largely interfered with the competences of the NEC – so much that if successfully completed, the NEC's existence would be threatened as its functions would be taken up by a different organization. It had therefore all the incentives to reject an innovation.

The NEC is a deep structure, whose opposition could have been handled by deep structure games – at least according to the theory. The agent of innovation applied all of them to NEC, although socialization a little less, in comparison with other actors. Neither of the games, however, had the effect that it should. Legitimacy did not work because it operated with a "life and death" message which was very familiar to the NEC. From their point of view of a legitimate and irreplaceable organization, saving a human life can be performed more effectively if the NEC remained as it were – a sole organization – and it was not willing to go further in this discussion. Neutralization did

not work because the project involved actors who were for not neutral for the NEC – such as the former NEC director. Naturalization also proved inefficient in the final stages of the project, as the NEC questioned the government project and wanted to return their project team decrees.

Our findings point to the fact that if the fate of an organization is involved, an innovation is likely not to be accepted, even if deep structure games are involved. The actor at stake will revolt – if not openly, then in hidden ways and that way reject any smaller parts of innovation having in mind that they could, in future, threaten its position. Coerciveness is the only solution in cases like these. Any attempts stimulating the actors own realization of the necessity to innovate are bound not to work.

References

DOSI, G. (1988) Nature of the Innovative Process. In *Technical Change and Economic Theory*. DOSI, G. (ed.), New York: Pinter Publishers, kap. 10, s. 221 – 238

FRENCH, J. R. P, RAVEN, B. (2001) "The Bases of Social Power", In *The Negotiation Sourcebook*. ASHERMAN, I. G. a S. V. (ed.) USA: HRD Press, pp. 61 – 74.

FROST, P. J. EGRI, C. P. (1991) "The political process of innovation." In *Organizational Behavior*, Vol. 13, pp. 229 – 295.

GALBRAITH, J. R. (1982) Designing the Innovating Organization. In *Organizational Dynamics*. Vol. 11 (Winter), s. 5 – 25.

MINTROM, M. (1997) Policy Entrepreneurs & the Diffusion of Innovation. In *American Journal of Political Science*, Vol. 41, No. 3, s. 738 – 770.

Act No. 129/2002 on Integrated Rescue System.

Minutes of Project Team Negotiation No. 3. 25.2.2010. Č.p. KM-251-3/2010. Bratislava, 5.3.2010.

Explanatory report on the Statute of the Plenipotentiary of the Slovak Government for IRS. [online]. 26. 11. 2012 http://www.rokovania.sk/File.aspx/ViewDocumentHtml/Mater-Dokum-40845?prefixFile=m

Conception of the IRS for 2011-2015. [online]. 26. 11. 2012. http://www.emergency-slovakia.sk/buxus/docs/Navrh_koncepcie_IZS_2011-2015_uznes_a_priloh.pdf

HMÍROVÁ, L. (2010) Ministry of Interior of the Slovak Republic, Pribinova 2, 812 72 Bratislava. Interview in Bratislava 25.3.2010 (on project of modernization of the IRS).

Environmental Protection Expenditure of the Czech Municipalities

Struk Michal

Abstract

This paper presents the development of the environmental protection expenditure (EPE) of 205 Czech municipalities with extended powers plus the capital city Prague during the period of 2001-2011. Municipal EPE is divided to the categories based on the CEPA classification. Municipal EPE is analyzed as an aggregated sum of current and capital expenditure. Outcomes are compared with the development of the total municipal expenditure. Through this the paper verifies whether the municipal EPE acts as a luxury good, which is suggested by the environmental Kuznets curve concept. Results prove this only partially. EPE acts as a luxury good in most cases when the total municipal expenditure grows too. But in the cases when the total municipal expenditure decreases, the EPE still grows, which violates the luxury good concept. Nevertheless, this behavior of EPE shows that it has a high priority among the municipal expenditure.

Keywords

Introduction

The environmental protection expenditure (EPE) represents all kinds of expenditure spend with the primary aim to increase the quality of the environment, restore the previous state, reduce the negative effects of the production processes on the nature, or in general "protect the nature from the human action". As the society becomes richer, it naturally tends to consume (and subsequently require) more of what it considers a luxury good. The quality of the environment is one of such luxury goods, which was suggested by Ruttan (1971) and empirically verified by, for example, Antle and Heidebrink (1995). The relation between the changes in the income and the quality of the environment was analyzed by Grossman and Krueger (1991). They extended the original idea of Simon Kuznets (1955) about the inverted U-shaped curve describing the relation between the income inequality and the growth of population income. Grossman and Krueger discovered same pattern with the environmental quality. According to them, until a certain level of economic development the increasing income per capita results in the deterioration of the environment, however, after reaching that certain level, the further economic development is accompanied by a subsequent phase of environment improvement. The threshold point in their study was identified as the income per capita level of $8.000 (year 1985 dollars). This observation was interpreted as an increased demand (followed

by the supply) for the environmental protection at the higher levels of income. The relation between the increasing income and the deterioration of the environment is, based on the similarities with the original curve suggested by Kuznets, known as an environmental Kuznets curve (EKC). The empirical verifications of this concept have undergone a boom in 1990s, and some papers on this topic occasionally arise up to today. A good overview of the important studies about EKC offers for example Yandle et al. (2004). On the other hand, the EKC concept has also been strongly criticized, for example by Stern (2004) or Galeotti and Lanza (2005), who claim that, instead of inverted U-shape, the curve has often a problematic N-shape and that the evidence supporting EKC is at best mixed.

In this paper I do not analyze the changes in the environmental quality. Instead of that I focus on the development of municipal environmental protection expenditure. In my opinion, the municipal expenditure represents the needs of the population. These needs are expressed in the election process as the people's choice of those politicians, who claim to fulfill their desired specific needs. Although there are certainly many objections whether the politicians follow their election programs once they have been elected, one thing they have in common is that they usually want to be reelected again. And in order to do that, they need to persuade the electorate that they are fulfilling electorate's needs. If the environmental quality becomes such need (which as the luxury good with the increasing income should), the municipal spending focuses more on EPE. Unlike in many other areas of municipal spending, EPE represents rather small share of the total municipal expenditure, and therefore even a notable rise in the EPE does not necessarily result in a significant pressure on the municipal budget, while the effects of such spending (when compared to the situation before the spending) would be most likely easily noticeable by the public. In this logic, if the population considers the environmental quality as one of their important needs, the municipality responses with the faster growth of EPE compared to the other areas of municipal expenditure.

There are two aims of this paper. First one is to answer the question about the development of EPE within the selected representative group of Czech municipalities during the period of 2001-11 with presenting the differences between various environmental protection categories as specified by the CEPA classification. The second one is to answer the question whether do municipal EPE of the analyzed municipalities act as a luxury good? As the Czech Republic is generally considered to a developed economy, this should hold. The first aim is achieved by collecting the data from relevant sources and their interpretation, while the second is achieved by the application of the appropriate mathematical-statistical tools to these collected data. The benefits of this paper are two-fold: the clear presentation of the information about municipal EPE development in the Czech Republic together with the additional empirical evidence of EKC concept.

Material and Methods

The analyzed sample consists of 205 Czech municipalities with extended powers (ORPs) plus the capital city of Prague. Although Prague is not ORP itself, as it constitutes a whole region, I have decided to include it in the analysis, as it (as by far the largest municipality in the Czech Republic) represents a significant portion of both Czech population and Czech EPE. Analyzed municipalities cover all Czech regions, although the frequency of municipalities from particular region span from 7 (Karlovy Vary Region) to 26 (Central Bohemian Region). This difference generally corresponds to the different population size among the regions. Analyzed sample of municipalities currently represents almost 57% of total population of the Czech Republic (calculated from the data of the Czech Statistical Office – Population, 2012). Therefore, the conclusions claimed in the further analysis are relevant for at least one half of the Czech Republic.

The analyzed data come from two public databases, ARIS (2012) and ÚFIS (2012). Both of them provide the information about expenditures of the Czech municipalities. ARIS provides information from the period 2001-2009, while ÚFIS provides the information from the latter years of 2010 and 2011. The two databases are almost identical from user's perspective. In fact ÚFIS is officially the successor of ARIS. The data on the EPE are collected according to the international CEPA classification (CEPA, 2012). It consists of 9 areas of environmental protection. Expenditures from these categories are of two types: the current and the capital. Current expenditure can be simply defined as the expenditure used for provision of regularly, relatively often repeating tasks (for example regular solid waste collection). Capital expenditure represents rather irregular expenditure with usually long-lasting effect (for example building an incinerator). In the following analysis due to the lack of space I present only the aggregated sum of current and capital expenditures.

Table 1: CEPA classification of EPE categories and related identification in the Czech municipal budget structure presented in ARIS/ÚFIS

CEPA classification category	Relevant ARIS/ÚFIS paragraphs
Protection of ambient air and climate	§2115, §371*
Waste water management	§2321, §2322, §2329, §2333
Waste management	§2122, §372*
Protection of soil and ground water	§2342, §372*
Noise and vibration abatement	§375*
Protection of biodiversity and landscape	§1037, §374*
Protection against radiation	§377*
Research and development	§378*
Other environmental protection activities	§376*, §379*

Source: CEPA (2012), Soukopová et al. (2011, p. 41)

In the financial terms, CEPA classification categories do not create a homogenous set. There can be identified 3 most important categories, which in the period of 2001-2011 accounted on average for 98.1% of the total municipal EPE within the sample. These 3 financially most important categories are Waste water management (28.4%), Waste management (34.3%), and Protection of biodiversity and landscape (35.4%).

Figure 1 shows in this case 3 most important categories of EPE. Although it presents the shares of aggregated sums of CEPA categories from the period of 2001-2011 instead of the average shares, the figures are almost exactly the same. The distribution of EPE between CEPA categories was thus stable throughout the examined period.

Figure 1: Aggregated sums and relative shares of the CEPA classification EPE on the total EPE of 205 Czech ORPs plus Prague, 2001-2011
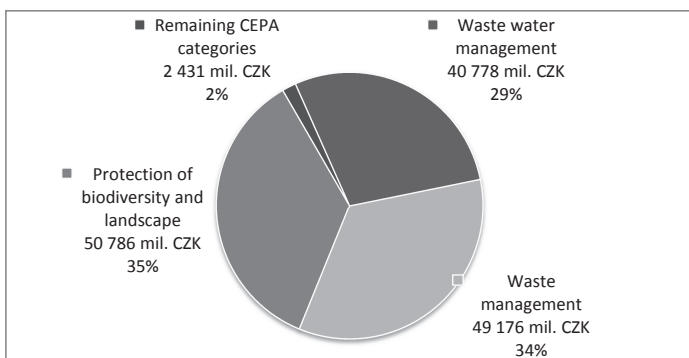
Source: Author based on the data from ARIS and ÚFIS

Table 2 presents the data about municipal EPE of the Czech ORPs plus Prague during the period of 2001-2011 divided to the main CEPA categories.

Table 2: Development of the aggregated nominal current and capital municipal EPE according to the CEPA classification, 205 Czech ORPs plus Prague, 2001-2011, mil. CZK

	Waste water management	Waste management	Protection of biodiversity and landscape	Remaining CEPA categories	Total EPE	Total municipal expenditure
2001	2 624.58	2 799.51	3 025.02	334.91	8 784.02	457 973.35
2002	2 209.08	3 527.74	3 398.83	215.35	9 350.99	479 259.94
2003	3 771.87	3 688.34	3 797.52	156.59	11 414.32	397 068.05
2004	3 807.19	4 049.95	4 424.44	261.14	12 542.73	380 758.24
2005	3 773.42	4 458.76	4 780.14	230.54	13 242.86	349 363.39
2006	3 138.02	4 626.34	5 109.12	231.13	13 104.61	380 049.75
2007	4 158.93	4 766.93	4 788.90	174.36	13 889.13	395 438.77
2008	4 356.02	5 114.58	4 704.87	293.25	14 468.72	421 367.19

	Waste water management	Waste management	Protection of biodiversity and landscape	Remaining CEPA categories	Total EPE	Total municipal expenditure
2009	4 402.83	5 300.90	6 571.35	277.50	16 552.59	453 339.59
2010	4 124.74	5 429.02	4 836.45	208.18	14 598.39	407 734.61
2011	4 411.11	5 414.12	5 349.28	227.62	15 402.13	377 181.55

Source: Author based on the data from ARIS and ÚFIS

Expenditure amount from each year (beginning with 2002) was divided by the expenditure level of the previous and the first year in order to calculate the annual changes of the EPE. This step creates a clear measure of comparison between the developments of various time series. Figures in all tables have been inflation-adjusted according to the annual rates of the Czech Statistical Office (Inflation rate, 2012).

Results and Discussion

Table 3 presents the annual changes of municipal EPE in 2001-2011.

Table 3: Relative annual changes of the aggregated municipal EPE according to the CEPA classification, 205 Czech ORPs plus Prague, 2001-2011

	Waste water management	Waste management	Protection of biodiversity and landscape	Remaining CEPA categories	Total EPE	Total municipal expenditure
2001	100%	100%	100%	100%	100%	100%
2002	83%	124%	110%	63%	105%	103%
2003	171%	104%	112%	73%	122%	83%
2004	98%	107%	113%	162%	107%	93%
2005	97%	108%	106%	87%	104%	90%
2006	81%	101%	104%	98%	97%	106%
2007	129%	100%	91%	73%	103%	101%
2008	99%	101%	92%	158%	98%	100%
2009	100%	103%	138%	94%	113%	107%
2010	92%	101%	73%	74%	87%	89%
2011	105%	98%	109%	107%	104%	91%

Source: Author based on the data from ARIS and ÚFIS

Figures show that in the majority of cases EPEs grew at faster pace than the total municipal expenditure, and in several cases, when the municipal expenditure decreased, EPE decreased even faster. Such results support the idea of EPE acting as a luxury good. However, Table 3 contains also several results where the total municipal expenditure decreased while EPE continued to grow. This observation can be interpreted in a sense that the EPE is perceived by local authorities as one of the higher priorities of the municipal budget, and even when the total municipal expenditure decreases, the sum of money heading to the environmental protection area increases.

Table 4 presents the sum of the annual changes of the municipal EPE in 2001-2011.

Table 4: Relative annual changes of the aggregated municipal EPE according to the CEPA classification from the base at 2001, 205 Czech ORPs plus Prague, 2001-2011

	Waste water management	Waste management	Protection of biodiversity and landscape	Remaining CEPA categories	Total EPE	Total municipal expenditure
2001	100%	100%	100%	100%	100%	100%
2002	83%	124%	110%	63%	105%	103%
2003	141%	129%	123%	46%	128%	85%
2004	138%	138%	140%	74%	136%	79%
2005	135%	149%	148%	64%	141%	71%
2006	109%	151%	154%	63%	136%	76%
2007	141%	151%	141%	46%	141%	77%
2008	139%	153%	130%	73%	138%	77%
2009	139%	157%	180%	69%	156%	82%
2010	128%	158%	130%	51%	136%	73%
2011	135%	155%	142%	54%	140%	66%

Source: Author based on the data from ARIS and ÚFIS

Figures from Table 4 show, that during the period of 2001-2011 the sum of municipal finances spent in the environmental protection area increased notably, except for the Remaining CEPA categories of EPE. Nevertheless, these categories account for a very small (<2%) fraction of total municipal EPE and therefore are not that important. On the other hand, total municipal expenditure decreased by one third. This again proves the important role of EPE among municipal expenditure, as the EPE increased even though the sum of the available municipal finances decreased.

Another way of presenting absolute figures is to calculate slope lines. This provides the information about the growth pace. I have calculated the slopes of the annual changes of EPE using standard OLS method for a simple linear regression line.

Table 5: Slopes of the development of aggregated EPE according to the CEPA classification, 205 Czech ORPs plus Prague, 2001-2011

	Waste water management	Waste management	Protection of biodiversity and landscape	Remaining CEPA categories	Total EPE	Total municipal expenditure
Slope	0.032	0.048	0.039	-0.021	0.038	-0.027
r²	0.29	0.77	0.36	0.20	0.58	0.63

Source: Author based on the data from ARIS and ÚFIS

Table 5 shows the calculated slopes of the development of selected CEPA expenditure, their sum and the development of total municipal expenditure. High values of r^2 for both aggregated values mean that the calculated slopes describe the development of expenditure relatively well (this holds even more for the Waste management expenditure category). To better illustrate the difference

between the developments of both aggregated expenditure, I include a graph of the figures.

Figure 2: The development of the total municipal EPE and the total municipal expenditure, year 2001 = 100%, 205 Czech ORPs plus Prague, 2001-2011
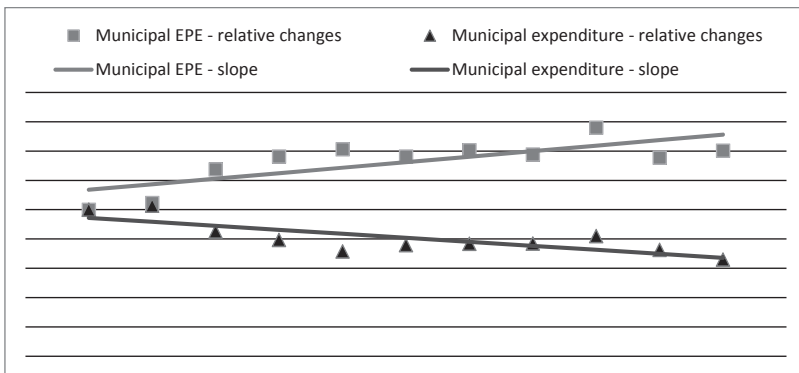
Source: Author based on the data from ARIS and ÚFIS

Figure 2 provides clear evidence of the increasing gap. This finding that the municipal EPE keeps growing even though the sum of municipal expenditure decrease is an interesting one, and further research could provide sufficient explanation why is this so.

By presenting all these figures I have provided sufficient evidence for illustrating the development trends of EPE in the Czech Republic. Besides that, a potential for investigating the reasons behind the EPE growth while the aggregated municipal expenditure decrease has risen.

When considering the limitations of this paper, first of all there exists a problem with the data validity. Some municipalities in ARIS and ÚFIS report very questionable data, which might be due to the lack of skilled personnel. But within this sample, there are generally only larger municipalities that usually do not have such problems and report correct data. The other limitation is the fact that I have aggregated current and capital expenditure. However, this was due to the lack of space and will be dealt with in the next more extensive research. This further research would also contain comparison of the EPE and expenditure development between the regions.

Conclusions

In this paper I have presented and examined the development of municipal EPE of the sample of 205 Czech municipalities with extended powers (ORPs) plus Prague during the period of 2001-2011. I have found out that the EPE of analyzed municipalities

grew almost in all cases notably faster than the total municipal expenditure, which supports the EKC concept for the developed countries like the Czech Republic. However, on the other hand this EPE grew even when the total municipal expenditure decreased, what contradicts the assumption of EPE as a luxury good and requires further research for a sufficient explanation. Presented data needs to be further analyzed on the less aggregated level in order to provide a more precise explanation of their development.

Acknowledgements

References

ANTLE, J. M., HEIDEBRINK, G. (1995) 'Environment and Development: Theory and International Evidence', *Economic Development and Cultural Change*, 43(3). pp. 603–25. ISSN: 0013-0079

ARIS (2012) [online], [cit. 15.10.2012], Available from WWW: http://wwwinfo.mfcr.cz/cgi-bin/aris/iarisusc/index.pl

CEPA (2012) [online]. EUROSTAT [cit. 15.10.2012] Available from WWW: http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=CEPA_2000&StrLayoutCode=HIERARCHIC

GALEOTTI, M., LANZA, A., (2005) 'Desperately seeking (Environmental) Kuznets', *Environmental Modelling and Software,* 20(2005). pp. 1379–1388. ISSN: 1364-8152

GROSSMAN, G. M., KRUEGER, A. B. (1991) 'Environmental Impacts of a North American Free Trade Agreement', *National Bureau of Economic Research Working Paper 3914*, NBER, Cambridge MA.

INFLATION RATE. (2012) [online]. Czech Statistical Office [cit. 15.10.2012] Available from WWW: http://www.czso.cz/eng/redakce.nsf/i/inflation_rate

KUZNETS, S., (1955) 'Economic Growth and Income Inequality', *The American Economic Review,* Vol. 45, No. 1 (Mar., 1955). pp. 1-28. ISSN: 0002-8282

POPULATION. (2012) [online]. Czech Statistical Office [cit. 15.10.2012] Available from WWW: http://www.czso.cz/csu/2012edicniplan.nsf/publ/1301-12-r_2012

RUTTAN, V. W., (1971) 'Technology and the Environment', *American Journal of Agricultural Economics*, 53. pp. 707–17. ISSN: 0002-9092

SOUKOPOVÁ, J. (2011) *Výdaje obcí na ochranu životního prostředí a jejich efektivnost*, Brno: Littera - Kovařík. ISBN: 978-80-85763-60-7

STERN, D. I., (2004) 'The rise and fall of the environmental Kuznets curve', *World Development*, 32 (2004). pp. 1419–1439. ISSN: 0305-750X

ÚFIS. (2012) [online], [cit. 15.10.2012], Available from WWW: http://wwwinfo.mfcr.cz/cgi-bin/ufis/iufisusc/index.pl

YANDLE, B., BHATTARAI, M., VIJAYARAGHAVAN, M. (2004) 'Environmental Kuznets Curves: A Review of Findings, Methods, and Policy Implications', *Research Study 02-1* (update April 2004), Property and Environment Research Center, Boseman.

Self-financing of Non-government Organizations versus General Benefit of Their Goals

Svidroňová Mária, Vaceková Gabriela

Abstract

The presented paper deals with the self-financing of non-government organizations and compares the current state and potential of self-financing in Slovakia and Austria. We focus on exploring the self-financing activities of NGOs in the context of maintaining a generally beneficial purpose for which they were based. We draw on the comparable findings of primary research conducted in Slovakia and Austria, showing that self-financing must be understood in a broader context than the "business" of non-government organizations and that it can be in compliance with the general benefit as the primary purpose of organizations founded on a non-profit basis.

Keywords

non-government organizations, non-profit organizations, self-financing, general benefit

Introduction

The scope of non-government organizations (NGOs) is so diverse that it is impossible to find a single term to define these organizations. Therefore many authors (Salamon and Anheier, 1999; Hyánek, 2011; Marček, 2004; Toepler, 2003, etc.[1]) in a number of publications prefer a broader description of the characteristics of non-profit organizations. The structural-operational definition by Anheier and Salamon (1999) can be used. According to this definition an NGO should meet five characteristics: institutionalization, independence, non-distribution constraint, self-government, voluntary participation.

The concepts of non-profit and non-government organizations have many names and likewise there are also a number of names for self-financing (Etchart, Davis, 2001, etc.[2]): gainful occupation, economic activity, enterprise of NGOs, non-profit business, income from NGO´s own activities, community business.

NGOs have not yet reached such a level of economic and managerial professionalism to be able to exist solely on sources from self-financing activities. It is not their goal – it would be in contradiction to several principles of their financing (multi-sourcing, non-

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[1] There are other authors which works and publications we studied, for further references see also: Bútora, 2011, Frič, Goulli, 2001, Haken, 2005, Hansmann, 1996; Kuvíková, 2004; Ondrušek, 1998; Pestoff, 2006; Petijová, Woleková, 2006; Rektořík, 2001, Rose-Ackerman, 1996; Weisbrod, 1988

[2] Atkinson, 2003; Etchart, Davis, Messing, 2001; Fukas, Guštafík, 2005; Ondrušek et al., 1999

distribution constraint). As used by several foreign and domestic authors (Etchart, Davis, 2011; Glaeser, Shleifer, 2001, Hansmann, 1996; Kuvíková, 2004; Majduchová, 2004; Murgaš, 2001, Ondrušek, 1999; Šebo, 2002) the income cannot be used to enrich the owners, managers or members. According to the above named authors the self-financing activities include: membership fees, sale of services and products, the use of intangible and tangible assets, and the use of investment appreciation.

The traditional main financial goal of a company is to maximize its profit. As NGOs are not founded primarily for the purpose of making a profit they pursue as their primary goal the achievement of general benefit. This fundamentally changes their financial policy which usually gives priority to the pursuit of liquidity (Littich 2007).

It is necessary for the basic task of the financing of NGOs in order to fulfill their mission to continuously provide liquidity. What financial sources and in what amounts should be used to meet this task vary and it is upon NGOs' strategic management decisions. One of the curiosities of NGOs is that they usually have a wider range of financing options compared to profit-oriented companies. Appendix 1 provides a structured overview of the most important sources of funding (Schober et al., 2010).

In the paper we want to prove that self-financing is a suitable method of fundraising for NGOs with respect to the benefits and risks that self-financing entails. We explore whether, and to what extent, self-financing has an effect on the general benefit of the goals of NGOs.

According to available data such a paper that deals with the possibilities of achieving generally beneficial goals of NGOs through the use of self-financing activities has not yet been published. This presented paper provides new insight into the studied problem while generating sufficient theoretical and methodological basis for further scientific study and research work in this field.

Material and Methods

The goal of the paper, on the basis of comparable findings of primary research of NGOs conducted in Slovakia and Austria, as well as the best practices of selected NGOs in Slovakia, is to prove that self-financing may be in compliance with the general benefit and purpose of NGOs.

Primary data was obtained by the sociological method of a structured questionnaire. Source data for Austria are the findings of the project "Different sources of funding of non-profit organizations" (Schober et al., 2010) conducted by the Research Centre NPO-Kompetenzzentrum WU Wien. For Slovakia the data are the findings of primary research conducted in the dissertation "Self-financing strategy and sustainability of non-profit organization" that was part of the project "VEGA 1/1001/09 2009-2010: The status of the non-profit, non-governmental sector in building a framework

for the provision of public services (European Perspectives)" solved by a team of authors from the Faculty of Economics, Matej Bel University in Banska Bystrica. This presented paper will be part of the findings of the Masaryk University project „CZ.1.07/2.3.00/30.0009 Employment of Newly Graduated Doctors of Science for Scientific Excellence".

In order to achieve comparable findings the same methodology in both countries was chosen (Benčo-Vaceková, 2012):

- Selection of relevant NGOs in the database or on the Internet.

- Establishing personal contact with selected NGOs at management level.

- Sending an e-mail with a link to an online-questionnaire to contacts that have been identified in the previous step.

- Sending a reminder after two weeks from the start of questioning.

Based on the representative sample of NGOs in Slovakia (SVK) and Austria (AT) and the best practices of 13 Slovak NGOs we can focus on the self-financing of NGOs in the context of sustaining the general benefit of their goals.

Results and Discussion

The output of the paper is a clear definition of the funding sources of NGOs with focus on the self-financing. We mainly focus on the so-called "quasi-equity" which is subdivided into non-profit and commercial incomes. We point out the difference between self-financing and commercial/business activity of NGOs, and on the basis of relevant and comparable outcome of primary research in SVK and AT we prove that self-financing is not only a business activity in the common market conception. We also want to point out that self-financing may not be inconsistent with the general benefit and purpose of NGOs which leads to fulfilling the goal of this paper.

Sources of funding NGOs

The main division of sources follows the microeconomic division on equity and borrowed capital. The concept of equity is problematic in many NGOs as they do not have any equity in the business or economic meaning. Generally, there is a lack of investors who would provide capital in anticipation of earnings. Classic features of equity are often undertaken by donors, providers of subsidies or members of the organization. To take into account this aspect we use the term "quasi-equity" (Schober et al., 2010).

The "quasi-equity" can be divided into typical non-profit incomes and standard commercial incomes. Under typical non-profit incomes (to the left of the image in Appendix 1) we understand incomes primarily related to the main core work and mission of an NGO; these incomes may come from a variety of funders.

Commercial incomes are, on the contrary, incomes from activities non-related to the mission of an NGO. In particular it is income from investment activity or yield of capital (e.g. income from renting its assets). Commercial income also applies to restructuring of assets and include sale of assets and the associated effects of financing, such as the sale of buildings and real estate. Other commercial income is a residual category that includes all the commercial activities carried out by NGOs that are not related to their mission and at the same time cannot be assigned to any of the other commercial income categories.

The borrowed capital can be divided into common bank loans and other subsidized borrowed capital, i.e. loans that are provided by government authorities and designed specifically for NGOs. Government supports NGOs and thus provides this capital also by assumption of guarantees or remission of debts and taxes.

The following charts represent the main sources used in of NGO funding, the outcome is from comparable researches in Austria (266 respondents) and in the Slovak Republic (136 respondents).

Figure 1: Sources of funding of Slovak NGOs
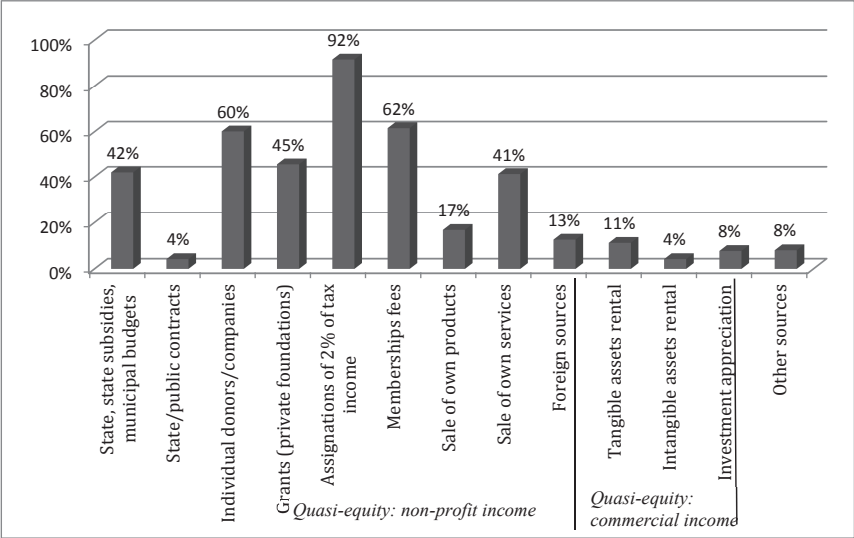
Source: Authors, 2011.

Other sources of funding were not further specified, therefore we cannot assign this point to non-profit or commercial income. The structure of funding is dominated by private and individual sources, also of significance is self-financing and public funding. Foreign sources are represented by foreign foundations that support Slovak

NGOs and as such they can be assigned to non-profit income. None of the respondents stated bank loans or foreign capital which supports the fact that in Slovakia loans for NGOs have yet not been established as a common source.

The funding sources in the Austrian NGOs correspond to the presumed model, i.e. public finance is clearly the most used source. Other frequently used sources are fees for services and products, donations from individuals, sponsorship and membership fees (Figure 2):

Figure 2: Sources of funding of Austrian NGOs
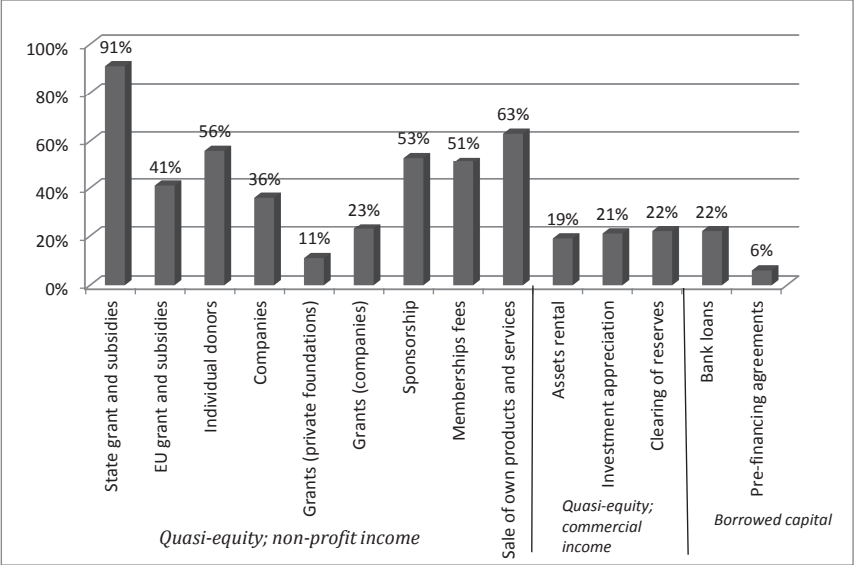
Source: Schoeber et al, 2010.

In both countries non-profit income as a part of quasi equity prevails. For the purpose of achieving the goal of the paper the quasi-equity is essential for us. As the charts show, the non-profit income can be generated from self-financing activities that are not necessarily of a commercial character. We will try to point out the differences resulting from the breakdown of incomes for non-profit and commercial, especially in the context of maintaining a generally beneficial purpose of NGOs in the implementation of self-financing activities.

Self-financing of NGOs

As already mentioned, self-financing of NGOs is not a clearly defined term. In a broader meaning it is defined as any diversification of the funding sources of NGOs. From the narrower point of view self-financing can be understood as a business

or any other economic activities of the NGOs that generate their own income, i.e. self-financing as a method of obtaining internal sources (Kuvíková-Svidroňová, 2010).

Self-financing activities bring financial income and potential profit but the principle of non-distribution constraint still applies and compared to any commercial company it is given in advance how NGOs use this profit. Profitable activities of NGOs (e.g. revenue from sale or rent of assets, revenue from advertising) are subject to income tax. When taxing this type of income it is necessary to take into consideration:

1. Whether the activity is conducted within the mission of the organization, such activity is in accordance to the statutes or the activity fills the purpose for which an NGO was established. This is called core work and it cannot be considered as a business activity. It is not important whether incomes are higher than expenses while conducting core work activities. The goal of NGOs is not gaining a profit but to promote and support the mission and purpose to which they were founded. Even if NGOs gain some profit by performing core work activities in the terms of fulfilling the general benefit, it cannot be called a profit as defined by the law on income tax and is not subject to taxation.

2. Whether the activity is really a "business" - we draw on the definition of business which primary European Union law indirectly describes as every sort of economic activity regardless of its legal form and method of financing. In defining business and functional definition of "economic activity" in the particular case, three components are taken into the consideration: the provision of goods and/or services; taking economic and financial risk of carrying out the economic activities; economic activity must have the potential to generate income from economic activity. NGOs provide services of special character (public services and/or general benefit services). The main feature of these services is they do not bring profit (therefore companies are not interested in providing them and they are provided by the state or NGOs).

If the activity is not a core work activity or it complies with the above-stated definition of business, then we are talking about another form of self-financing which Majduchová (2004) refers to as a commercial activity. To distinct: the term self-financing activities is considered to be those that are associated with the entry of NGOs on the market and that require thinking of the business sector, but these are not business/economic activities in the true sense of the word (they do not meet the above two conditions).

It follows that in order to maintain and fulfill the generally beneficial purpose it is strategically advantageous for NGOs to focus on self-financing activities in accordance with the core work of NGOs and their missions. Therefore, we can say that from the narrower point of view, self-financing is raising funds from sources which we defined in the "quasi-equity" as non-profit income. We explored the range of use of self-financing by NGOs in two research projects conducted in SVK and AT. Concerning the Slovak part the findings are extended by the best practices of selected Slovak NGOs.

Recommendations based on the results of primary research in SVK and AT

The most used source of funding in Austrian NGOs is public sources, used by 91% of respondents participating in the research (Schober et al., 2010). This involves long-term contractual relationships which greatly influence the acquisition of new sources of funding. The question how much effort NGOs have to put in to keep these sources whilst obtaining new financial sources and fulfilling their missions comes to the fore. The need to fulfill the mission and achieve the generally beneficial goals of NGOs must be a priority when doing any activity bringing money in for running NGOs.

A partial aspect of this issue also includes a fixed purpose of sources and the accountability of the source provider. Compared with other sources of funding it can be stated that the highest effort must be made by NGOs when applying for EU funds, state funds and contributions and donations from companies and individuals. This explains the research results which showed a clear desire of NGOs to gain a larger part of the funds through their own activities (Schober et al., 2010). It also confirms the importance of self-financing as it can offer the highest level of independence and freedom in the decision-making process.

We can support the importance and benefits of self-financing with the findings of the part of the Austrian research on funding of NGOs that focused on the freedom of use of financial sources. This shows that the highest purpose-fixed sources provide the lowest freedom to decide about the use of these sources in fulfilling the mission (Schober et al., 2010). The highest influence of source provider was observed in contractual support from the state and the EU (the source provider strictly controls the use of provided money). The lowest influence and control was in the event of income from financial investments and renting assets which are self-financing activities. We can conclude that self-financing has a positive effect on achieving generally beneficial purposes for which NGOs were founded.

Similar results were obtained in research about the funding of NGOs in SVK (Svidroňová, 2012). However, there is an important difference - unlike Austria, the least used sources by NGOs in SVK are state/public contracts (only 2.20%). This suggests that in SVK suitable conditions to provide public services by NGOs are still missing. On the other hand, self-financing in SVK is represented by 25.4% (Svidroňová, 2012) which is higher than the estimation reported in "ideal" diversification of funding sources (Vaceková, 2009). Although the level of this type of financing is a quarter of the total sources of an NGO, the value of 25.4% is still lower than the European average of 36.9% (OECD, 2001).

Due to the evaluation of the impact of self-financing on the generally beneficial goals of NGOs we explored whether respondents considered self-financing activities for commercial deflect attention from the mission and core work of the organization. 68% of NGOs reported no, self-financing is not such an activity. More than 21% of them said no, but had some objections to self-financing (e.g. NGOs should not develop

business activities) or the respondents were not able to decide because they said it depends on other factors e.g. the legal form of an NGO. Less than 11% of organizations believe that self-financing is a commercial activity that distracts from the mission and core work of NGOs. We conclude that NGOs must be able to distinguish between what is a commercial activity and what is an activity that requires a business way of thinking and focus on self-financing in compliance with the mission and core work.

In Appendix 2 we summarize NGOs considered as "best practices". These are the NGOs that have a high self-financing ratio (in some cases almost 100%) in the funding sources. To increase this ratio and to strengthen their sustainability the NGOs used the factors described in Appendix 2. The most common factor for the use of self-financing in the higher range was the expansion of core work and the extension of the portfolio of provided services or by narrowing and specialization in some services so that projects/programs providing specialised services is able to self-finance its operation and that they also contribute to the organization's budget. This factor was followed by staff training and the use of volunteer labour and in some cases also the establishment of cooperation with companies (Svidroňová, 2012). All these factors resulted in the strengthening of the financial stability of the NGOs. Thus we were able to demonstrate that self-financing may not be contrary to the general benefit of NGOs and thus we fulfilled the goal of the presented paper.

Conclusion

The goal of the paper was on the basis of comparable findings of primary research projects of NGOs conducted in Slovakia and Austria, as well as best practices of selected NGOs in Slovakia and to prove that self-financing may be in compliance to the general benefit and purpose of NGOs.

We fulfilled this goal: we confirmed that self-financing is a method used for raising funds and one of the possible ways to gain financial stability, independence and in the end to the long-term sustainability of NGOs.

We have shown that self-financing can be connected to the core work and does not have to be in conflict with the general benefit and purpose of NGOs. The fulfillment of mission of NGOs supported by self-financing activities in accordance with established core work is considered to be an appropriate way which should be undertaken by NGOs in order to achieve financial independence and stability.

The proposals are based on the partial results of primary research and on the experience of Slovak NGOs we drew on 13 best practices. Most of the best practices NGOs have succeeded in increasing the ratio of self-financing by adjusting the portfolio of provided services. Thus they gained sources that can be used by an organization´s needs according to its development strategy and not according

to the donor´s demands. This increases the degree of independence and allows NGOs to use the sources to create a sustainability strategy.

An outline of the problems and their solutions which we introduced in the presented paper is considered as a suitable basis and starting point for further research in the field of self-financing of NGOs. Since our existing research is from both theoretical and methodological perspectives it is unique in this field in Slovakia and we will try to use it as a competitive advantage and continue to further explore this issue.

Acknowledgements

References

BENČO, J., VACEKOVÁ, G. (2012) Theoretical-methodological problems of the scientific research. In Acta Moravia. Scientific journal for economics, management and informatics. Kunovice : European politecnic institute, Ltd. Vol. 3, No. 5, 2011, p. 31-40. ISSN 1803-7607.

ETCHART, N., DAVIS L,. MESSING, J. (2001) Príručka podnikania neziskových organizácií. Centrum prevencie a riešenia konfliktov, 2001. ISBN 80-968095-8-X

HYÁNEK, V. (2011) Neziskové organizace: teorie a mýty. Vyd. 1. Brno : Masarykova univerzita, 2011. 132 s. ISBN 978-80-210-5651-0.

KUVÍKOVÁ, H., SVIDROŇOVÁ, M. (2010) Kvantitatívny rast a akceptácia súkromných neziskových organizácií v Slovenskej republike. In Bílá místa teorie a černé díry reforem ve veřejném sektoru II, Sborník příspěvků z mezinárodního vědeckého semináře 2010. Šlapanice : Ekonomicko-SVK pávní fakulta MU, 2010, p. 34. ISBN 978-80-7399-907-0.

LITTICH, E. (2007) Finanzierung in NPOs. In Handbuch der Nonprofit Organisationen. Stuttgart : Schäffer Poeschel Verlag, 2002. ISBN 978-37-910-1941-3.

MARČEK, E. (2004) Financovanie neziskového sektora na Slovensku po roku 1989. PANET. [online] 2004. [cit. 2010-02-05]. Dostupné na WWW: http://www. partnerstva.sk/buxus/generate_page.php? page_id=558.

SALAMON, L. M., ANHEIER, H. K. (1999) Nástup neziskového sektoru. Mezinárodní srovnání. Praha : AGNES, 1999. ISBN 80-8044-015-8.

SCHOBER et al. (2010) Die unterschiedlichen Finanzierungsquellen von NPOs. Ausgewählte deskriptive Ergebnisse zur NPO-Finanzierungsbefragung 2010. [online] 2010. [cit. 2012-08-30]. Dostupné na WWW: http://www.wu.ac.at/npo/competence /research/abgeschlforsch

SVIDROŇOVÁ, M., VACEKOVÁ, G. (2012) Current state of self-financing of private non-profit organizations in the conditions of the Slovak Republic. In TEDE - Technological and Economic Development of Economy. Taylor & Francis. Vol. 18, No. 3, 2012. ISSN 2029-4913.

TOEPLER, S., SALAMON L.M. (2003) NGO Development in Central and Eastern Europe: An Empirical Overview. East European Quarterly, Vol. 37, 2003.

Sources of funding NGOs

Quasi equity

- Borrowed capital
  - Bank loans
    - Overdrafts
    - Credit
  - Subsidized foreign capital
    - Public loans
    - Other loans
- Commercial incomes
  - From investing activities
    - Rental
    - Interest / dividend
  - Commercial Partnerships
  - Restructuring of capital
  - Other Commercial Income
- Non-profit incomes
  - From individuals
    - Private contributions
    - Private foundations
    - Membership fees
    - Remuneration for services performed or work
  - From companies
    - Corporate contributions
    - Corporate foundations
    - Sponsorship
  - From public and government bodies
    - Subsidies
    - Contracs
  - Transfers from other NPOs

No real economic exchange relationship

Real economic exchange relationship

Appendix 1 : **Sources of funding NGOs**

Appendix 2: "Best practices"

Organisation	Factor	Activities
Orbis institute Slovakia, o.z	Field of activity - extension of services, creation of a program / project.	Incomes from promotion events are used to fund education, leadership programs and workshops.
Outdoor institute	Field of activity - extension of services, creation of a program / project.	Renting and providing attractions such as wall climbing. Organizing wall climbing technique courses.
OZ Jablonka	Field of activity - extension of services, creation of a program / project.	Sale of old varieties of fruit trees and shrubs, organizing seminars and workshops – eco-education, traditional crafts.
Galenospharm	Field of activity - extension of services, creation of a program / project.	Organizing courses.
	Business (commercial) activity.	Business with parking. Incomes from parking fees.
	Networking, cooperation with companies.	Cooperation with several important companies, e.g. Zentiva.
Sieť LetNet	Field of activity – extension of services.	Organizing meetings, selling products.
	Membership fees.	Registration charges, membership fees.
Aliancia Fair-Play	Field of activity - extension of services, creation of a program / project.	Selling products (gifts) and services (organizing trainings for other NGOs).
	Involvement of volunteers.	Involvement of volunteers into self-financing activities.
Kaspian	Field of activity - extension of services, creation of a program / project.	Sale of products (T-shirts with the logo of the organization), ceramic workshop, publishing and sale of publications. Providing advertising space in the skate park.
	Involvement of volunteers.	Volunteer to map the possibilities of self-financing (how much investment is required, what are revenues), in collaboration with the staff will seek other sources of funding.
EFFETA	Field of activity - extension of services, creation of a program / project.	Organizing courses of sign language, providing interpreters services, organizing workshops.
Lepší svet n. o.	Field of activity - extension of services, creation of a program / project.	Organizing workshops (ceramics, painting, arranging), cafes and galleries. Sale of paintings and other products of the workshops. Providing advertising agency services, rental of premises, publishing a magazine.
O. z. Pomoc ohrozeným deťom	Cooperation with companies, networking.	Cooperation with Nadácia pre deti Slovenska (co-organization of projects). Cooperation with Philip Morris International ("social marketing/cause related marketing" - Education of police officers to evaluate the risk in domestic violence cases).
Nadácia Pontis (foundation)	Field of activity - extension of services, creation of a program / project.	Organizing conferences, forums and seminars (mainly focused on philanthropy, donations, responsible entrepreneurship).
O. z. Archimera	Field of activity - extension of services, creation of a program / project.	Organizing exhibitions and competitions.

Source: Authors

Housing Tenure Choice and Housing Expenditures in the Czech Republic

Špalková Dagmar, Špalek Jiří

Abstract

The paper examines the potential factors affecting housing tenure choice decision (rent or own) using an econometric model drawing on sample data. Results of the analysis, making use of the investigation of EU-SILC in the CR, testify to the fact that tenure choice is influenced by the factors similar to those in other countries – household income, marital status of the household head and household size (persons/household). On the other hand, the influence of other demographic characteristics of the household head (gender or age) has not been confirmed. The econometric model also made it possible to evaluate potential influence of these factors on housing expenditures of households. The tenure choice decision is significantly influenced not only by the logical influence of household income but also by household size and residence in Prague, particularly in the rented housing sector.

Keywords

housing, tenure, choice, expenditures, determinants

Introduction

One of the key decisions to be made by any household is the choice between owning or renting their home, which is known in specialized literature as *tenure choice*. As for the methods of public sector investigation, it is a very interesting case, since various attitudes and research methods have been applied to this issue. Engaged in *tenure choice* research are not only sociologists or geographers but also economists. They mostly focus on studying the determinants which are relevant for the decision of households to own or rent their housing and on establishing the degree of their influence. A number of authors view *tenure choice* as an independent decision. Nevertheless, a more common opinion has it that the choice of home type is only a part of other decisions households have to make in relation to consumption and investment (Turner, O'Neal, 1986). Thus tenure choice is typically analyzed in connection with household mobility, housing attributes (dwelling characteristics), household attributes or as an element of consumption and investment decisions.

The first researcher to deal with tenure choice in the context of household decisions on *mobility* was Boehm (1981). He applied a working assumption that households decide about their housing and expected mobility simultaneously. In his work he demonstrated a strong interdependence of the two decisions and at the same time he

proved that the decisions are affected by identical factors. Boehm's research (1982) was also focused on h*ousing attributes* that explored mutual relations between tenure choice and household preferences for housing quality and dwelling size, surroundings, type of location, etc. An alternative approach was adopted by Andersen (2009) for assessing household preferences for housing quality: questionnaire survey. He divided the housing characteristics into four groups: the dwelling itself, its surroundings, social infrastructure and location character. He concluded that tenure choice is greatly affected by such factors as environment without crime and good access to public transport suitable for bringing up children. However, the survey results have to be interpreted with great caution, because some of the household preferences may not be realistic and they can be rather biased by each household's current housing situation. Tenure choice is probably most frequently examined in connection with *household attributes*. A wide range of these characteristics can be classified into two basic groups, namely socioeconomic and demographic characteristics. The household characteristics can be analysed as a whole (e.g. Skaburskis, 1999, Bazyl, 2009). A number of authors, however, are engaged in studying only one a several selected factors. There is a consensus among researches that the strongest influence on household decisions is exercised by income of its members. The fourth approach emphasizes two important aspects of ownership – *consumption and investment* - that must be taken into consideration in connection with decisions about tenure choice. Home acquisition is the largest investment for most families and as a rule the only financial resources are available from household income. While making their decision whether to own or rent, households virtually decide about their portfolio composition and their present and future consumption at the same time (e.g. in Artle, Varaiya (1978) or Henderson, Ioannides (1983)).

The issues of tenure choice have been touched on by Czech authors as well. Lux and Sunega (2012) considered the influence of the form of ownership (i.e. only tenure) on mobility. Using family accounts statistics, Tsharakyan and Zemčík (2011) studied whether the rent deregulation had an impact on households renting behaviour or their ownership status (renters vs. owners). None of the above papers is devoted to the analysis itself of tenure choice.

Our paper combines the last two approaches to exploration of tenure choice. Based on the results of the econometric model we define the factors that affect tenure choice of Czech households over the period of 2005-2010. Using the acquired factors we further quantify their impact on the share of housing-related expenditures. Our aim is to assess suitability of the given method for investigating tenure choice and establish which socioeconomic and demographic factors determine housing expenditures or the weight of their impact.

Material and Methods

As shown above, our approach relies on the quantitative analysis of sampled data. In order to analyze *tenure choice* we applied an econometric model in accordance with the most frequent approaches. The model relies on some form of regression logit model (e.g. Bazyl (2009), Ulker (2008)). This approach allows (using the so-called odds ratios) to capture the individual influences of each of the set of potential factors that may affect *tenure choice.* The model enables to calculate the conditional probability of the choice of a particular type of housing depending on a given factor provided that the values of other factors are constant. In this paper a probit model is used, which has the following formula (Wooldridge, 2006):

$$\log \frac{\pi}{1-\pi} = \beta_0 + \beta_1 X_1 + \cdots + \beta_k X_k \tag{1}$$

where π = Probability of homeownership for a given value of x and takes form of normal cumulative distribution function:

$$\pi = \Phi(z) = \int_{-\infty}^{z} \frac{1}{\sqrt{2\pi}} e^{-\frac{u^2}{2}} du$$

x_k = Explanatory variables (see below)

β_k Coefficients estimated by the probit model.

The values of the coefficients βk express the effect of each of the factors on the tenure choice and at the same time show its direction. We refer to home ownership as the default choice, because the values of the coefficients βk are related to this option. Positive values of the coefficient βk therefore indicate that higher values of factor x_k increase the likelihood of rental. On the other hand, negative values indicate that a greater likelihood of choosing home ownership for high values of the factor x_k. Then for those factors that have a dichotomous nature (most often Yes/No) lower values of the factor mean 'No' and its higher values 'Yes'.

In the second part of our analysis the regression model was applied as well. The model serves to quantify the relationship between household composition and share of housing expenditure of the total household income. The model considers this relation separately for owners (o) and renters (r). Therefore the econometric model has a form of two regression equations (Ulker, 2008):

For owners:

$$w_{o,i} = \alpha_o + \beta_{o1}\ln M_{o,i} + \beta_{o1}\left(\ln M_{o,i}\right)^2 + \gamma_o\ln n_{o,i} + \sum_{k=1}^{K-1} \eta_{o,i,k} \frac{n_{o,i,k}}{n_{o,i}} + \zeta_o v_{o,i} + e_{o,i} \tag{2}$$

For renters:

$$w_{r,i} = \alpha_r + \beta_{r1}\ln M_{r,i} + \beta_{r1}\left(\ln M_{r,i}\right)^2 + \gamma_r\ln n_{r,i} + \sum_{k=1}^{K-1} \eta_{r,i,k} \frac{n_{r,i,k}}{n_{r,i}} + \zeta_r v_{r,i} + e_{r,i} \tag{3}$$

In the model $w_{o,i}$ ($w_{r,i}$) denote shares of housing expenditures of owners (renters)

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in the total net household income $M_{o,i}$ ($M_{r,i}$). Shares $n_k/n_{k,i}$ refer to the share of individual age groups of men and women in a given household. While parameter γ captures the influence of household size on the housing expenditure share, parameter η_k indicates the influence of gender and age composition of the household. Coefficient ζ captures the relationship between the share spent on housing and the vector of demographic and socioeconomic variables (detailed composition of the vector is shown in Table 2).

The analyses included in this paper are based on the data pertaining to Czech households collected by the CSO (The Czech Statistical Office). The data were collected under sample surveys of income and living conditions of households between 2005 and 2010, under the Living Conditions programme (hereinafter the "EU-SILC"). This data set contains information on the social structure of households, their incomes and expenditures. The dates relate to the date of the investigation, i.e. the defined date in the spring of that year, only the incomes are listed for the previous year. In order to convert the sample of households to the entire Czech Republic the coefficient of the "PKOEF" is used, which expresses the weighting of each surveyed household. In the data sets, households are divided into five groups according to the form of ownership. For our analysis, however, the relevant definitions are only home ownership and rented housing. Into the definition of ownership three different factors were combined - living in an owned home, in a flat in personal ownership, and a flat with cooperative ownership. Into the category of rented housing falls the lease and rental of whole flats.

After calculations for the entire population of the CR it was ascertained that the percentage of homeownership significantly exceeds the percentage of rented housing and keeps increasing over time. The ownership percentage grew from 73,6 % in 2005 to 79,1 % in 2010. In the past this development was the logical result of the gradual privatisation of the housing stock. Privatisation, however, is slowly becoming a thing of the past, and we therefore ask the question: What factors have caused this development in recent years? To what extent do demographic and socioeconomic characteristics affect the household's choice of the type of housing? Which of these characteristics is statistically the most significant?

Our examination relies on the following assumptions or hypotheses: "Home ownership is preferred in households where the head of the household (HOH) has a tertiary education and is married. Rented housing is preferred by households with lower income and who are "incomplete", specifically, divorced with children." The second part of the analysis is based on the assumption that the same factors, which have an impact on tenure choice, also affect the expenditure share, which a household spends on housing. Therefore we study the same groups of factors as in the case of the probit model. This time we would like to establish whether the influence of the factor is significant (the appropriate coefficient is statistically markedly different from zero)

and whether this influence is the same in the rent and ownership sectors. Then the differing values of the coefficient can point to the regions where the behaviour of renters and owners differs and where may be some space left for some interference from outside.

Results and Discussion

In line with the above hypotheses, we focused on the examination of the impact of the demographic and socioeconomic characteristics of the households on *tenure choice*. Specifically we have paid close attention to the head of the household – his/her age, sex and marital status and furthermore we focused on the household from the viewpoint of its economic status, its disposable income or number and age of the children. Results of the regression analysis examining the determinants of tenure choice are summarized in Table 1. Marginal effects β_k are computed not only for 2010 but cover also five-year time span (2005-2009). This enables to assess development trends of these effects as well.

Table 1: Probit Estimation Results for Housing Tenure Choice (1=owner)

Factor (x_k)	Marginal effect (β_k)**					
	2005	2006	2007	2008	2009	2010
Constant	-5,348	-4,825	-4,353	-4,512	-5,819	-5,501
Household size (number of persons)	-0,131	-0,178	-0,182	-0,228	-0,183	-0,170
Number of economically active persons	-0,197	-0,066	-0,023	-0,020	-0,029	-0,005 [n]
Number of self-employed persons	-0,091	-0,169	-0,177	-0,138	-0,097	-0,068
Age of the head of household	-0,019	-0,017	-0,014	-0,013	-0,018	-0,014
Gender of the head of household (1=male, 2=female)	-0,023	0,029	0,057	0,003 [n]	-0,030	0,011
Education in the household (1=both primary, 2-higher)	0,242	0,280	0,221	0,273	0,329	0,246
Head of the household is married	-0,331	-0,166	-0,085	-0,187	-0,193	-0,067
Head of the household is single	-0,507	-0,464	-0,438	-0,458	-0,460	-0,351
Head of the household is divorced	-0,146	-0,031	0,058	0,034	-0,039	0,017
Household with children*	-0,164	0,012	0,041	0,041	0,046	-0,055
Children up to 2 years of age*	-0,083	-0,119	-0,145	-0,053	-0,205	-0,027
Fully unemployed household	-0,107	0,083	0,337	0,332	0,199	0,124
At least one retired person	-0,117	0,091	0,087	-0,023	0,058	-0,005 [n]
Head of the household works in public sector*	-0,190	-0,225	-0,172	-0,143	-0,086	-0,051
Household located in Prague*	0,676	0,687	0,614	0,537	0,516	0,555
Total area per person	-0,024	-0,026	-0,026	-0,025	-0,025	-0,023
Income of the household (disposable)	-0,267	-0,253	-0,234	-0,237	-0,327	-0,337

**dichotomous variables take values 1 (Yes) / 0 (No)
**All values are statistical significant at 99% level (t-statistics upon request) excluded the coef market [n]
Source: Authors

As expected one of the most significant factors affecting the choice of tenure in 2010 (as in previous years), is the disposable income of the household (β^{2010}=-0,337). Households with higher incomes tend to prefer living in their own property rather than renting. The importance of this factor grew in the course of the reference period. The second strongest factor turned out to be residence in the capital city of Prague, which increased the likelihood of living in rented housing (β^{2010}=-0,555). Among other strong (and statistically significant) factors affecting *tenure choice* in 2010 was the marital status of the head of the household, the education level of the household, the number and the economic status of the household members. There was an increased likelihood of ownership if the head of the household was a married man (β^{2010}=-0,351). Similarly, the assumption that there is a high likelihood of single or divorced people preferring rented housing was not proved. Rented housing is chosen with greater probability by households with a smaller number of people (β^{2010}=-0,170), with a lower level of education of the head of the household (β^{2010}=-0,246) or by the fully unemployed (β^{2010}=-0,124). The results also confirmed the assumption that the financially demanding step of purchasing their own home can only be afforded by households with higher incomes, which usually corresponds to higher education. This type of *tenure choice* is preferred by families (not individuals), which is related to the larger number of persons in the household; and regarding the regular loan repayments also by household's members working (not unemployed). The influence of other factors, such as: number of economically active persons; number of self-employed persons; age of the head of the household and his/her gender; whether there are children in the household; and the total area per person, was not demonstrated.

Table 1 also indicates the development trends of the individual factors in *tenure choice* of households over the period 2005-2010. Throughout the observed period the following factors had a decisive effect on *tenure choice*: income of the household; education of its members; whether the head of the household is married or not. If the head of the household is married, the members of the household have a higher than primary education and a higher income, this implies the choice of home ownership. Our results in this respect correspond to the results of similar foreign studies. Ulker (2008) in his article showed that there was a highly significant influence of socioeconomic characteristics, such as income and education on the *tenure choice* of households in the USA.

Table 2: Influence of factors on the share of housing expenditures

Model 4	Owned housing			Rented housing		
	2005	**2007**	**2010**	**2005**	**2007**	**2010**
Constant	14,861	15,891	23,475	19,033	25,740	44,076
Log net household income (ln$M$)	-2,209	-2,327	-3,474	-2,864	-3,906	-6,728
Second power log income (ln$M$)^2	0,081	0,085	0,128	0,107	0,147	0,255
Number of persons in household (ln n)	0,051	0,064	0,068	0,131	0,151	0,234
Number of men age 0-10	0,038	-0,001	0,004	0,003	-0,014	-0,056
Proportion of males aged 11-17	0,073	0,025	-0,009	0,005	-0,056	-0,058
Proportion of males aged 18-29	0,066	0,007	0,008	0,118	0,004	-0,011
Proportion of males aged 30-59	0,065	0,002	-0,004	0,116	0,045	-0,031
Proportion of males aged 60+	0,074	0,003	-0,002	0,111	0,005	-0,072
Proportion of females aged 0-10	0,056	0,000	-0,013	0,140	-0,062	-0,103
Proportion of females aged 11-17	0,084	0,013	-0,029	0,017	0,049	-0,026
Proportion of females aged 18-29	0,072	0,024	0,011	0,088	0,011	-0,033
Proportion of females aged 30-59	0,094	0,006	0,006	0,078	-0,021	-0,083
Proportion of females aged 60+	0,075	0,008	0,013	0,089	-0,007	-0,060
Head of household is married	0,037	0,018	0,035	0,044	0,041	0,046
Head of household is single	0,020	-0,014	0,017	0,052	0,039	0,039
Head of household is divorced	0,014	0,016	0,012	0,005	0,015	0,037
Fully unemployed household	0,032	-0,002	-0,011	-0,032	-0,025	0,000
Education in the household	-0,051	-0,037	-0,032	-0,034	-0,052	-0,057
At least 1 pensioner	-0,030	-0,026	-0,041	-0,011	-0,044	-0,032
Head of household works in public sector	0,001	0,014	0,010	-0,007	-0,010	0,057
Household residence in Prague	0,043	0,049	0,034	0,059	0,052	0,142
Total floor area per person	0,000	0,000	0,000	0,002	0,003	0,005
Age of head of household	0,000	0,000	0,000	-0,001	-0,001	0,000
Gender of Head of household	0,010	0,002	0,003	0,036	0,032	0,005

Source: Authors

Judging from the results of the second regression model it can be stated that our hypothesis has only partly been confirmed. Tenure choice itself is as much influenced by disposable household income as it is by the share of housing expenditures. This influence grows more significant in renters (β_r^{2010}=-6,728 versus β_o^{2010}=-3,474). The same applies to the number of persons living in the household – while the influence is relatively small for owners (γ_o^{2010}=0,068), in the rent sector the share of housing expenditures rises significantly with a growing number of persons (γ_o^{2010}=0,234). The differences are found also in Prague households. Generally, the housing costs in Prague are higher but this influence is shown to be more pronounced in renters (over the whole surveyed period). However, this difference is on the increase since 2005 (ζ_r^{2010}=0,142 versus ζ_o^{2010}=0,034). On the contrary, the age and gender of the head of household are completely irrelevant in determining the share of housing

expenditures. It can also be observed that Czech households in both sectors adapt their floor area to the number of persons living there. This corroborates the interrelation of tenure choice and determination of share of housing expenditures. According to our findings, households really take into account future payments when choosing a type of housing, at least to a certain degree.

Conclusion

As in other countries, tenure choice in Czech households is affected by three crucial factors: income of the household, level of education of its members and marital status of the head of the household. On the other hand, gender and age of the head of the household, and whether there are children or pensioners within the household turned out to be completely insignificant. These results are largely in line with our hypotheses, set out at the beginning of our research. We were able to confirm the hypothesis that a higher level of education of the household members (including the head of the household) and the fact that they are married increases the likelihood that they will choose home ownership. The second hypothesis, however, was confirmed only in part. It was proved that lower income households are more likely to live in rented housing. However, we failed to confirm that incomplete households, e.g. divorced parents with children, would prefer rented housing. A number of the above factors also affect the level of housing expenditures within households. Income appears to be decisive in this respect but this influence is much more important in rented homes than in owned homes. It was also proved that Prague residents spend more on housing *per se*, which may be relevant for the public policy. This influence is again more significant in the renting sector. On the other hand the influence of gender, age or marital status of the head of the household was not shown. Of course, it is necessary to treat the interpretation of the submitted results with care. The EU-SILC is a sample survey in which (in 2010) 11 249 households were examined out of a total number of 4 018 288. The source data are only statistical estimates, which were burdened with an unspecific error. However, we believe that despite these limitations the results presented are relevant and conclusions can be drawn from them.

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References

ANDERSEN, H. S. (2009) Explanation for preferences in Denmark for surroundings and location of the home. Paper for ENHR conference, Prague.

ARTLE, R., VARAIYA, P. (1978) Life Cycle Consumption and Homeownership. Journal of Economic Theory, Vol. 18, Issue 1, pp. 38-58. ISSN: 022-0531.

BAZYL, M. (2009) Factors influencing tenure choice in European countries. Warsaw School of Economics, Working paper No. 1-09.

BOEHM, T. P. (1981) Tenure Choice and Expected Mobility: A Synthesis. Journal of Urban Economics, Vol. 10, Issue 3, pp. 375-389. ISSN: 0094-1190.

BOEHM, T. P. (1982) A Hierarchical Model of Housing Choice. Urban Studies, Vol. 19, No. 1, pp. 17-31. ISSN 0042-0980.

HENDERSON, J. V., IOANNIDES, Y. M. (1983) A Model of Housing Tenure Choice. The American Economic Review, Vol. 73, No. 1, pp. 98-113. ISSN 0002-8282.

SKABURSKIS, A. (1999) Modelling the Choice of Tenure and Building Type. Urban Studies, Vol. 36, No. 13, pp. 2199-2215. ISSN: 0042-0980.

LUX, M., SUNEGA, P. (2012) Labour Mobility and Housing: The Impact of Housing Tenure and Housing Affordability on Labour Migration in the Czech Republic. Urban Studies. 49 (3): pp. 599-614. ISSN: 0042-0980.

TSHARAKYAN, A., ZEMČÍK, P. (2011) Rent Deregulation, Tenure Choice, and Real Estate Price Expectations, CERGE-EI Working Papers wp430, The Center for Economic Research and Graduate Education - Economic Institute, Prague.

TURNER, M. A., O'NEAL, K., (1986) Household Tenure Choice: Review of the Empirical Literature, The Urban Institute, Washington.

ULKER, A. (2008) Household Composition and Housing Expenditures in Rental-Occupied and Owner-Occupied Markets, Family and Consumer Sciences Research Journal, Vol. 36, No. 3, 189-207

WOOLDRIDGE, J. M. (2006) Introductory econometrics: a modern approach. 3rd ed. Mason: Thomson/South-Western. p. 890 ISBN 0324289782

What is True for the European Social Model
- Rigor or Generosity?

Wildmannová Mirka

Abstract

The European social model currently represents an issue for many scholarly topics. Most authors (Krebs, Mitchell, Godet, etc.) agree on fact that due to demographic factors and fiscal crisis of economy, the view on a welfare state of Europe has to be changed. Discussion about the phenomenon of welfare state (Krebs, 2011) does not concern only its very existence, but rather how it should be working: what should be its extent, how it should be organised, how it should be effective in a long run. Changes in a concept of perceiving a welfare state are reflected in concepts of particular welfare states of developed European countries. It is apparent that the national economies' capacity to fund extensive social programs is limited, and that it is necessary to shift the boundary between the state's and individuals' (clients) responsibilities. This article seeks to answer the question, where the Czech Republic stands in terms of drawing the social benefits compared to Great Britain and France, representatives of the advanced economies. The paper aims to answer the question whether the Czech Republic is really a generous welfare state, or whether this is only a myth being used as an argument.

Keywords

social policy, social benefits, research, public spending, European welfare state

Introduction

In times of the current "economic crisis" social security systems finds itself in a centre of experts'discussions. In a framework of public spending restrictions some countries reduce also the social security benefits while others, on a contrary, do not apply any reductions and prefer to keep the latter either at their current rate or to increase them in a long term in order to maintain or improve the standard of living of their inhabitants, increase their purchasing power and maintain a long-term sustainable growth. In the Czech Republic there is an effort to reduce the resources flowing into the social security benefits. An example might be a decrease in expenditure on the social security benefits between the years 2010 and 2011 from 40,8 to 36 million Czech crowns (MPSV, 2011). Along with the trend of reducing social security expenditure, expenditure on family policy included, a low birth rate trend exists in the Czech Republic too. Fertility in the Czech Republic is currently under the level of simple reproduction, i.e. less than 2.1 live birth per woman. According to Eurostat, fertility in the Czech Republic in 2009 was 1.49 (according to the Czech Statistical Office,

1.49 in 2010), whilst compared to France there had been two children (according to the French statistical office 2.01 in 2010) per woman. Low birth rate has resulted in aging of the population. According to Krebs (2010, p. 180), the ratio of old-age pensioners to employed population is around 30%. It has begun to grow rapidly in 2010 and will reach 50% by 2020. Population aging affects virtually all the spheres of national economies and has a huge impact on government's spending, on ensuring health care costs and payments of pensions in particular. Fiscal challenges stemming from the population aging thus appear as highly significant. It is in connection with the low birth rates and an increase in the proportion of seniors in the society that nowadays the importance of social and family policy is being evaluated and considered (Mitchell, 2009). According to Mitchell (2010, p. 5) opinions regarding the question of whether the use of policy instruments to motivate young people to established a family or have more children vary across the scientific community.

Some scientists argue that birth rate is affected by the knowledge that the arrival and upbringing of a child means the loss of life security together with lack of economic resources, because the family's living standard decreases with child's arrival. According to Krebs (2010) it is in the state's own interest to ensure the full functioning of families and to make the efforts in the area of economic, social and legal support for them.

The purpose of financial support is to supplement or partially replace families' income (Krebs, 2010) and it gets executed primarily by means of various benefits. Financial support may have different forms. It may be a case of a direct support in a form of family benefits (Kolibová, 2008), or social and other scholarships (Höhne, 2008a; Kolibová, 2008). The aim of the state is to ensure such opportunities, economic and social environment that will render families less dependent on social benefits, so to say direct financial support. That is the reason fuelling the state's initiative in the area of indirect financial support. Indirect financial support represents the state's assistance, usually in form of various types of tax reliefs, among which tax deduction for a dependent child in particular (Höhne, 2008a; Kolibová, 2008).

It is not only the Czech Republic that is facing aging of the population and a low birth rate. These phenomena bring with them lot of economic issues. Low birth rate could potentially lead the society to a difficult situation when the small percentage of economically active citizens will provide for the growing number of elderly people in the society.

According to Godet, (2007, p. 7) family, being not only a matter of private but also of public affairs, is associated with many externalities that are positive for the society and determines social cohesion and sustainable development. According to Godet (2005, p. 273), the positive externalities are children's health, education, social

inclusion, and the cases where a family fulfills its function. These positive externalities support the growth and well-being of not only a family but the entire society.

Investments into the family are thus not only quantitative investments in human capital, but also qualitative investments that produce positive externalities resulting in sustainable economic and social growth and prosperity of the state. Being the smallest investments possible at the same time, they are therefore more effective than would be investments in family child care compensations.

The paper aims to answer the question whether the European social model is directed to rigor in fiscal policy or whether it is about to take the directions towards keeping the generosity of public social spendings. The comparison between the social models can encounter the difficulty that due to the uniqueness of these national models it is very difficult to compare the fiscal expenditure. The structure of social security across the EU is left to the discretion of national policies. Although the relevant parameters of these systems can be compared, it is necessary to draw attention to the methodology of the national statistics in social field.

Materials and Methods

As mentioned above, the basic issue for international comparisons of social models is their uniqueness at the national level. Firstly, we encounter other's language terminology (which, given the defined benefit is not a problem), furthermore there exists a different form of benefits financing out of the system (from the system of social security or a national budget) or else these benefits are not the same (it can be a case of unifying the two different benefits into one). Criteria for granting certain benefits may vary in different countries too (e.g. length of the provision of the allowance). In our research it was decided to establish a provision of selected benefits in the Czech Republic and two chosen EU countries (United Kingdom and France), where it can be assumed that these are states with a traditional welfare policy towards the families with children. At the same, time we start from the premise that these are the countries of responsible and strict fiscal conditions.

Four model households with children were being compared in all the states. Creating of the family models was a chosen method in order to imitate the real demands of families in terms of social assistance from the state. Thanks to these models and formation of relatively equal scenarios for all the compared states it will be easier to understand and compare the diversity of their systems. There was a size set within the various types of families, so to say the number of adults and children in the household and net family income, and according to them, the family's entitlement to various forms of tax relief, right to child benefit, maternity grant and housing allowance. Since both systems are set up differently and it is difficult to create a family

model and a number of benefits for them, in the British system particularly (due to the set of a system of individual benefits and determination of tax bonuses for children), we used the data that are available from the official sources and quotationd as a guide for setting the benefits. Therefore, in reality, the amount of benefits available to the families who meet the specified models may differ slightly from those with whom we work. This certainly does not undermine the importance of the final findings of our research. The research has worked with the valid legislation from the year 2011 (France, Czech Republic) and April 2011 - March 2012 (United Kingdom).

Results and Discussion

Due to the different historical development of family policy, and different systems consequently, only the benefits that can be mutually compared have been selected. The evaluation model was simplified in some respects. It has been set according to the level of availability of information on the provision of benefits and some benefits have been adjusted slightly in order to facilitate comparison, naturally, without changing their character.

Models of families of different sizes and incomes, from the lowest to the average, were created in order to detect a real generosity of the system. Subsequently, the researched benefits were applied and then compared within these models. Increase in the net family income when granted the benefits for specific models was assessed, as well as the final income after taking into account benefits in their totality. The research is mainly focused on social benefits (in compliance with Czech model), namely: child allowance, housing allowance, tax bonuses, materninty grant, maternity allowance (terminology varies by individual state). Partial analysis of the steps of the research is elaborated in detail in the paper 'Czech Republic – a generous welfare state?', which was presented at the international scientific conference 'Social development and quality of life in the contex of macroeconomic imbalances' in May 2012 (2012, pp. 703-704).

Partial and final modeling analysis confirmed the opinion that in terms of granting of the benefits under the family policy, the United Kingdom is more generous than the Czech Republic. A comparison of the final families' income showed that in majority of the model example families, the percentage increase in net household income after having been granted the benefits is higher in the British model. This finding refutes the general view that the Czech Republic, being a country of the former Eastern bloc is a welfare state with significantly higher generosity of social benefits, particularly when compared to Western countries.

In a further research more knowledge regarding the diversity of social systems of family policies in the Czech Republic and Great Britain was achieved. In the United Kingdom,

granting of benefits, of tax bonuses on children and living allowance especially is administratively much more demanding than in the Czech Republic, which inevitably puts a higher burden on a budget. Administrative complexity is mainly caused by the amount of benefits being set as guidance only, and each family is assessed as an individual case, and by a large number of factors being taken into account. Complexity of the system and a lack of access to the accurate information on benefits setting presented one of the problems when creating the models. That is why when determining the amount of claimed benefits we primarily held indicative of the available tables. On the other hand, basic information about all the benefits is easily accessible and written in a language comprehensible even to an ordinary citizen.

Generally, the distribution of benefits in the Great Britain is set differently than it is in the Czech Republic. The analysis showed that the level of financial assistance to the single parent families and families of social disadvantage is significantly greater in the United Kingdom than in the Czech Republic. Benefit rate for these social groups in the United Kingdom is extremely set up; nevertheless with a rising income the amount decreases significantly. Conversely, in the Czech Republic, primarily benefits as housing allowance and bonus tax are balanced evenly and spread across from low-income families to families with average incomes.

A comparison of model families with France showed that France provides families with children with more diverse amount of benefits that are supplied depending either on the number and age of children in the family regardless of income or depending on income. French family policy financially supports the families better based on its two components: the family and the social one. Czech Republic provides fewer types of benefits supporting families with children, always depending on its income. Czech family policy is purely social. In the Czech Republic there are no benefits that would be intended exclusively for families with two or more children, depending on the number of children. Czech system of family benefits, compared to the French one, does not financially support families with more children. The tax credits benefits in the Czech Republic are equal to all children, since every child is provided with a lump sum, as opposed to the case in France where it is mainly richer families, and average income families that benefit from the tax relieves, but only if they have 3 or more children.

Overall, families with children are more financially supported in France. Comparison of the economic impact of family benefits and tax credits on families showed that in three cases out of five a family is supported by the benefits a lot more in France, on a scale of thousands per month. The French system proves to be more efficient in terms of the impact of benefits on the economic situation of the observed families' models. Based on the positive experience from France it is therefore possible to formulate the recommendations on how the Czech Republic could increase the financial support for families.

Table 1: Total expenditure on family benefits in the Czech Republic and France (2010)

	Czech Republic in million CZK	Czech Republic % GDP	France in million EUR	France % GDP
Total expenditure on family benefits	40,791 million CZK	1,08 %	44 124,1 million EUR (=1 103,1 million CZK)	2,28 %

Source: MLSA, CAF.% of gross domestic product (GDP): own calculation

There were 40, 791 million CZK paid to the family benefits (e.g. welfare benefits) in the Czech Republic in 2012. It is 1, 08% when expressed as a percentage of GDP of the Czech Republic. In the same year there were 44 124, 1 million EUR (1 103, 1 million CZK) paid on family benefits in France, which is 2.28% GDP of France in 2012. When divided by the number of inhabitants and converted to CZK (in the case of France) it can be concluded that overall an accounted expense cost on each resident is 3872, 8 CZK in the Czech Republic and 17 371, 7 CZK a year in France. The expenditure per inhabitant is thus almost 4, 5 times higher in France.

Conclusion

Based on the comparison of the model groups of households in selected types of benefits for families with children in two selected countries of Europe, Great Britain and France, it can be concluded that in the compared benefits high generosity had been shown in both states. The United Kingdom is more generous in granting the benefits. French family policy supports families financially more, families with more children especially, which also burdens the state budget a lot. Both comparisons indicate that the Czech Republic is not such a generous welfare state, as is often argued.

However, the Czech Republic with its low spending on family policy is not a winner, because the social costs have not been compared to the economic performance of the country, which cannot be ignored in a given context. In our research, the emphasis was put on the comparability (in terms of the content of the selected benefits – content of securing the risk) of benefits of the social model, rather than on other economic indicators (GDP performance, employability, etc.). Based on the obtained data it can be stated that perceiving the Czech Republic as synonym of a generous welfare state is based on the previous system of social security, but regardless all the possible social reforms it remained such to the present time.

Despite the problems that arose while comparing the benefits, we come to the debate whether welfare Europe selects the option of rigor or generosity of its social systems. The very issue of setting the methods of comparison among models of national systems would contribute to the clarification of some comparative analyses, which may have slight imperfections. Even national analyses are often faced with the methodological

inadequacies (MLSA, CSO, partial analysis of institutions). These questions could present an inspiration for further research on the welfare state in Europe.

References

GODET, M., SULLEROT, E. (2007) *La famille: Affaire privée et publique.* Paris: Jouve, 278p.

GODET, M., SULLEROT, E. (2007) *La famille une affaire publique*. Paris: Jouve, 294p. Office for National Statistics. (2012)**.** Annual Survey of Hours and Earnings, 2011 Provisional Results (SOC 2000). *Office for National Statistics.* [Online] 2012. Available from WWW: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition = tcm%3A77-235202.

NHS (2012) NHS Maternity grants. *Carers direct - NHS Choices.* [Online] 2012. [Quotation, February 14, 2012.] Available from: http://www.nhs.uk/CarersDirect/ moneyandlegal/socialfund/Pages/Maternitygrants.aspx.

HÖHNE, S. (2008)**.** *Podpora rodin s dětmi a vliv peněžních transferů na formu rodinného soužití.* Praha : VÚPSV. 63 p.

MITCHELL, E.(2010). *Finanční podpora rodin v České republice v evropském kontextu*. Praha: Ethnographic Institute of Josef Hlávka, 2010. 107p.

KREBS, V. et all. (2010) *Sociální politika.* Praha: Wolters Kluwer, 2010, 5th release 542 p.

Wildmannova, M. (2012) *Czech Republic – generous welfare state?,* Bratislava: Národohospodářská fakulta EU Bratislava,pp. 703-714

Press release MPSV. (2012) *Materiál MPSV předkládaný na jednání Vlády ČR 8. února 2012* [online]. [quotation, 2012-03-10]. Available from WWW:http://www.mpsv.cz/ files/clanky/12104/mv_080212_v2.pdf

MPSV. *Vývoj sociálních výdajů MPSV v roce 2011*. (2012) [www document]. 20.2.2012. Available from WWW: http://www.mpsv.cz/files/clanky/12657/tz_200312a.pdf

Czech Statistical Office [online]. (2012) Available from WWW:http://www.czso.cz

CZSO. *Příjmy a životní podmínky domácností 2010: Domácnosti podle počtu nezaopatřených dětí a počtu pracujících členů. složení domácností a roční příjmy na osobu*. (2011) [www document]. 15.7.2011. Available from WWW: http://www.czso.cz /csu/2011edicniplan. nsf/t/CB0030D286/$File/3012116b.pdf

MPSV. *Vývoj sociálních výdajů v roce 2011*. (2011) [www document]. 20.3.2012. Available from WWW: http://www.mpsv.cz/files/clanky/12657/tz_200312a.pdf

Ministry of Finance of the Czech Republic. *Makroekonomická predikce* [online]. [quotation, 2012-03-24]. Available from WWW: http://www.mfcr.cz/cps/rde/xbcr/ mfcr/Makroekonomicka-predikce_2011-Q4_A.pdf

SESSION II:
PUBLIC ADMINISTRATION AND PUBLIC SECTOR

Decentralized Punishment
under Different Matching Types

Berná Zuzana

Abstract

This paper presents selected results of experiment with Czech University students replicating study of Denant-Boèmont et al. (2007, pp. 145–167). The original experiment studied impacts of opportunity of counter-punishment and sanction enforcement in repeated voluntary contribution to public goods. As this experiment was executed in so called partner matching (where subjects interacted with the same co-players during whole session), the aim of author's replication was to enrich and complete the data by results obtained in stranger matching (where composition of groups changed randomly before each round of a session). The results showed, in accordance with author's expectations, that strangers contributed considerably less and punished less heavily than partners. This finding is in line with so called strategies hypothesis.

Keywords

Introduction

One of main tasks of experimental research in economics has been attempt to explain the emergence of cooperation in situations of *social dilemma* (term first employed by Dawes, 1975, 1980). Identification of individual incentives to cooperate in situations where economic rationality should lead agents not to, as well as factors having capacity to influence the level of cooperation has been subject of laboratory testing in last three decades.

A typical example of a social dilemma situation is voluntary contribution to public goods. In order to identify factors influencing level of contributions, experimenters have employed different schemes and modifications of classical Voluntary Contribution Mechanism (hereafter "VCM"). One of such modifications is VCM with opportunity to punish free riders. The mechanism is as follows: After all individual decisions are made, information about individual levels of contribution to a public good is published and individuals get opportunity to sanction their co-players. As this means sanctioning without intervention of external authority, we speak about so-called *decentralized punishment* (Nikiforakis, 2007, p. 92). Received sanction reduces current income of punished subject and, at the same time, the act of punishment brings cost also to the sanctioning subject. As it doesn't ensure any future financial benefit

to the latter, we can speak also about so-called *altruistic punishment* (Fehr and Gächter, 2002, p. 137). Other appellations such as *costly* or *peer punishment* (see e.g. Guala, 2012, pp. 1-15, Casari, 2012, pp. 21-22) are used to represent the same mechanism of decentralized punishment.

The very first experiments (Ostrom et al., 1992, pp. 404-417, Fehr and Gächter, 2000, pp. 980–994) demonstrated considerable positive effect of opportunity of decentralized punishment on cooperation. Following studies (e.g. Nikiforakis, 2007, pp. 91–112, Denant-Boèmont et al., 2007, pp. 145–167, Nikiforakis and Engelmann, 2011, pp. 319 332) have shown, however, that efficacy of this mechanism has several limitations. For instance, positive effect of punishment is maximized when players get unique opportunity to impose sanctions on free-riders while the latter don't know who sanctioned them. Yet, such (artificial) limitation doesn't enable subjects to engage in various punishment strategies like retaliation, sanction enforcement etc. Experiments enabling multiple punishment opportunities, counter-punishment or feuds show that former positive effect of punishments is often outweighed by these strategic considerations. Furthermore, decentralized punishment is effective only under a specific cost-impact ratio (see Nikiforakis and Normann, 2008, pp. 358–369, or Egas and Riedl, 2004, pp. 871–78). Experimental results have shown that subjects in deciding whether engage in altruistic punishment or not take into account costs and effects of their actions. And finally, decentralized punishment is more effective if combined with other cooperation-enhancing mechanisms. It has been shown, for instance (see Ostrom et al. 1992, pp. 404-417, or Bochet et al., 2006, pp. 11-26), that decentralized punishment is more effective if combined with possibility of (verbal) communication.

This paper presents selected results of experiment replicating study of Denant-Boèmont et al. (2007, pp. 145-167). In this experiment, players had opportunity to 1) retaliate received sanctions (so called "counter punishment", Nikiforakis, 2007, pp. 91–112) and 2) engage in repeated sanctioning of low contributors in order to enhance cooperation. The latter act is called by authors *sanction enforcement* and it may take two forms: sanctioning of those who fail to punish low contributors and those who punish high contributors. The results showed that significant negative effect of counter-punishment prevailed over the positive one of sanction enforcement (which was not statistically significant) and the overall effect was negative.

Denant-Boèmont et al. (2007, pp. 145-167) experiment was executed in so called *partner matching* which means that subjects interacted with the same co-players in every round of an experimental session. Alternative setting, so called *stranger matching*, implies that group composition changes randomly before each round, and such setting represents a good approximation to single-shot experiments since reputation effects are eliminated (a "perfect approximation" would be under *perfect stranger matching* ensuring that two subjects don't meet

more than once during a session). If reputation matters one would expect partners to cooperate significantly more than strangers (Andreoni and Croson, 2008, p. 776). However, the first study dealing with this question (Andreoni, 1988, pp. 291-304) showed just the opposite. Starting with former paper, there has been an intensive discussion whether cooperation is higher under partner setting or not. Andreoni and Croson (2008, pp. 776-783) bring a synthesis of replications and studies on this topic. According to it the picture reminds quite unclear, as "*four studies find more cooperation among strangers, five find more by partners and four fail to find any difference at all*".

The aim of experiment presented in this paper was to enrich and complete the data acquired by Denant-Boèmont et al. (2007, pp. 145-167) by results obtained under stranger matching. The motivation was the question whether a different matching type would influence individual contributions and willingness to engage in costly punishment or not. The author hypothesized that contribution levels would be considerably lower and subjects would assign less punishment points under stranger matching than in original experiment executed in partner matching. The results showed, in accordance with author's hypothesis, that subjects actually contributed and punished less than in original experiment.

Material and Methods

Experiment: Overview

The author's experiment replicated four treatments of Denant-Boèmont et al. (2007, pp. 145-167) experiment studying effects of counter-punishment and sanction enforcement. Each treatment constituted a single session in which 24 subjects took part. The participants played in groups of four. The modification vis-à-vis original experiment was that composition of these groups changed within every round (so-called stranger matching).

Set of experiments took place at Masaryk University in Brno during academic year 2009-2010. The participants were recruited among undergraduate students of different faculties of Masaryk University by means of an advertisement published in university's information system. In total, 96 subjects participated in the experiment. Average individual earning was 230.5 CZK. All experimental sessions were executed on computer terminals using z-Tree program (Fishbacher, 1999, pp. 171–178).

Each of four treatments consisted of 20 identical rounds (repetitions). In the beginning of each treatment participants played one trial round so that they make sure to understand correctly the instructions.

The basic treatment called *Baseline* consisted only of two stages in each round. The first stage which we may call *investment stage* was classical VCM. Within this stage participants were given certain disposable income and they were asked to decide

which part of it they would keep on their personal account and which part they would invest to a group account. Then a punishment stage followed in the beginning of which players learnt about individual investments to the group account and they got a subsequent opportunity to assign points to their co-players reducing their current income. At the end of punishment stage players got informed about their original income (after first stage), number of points received and total payoff from a round. The generators of received sanctions stood hidden to players.

The three other treatments contained one more punishment stage and the only difference among them was character of published information about punishments assigned. In this second punishment stage players had opportunity to punish again all of their co-players in a group. In *Revenge Only* treatment all players learnt after first punishment stage who and by which amount sanctioned only them personally. In *No Revenge* treatment, on the other hand, they were informed about all punishments excepting those assigned to them while in *Full Information* treatment they learnt about all assigned punishments and their generators.

Different treatments allowed use of various punishment strategies. In *Baseline*, subjects used punishments only in response to contribution decisions made in first stage. *Revenge Only* treatment allowed, in addition to above mentioned, use of counter-punishment. In *No Revenge* the possibility of counter-punishment was eliminated while subjects were allowed to engage in sanction enforcement, as well as punish their co-players in response to first-stage contributions. *Full Information* treatment allowed all sanction strategies above mentioned. Therefore, the difference in contribution levels between *Baseline* and *Revenge Only* treatments, as well as difference between *No Revenge* and *Full Information* measures the marginal effect of counter-punishment on cooperation. On the other hand, the difference in contributions between *Baseline* and *No Revenge*, as well as between *Revenge Only* and *Full Information* represents marginal effect of sanction enforcement (Denant-Boèmont et al., 2007, pp. 145–167).

Calculation of payoffs

During the experiment, payoffs were calculated in experimental monetary unit - *token*. At the end of sessions total sum acquired was converted into CZK, using exchange rate 1 token = 0.50 CZK, and subsequently paid to participants. The calculation of profits is based on Fehr and Gächter's (2000, pp. 982-983) design.

In the beginning of each investment stage subjects were given 20 tokens and were asked to decide how many of them they would keep (on their personal account) or invest to a group account common to all players in a given group. Each token kept on private account maintained its value (ratio 1:1), while each token invested to a group account yielded 0.4 tokens to every player of a group. Calculation of payoffs at the end of investment stage is given by equation 1.

$$\pi_i^1 = 20 - g_i + 0.4 \sum_{j=1}^{n} g_j \tag{1}$$

At the end of this investment stage subjects learnt about their current profits and individual contributions (of their co-players) to group account. Then a punishment stage followed within which each player had opportunity to reduce payoffs of her co-players by assigning them points (0-10 points to each co-player). Each point received reduced its owner's profit by 10 % while 10 and more points received meant reduction by 100 % (not more). Assignment of points caused costs also to the punishing subject; she born cost from punishing each of co-players and these costs (for each co-player) added up. The costs born by punishing subjects were a convex function punishment points and their amount is given by Table 1. (Subjects disposed of identical table and were thus able to calculate financial consequences of their actions.)

Table 1: Cost function of points assigned

Points assigned	0	1	2	3	4	5	6	7	8	9	10
Costs of points assigned by player	0	1	2	4	6	9	12	16	20	25	30

Source: Fehr and Gächter, 2000

The calculation of individual payoffs at the end of first punishment stage was given by equation 2.

$$\pi_i^2 = \pi_i^1 \left[max\{0, 1 - (1/10) \sum_{j \neq i} p_{ji}\} \right] - \sum_{j \neq i} c(p_{ij}) \tag{2}$$

where $c(p_{ij})$ is convex cost function defined in Table 1, assigning cost to player *i* for punishing player *j*.

This payoff represented total payoff in the Baseline treatment. In three other treatments one more punishment stage followed. Each point received reduced again current profit of its receiver by 10 %. The costs of punishments assigned were (again) calculated on the basis of Table 1. Total profit at the end of second punishment stage (i.e. total profit by round for the four treatments) was given by equation 3.

$$\pi_i^3 = \pi_i^1 \left[max\left\{0, 1 - (\tfrac{1}{10})[\sum_{j \neq i} p_{ji}^2 + \sum_{j \neq i} p_{ji}^3]\right\} \right] - \sum_{j \neq i} c(p_{ij}^2) - \sum_{j \neq i} c(p_{ij}^3) \tag{3}$$

where p_{ji}^2 is punishment of player i assigned by player j in the second stage and p_{ji}^3 is punishment of player i assigned by player j in the third stage.

Hypothesis

Based on previous findings (e.g. Fehr and Gächter, 2000, pp. 980–994) the author hypothesizes that (1) contribution levels will be considerably lower and (2) subjects will assign less punishment points under stranger matching than under partner matching (employed in Denant-Boèmont et al., 2007, 145–167).

This assumption is based on so called *strategies hypothesis* introduced by Andreoni

(1988, pp. 293-294). According to this hypothesis, subjects – if they are rational - play in order to influence their partners' actions. As strangers play actually a repeated single shot game, there is no reason for them to play strategically and we can thus expect that they would contribute less than partners. The same reasoning may be used in relation to punishments: the single shot equilibrium presumes zero punishment (see e.g. Fehr and Gächter, 2000, p. 983) and there is no reason to expect another result in repeated one-shot interactions where in addition subjects' experience plays a role.

Results and Discussion

Average contributions

Average individual contributions in four experimental treatments are captured by Figure 1. The highest average contributions were attained in No Revenge treatment (13.05 tokens), followed by Baseline (10.46) and Full Information (8.15), and the lowest average contributions were reached in Revenge Only treatment (5.52). This order copies the results of Denant-Boèmont et al. (2007, pp. 152-155). However, contribution levels in our experiment were actually considerably lower than in original experiment (where average contributions were 16.17 under No Revenge treatment, 15.49 under Baseline, 10.59 under Full Information and 7.21 under Revenge Only treatment). The difference in contribution levels between the two experiments (or the two matching types) varied from 1.69 to 5.03 tokens which supports the first part of author's hypothesis saying that subjects contribute considerably less under stranger matching.

Another significant difference in relation to the original experiment was that in our experiment, average contributions had decreasing trend in all four treatments. (In Denant-Boèmont et al. (2007, pp. 145–167) experiment, the average contribution level didn't change appreciably during the game in any treatment. Exception was decline over time in Revenge Only and an initial increase in the first periods of Baseline and No Revenge.) This finding demonstrated that under stranger matching cooperation was not sustainable solution. Despite high initial contribution levels (mainly in No Revenge treatment) average contributions in all treatments tended over time to zero, which is in line with game theoretic predictions.

Figure 1: Average individual contributions
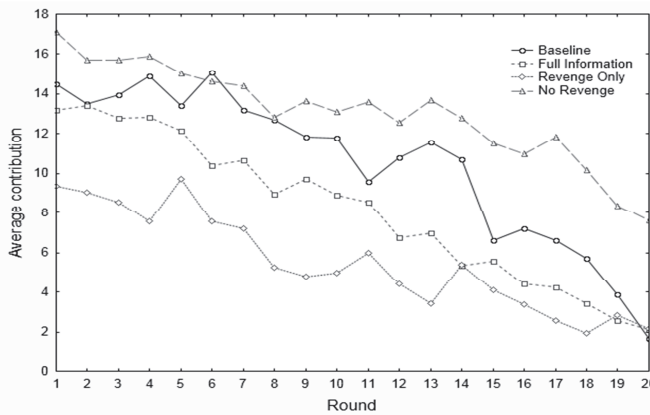
Quantity of sanctions

The second part of the hypothesis was related to intensity of sanctions. Average quantity of sanctions assigned under the two matching types may be observed in Table 2.

Table 2: Average quantity of sanctions

		Treatment			
		Baseline	Full Information	No Revenge	Revenge Only
Average points assigned in Denant-Boèmont et al. (2007)	Stage 2	1.512	0.46	0.65	0.73
	Stage 3	-	0.57	0.37	0.38
	Both stages	**1.512**	**1.03**	**1.02**	**1.11**
Average points assigned in author's experiment	Stage 2	0.68	0.15	0.52	0.30
	Stage 3	-	0.24	0.18	0.31
	Both stages	**0.68**	**0.39**	**0.70**	**0.61**

As it is clearly visible from Table 2, subjects sanctioned considerably more heavily in original experiment, i.e. under fixed matching. In the Baseline and Full Information treatments average punishment points over the stages were even more than double compared to author's results. This supports again author's hypothesis saying that subjects punish less under stranger matching (i.e. when composition of groups changes in each round).

Other results

The results concerning impacts of counter-punishment and sanction enforcement on contribution behavior and individual welfare were presented in author's previous paper (Berná, 2010, pp. 36-43). In accordance with original experiment, they demonstrated a (strong) negative effect of counter-punishment and (weaker) positive effect of sanction enforcement on contributions and individual earnings. An analysis of sanction behavior of subjects engaging in punishment will be subject of a separate paper.

Conclusion

The aim of author's experiment was to enrich and complete the data acquired by Denant-Boèmont et al. (2007, pp. 145–167) by results obtained under stranger matching. The results showed that concerning individual contribution, Czech subjects reacted similarly on different punishment conditions as participants of original experiment. Yet, strangers contributed and punished considerably less than partners which was in line with author's expectations based on strategies hypothesis.

This paper contributes to existing literature dealing with cooperation in VCM experiments under partner and stranger matching. As results up to now have shown, there is no clear pattern between matching types and level of cooperation. Some studies have concluded that partners cooperate more than strangers, while other demonstrated the opposite and some found no differences at all. This question thus remains an open topic to further research.

As original experiment involved French University students while author's replication the Czech ones, before drawing any conclusions relative to different matching types, it seems to be important to eliminate so called *country effects* causing possible disparities in results obtained in different cultures. This will be author's next step. Another challenge is to enrich existing data with results obtained in an experiment using outside-University subjects. This could help reduce concerns related to so called *external validity* of experimental evidence (i.e. the extent to which experimental data may be extrapolated in order to explain economic reality).

References

ANDREONI, J. (1988) 'Why Free Ride? – Strategies and Learning in Public Goods Experiments', *Journal of Public Economics*, vol. 37, No. 3, pp. 291-304.

ANDREONI, J., CROSON, R. (2008) '*Partners versus strangers: random rematching in public goods experiments'.* In Handbook of Experimental Economics Results 1, pp. 776–783. ISBN 9780444826428.

BERNÁ, Z., (2010) '*Dopady umožnění opakovaného trestání v experimentech s veřejnými statky*'. In Zborník príspevkov z XII. ročníka medzinárodnej vedeckej konferencie pod

názvom Financie a riziko - Prístupy mladých ekonómov, Bratislava: Vydavateľstvo EKONÓM, pp. 36-43. ISBN 978-80-225-3090-3.

BOCHET, O., PAGE, T., PUTTERMAN, L., (2006) 'Communication and punishment in voluntary contribution experiments', *Journal of Economic Behavior and Organization*, vol. 60, No. 1, pp. 11–26.

CASARI, M., (2012) 'Weak reciprocity alone cannot explain peer punishment'. In Guala, F., 2012. Reciprocity: Weak or Strong? What Punishment Experiments Do (and Do Not) Demonstrate, *Behavioral and Brain Science*, vol. 35, pp. 21–22.

DAWES, R. M. (1975) Formal Models of Dilemmas in Social Decision Making. In *Human Jugement and Decision Processes*, ed. Martin F. Kaplan and Steven Schwartz. New York: Academic.

DAWES, R. M. (1980) 'Social Dilemmas', *Annual Review of Psychology*, vol. 31, pp. 169-93.

DENANT-BOEMONT, L., MASCLET, D., NOUSSAIR, C., (2007) 'Punishment, counterpunishment and sanction enforcement in a social dilemma experiment', *Economic Theory*, vol. 33, No. 1, pp. 145–167.

EGAS, M., RIEDL, A. (2008) 'The economics of altruistic punishment and the maintenance of cooperation', *Proceedings of the Royal Society B: Biological Sciences*, vol. 275, pp. 871–78.

FEHR, E., GACHTER, S. (2000) 'Cooperation and punishment in public goods experiments', *American Economic Review*, vol. 90, No. 4, pp. 980–994.

FEHR, E., GÄCHTER, S. (2002) 'Altruistic punishment in humans', *Nature*, vol. 415, pp. 137–140.

FISCHBACHER, U. (2007) 'Z-Tree: zurich toolbox for readymade economic experiments', *Experimental Economics*, vol. 10, pp. 171–178.

GUALA, F. (2012) 'Reciprocity: Weak or Strong? What Punishment Experiments Do (and Do Not) Demonstrate', *Behavioral and Brain Sciences*, vol. 35, pp. 1–59.

NIKIFORAKIS, N. (2008) 'Punishment and counter-punishment in public good games: can we really govern ourselves?', *Journal of Public Economics*, vol. 92, pp. 91–112.

NIKIFORAKIS, N., ENGELMANN, D. (2011) 'Altruistic Punishment and the Threat of Feuds', *Journal of Economic Behavior and Organization*, vol. 78, No. 3, pp. 319-332.

NIKIFORAKIS, N., NORMANN, H.T. (2008) 'A Comparative statics analysis of punishment in public-good experiments', *Experimental Economics*, vol. 11, pp. 358–369.

OSTROM, E., WALKER, J., GARDNER, R. (1992) 'Covenants with and without a sword: self-governance is possible', *American Political Science Review*, vol. 86, pp. 404–417.

Corruption among Russian Students:
Experimental Evidence from the Pilot Sessions
at Lobachevsky State University of Nizhni Novgorod

Fišar Miloš

Abstract

Economical experiment has been becoming a tool to measure human behaviour in real time under controlled condition in order to explain economical problems form different perspective then does the traditional theory. One of the problems which are hard to explain by the traditional attitude is corrupt behaviour. Corruption is on one hand a phenomenon which can harm the economical growth on the other hand it can be esteemed as an outcome of natural human behaviour when men is under any circumstances utility-maximising, self-interested individual. In the article we discus some economical experiment concerning corrupt behaviour and give the overview of pilot research done by author in Russia in 2012.

Keywords

Introduction

In a point of view of modern society corrupt behaviour represents a serious problem which can limit the economic competition and therefore diminish the economic growth of the country. There has been existed for a long time a monitoring of level of corruption among countries by Transparency International, but is this the only way how to measure corrupt behaviour? The author of this article presumes that research focused on human behaviour can contribute to the understanding of corrupt behaviour more than monitoring its conspicuous consequences. One of the possible ways how to glean the human behaviour is using methods of experimental economics.

Short overview of the experiments concerning corrupt behaviour

As experimental economics is quite young method in economics theory, experiments focusing on corrupt behaviour are very young. We talk about the first laboratory experiment concerning corrupt behaviour in the work of Abbink et al (2002) when they created a reciprocation trust game in which two person play against each other as briber and official. The output of their research is that the potential punishment lowers the level of corruption in experiment. This experiment was extended by Jacquement (2005) and a role of principal was added into the game. The results show that if the official is granted larger income by a principal than the corruption is less likely among them. Some of the corruption experiments have focused on examining anti-

corruption measures. Apesteguia et al (2007) compared three potential anti-trust policies using market games and focused on a situation where one firm of the cartel decides to be a whistleblower. Rivas (2008) investigated gender effect on corrupt behaviour in two player game with a result, that there is no significant influence of gender on the behaviour.

Cameron et al (2009) focused their research into explaining cultural or country effect on the corrupt behaviour. They run series of experiments in Australia, India, Indonesia and Singapore with more than 1700 subjects. It showed that corruption is tolerated more in India then Australia, which was also expected.

Other possible way how experimentally measure corrupt behaviour is to run a field experiment. Armantier and Boly (2008) did test the external validity from laboratory in Canada by moving the experiment to the field – in Burkina Faso. They applied the experimental process on situation where candidate offers a bribe to a grader in order to be better graded. There were not found any difference in the probability of accepting the bribe, but there was a difference in situation when the bribe was doubled. In laboratory the acceptance did not change, but in field the grader become more corrupt.

Experimental evidence form Russian experiment

As mention above there is a possible way how to examine the corrupt behaviour using experimental methods. There has been series of corruption experiment done at Faculty of Economics and Administration, Masaryk University (see Špalek, 2011 or Chasikidisova, 2012). We have used the same experimental settings for a pilot experiment during our stay at N.I. Lobachevsky State University of Nizhni Novgorod, Russia in May 2012.

Experimental design

The design of our experiment is inspired by Cameron et al (2009). The basis of the experiment is one shot three person game focusing on a bribery problem. Subjects are randomly divided into three groups – firm, official and citizen. The firm starts the game by making a decision to offer a bribe or not. If the firm does not offer a bribe, then the rest of the players is not allowed to make any decision. If it bribes then official has an opportunity to accept or reject the bribe. If the bribe is accepted the citizen has to choose between punishing the firm and official or not. If the bribe was rejected then there is again no possibility for citizen to play the game.

All subjects are from the beginning of the experiment aware about their potential payoff – Figure 1. In comparison with the original setting by Cameron et al (2009) it was adjusted for average Russian income level. We used the same numbers as in Czech experiments but changed the exchange rate between experimental currency and Russian rubbles. After the end of the experiment the payoff was divided by 60 for firms,

by 40 for officials and by 30 for citizens and paid in Russian rubbles to the subjects. Funding for the experiment was provided by Faculty of Economics and Administration, Masaryk University.

Figure 1: The structure of the treatment
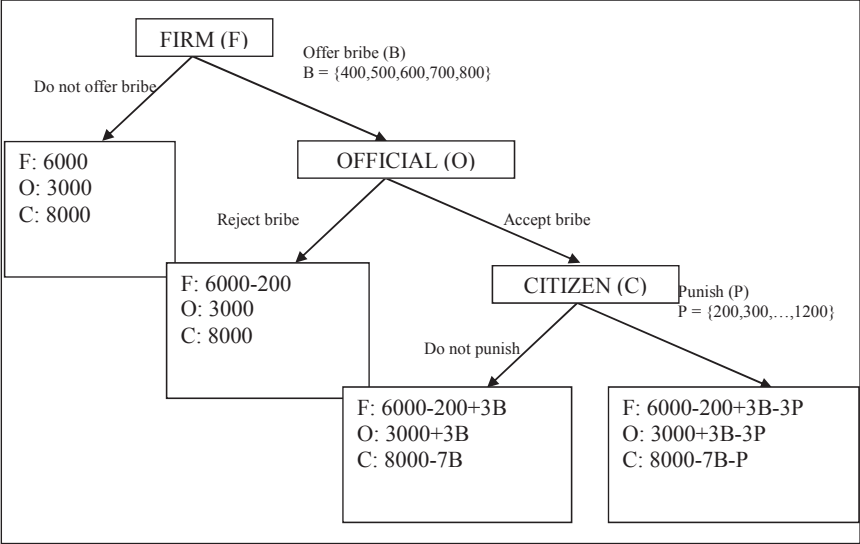
The payoff of each subject depends on his own decision and also on the decision made by other player in subset. As mention, the experiment is kind of three person game. It means that for example decision of firm no. 1 affects the payoff of official no.1 and citizen no.1 and vice versa. As can be seen from the figure 1 in the situation when the firm does not bribe the payoff for it is 6000, for official 3000 and citizen 8000. Accordingly the payoff of the firm vary between 3400 (offered bribe (B) = 400, punishment (P) = 1200) and 9400 (bribe 1200). For officials between 600 (B = 400, P = 1200) and 6600 (B = 800) and citizens could earn between 1200 (B = 800, P = 1200) and 8000 (B = 0).

It is obvious that for the citizen to punish the corrupt behaviour means lower income. Even though, as CAMERON et al (2009) show, some of the citizens do punish firms and officials.

Procedure in Russia

As the experiment in Nizhni Novgorod was conducted as a pilot experiment its main goal was to introduce the experimental economics and experimental investigation to students and academic staff at Faculty of Economics at Lobachevsky State University.

We have run two sessions with 33 subjects in total. All subjects were students of the 4th year of studying program International economics.

At the beginning of each session the subjects were handed a copy of instruction. After reading the instructions there was explained the game procedure and shown an example. The subjects were also asked to raise questions which were answered. In order to diminish the language effect of not understanding English instruction, all necessary materials was translated before into Russian language. Also all oral communication was done in Russian with the assistance of the native speaker as a translator.

Comparison of the pilot experiment in Russia with research in Czech Republic

As mention before we have used the same setting for the experimental sessions in Russian as it has been used at Faculty of Economics and Administration, Masaryk. Therefore we do compare in this paper the pilot results with findings of the research done in Czech Republic with students (Chasikidisova, 2012).

Structure of the subjects

At the end of the experiment the subjects were asked to fill in a questionnaire in order to gain their gender, age, religious belief, work experience, income, experience with corruption and motivation of their behaviour in the experiment.

Male and female were deputized almost equally in the subject simple (51.52% female). Subjects of Russian experiment indicated in 75.76% religious beliefs. This is in contrast with subjects in Czech Republic where there were only 26.7% believers among subjects.

As the experiment was performed only with students only we asked them also about their work experience. In Russia 42.42% subjects had been working for in average 1.8 years. The work experience of subjects in Czech experiments was quite similar. 43.3% subjects had work experience, however mostly short-time jobs without significant duration.

We did also focus on the income of the subjects. In general there was larger income by the subjects who had been working than unemployed subjects. When we compare the findings with the average income in Russia (18 553 RUB in 2010 according to main Socio-economic indicators of living standards of population) we find that 68.97% subjects have lower monthly income, 17.24% around the country average (category 15 000-19 999 RUB in questionnaire) and 13.79% above average. In the finding by Chasikidisova none of the student in Czech experiment has income larger than average income in Czech Republic. The reason for these results can be that in Russia the students have to pay tuitions and therefore many of them have to work in order to obtain the education.

The most interesting part of the questionnaire is without doubts the part focusing on contact with corruption. The subjects were asked "How many times have you had contact with corruption in the last year?" Most of the subjects indicated 10 and more times in Russian and also in Czech experiments. There was indicated contact with corruption 10 and more times in Russian experiment by 67% subjects, in Czech Republic 52%. As we are familiar with the Corruption Perception Index by Transparency International, the results are not surprising.

Even second question in questionnaire about personal experience has indicated larger corruption level in Russia, then in Czech Republic. What can be considered as sad fact is that about one third of Russian subjects have met corruption in person, as shows Table 1.

Table 1: Contact with corruption

	in Russia	in Czech Republic
in person at work	9.1%	6.5%
in person outside work	21.2%	3.9%
through friends, family	39.4%	19.5%
mass media	69.7%	79.2%

Source: Author and Chasikidisova, 2012

Results of the experiment sessions in Russia

In Nizhny Novgorod we were not able to gain more subjects for our experiment; therefore pilot session had no statistical significance and we do not test the data. However as the characteristics of the subjects in Russian and Czech experiments are more or less similar (shown in previous part) we can provide an overview of the results and compare them. From Czech experiments we do take only part of the data concerning experiments with students. We exclude the data for general public.

As mention in the part Experimental design, the subjects were divided into three groups – firm, official and citizen – each with 11 subjects. Chasikidisova (2012) used 92 students as experimental subjects. The behaviour of the subjects is summarized in Table 2.

Table 2: Behaviour of the subjects

	in Russia	in Czech Republic
The firm bribes	45.5%	77.1%
avg. bribe	580	692.59
The officials accept the bribe	60.0%	60.9%
The citizen punishes	33.3%	62.5%
avg. punishment	200	700

Source: Author and Chasikidisova, 2012

As you can see in the table there is a difference in behaviour of the initial subjects – firm.

In Czech experiment more than three quarters of subjects offered a bribe, in Russian pilot the bribe was offered only by less than half of the subjects. As the characteristics of the subjects are practically similar we could observe country effect which is in contrast with expectation that there will be larger ratio of bribing firms in Russia than in Czech Republic. However as stated before the size of subject pool in Russia was so small, that we cannot make any conclusions. Nevertheless this is a good clue for further research in Russia.

As we observed difference in the firm behaviour, the behaviour of the officials was almost the same in Czech and Russian experiment. But we cannot make any conclusion if it is significant while there were only 5 subjects as official in Russian experiment when 64,5% firms did not offer the bribe.

We cannot also make any conclusion about the behaviour of the citizen when only 3 subjects were in the game after the decision of firms and officials. Out of them only 1 person punished.

Conclusion

In sum, we informed in this article about the pilot experimental sessions at Lobachevsky State University of Nizhny Novgorod, Russia and gave rough overview about the results. To gain more valuable results there is a need to repeat the experiment in Nizhny Novgorod with more subjects, which we hope can be done since we have established good connection to researchers at Faculty of Economics there.

Acknowledgements

References

ABBINK, K., IRLENBUSCH, B., RENNER, E., (2002) An experimental bribery game. *Journal of Law, Economics and Organization* 18 (2), p. 428-454.

Apesteguia, J., Dufwenberg, M., Selten, R., (2007) Blowing the Whistle. *Economic Theory.* Vol. 31, Issue 1, p. 143-166.

ARMANTIER, O., BOLY, A., (2008) Can Corruption Be Studied in the Lab? Comparing a Field and a Lab Experiment. *CIRANO - Scientific Publications* No. 2008s-26.

CAMERON, L., CHAUDHURI, A., ERKAL, N., GANGADHARAN, L., (2009) Propensities to engage in and punish corrupt behavior: Experimental evidence from Australia, India, Indonesia and Singapore. *Journal Of Public Economics* Vol. 93, Issue 7-8, p. 843-851.

CHASIKIDISOVÁ, H. (2012) Corruption in the Public Administration: Theory and Experiment. *Masaryk University, Faculty of Economics and Administration.*

JACQUEMENT, N., (2005) Corruption as Betrayal: Experimental Evidence on Corruption Under Delegation. Documents de Travail Working Paper No. 05-06.

RIVAS, M. F., (2008) An Experiment on Corruption and Gender. The Papers from Department of Economic Theory and Economic History of the University of Granada Working Paper No 08/10.

MAIN SOCIO-ECONOMIC INDICATORS OF LIVING STANDARDS OF POPULATION. (2011) [online]. Russian Federation Federal State Statistic Service [25.10.2012] Available from WWW: http://www.gks.ru/bgd/regl/b11_12/IssWWW.exe/stg/d01/07-01.htm.

Public Administration Accreditation in the Czech Republic and in Slovakia

Nemec Juraj, Špaček David

Abstract

Results of accreditation processes realized by the European Association for Public Administration Accreditation (EAPAA) indicate that only very few schools in Central and Eastern Europe (CEE) comply with international standards. More factors may be responsible for such situation – resources, historical paths, etc. The goal of this paper is evaluating the functionality of the system of national accreditation in higher education on the example of two country studies – Czech Republic and Slovakia. Research results discover too many problems connected with probity character of accreditation processes in both countries. It also states that immediate reactions cannot be expected – governments and main actors do not see purposes for change.

Key words

accreditation, public administration, EAPAA, probity accreditation, peer accreditation

Introduction

Not much has been written about the accreditation of academic programmes (with focus on public administration) in CEE. Few existing books (Verheien and Nemec, 2000, Loffler and Vintar, 2004, Jenei and Karoly, 2008) indicate some malfunctions. Forthcoming paper in the Public Management Review by Nemec et all (2013) provides more info about the topic and represents impetus for further research. Ciaian et all (2005) highlight important problems on the example of economic sciences in Slovakia (public administration is part of economic sciences in this country).

The issue of the quality assurance in higher education is more commonly researched and there are plenty of articles and books on the topic – there is no need to list most important for the purposes of this paper.

The goal of this paper is evaluating the functionality of the system of national accreditation in higher education on the example of two country studies – Czech Republic and Slovakia. Qualitative analysis is the core method of our paper – on the base of the review of existing processes (data collected from web pages of accreditation committees and enriched by own experience) we try to synthesise core problems and possible reactions.

Accreditation on the Higher Education Level

There are many approaches to the accreditation of academic institutions in the developed world (see for example Jenei and Karoly, 2008). Some of them have more regulative functions: others serve predominantly as quality management tools. In most countries accreditation of a higher education program is normally understood as a process which ends in "yes" or "no". The accreditation body recommends or does not recommend to include the school (program) in a nationally recognized network. Yes in this case means a grant of the right to deliver the respective program.

Concerning structures, approaches, tools and methods used, we could distinguish between many forms of accreditation, distinguished by different characteristics, such as:

A: *Domain:* National accreditation: valid for a single country (in the EU normally for all member countries) or International accreditation.

B: Accreditation body: Accreditation completely delivered by respective state body (mainly Ministries of Education and their branches); Accreditation awarded by the Ministry, but carried out by a semi-independent public body (some kind of Accreditations committee, nominated by the state); Accreditation awarded by the Ministry, but created by a fully independent, normally private body - outsourcing to private accreditation bodies; Non-state accreditation systems, where the processes and outcomes are fully independent from the state and carried out by a professional organization.

C: *Methods of evaluation*: Accreditation on the basis of fixed quantitative criteria (probity); Accreditation on a more flexible basis – for example on the basis of a set of broader standards and/or a mission and its fulfilment.

D: *Evaluation staff:* Accreditation process carried out by "bosses/controllers" - one level higher than evaluated staff; Accreditation process carried out by "peers" (colleagues who assess the situation in order to help to improve it; Accreditation process carried out by professional persons independent of the institution.

E: *Main goals*: To award the right to deliver a degree – predominantly a regulative function; To help to improve the quality of the school/programme – predominantly a quality management function.

F: *Scope*: Accreditation of the whole body (university or faculty); Accreditation of a program.

G: *Site visit:* A site visit compulsory for the accreditation process; A site visit is not included: all evaluation is only "paper based".

Do we need accreditation?

Many countries use accreditation as the tool to select universities eligible for public monies. The general rule is that only nationally accredited programs can be supported

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by public funds: in most countries non-accredited programmes are not delivered. Let us think about this. We can still ask the question "Do we really need accreditation?" Why should anybody have the right or privilege to say "yes" or "no" to some school or its programme?

Some experts (like J. Kinkor in the Czech Republic) might argue that students (supported by parents) are the best judges of the quality of a school where they want to study. So there is no need for the government to establish the national accreditation system, to check if a school/program has the right to deliver a university degree. Students` choices might be also preferred because of the high risk of "government failure" (Stiglitz, 1997). The "government failure" problem in connection with accreditation means that no accreditation system is perfect, as it is very difficult to get a precise independent measure of quality.

On the other hand – can we fully accept the assumption that students really are the "best judges"? It is relatively simple to show that the majority of students follow certain strategies that prevent "socially optimal choice". With imperfect labour markets the typical student's strategy might be short-term: choosing the easiest way to finish their studies. Another problem, very significant in Central and Eastern Europe, occurs when students, perhaps because of, for example a lack of resources or their family situations, prefer to enrol at the nearest available university programme in an acceptable field of study.

There is another unavoidable motive for European accreditation. Globalization and the Bologna agreements, which focus on bridging national university education systems and institutions, and helping students to migrate during their studies, show that the international acceptance of the program or institution is now increasingly important. It is natural that the tutors will want to know if credits obtained in another school are equivalent.

Based on all above we may argue that accreditation process may but must not be one of tools supporting increasing quality of higher education. It might deliver positive impact, but only if it is effective and efficient process – in the following text we investigate, it this is true in selected countries.

Czech Republic

In the Czech Republic, the accreditation of academic programs is delivered by the Accreditation Committee (AC) of the Ministry of Education, Youth and Sports (www.akreditacnikomise.cz). This Committee has currently 20 members - professors from Czech universities appointed by the Minister. Within the organization of the Accreditation Committee 21 permanent subcommittees exist (again selected mainly from Czech university professors and associate professors), none of which refer to public administration as a field itself (although separate subcommittees exist for Economics, Social sciences, or Law for example). The AC does not publish any set

of minimum standards that define the minimum general content requirements of public administration study programs. It also does not set the list of areas where public administration programs can be provided.

The AC attends to quality of university education and broadly evaluates the educational, scientific, research, development and innovative, artistic and other creative activities of universities. The AC has twenty-one members. A chairman, vice-chairman and members of AC are appointed by the government based on minister's nomination. The minister prior to the nomination requests a recommendation by representatives of universities, the Research and Development Council and the Academy of Sciences of the Czech Republic and discusses the nomination with them. Only a broadly respected professional may become a member of the AC. The members of AC shall be independent when discharging their office.

In the Czech system of higher education the basic unit to be accredited is a study programme. Any study programme can include several study branches and specializations. Main criteria for accreditation are as follows:

- The contents of studies (if existing, shall respect the national curricula – as indicated above, PA national curricula do not exist in the country).

- Technical and IT equipment (internet access, internal information system, library).

- Quality of science and research (no clear set of indicators for minim quality).

- Responsible person (docent for Ba, professor for Ma, full time, maximum employment in other institution 50%, can be responsible only for one programme, graduated in publishing in the discipline).

- Teaching staff (main courses shall be delivered by internal staff, sufficient number of staff of adequate quality (??), on Ba level 40% of courses shall be delivered by docents and professors, on Ma 60%, teachers with more than 1,75 full employments are not accepted for evaluation).

The accreditation of a study programme shall be granted for a maximum of ten years, counted as of the day of legal force of the decision. The validity of the accreditation may be repeatedly prolonged. During implementation of the accredited study programme a university may apply for accreditation for extension thereof. The Act provides that an accreditation of a study programme shall be terminated by announcement of termination of study programme by the university, or by lapse of time therefore the accreditation was granted. A university shall arrange for an option for the students to continue with studies of the same of similar study programme at the same of different university. The ministry shall not grant the accreditation if:

a) the study programme does not fulfil requirements set in part four of the Act,

b) the study programme is not sufficiently supported as regards personnel, gadgetry and information,

c) realization of the study programme is not sufficiently financially, materially or technically established ,

d) the university does not provide guarantee of due tuition,

e) wrong data decisive for granting of accreditation were presented in the application,

e) the Accreditation Board hasn't issued an approving statement.

Slovakia

The accreditation process in Slovakia (we do not evaluate "complex evaluation" processes introduced from 2009 in this paper) involves two levels of decision making. The main part of the process is carried out by the Accreditation Committee (AC) – a semi-independent advisory body of the Government of Slovakia. The Accreditation Committee (www.akredkom.sk) has a main decision-making body and several subcommittees to evaluate study programmes. The members of the AC and its subcommittees are university professors and expert practitioners, working on a voluntary basis, supported by a small group of professional administrative staff.

The system is relative simple – the University submits an application to accredit a selected study program. The assessment is allocated to one of subcommittees. The committee checks the application, drafts a proposal and the main body reaches a final decision. There is no site visit. After AC decides it submits its proposals to the Minister of Education, who has the final right to decide the award of accreditation. The Slovak accreditation process is mainly based on a set of publicly known criteria. It confirms the capacity of the school to deliver the programme, and it says yes or no to the program. Non-accredited programs cannot be delivered.

The set of decision criteria is as follows:

1. The level of scientific activities of the school and its bodies participating in the program (minimum level is set out in a descriptive way, not by indicators).

2. Sufficient material and technical equipment (the minimum concrete criterion is a library; other aspects are set out in a descriptive way, not by indicators).

3. Structure of academic staff (the requirements are set out in only a descriptive way, not by indicators).

4. Quantity of academic staff (defined so that the maximum number of MA and BA theses per staff member is 10. MA theses can be supervised by PhD or higher qualification holders).

5. The structure of committees for the final state examination (the minimum

requirements for the approval committee, two members of which must be internal docents or professors).

6. Person responsible for the programme (there must be a full time internal person responsible for the programme, with proven experience in the field, sufficient publications and teaching experience, below 70 years of age, minimum docent for BA and professor for MA programmes).

7. The contents of the programme (as a minimum 3/5 of the curricula must be based on national "Masters Curricula" and the program shall provide necessary skills).

8. Length of studies (BA: 3-4 years, MA: 1-3 years)

9. Final theses (MA and BA levels shall include final theses of prescribed structure and length).

10. Selection of students (the proper approach is set out in a very descriptive way, not by indicators).

11. The requirements to pass examinations and to obtain degree (the proper approach is set in a very descriptive way, not by indicators).

12. The quality of graduates (expectations of graduates are set out in a very descriptive way, not by indicators).

Results and Discussion

Based on the above mentioned characteristics and our personal experience we may conclude that the Czech and Slovak accreditation systems have following common main features:

- dominantly national accreditation;
- state accreditation system undertaken by a semi-independent state body;
- probity accreditation system;
- experts who undertake the accreditation are peers, but in reality they become more like controllers than peers;
- regulative accreditation;
- accreditation of a programme;
- "paper" based accreditation.

Such accreditation process has it strengths and weaknesses. Potentially positive aspects are some level of peer involvement, the relative independence of the AC and especially the existence of published criteria. On the other hand, systems include many critical

points, limiting their effectiveness as a regulative and quality control tool. The following text highlights the most important problems.

The list of above indicators clearly shows one of the problematic aspects of this kind of accreditation – most of the criteria are insufficiently transparent and can be interpreted very differently, to help or to hinder a school.

It is also doubtful whether all these criteria are genuine. For example, in many cases a 63 year old professor would be able to deliver much less than a 35 year old PhD.

Some of the criteria even have perverse effects – for example one of a few specific accreditation indicators is the need to employ an in-house docent or professor to represent a program. Therefore universities need professors and docents to serve as guarantors of programs. One option is to artificially speed up the process of promotion, and there are too many indications for comfort that this is actually happening. Suffice it to mention one – the promotion criteria in majority of schools, especially in Slovakia. As Ciaian et al. (2005) show for Slovakia, most economics faculties use rather soft criteria for the promotion of professors – in some cases a person is promoted without being the author of any article in an Web of Science international journal, while the required number of quoted articles in international journals for promotion to professor is 0–3.

As accreditation is the necessary precondition to get the right to deliver a university programme, such a system of criteria, in combination with the method of selection of AC and its subcommittee members, and with the method of setting national standard curricula (Slovakia), creates a lot of risks some of which have been realized. The Slovak AC and its subcommittee members are professors, predominantly recruited from existing established universities. Professors from these schools were also responsible for setting the national curricula. As the voice of experts from practice is very marginal, such arrangements give established universities too much influence over the process. This level of influence is normally misused to grant accreditation to their programmes without real evaluation, and to block any new entrants into the "market".

Another problem in Slovakia is that in many cases the national curricula were not created on the basis of modern international practice but they just mirrored the current structures of established programs (supply driven curricula). Nor do the approved list of study programs that can be delivered in the national higher education system, reflect modern international practice – for example, many standard programs (such as public finance) are not included, and several "system specific" programs are codified (e.g. public economics and services). The national curricula are also far too fragmented. That is there are too many "small" courses, and they still focus on direct education inputs, that is lectures and seminars. Most programs derived from such curricula include

over 20 teaching contact hours per week, much more than current international practice, which is moving from direct lecturing towards problem solving and homework.

Conclusions

The accreditation process in the Czech Republic and in Slovakia is expected to serve mainly as a regulatory tool, to prevent low quality programs either entering the market, or surviving in it. However, because of the aforementioned features it does not serve to these goals very effectively. In addition it limits the chances for many positive progressive developments. It allows for too much subjectivity and includes too few international comparisons.

Because of this accreditation is frequently more of a fighting tool between new and established schools in their search for public funding, and not positive public policy instrument.

On the international level, probity based accreditation is frequently combined or replaced with peer review standard based accreditation. In Europe such accreditation in public administration field is delivered by EAPAA. The differences between international practice and national practices are visible, if we look on results of EAPAA accreditation in our two countries.

In Slovakia the Faculty of Economics UMB Banska Bystrica received accreditation in 2005, but did not ask for re-accreditation. In the Czech Republic Faculty of Economics and Administration MU Brno received three year accreditation in 2012. No other school is willing to apply – very much also because it would not fulfill standards.

The difference between national probity based system, discouraging quality and international standards is large. National governments are partly aware about this, but their corrective actions are minimalistic – we may argue that the main purposes for limited will to be closer to international standards is the satisfaction of main actors with the current situation. In such conditions, proposing changes – we would argue for "combined" (national and EAPAA) system – is ineffective.

Acknowledgements

References

CIAIAN, P., POKRIVCAK, J., RAJCANIOVA, M. (2005) 'Stav ekonomickej vedy na Slovensku' *Finance a úvěr*, vol. 11–12, pp. 546-565. ISSN: 0015-1920

JENEI G., KAROLY, M. (2008) *Public Administration and public policy degree programmes in Europe: The road from Bologna.* Bratislava: NISPAcee. ISBN 978-80-89013-37-1

LOFFLER E., VINTAR M. (2004) *Improving the quality of East and West European Public Services.* ASHGATE and NISPAcee, Bratislava, ISBN: 0 7546 3972X

NEMEC, J., SPACEK, D., SUWAJ, P., MODRZEJEWSKI, A. (2013) Public Management as a University Discipline in New European Union Member States. *Public Management Review*, forthcoming

STIGLITZ, J. E. (1997) *Ekonomie verejneho sektoru*. Praha: Grada. ISBN 80-7169-454-1

VERHEIJEN, T., NEMEC, J. (2000) *Building higher education programmes in Public Administration in CEE countries*. Bratislava: NISPAcee. ISBN B005SECGPU

The Utilization of Benchmarking in the Production and Analysis of Municipal Budgets

Plaček Michal

Abstract

In this article, the author would like to discuss the possibilities of using benchmarking in the production and analysis of the budgets of municipalities. The aim is to assess the use of benchmarking in practical applications. The author tries to prove his claim with an analysis of Czech and foreign publications which deal with benchmarking, and by empirical surveys, which were carried out in municipalities of the South Moravia and Vysočina regions. The research showed that the officials, who are formally responsible, recognize the importance of benchmarking, but they do not use benchmarking in practical applications for producing and analyzing budgets. According to research, the data about using results oriented benchmarking are not fully credible.

Keywords

benchmarking, budget, performance oriented, process oriented, municipalities

Introduction

The aim of this paper is to assess the level of benchmarking utilization in the budgeting and financial analysis in municipalities. The author analyses Czech and foreign literature, describes the experience with benchmarking in the Czech Republic and presents the results of his own research. Benchmarking is one of the most important and most widespread tools for measuring performance and improving processes in Czech local governments and the public sector in general. According to previous research, it is deemed acceptable for utilization in practice by responsible officials.

Benchmarking was acquired in the reform of public administration in Central and Eastern Europe (Bouckaert, 2008). Valuable experience from Central and Eastern Europe countries are represented by the article Best Value in Transitional Countries from Christiina Tonnisson, mainly because of the methodology of research, which was carried out by many municipality managers.

In the Czech Republic there was a special project to support local government organizations in the Visegrad countries supported by a Canadian government agency CIDA (Široký, 2004). Benchmarking has therefore become an established tool for quality improvement, which was showed in the dissertation by Jarmila Neshybová.

If we focus on the sources describing the practical applications of benchmarking in the Czech Republic, there are quite a large number of sources freely provided by the Ministry of Interior. One of the first publications which can be recognized is

the publication by J. Široký: the Benchmarking in Public Administration from 2004. Another publication by the Ministry of Interior was the publication by M. Půček´s Benchmarking in Public Administration from 2006. Other resources are the publication of MEPCO (International Advisory Centre of Municipalities) Good Practice of Benchmarking. Contributions to the National Conference of Quality, dissertation´s, diploma´s and bachelor thesis are regularly focused on benchmarking. It has created a large number or internet projects such as http://www.benchmarking.vcvscr.cz/ etc. The author found through analyzing sources that paradoxically, in the Czech Republic the number of publications dealing with benchmarking in the public sector has increased more than the experience of private sector. In this context, we can mention two publications: monograph Benchmarking, How to Imitate Successful Ones, and Benchmarking, Myth and Reality.

Benchmarking

Benchmarking can be understood as a systematic, continuous, planned process performed to measure, compare and evaluate the processes, products, services, or performance parameters with selected organizations, partners or competitors that in selected parameters can be considered better performed than one´s own organization in order to define the opportunities for self - improvement. (Nenadál, 2011 p. 15) Nenadál in his book Benchmarking, Myths and Reality presents the definition of the American Center for Productivity and Quality and the American Society for Quality, the same author cites the research of M. Kozak, that the majority of definitions emphasizes the connection with improving performance processes. Camp defines benchmarking as following: *„a proactive process to change operations in a structured fashion to achieve superior performance. The benefits of using benchmarking are that functions are forced to investigate external industry best practices and incorporate those practices into their operations. This leads to profitable, high asset utilisation businesses that meet customer needs and have a competitive advantage.*" (Magd, Curry, 2003, p.168)

The methods of benchmarking were for the first time in managerial practise, used by Xerox (Nenadál, 2011, p. 11.), (Neshybová, 2011, p. 64). The first application in the public sector was the initiative of city managers of the Ontario Initiative OMBI (Široký, 2004, p. 7). Benchmarking of municipalities developed separately from the private sector (Boveman et al, 2002). Benchmarking in the private sector is strictly focused on acquiring the best practises, in the public sector it is known as *„the good enough*". Private sector implemented benchmarking voluntarily as a function of internal management, the public sector usually mandatorily (Boveman et al, 2002). If the public sector implements this activity voluntarily, this process is often associated with "*a defensive benchmarking",* where the main goal is not to show the best performance, but only moderately good performance possibly not the worst (Boveman

et al, 2002). The obtained data from the benchmarking of private sector are confidential, the public sector data are expected to be published (*Bjørn, Bjørnar, 2008).*

If we look at benchmarking in a broader context, we can classify it as one of the tools for improving the quality of the New Public Management reforms (Pollit, Bouckert, 2004). In Western countries it is associated with Best Value Concept (Magd, Curry, 2003). The use of benchmarking is often demonstrated by the example of England, USA, New Zealand, which can be pointed to as pure NPM countries. Many projects regarding benchmarking were implemented by local self- governments. (Boveman et al, 2002), Next Steps agencies, health care providers, functions of central government (Cowper, Samuels, 1999) in England. In the USA and New Zealand the application of benchmarking health care providers is very closely described (Wynn, Willams, 2005).

The source of this information in particular is the following articles: The Evolution of Benchmarking in UK Local Authorities author´s Boveman et al. which excerpts analyses of already published research, adds a literature search and the OECD report Performance Benchmarking in the Public Sector: The United Kingdom Experience. This article focuses purely on research and the future development: A framework for Benchmarking in the Public Sector, Literature Review and Direction for Future Research from Authors Dorsch and Yasin.

The using of benchmarking in the compilation and analysis of municipality budgets

When we analyze the possibilities of using benchmarking, we should distinguish between "*process oriented*" and "*results oriented*" (Klages, 1999). As the process oriented benchmarking, we can consider:

  a. Benchmarking of methods and budgeting process

  b. Benchmarking of budget expenditures from the perspective of 3E

As the results oriented benchmarking can be considered:

  a. Benchmarking of ratings and others evaluations of financial health

In comparison with process orientated benchmarking, the result orientated benchmarking is focused on identifying gaps in performance and has a lower effect of learning.

Secondary analysis for Czech Republic shows:

  • In the analysis of relevant sources, which should cover the comparison of the budgeting process itself, for example methods used (closely Wright, Němec, 2002), time spent and cost of process, the author did not register any relevant initiatives, whether it was an item listed for comparison posted

on websites of Benchmarking Initiatives (BI), MEPCO organizations, and Networks of Healthy Cities

- Much greater emphasis is placed on the analysis of budget´s expenditures. When comparing themselves among municipalities, use of the database Benchmarking Initiative is the most common (Neshybová, 2011, p. 68). This database contains the absolute amounts spent on certain items that can be evaluated in terms of 3E:

  - " The spending on state administration and self government

  - Total revenue and expenditures

  - Expenditure on subsidies

  - Expenditure on cultural facilities and services

  - Expenditure on social facilities and services and others" (Neshybová, 2011, p. 68)

- In the area of financial health it is the most common comparison carried out by third parties. When evaluating the financial health of municipalities, we can identify two fundamental problems; it is the inclusion of socioeconomic variables and the quality of public services provided by municipalities to the evaluation model (Zafra-Goméz, López-Hernandés, 2009). This category represents the Ministry of Finance and its system of monitoring and reporting indicators, in the context of the transition state on the accrual basis of accounting, this system draws data primarily from the balance sheet, such as liquidity, and the share of liabilities on total assets. The data regarding incomes and expenditures for the calculation of debt service are taken from budgets. Private entities are represented by activities ČEKIA and Moody´s. ČEKIA publishes a comprehensive report on the server www.ipoint.cz. Generally, the indicators of budget performance, liquidity and debt ratio therefore are used. ČEKIA methodology is on the same base as the SIM of Finance Ministries (i.e. the Government Resolution No. 695). For the most important, consider these factors:

  - The ratio of liabilities to total assets (the risk is considered to be the indicator with value greater than 25%)

  - The ratio of current assets to short term liabilities (current liquidity, the risk is called a value less than 1)

Moody´s awarded the rating, it is necessary to distinguish the national rating that most Czech cities ranges from grade Aa1.cz and Aa2.cz (Moody´s, 2012, p.1), but the basic credit BCA rating has greater explanatory power, that evaluates municipalities in a more detailed way. Part of the evaluation report is a series of five basic indicators,

which according to the author describe very well the level of finance management. The indicators are the following:

- *" Net and indirect debt / operating income*
- *Debt service / total revenue*
- *Gross operating balance / operating income*
- *Balance of total budget / total revenue*
- *Current transfers / operating income*
- *The capacity of self – financing*
- *Capital expenditure / total expenditure" (Moody´s, 2012, p. 1)*

These indicators can be calculated from budgets, which cities are obliged to post. In addition, Moody´s is the only one institution which evaluates the level of financial management and administration. Its own methodology is presented as a combination of budget performance, liquidity and debt ratio, which is brought up in the dissertation of Irena Opluštilová.

Methodology and results of our own research using benchmarking in municipal budgeting

The aim of this research was to evaluate the level of using benchmarking in municipal budgeting, especially in the South Moravian region and the region of Vysočina. The base of the research was the previous findings of Dr. Neshybová, which were published in her dissertation; she claims that benchmarking is most used in municipalities with extended power in these regions. That is the main reason why these two regions were selected as a sample. The author contacted via mail, heads of financial departments of all municipalities with extended powers in the region of Vysočina (15 municipalities) and in the South Moravia region (21 municipalities). The structure of respondents was as following: 72% women, 28% men, 81% with university education, and 19% with secondary education. The questionnaire included 7 questions, 4 possible answers choices from multiple questions. The questionnaire was opened for 21 days. The return ratio of total number of respondents of questionnaires was 61, 90% in South Moravian region (13 from 21 cities surveyed) and the region of Vysočina (11 of 15 surveyed cities).

The questions were designed for the purpose of preliminary research and the aim was to verify the claims of Dr. Neshybová. The secondary goal was to extend the existing knowledge by focusing on the practical issues of using benchmarking the production of municipal budgets.

In determining the reliability of the research, the author did not use any statistical methods, the chosen sample is based on the premise that the results obtained

in these regions will have a general validity for other municipalities of the Czech Republic, according to the literature review, in other regions which have not taken place in programs on the implementation of benchmarking in a much greater extent than in the above mentioned. The selected sample is not statistically significant, even though I believe that it provides a fairly good picture of the situation in the Czech Republic.

The concept of benchmarking is generally known among the heads of financial departments, 100 % of the officials from Vysočina region who took part in the survey encountered this concept and 91,67% in the South Moravia region. The next question regarded the added value which should be given to benchmarking in the process of compiling and analyzing budget. 87% of respondents in South Moravia region and 90,91% respondents from region Vysočina consider benchmarking useful.

During his research the author put forth a question which concerned the type of data that would be in the preparation and analysis of individual budgets chosen by the heads of financial departments. The possible answers and results for the South Moravian region and Vysočina region are posted in the following table.

Table 1: Results (in %) of responses to the question: "What figures would you choose for the budgets benchmarking?"

Answer	Result – South Moravian region	Result – Vysočina region
Absolute values of current and capital revenue and expenditure, current balance, total balance, etc.	15,38	18,18
Ratios, such as debt service, capital expenditure / total expenditure	15,38	36,36
Data per citizen, such as capital expenditure per citizen, operating expenses per citizen	15,38	18,18
Other	53,85	27,27

Source: Author

The results showed a large share of the answer "other" respondents were also asked to specify their answer. Most specifications were a combination of the previous options. The author is aware of certain issues of subjectivity of possible answers, as options of possible answers which were presented only as indicators related to budget performance, it is connected with the continuous reform of state accounting, as it is still in progress and the author's subjective opinion is that the heads of departments who have been around for years and who used to work primarily with budgets, as the main base, don´t have experience with using balance sheet for calculating debt ratios and liquidity, because the balance sheet did not provide a true and fair view of reality.

One of the other important issues is undoubtedly the key under which the municipalities

should be compared. "*Benchmarking Initiative divides the city into groups according to population, so as to maintain the condition compared with the comparable.*" (Neshybová, 2011, p 68) The same approach is used by ČEKIA. This thesis was proved by the results of the survey, the respondents responded to the question, which cities they would like to benchmark their financial performance against. Responses are summarized in the following table.

Table 2: Results (in%) of responses to the question: "Which cities would you like to benchmark your financial performance against?"

Answer	Results – South Moravian region	Results – Vysočina region
Cities with the same population	84,62	54,55
Cities solving the same problems, e.g. debt ratio	7,69	0
Others	7,69	18,18
Neighbourhood cities	0,00	0
Cities of Southern Moravia region	0,00	
Cities of the Vysočina region		27,27

Source: Author

In both regions anticipated answer:"Cities with the same population „was selected, by far, over the other options. An interesting situation occurred in Vysočina, the respondents expressed interest in benchmarking with towns in the same county. According to the author, this is more about psychology and usage of defensive benchmarking in order to show that the municipality does not perform worse than other cities in the region.

One of the most frequently mentioned disadvantages of benchmarking is high time-consumption. Generally, we can use the following data sources: "*public accessible sources, direct comparison, a special database, external reports, self-assessment against the models of excellence.*" (Nenadál, 2011, p.20) author asked heads of financial departments question which related to how much time they would be willing to spent with benchmarking. The results are summarized in the following table.

Table 3: Results (in %) of responses to the question: "How much time would you be willing to spend on benchmarking?"

Answer	Results – South Moravian region	Results – region Vysočina
Less than 8 hours	38,46	63,64
Less than one week	53,85	36,36
More than one week	7,69	0,00

Source: Author

The results suggest that officials do not want to spend too much time with the process of benchmarking, which corresponds mainly to the possibility of using databases.

This would correspond with an orientation on performance-oriented benchmarking, which serves as the primary tool for identifying gaps in performance, which would comply to a relatively low willingness to spend time with process benchmarking. As mentioned in the previous text, all municipalities with extended powers of the region of Vysočina were involved in this initiative, as there was a special question focused on the region of Vysočina, this question was regarding the question about the methods of data collection for benchmarking. The result was that the Benchmarking Initiative database is used by only 36.36% of respondents.

Conclusion

The research results showed that the formally responsible officials recognize the importance of benchmarking, but realistically do not use this method in the budgeting process. According to research, the data about the intensity of using result oriented benchmarking are not fully credible. This differentiation from the results of research of Dr. Neshybová and the published foreign research could be caused by the very specific focus of this research. Previous research deals with the issue of utilizing benchmarking in municipalities as a whole, whereas the author's research is focused on the specific field of utilizing benchmarking in the production of municipal budgets, as it was specially focused on financial management.

The author on the basis of analysis of the literature concluded, that there is some gap in benchmarking initiatives, which concern themselves mainly with budget process. This was not mentioned either in the publication of Good Practice Benchmarking, or the issued MEPCO. It would certainly be worth trying to do research, which would be focused on methods used in the preparation of budgets and what the time-consuming process in individual cities are.

Individual cities, which are involved in the Benchmarking Initiative, are likely to have enough information to be able to focus on examining budgetary expenditures in terms of 3 E. While in the Vysočina region a benchmarking project was implemented, according to survey, a relatively small proportion of heads of financial departments use the Benchmarking Initiative database.

In evaluating the financial health of the municipalities, according to the author, there is no relevant initiative to evaluate this issue in its complexity. The SIM of Ministry of Finance and comparison of municipalities ČEKIA focuses more on liquidity ratios and debt ratios. A more comprehensive evaluation is provided by Moody's, who took over the methodology of evaluating the financial health of U.S. cities (more in The Application of Joint Default Analysis to Regional and Local Governments). This assessment, however, is only offered to towns as a commercial service. The initiative could take the non-profit sector, such as the organization Rozpočet obce, ops, which publishes the budgets of municipalities and is planning the project

of benchmarking in terms of financial health; this project is designed more for public society than for the bureaucrats.

According to the author's opinion it would be the best solution to the problem in terms of performance-oriented benchmarking indicators to complement SIMU Ministry of Finance by other indicators, especially budget management and to create a database for the municipalities, which would allow a quick comparison of the financial health of individual municipalities. If we focus on the process of budgeting, the simplest solution would undoubtedly be to add the database Benchmarking Initiative to budgeting methods item and complete the case studies of good practise with the experience of the municipalities, which use a different method than incremental budgeting, which, according to the author, prevails.

References

ANDERSEN, B., HENRIKSEN, B. and SPJELKAVIK, I. (2008*) Benchmarking Applications in Public Sector Principal-Agent Relationships*. Benchmarking, vol. 15, no. 6, pp. 723-741 ProQuest Central. ISSN 14635771. DOI 10.1108/14635770810915913.

BOUCKAERT, G., NEMEC, J., NAKROŠIS, V., HAJNAL, G. and TONNISSON, K. (2008) *Public Management Reforms in Central and Eastern Europe*. NISPAcee. 2008. Bratislava. ISBN 978-80-89013-41-8

BOWERMAN, M., GRAHAM, F., BALL, A. and FRY, J., (2002) *The Evolution of Benchmarking in UK Local Authorities. Benchmarking*, vol. 9, no. 5, pp. 429-449 ProQuest Central. ISSN 14635771.

COWPER, J., SAMUELS, M. (1999) Performance benchmarking in the public sector: The United Kindom experience., [online]. Available from WWW: http://www.oecd.org/dataoecd /12 /8/1902895.pdf

ČEKIA. (2008) *Hospodaření obcí se v posledních čtyřech letech zhoršuje*. [online]. Available from WWW: http://www.ipoint.cz/zpravy/105267311-cekia-hospodareni-obci-se-v-poslednich-ctyrech-letech-zhorsuje/

DAHLBERG, L., and ISAKSSON, CH. (1999) *The implementation of benchmarking from a Swedish perspective.*, [online]. Available from WWW: http://www.oecd.org /dataoecd/12/ 8/1902895.pdf

DORSCH, J.J., and YASIN, M. M. (1998) A Framework for Benchmarking in the Public Sector Literature Review and Directions for Future Research. *The International Journal of Public Sector Management*, vol. 11, no. 2, pp. 91-115 ProQuest Central. ISSN 09513558.

Kolektiv Autorů (2007) *Dobré praxe z benchmarkingu*. 1. vyd. Praha: MEPCO s.r.o., 101 s. ISBN 978-80-903960-3-6

Kolektiv Autorů (2004) *Sborník příspěvků 1. české národní konference kvality ve veřejné správě s mezinárodní účastí.* 1. vyd. Praha: Ministerstvo vnitra ČR, , 160 s. ISBN80-239-4099-6.

MAGD, H. and CURRY, A. (2003) *Benchmarking: Achieving Best Value in Public-Sector Organisations. Benchmarking*, vol. 10, no. 3, pp. 261-261 ProQuest Central. ISSN 14635771.

MOODY´S . *Analýza město Třebíč*. Praha. (2012) CIT[11-09-2012]. Available from WWW: http://www.trebic.cz/vismo/fulltext.asp?hledani=1&id_org=16973&vtyp=0&query=rating&submit.x=0&submit.y=0

MOODY´S. (2008) *Local and Regional Governments Outside the USA*, [online]. Available from WWW: http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_107844

MOODY´S. (2008) *The Application of Joint Default Analysis to Regional and Local Governments,* December .[online]. Available from WWW: <http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_99025>

NENADÁL, J., VYKYDAL D., and HALFAROVÁ, P. (2011) *Benchmarking mýty a skutečnost.* Praha: Management Press, ISBN 978-80-7261-224-6

NESHYBOVÁ, J. (2011) *Nástroje kvality veřejné správy a jejich vztah k rozpočtům územních samosprávných celků*. Brno. Masaryk University

OPLUŠTILOVÁ, I. (2012) *Finanční zdraví obcí a jeho regionální diferenciace.* Brno. Masaryk University

POLLITT, CH. And BOUCKAERT, G. (2004) *Public Management Reform - A Comparative Analysis.* New York: Oxford University Press, ISBN 0-19-926849-5

PŮČEK, M. et al. (2006) *Benchmarking ve veřejné správě.* 2. upravené vydání, MV ČR, Praha.

ŠIROKÝ, J. et al. (2004) *Benchmarking ve veřejné správě.* 1. vyd. Praha: Ministerstvo vnitra ČR, 80 s. ISBN 80-239-3933-5.

TONNISSON, K. and WILSON J. (2007) *Best Value in Transitional Countries? Some evidence from Estonia.*. Public Management Review, 9:1, 87-106

WRIGHT, G. and NEMEC, J. (2002) *Management veřejné správy:Teorie a praxe (Zkušenosti z transformace veřejné správy ze zemí střední a východní Evropy)*. Praha: EKOPRESS, ISBN 808611970X

WYNN-WILLIAMS, K. (2005) *Performance Assessment and Benchmarking in the Public Sector: An Example from New Zealand.* Benchmarking, vol. 12, no. 5, pp. 482-492 ProQuest Central. ISSN 14635771.

ZAFRA-GOMÉZ, J. L., LÓPEZ-HERNÁNDES, A. M. and HERNÁNDEZ-BASTIDA, A. (2008) Developing a Model to Measure Financial Condition in Local Government. *Evaluating Service Quality and Minimizing the Effects of the Socioeconomic Environment: An Application to Spanish Municipalities*. The American Review of Public Administration. vol. 39, no. 4, pp. 425-449.

Practical Use of the Dynamic Balanced Scorecard Method in a City

Půček Milan, Koppitz David, Sobotka Martin

Abstract

Municipalities in the Czech Republic are required by law to ensure development of their territories. Development as such is not dependent solely on available funds, neither on the ability to obtain these resources, but rather on the activity of the responsible actors active on the territory. This activity must be specifically targeted. The article deals with the use of the dynamic Balanced Scorecard method in the field of urban development management, which is illustrated on the example of city of Vsetín. Vsetín's BSC model is visualized in the causal loop diagram. The article presents one of the ten already processed models (Vsetín's population model), and is simulated with the available data.

Keywords

Introduction

Modeling, simulation and practical application of system dynamics belong to the procedures that are commonly used as a framework for the *New Public Management* concept (hereinafter, NPM). The NPM is understood in the scope of this article as a theoretical and practical framework for addressing the research objectives. The NPM designation is used by theorists and practitioners for naming different styles and characters in specific management of public services that build on the experience of the management of the private sector (Barzelay, 2001; Hughes, 2003; Czech authors from dry and Spacek, 2009).

Modeling and simulation represent important processes in the context of strategy verification. One of the methods that enables us to incorporate the strategic management into the organization life is the *Balanced Scorecard method* (hereinafter, BSC). The method was developed by Kaplan and Norton. Schoeneborn (2003, p. 2), as an example, presents BSC as a new concept that converts the strategy into everyday practice. Nielsen and Nielsen (2006, p. 2) describe the BSC as a method that applies the "cause - effect" logics, which is then incorporated into the strategic map. Capelo and Dias (2009, p. 3) mention that the strategic map combines indicators into the chain of causal effects. The BSC method is in the Czech public administration reality perceived as a method improving quality and performance of the organization (e.g. Lukášová et al., 2009; Špaček, 2010; Ochrana and Půček 2012). This article does not address the description of the BSC method. Description of the method, its purpose and strengths

are further addressed for example by Horváth & Partners (2002), Hušek and Šusta (2006), Lukášová et al. (2009), or Provazníková (2009). The basic assumption for the successful application of the BSC method is strong management support and link to remuneration system (e.g. Kaplan and Norton 1996; Hušek and Šusta 2006).

The main advantages of the BSC method in public administration include (see Vacek et al. 2006; Široký et al. 2006; Půček and Ochrana 2009): (a) clarity: strategic map shows the city strategy on one paper page, (b) balance: we do not say just what we want to do for people, but also under what financial conditions, through which processes and which necessary knowledge do we use to achieve it , (c) measurability: it is possible to determine a relatively small number of criteria, (d) the method establishes a basis for remuneration.

BSC method has also a number of limitations, they include (for example, Akkermans, van Oorschot, 2002, p 4): (a) inability to simplify causality, (b) inability to separate causes and the resulting effects from each other, (c) absence of evaluation mechanism - usually there is no mechanism that takes into account the relevance of the defined criteria; (d) lack of connection between strategy and everyday activities, (e) excessive focus on internal processes - BSC is not able to answer the fundamental question of managers: what are the other actors doing.

Bianchi and Montemaggiore (2008, p. 179-180) point out that despite the generally accepted benefits of the BSC, this method has conceptual and structural limitations. BSC method is criticized for its static approach (see e.g. Bianchi and Montemaggiore, 2008, p. 180, and Sloper et al. 1999, p. 1). In this context, it is valuable to mention Sveiby et al. (2002, p. 2) who draws attention to the absence of system dynamics approach in the BSC method. The emphasis here in particular is put on the linear approach of the BSC method in relation to the evaluation of the resulting chain of causes and effects, although the authors Kaplan and Norton (1996, p. 67) recommend BSC to capture a system dynamics model that provides a comprehensive and quantifiable model.

Limitations mentioned above can be removed by incorporation of the *system dynamics method* into the BSC. The concept of system dynamics assumes that individual elements are interconnected with one another in a form of complex models (e.g. Lane, Oliva 1998, p. 219), which can be e.g. graphically represented in form of casual loop diagrams. BSC system approach can provide essentially two basic effects. First, utilization of loop diagrams to capture the strategy allows us to examine the mutual influences of individual elements. It will then be easier to understand the displayed links and reveal the forces that negatively impact the development of the organization.

Practical use of dynamic BSC method that is applicable at the municipal level will be presented in this article on the example of Vsetín municipality. Vsetín is the county seat with around 28,000 inhabitants, which simultaneously performs delegated state administration role for 32 surrounding villages (about 68,000 inhabitants). The city

began to develop a strategy and methodology to apply the BSC in 2004, as one of the first municipalities in the country. The strategic map of Vsetín and a set of scales were published by Půček and Ochrana (2009, p. 95-97).

Goals of the article: The analysis provided in this paper is focused on examining the potential of system dynamics in the form of the dynamic BSC method, related to the municipal development. In this context, authors aimed to (1) create space for discussion on the system dynamics in municipal management and its utilization, based on the description of the dynamic model of Vsetín, (2) present one of the ten models, including the simulation related to the municipal development.

Material and Methods

Methods

Modeling is based on a combination of positive and normative methodologies. When creating a dynamic model, it is next to impossible to disregard one aspect or the other. Positive methodology has been used particularly in the problem analysis and description. It was also used for the study of theoretical sources and the analysis of the BSC method application experience at the municipal level. The result of a positive methodology is represented by the recognition of the actual state and situation. Normative approach is related mainly to the basic revision of assembled models which were compared to the newly created municipal strategy and utilized scales. The result is a certain degree of optimization of the model as a whole.

The mix of positive and normative methodology has been used in many scientific research methods. The analysis method related to the study of literature and other information sources was used in the first row. The analysis method was used particularly for the creation of partial models (subsystems) where it was necessary to decompose the problem into individual elements. Besides that, the synthesis method was used as well, which is typical for dynamics models. Linking sub-models into a single unit enables us to examine mutual causalities and the behavior of the model as a whole.

This paper also follows two monographs dealing with management of organizations in the Czech public administration- Půček, Ochrana (2009), Půček, Koppitz (2012).

Data and access to models

While drafting case studies, authors had access to all the necessary information related to the management and strategic documents, as well as to data from different databases available on the internet. Data and information were obtained from data storages of the Czech Statistical Office, ARIS system including information on municipal economy in the Czech Republic, TIMUR system, or the DataPlan database of the National Network of Healthy Cities. The simulation was performed in the application VENSIM 5 PLE Plus.

The basic framework for the whole BSC model of Vsetín can be represented

by the following causal loop diagram shown in Figure 1. The diagram visualizes the basic influential elements of the organization system of public administration. To complement this model with the quantitative relationships between individual elements of the system it is possible to simulate the evolution of the system and portray possible scenarios. The following models are valuable because they were prepared by the employees of the municipality under the expert guidance of Šusta – Půček. Afterwards, the authors generalized and refined models for the simulation purposes.

Figure 1: Casual loop diagram of dynamic BSC of Vsetín
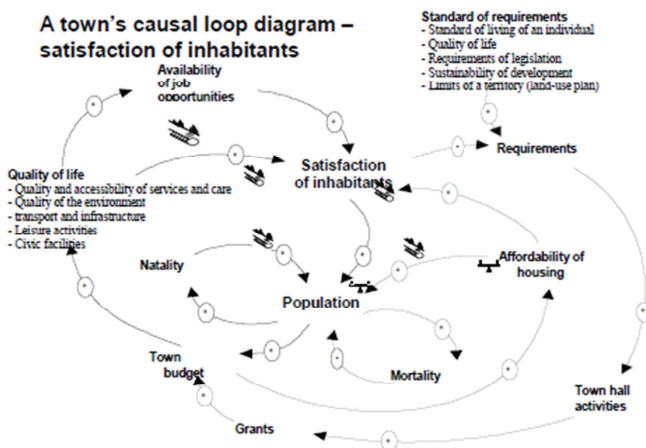
Source: Půček, Ochrana (2009, p. 76)

The municipal development model of Vsetín shown above consists of several basic building blocks- first of all the inhabitants of the city who represent the primary focus of the city's vision itself. All efforts of the city are interlinked with the Czech legislation requirements on local governance and competencies. Czech legislation contains obligation of the municipality to look after the overall socio-economic development of the area and the social needs of local citizens. Development concept is also in line with the theory of local economic development. Its definition is related to the rights of local citizens and the involvement of private business, public government and NGO sector. The aim of local economic development is to improve the quality of life of all stakeholders and to ensure the sustainability of this development (cf. the definition of local economic development such as the World Bank (2003), Blakely and Leigh (2010)).

In accordance with the approach of local economic development discussed above, the emphasis is laid on citizen satisfaction index which is positively influenced by: (a) the quality of life, (b) availability of job opportunities, and (c) availability of housing.

The fundamental position of these three factors that affect the population's satisfaction is reflected in the partial dynamic models. In order to simulate the BSC model as a whole, partial models were complemented by quantitative relationships and real data, obtained from the databases mentioned above, and were used as an input for variables. Individual databases are always mentioned besides the characteristics of partial models. The model allows us to simulate the presumed development over a span of ten years. Due to limited availability of data - particularly related to the municipal budget, which is available up to 2009 at the time of this article - 2009 was chosen as the default.

Results and Discussion

Presentation of the selected model and its simulation – Population model of Vsetín

Dynamic model of Vsetín, completed by the authors of the article and based on available documents from the city and other obtained data, includes the following models and simulations: (1) Population model, (2) Quality of life model (the attractiveness), (3) Sport opportunities model, (4) Cultural model, (5) Transportation models: (5.1) Public transportation model, (5.2) Parking spaces model, (6) Environmental model: (6.1) Air quality model, (6.2) Availability of parks and green spaces model, (7) Education sector model, (8) Labor market model, (9) Housing sector model, and (10) City budget model.

Considering the requested length of this article, only the Population model is elaborated. More detailed description of the model (including explanation of its individual aspects, their utilization and connection) and other models and simulations can be obtained directly from authors of this article. The authors assume their future publishing as well.

The Population model (see Figure 2) is based on a standard string of action which shows the aging of the population (see e.g. Sterman (2000, p. 470)). Natural population increase and decrease is accompanied by migration effects. The migration itself is in this case affected by more attractive environment as well, which is expressed by the coefficients of quality of life and availability of housing. Additive correlation between the two factors was applied due to the model separation of the two effects (cf. Sterman (2000, p. 528)).

Because of other related sub-models, individual population groups are divided into categories of children (pre-school age, primary school), high school students (includes all secondary education), people of working age (entering the labor market) and the citizens of post-productive age.

Input variables in this sub-model were derived from the databases of the Czech Statistical Office and the annual reports of the city that are available on the website.

Figure 2: Population model of Vsetín
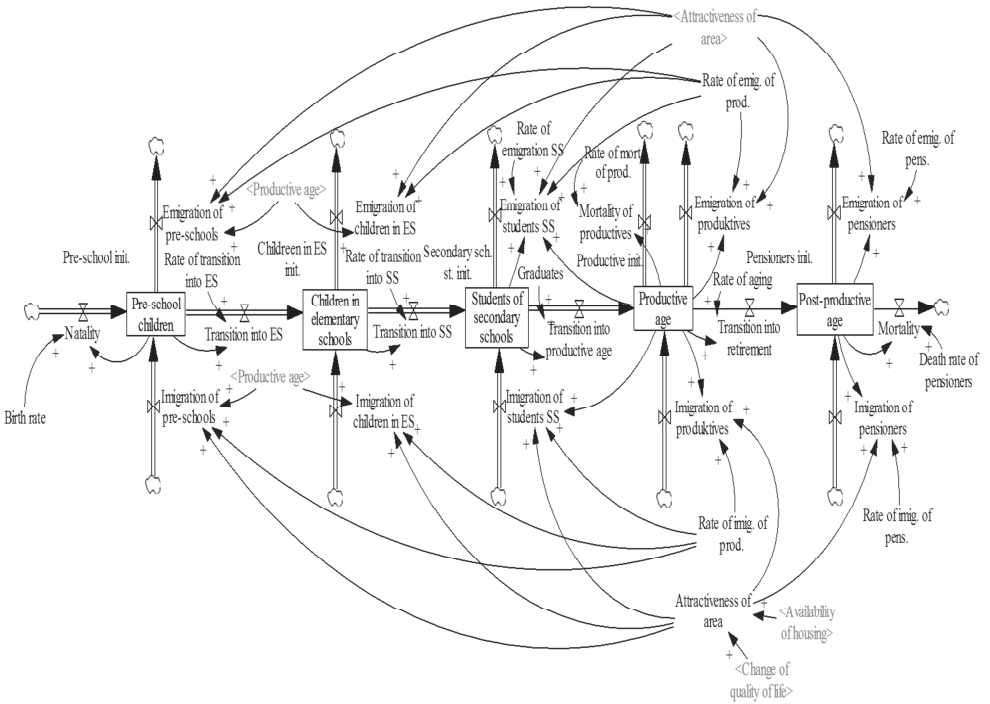
Source: Authors, based on internal documentation of Vsetín

The following scenarios of projected development are based on simulation of the city's BSC model. Figure 3 shows the projected development of the population. Two effects have come to the surface in this model. The presence of aging population is obvious. Substantially to this effect, attractiveness of the city is oscillating, which has a direct impact on population migration flows. The city's population was influenced mainly by increasing quality of life in the first half of the observed period. However, the second part of the period showed more negative effects that reversed the development of the city. It contributed significantly to the depopulation, especially in the group of productive age, which is also reflected by the children population values.

Figure3 : Population simulation model
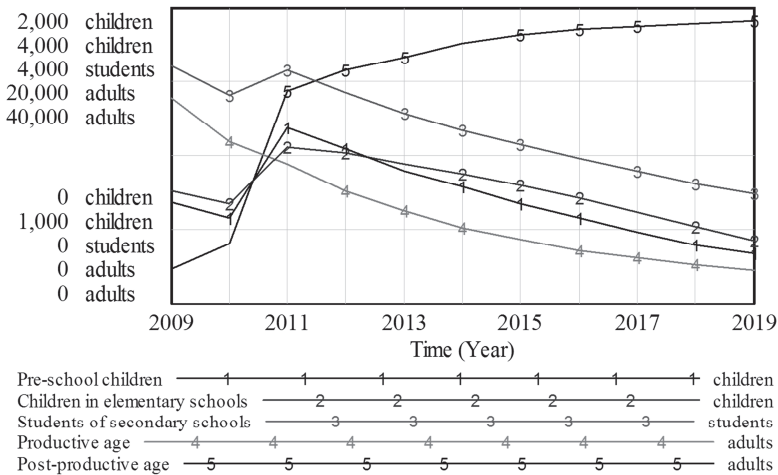
Application of the model

Authors of this article have modified dynamic models that were created during the implementation process of the BSC in Vsetín so that they can be applicable also for other cities. In general, the BSC method is not used for municipal development in the Czech Republic quite yet. Nevertheless we can find examples of the cities that try to use the BSC method to support and accelerate development at the local level. Another example of a city using the BSC method is Uherské Hradiště (strategic map, see Půček and Koppitz, 2012). Authors assume future verification of the model in the other cities as well.

Limitations of the dynamic model

Application of any method and its effects should be assessed. Success of such application can be measured through assessment of advantages (or shortcomings) that the method can provide to the subject. If we talk about limitations of the BSC dynamic model, then we have to start with limitations that are associated with the system dynamics theory and subsequent models based on this theory. Modeling is always based on the creation of a simplified picture of the world. Akkermans and van Oorschot (2005, p. 939) highlight the fact that dynamic modeling is carried out on the mental model. This fact points out to the difference between the simplistic mental map and the "real world." Sterman (1991, p.11) acknowledges that each model is as good

as its underlying assumptions. Successful implementation of the model is associated mainly to a good observation of the surrounding world.

Another critical point can be seen in the creation of the model and its applicability in practical decision-making. E.g. Stave (2002, p. 161) describes the difference between the model makers and those who make appropriate strategic decisions in the public sector in practice. Therefore, it is very valuable that the models were created by employees of the municipality under supervision of Šusta and Půček.

Benefits and limitations of Vsetín's example

General benefits mentioned at the beginning of the article were confirmed in the Vsetín's reality - especially those related to the setting of measurable objectives and links to remuneration. There has been an increase in performance and quality of work (fulfilling the investment plan, success in obtaining grants, regular measurement of customer satisfaction had an improving trend, performance of processes proven by benchmarking between comparable cities, etc.). Two other benefits - balance and clarity – are not that obvious. The problems can be assigned to: (a) the balance was challenged by some of the city partners and their lobbying interests, the connections and links were not clear as well. (b) strategy map was not clear and understandable enough for a number of partners and employees. These were also the reasons why the city has decided to use the dynamic BSC. The main benefit of the dynamic BSC was that all of the participants were able to better understand the individual links. This enabled better functioning. However, problems occurred in this case as well: (a) models were not filled with data - this was completed during the preparation of this article. (b) the change in the municipal government in 2007 gradually weakened ties between the objectives and remuneration. (c) city leaders are more oriented towards daily routine operative tasks (management support was weak). Despite these limitations, the utilization of BSC in Vsetín is of positive nature.

Conclusion

The article addressed two goals. The first was to create space for discussion on the system dynamics in municipal management and its practical application. This goal was addressed by demonstrating the dynamic Balanced Scorecard concept on example of the municipality of Vsetín. Vsetín's BSC model is represented by the causal loop diagram (see Figure 1). The article described benefits and limitations of the BSC method as well, especially in theoretical way and in relation with its utilization in Vsetín. The second goal was to present one of the ten already processed city models. The Population model (see Figure 2) was obtained by simulations based on available data (see Figure 3).

Sterman (2000, p 899) notes that the researcher must constantly strive to understand the analyzed problem. The dynamic model should be capable of recording the most

important links and relationships. In this sense, the advantage of the described model was that its original version was created by the employees of the city under the expert guidance (i.e. it was created by those who fulfill the city strategy). Authors have modified the models for the simulation purposes.

In the next phase, authors assume to publish all ten models. It is also desirable to verify the applicability of processed models in other comparable cities in the Czech Republic and to compare the data resulting from the simulation.

Acknowledgements

References

AKKERMANS, H., VAN OORSCHOT, K. (2002) Developing a Balanced Scorecard with System Dynamics. In *Proceedings of the 20th International Conference of the System Dynamics Society*, Palermo, Italy.

AKKERMANS, H. A., VAN OORSCHOT, K. E. (2005) Relevance Assumed: a Case Study of Balanced Scorecard Development Using System Dynamics. *Journal of the Operational Research Society*. 56: p. 931 – 941.

BARZELAY, M. (2001) *The New Public Management – Improving Research and Policy Dialogue*. Oxford: University of California Press

BIANCHI, C., MONTEMAGGIORE, G. B. (2008) Enhancing Strategy Design and Planning in Water Company. *System Dynamics Review* 24: 175 - 213.

BLAKELY, E. J., LEIGH, N. G. (2010) *Planning Local Economic Development: Theory and Practice*. Sage Publications: Thousand Oaks.

CAPELO, C., DIAS, J. F. (2009) A System Dynamics-Based Simulation Experiment for Testing Mental Model and Performance Effects of Using the Balanced Scorecard. *System Dynamics Review* 25: 1 – 34.

HORVÁTH & PARTNERS (2002) *Balanced Scorecard v praxi*. Profess consulting: Praha.

HUGHES, O. E. (2003) Public Management and Administration - An Introduction. New York: Palgrave MacMillan

HUŠEK, Z., ŠUSTA, M. (2006) *Aplikace metody Balanced Scorecard (BSC) ve veřejném sektoru*. Národní informační středisko pro podporu jakosti: Praha.

KAPLAN, S. R., NORTON, D. P. (1996) Linking the Balanced Scorecard to Strategy. *California Management Review* 39: 53 – 79.

LANE, D. C., OLIVA, R. (1998) The Greater Whole: Towards a Synthesis of System Dynamics and Soft System Metodology. *European Journal of Operational Research*. 107: 214 – 235.

LUKÁŠOVÁ et al. (2009) *Měření spokojenosti občanů s veřejnými službami*. MU, ESF, Brno

NIELSEN, S., NIELSEN, E. H. (2006) System Dynamic Modelling for a Balanced Scorecard: A Case Study. *Paper presented at 29th Annual Congress of the European Accounting Association*, Dublin, Ireland.

OCHRANA, F., PŮČEK, M. (2012) *Dosahování úspor a omezování plýtvání ve veřejném sektoru.* Wolters Kluwer: Praha

PROVAZNÍKOVÁ, R. (2009) *Financování měst, obcí a regionů*. Grada. Praha

PŮČEK, M., OCHRANA, F. et al. (2009) *Smart Administration. Cohesion Policy*. The Ministry for Regional Development: Praha. Available from WWW: http://www.mmr.cz/Kohezni-politika-EU/Dokumenty

PŮČEK, M., KOPPITZ, D. (2012) *Strategické plánování a řízení. Pro obce, města a regiony.* Healthy Cities of the Czech Republic: Praha

SCHOENEBORN, F. (2003) Linking Balanced Scorecard to System Dynamics. *Proceedings of the 21st International Conference of the System Dynamic Society*. New York, USA.

SLOPER, P., LINARD, K. T., PATERSON, D. (1999) Towards a Dynamic Feedback Framework for Public Sector Performance Management. *the 17th International System Dynamics Conference*. Wellington, New Zaeland.

STERMAN, J. D. (1991) *A Skeptic´s Guide to Computer Models*. Massachusetts Institue of Technology: Cambridge

STERMAN. J. D. (2000) *Business Dynamics: Systems Thinking and Modeling for a Complex World*. Irwin/McGraw-Hill: London.

ŠIROKÝ, J. et al. (2006) *Benchmarking ve veřejné správě*. Ministerstvo vnitra: Praha

ŠPAČEK, D. (2009) Reformy veřejné správy - globální trendy. In: *Veřejná správa v kontextu přípravy a vstupu státu do eurozóny*. Brno: MU, Ekon-správní fakulta, pp. 8 - 23.

ŠPAČEK, D. (2010) Promotion of qulity management in public administration. *Národohospodářská obzor*. No 4, pp. 133-150

VACEK et al. (2006) Moderní management ve veřejné správě. ZČU v Plzni. Plzeň

WORLD BANK (2003) *Local Economic Development*, LED Quick Reference.[on-line]. Gütersloh: Bertelsmann Stiftung, World Bank, 2003

Innovative Elements in Civil Service Reform in Slovakia: A Way to Attract and Retain Young Professionals?

Staroňová Katarína

Abstract

Civil service reforms in Central and Eastern European countries (CEEC) in the last decade have focused on various tools that would increase professionalization and attract professionals into civil service to design and implement other needy sectoral reforms. Different countries have undertaken different trajectories of reforms. To some extent, Slovakia responded to these challenges and introduced „innovative elements" (World Bank, 2007) in order to streamline the recruitment and motivate young qualified candidates, reduce high turnover and create senior civil service, such as the 'fast stream system' and 'nominated civil service'. However, these had only limited success. The creation of functioning human resource management system and approaches is undoubtedly the main area of failure in civil service reform, not only in Slovakia. This paper maps various innovative elements introduced into the civil service system in Slovakia and tries to explain why they did not sustain and eventually were abolished.

Keywords

civil service, innovation, professionalization, fast stream, Slovakia

Introduction

A professional civil service is the cornerstone of an effectively performing public sector. Before accession, the EU had made administrative capacity development a condition for EU membership. The development of administrative capacity included the requirement to establish professional and de-politicised civil service systems in the then applicant states. The transition of CEEC into modern democracies in the past two decades brought a lot of questions and problems connected with institutional redesign, including questions regarding how to make the civil service attractive to young qualified candidates as well as professionals who would be willing to undergo reforms in all other fields of public administration, such as judiciary, pensions, tax reform, etc.

There is a lot of literature discussing the patterns of central administration that has emerged in the CEEC since the fall of communism (Dimitrov et al, 2006, Verheijen, 1999). It was expected that emerging administrations would naturally converge with Western models and traditions of public administration (Hesse, 1998). This expectation was turned into a program 'principles for a European Administrative Space' (Sigma, 1998, Meyer-Sahling, 2009a) which became the cornerstone for civil

service reform policy. In the last years prior to EU accession reforms were conducted in candidate states to bring about the formalization of HR relations and compliance with these principles of the European Administrative Space. More recent research became sceptical on the prospects of the gradual Westernisation of CEEC administrations (World Bank, 2007, Meyer-Sahling, 2009b, Staroňová-Gajduschek, 2013), particularly because the ideal of European Administrative Space did not fit the realities of political, economic and labour conditions in the countries concerned. Thus, differences between Western and CEEC administrations could persist in the long term (Goetz, 2001, Meyer-Sahling, 2009a).

In CEE countries there is concern about high turnover rates (World Bank, 2007) with particularly serious losses of qualified staff in a changing labour market which offers more opportunities in the private sector and abroad (World Bank, 2007). There are several issues here: a) need to attract young and qualified staff in an increasingly sophisticated labour market, b) need to attract professionals from practice to conduct reforms for a limited period of time, c) fiscal constraints. Thus, the development of incentive systems that would make the public administration a sufficiently attractive employer for talented staff remains a key issue, even after EU accession and was a focus of reform efforts and innovative experiments in several CEE countries.

In the context of CEE civil service reforms, Slovakia lacked any comprehensive reform program and all the efforts were of ad hoc nature. For example, the innovative reform package of 2003 was initiated by Ministry of Labour, whereas the 2006 reform measures were initiated by Ministry of Finance right before the elections. Hungary and Lithuania, on the other hand, developed a comprehensive program in which all reforms were anchored. According to Meyer Sahling (2009b) Slovenia and to a lesser extent the Czech Republic have been active administrative reformers, but the civil service has played a subordinate role in these activities. Poland has concentrated on the fight against corruption but it has lacked both a civil service reform plan and a wider administrative reform strategy for most of the postaccession period.

Slovakia initiated civil service reform as late as 2001, mainly under pressure from the EU (Staroňová and Láštic, 2012). Meyer-Sahling (2004, p. 94) suggests as an explanation of this delay in reforming civil service the lack of competent candidates capable of and willing to replace communist administrative elites. The reform aimed at professionalizing the public sector by introducing two separate provisions in 2001: the Law on the public service (Act No. 313/2001), which defines the public service and covers service such as health and education; and the Law on civil service (Act No. 312/2001), which regulates the civil service in state administration bodies. In 2003, the former law was substituted by the Law on Employees working in Services of Public Interest. The attempt to establish a professional and neutral civil service was not without difficulties. The main problems were diverging views on key

issues such as conditions for tenure or pension and health insurance rights of civil servants. In order to obtain EU membership, reform initiatives have been formulated rapidly with little political consensus (see Staroňová and Malíková, 2005).

The most fundamental amendment was a package adopted in 2003 (coming into effect on 1 January 2004) regulating the status, recruitment and remuneration of civil servants, that brought innovative elements into the civil service system, such as *fast stream recruitment, performance appraisal* and *nominated civil service*. These innovative elements were to strengthen the capacity to attract and retain good calibre staff at all levels, since the previous delays in the adoption of the Civil Service Law led to a situation where ministries were over-staffed, as those that remained in the administration were generally not interested in changing jobs, while new posts were unable to attract staff (Staroňová and Láštic, 2012). This created problems in particular for new functions, such as policy analysis posts, project management, reform implementation and civil servants dealing with EU matters.

The main objective of this paper is to analyse major reforms in Civil service from the perspective of innovative elements that would attract young professionals and reformers into the ranks of Civil Service in Slovakia. The research is based on mapping changes key innovative elements in design and practice. Although research focusing on Civil Service in the CEE has mainly concentrated on its politicization, in Slovakia, there is a clear need for discussing the sustainability of "new thinking" in creating viable approaches in HRM policy in this region.

Material and Methods

As stated above, the methodology is based on mapping key innovative elements (see Table 1) in Slovak Civil Service. Data are gained from analyses of the relevent legislation and documents as well as interviews with key stakeholders for its implementation in practice (see list at the end of the article).

Table 1: Innovative Elements under Investigation Introduced into Civil Service

HR aspect	Measure	Goal
Professionalization	Temporary civil service	to tackle political nominees (advisors) in civil service (rights and duties as civil service)
	Nominated civil service	to introduce senior civil service with tenure (professionalization of civil service)
Recruitment	Fast stream system	to attract young qualified candidates for the civil service
Incentive system	Personal bonus	to increase flexibility in the pay system in order to motivate high calibre staff (decrease gap between public and private sectors)
	Performance bonus	to start merit based remuneration linked to performance
	Special bonus	to attract and remunerate civil service in posts that are difficult to fill or where good salaries should serve as a prime anti-corruption measure

Source: Author

In this research, only three main ammendments will be discussed, namely 2003 (Act No. 551/2003) when innovative elements were introduced, 2006 (Act No. 231/2006) when Civil Service Office was abolished and 2009 (Act No. 400/2009) when the main innovative elements from 2003 reform (performance appraisal, fast stream recruitment and nominated civil service) were abolished.

Results and Discussion

Recruitment

Social scientists since Weber as well as international organizations such as World Bank agree that the method by which civil servants are recruited has important implications for governance outcomes. Rauch and Evans (2000) have linked meritocratic recruitment to higher bureaucratic performance and lower corruption, World bank to economic development.

Originally, recruitment was planned to be centralized and based on objective criteria and examination with all posts to be advertised openly. A system was introduced that allowed a relatively automatic career path based on seniority and at some steps passing certain exams, as well as an appropriate "grade" on the annual appraisal. The Civil Service Law gave responsibility to the Civil Service Office to forecast and analyse the necessary number of civil service posts and operational expenditure by means of systematisation with subsequent open recruitment and selection procedure. Dismissal of civil servants was largely limited by the law.

The systematisation had to include the number of permanent, temporary, nominated and preparatory civil service posts (see Table 2), ranked by position resulting from the organisational structure of the ministry (or other state administrative body). In addition, the systematisation had to state the volume of financial resources allocated for remuneration of civil servants. The systematisation had to be approved by the government when discussing the draft budget, and then voted on by parliament as part of the state budget. The process of systematisation created tension between the Civil Service Office and Ministry of Finance as both considered themselves to have the authority for final decisions on number of posts and related expenditure. In practice, it was the Ministry of Finance having the final word on expenditures for the civil servants providing arguments that they are the members of the Government, not the Civil Service Office. As a result, ministries complained about the structure of systematisation and the inflexibility in making changes and the fact that they were not clear whether to contact Ministry of Finance or Civil Service Office. Systematisation was abolished in 2006 reform package, including the civil service registry.

Table 2: Types of Civil Service

	Preparatory civil service (1. 4. 2002 – 31. 3. 2004, merged with 3 month probation)	**Permanent civil service** (1. 4. 2002 – until now)	**Temporary civil service** (1. 1. 2004 – until now)	**Nominated civil service** (1. 1. 2004 – 1. 11. 2009)
Qualification exam (1. 4. 2002 – 1. 6. 2006)	√ (transfer to permanent civil service)			
Exam for nominated CS (1. 1. 2004 – 1. 11. 2009)				√
Job selection procedure (1. 4. 2002 – until now)	√	√	√ + without selection procedure	
Pooled (mass) recruitment (1. 1. 2004 – 1. 11. 2009)		√ (7-11 grade)		
Selection (1. 11. 2009 – until now)		√		

Source: Author

In reality, the Civil Service Office never had a crucial word in the recruitment of civil service since already a year after its creation (2003) this task was delegated to line ministries and only some types of recruitment (nominated and fast track recruitment) was left to central coordination (see Table 3). 2003 changes also introduced compressed preparatory service and merged it with the probation period which shortened the preparatory service period from original 6-24 months to 3 months and abolished the system of qualification exams from preparatory into permanent civil service.

Table 3: Civil Service Office Recruitment: centralized vs. delegated selection procedure

	Since 2002 (CSO creation)	**2003**	**2004**	**2005**	**Until 2006 (CSO termination)**	**Total**
Number of open positions publicized	2000	4639	11682	4283	1291	23895
Delegated selection procedure on admin. bodies	0	2067 (45%)	9349 (80%)	4184 (97%)	1171 (90%)	16717 (70%)
Centralized Selection procedures by CSO	256	351 (8%)	142 (1,2%)	202	79	1030

Source: Author, based on reports of the Civil Service Office for years 2002, 2003, 2004, 2005 and 2006.

Fundamental changes introduced in 2006 abolished most elements of the merit system just few weeks before elections in 2006. The Civil Service Office was terminated (on the grounds of its ineffectiveness), and its functions were largely decentralized to the ministries or simply ceased to exist (e.g. the entry examinations became simple job interviews). Moreover, the 2006 changes provided the head of office at a ministry (a political post from 2003) a new autonomy to dismiss a superior officer within their

direct management without stating reasons. Thus, top managerial positions such as directors' generals became de facto political positions. This, naturally, raises questions about the quality, transparency and impartiality of the dismissal and recruitment process. At that point, however, it was clear that there will be government change and this provision opened the space for better coalition formation.

Introduction of the fast stream system

The package of 2003 amendments introduced an internal and an external fast stream system in order to attract qualified candidates for the civil service. The fast stream system took the form of:

a) a *pooled recruitment system* for applicants from outside the civil service;

b) *nominated civil service* for applicants from inside the civil service.

Pooled recruitment system was inspired by EU countries and their fast-stream system which enables rapid career growth and is the key to attracting very capable people to positions in the civil service. Thus, the purpose of this procedure was to select persons with an innovative and creative approach to problem-solving. Since the introduction of the pooled recruitment system, there were 3 rounds altogether with the following results:

Table 4: Number of applicants and successful candidates 2003-2005

	Number of Applicants	Successful Candidates
2003	629	17
2004	265	11
2005	313	14

Source: Author

Nominated civil service was brought in by the 2003 reform which was to reward top officials with specific salaries (a 50% pay increase) and job protection in the form of security of tenure together with pension and health benefits. Civil servants applying for nominated civil service needed to pass a nomination exam. It was expected that approximately 1000 civil servants would be part of the 'nominated service' with tenure. According to the former head of the civil service office, however, only 5 candidates passed the exams (out of 367 applicants) in the first round in 2004 and in 2005 none of the 177 applicants passed. Following the abolition of the CSO in 2006 the organization of exams for the nominated civil service was handed over to the Head of the Government Office (a political nominee) who did not organize any exams until 2009 when nominated civil service was abolished.

Both methods of fast streaming into the civil service were not very successful in terms of the number of successful candidates and their placement. The biggest problem lies in the hybrid position-based and career-based system which has developed in Slovakia.

Although candidates had the opportunity to be 'parachuted' into higher positions (salary grades 7-11 in the pooled recruitment system and top civil service with tenure for nominated civil service), the whole system is not suited for this as there is no formal career planning system in place, but rather a position based approach. Thus, the rigour of the examination process in the fast stream system does not correspond to the real career opportunities of the successful candidate. The exams were more difficult than regular entry exams for a vacancy consisting of 5 rounds within 1 month (general knowledge test, foreign language test, psychological test, evaluation centre for "potential" carried out by an external body, interview with a committee) as opposed to 2-3 rounds in 1 day in the regular job vacancy interview. Despite this more rigorous testing the ministries did not offer a better job (or payment) and the successful candidates did not have a faster career opportunity as the CS Law does not incorporate a career system. Thus, when a successful candidate wanted to get a higher position he/she had to undergo new testing (this time job or post testing) which was easier than the first tests. Moreover, the ministries were reluctant to employ the successful applicants (particularly the Ministry of Finance) because they had their own criteria. Half of the successful candidates did not start their positions and career in the civil service (they were disappointed by the negative attitude of individual ministries, by the fact that despite passing more rigorous tests they ended up with the same salaries and treatment as regular civil servants, etc.).

Nevertheless, the system had the undoubted advantages of bringing qualified candidates into the top positions of the system and could be utilized further if some finetuning was conducted in cooperation with individual ministries.

Incentive System

Several features of a classical career system – seniority and job security – do not seem to be feasible in the context of a country conducting reforms. Under these principles, salaries would remain low but compensation comes in the form of gradually increasing wages and tenure. The tenure principle has been eroded owing to increasing levels of politicization, while seniority holds little attraction for the young workforce in these countries. Fiscal constraints make an overall increase in wage levels virtually impossible. If wages are so low in the public compared to private sector, as it is/was everywhere in the Central Eastern European region (Verheijen, 1999; Láštic, 2010), it is impossible to find enough, if any, qualified candidates for certain civil service positions. A study of the World Bank (2007) on the administrative capacity of the new member states pointed to the same problems.

Loosening the rigidity

Reform of the pay system in civil service in 2003 has abolished some rigid elements such as seniority, increased employees' responsibility and obligations with emphasis on performance; payment classes have been enlarged from 9 to 11 with the highest classes reserved for senior civil servants and has introduced innovative elements

for attracting and motivating staff. Even with the reforms in pay-tables, the desired compression ratios did not materialize (remaining approximately 1:3, well below the 1:6 benchmark of the World Bank. Thus, exceptions from the general pay rules had to be made in order to fill important positions. This was exactly the main argument for "loosening" the rigidity of the merit system in Slovakia. The aim was to build a clear distinction between top level civil service posts and lower level posts, including a de-compression of the salary system and the creation of much improved employment conditions for top level officials via payment of bonuses (see Table 5).

As a first step, Slovakia has made a first step towards replacing systems based mainly on seniority with performance based systems by removing seniority elements and introducing a 'performance based points system', although this has not become properly embedded in the system. Moreover, Slovakia has attempted to institutionalize flexibility in pay systems, particularly in the payment of bonuses. The *personal bonus* may be as high as 100 % of the basic salary. Each ministry decides internally on the amount and mechanism of the payment of bonuses for its civil servants and this information is not publicly available on the grounds of data protection. In reality, however, it is typically negotiated between the civil servant and his/her employer (director general and then approved by the head of service office), and the negotiations take place *before* the actual assessment period. This kind of bonus effectively becomes a part of the fixed salary. As a result, a hybrid system exists: the basic classification system is for the general civil service, while position-based for top officials with negotiated salaries for that position.

During the functioning of Civil Service Office and systematization, the Ministry of Finance and line ministries have institutionalized an informal arrangement through which funds saved on vacant positions when conducting restructuralization can be used to increase wage levels through personal bonuses that can range up to 100% of pay. Reorganization to gain additional funds for bonuses, however, has not proved to be possible in all ministries as they differed in the number of staff and stage of reorganization. Relatively small ministries simply did not have the opportunity to slim the offices to keep finances for bonuses. Moreover, this informal system was not sustainable in the long term as the ministries deliberately overestimate the number of posts needed in annual budget discussions with the Ministry of Finance in order to keep the unspent finances for remuneration.

Table 5: Components of Sallary of a Civil Servant

	Functional Sallary					Benefits
	Tariff Sallary (Base Sallary)			Personal Bonus	Special Bonus	
	Salary Grade	Performance Bonuses	Service in Office			
Civil Service Law 2001 (1. 4. 2001 – 1. 1. 2004)	Sallary Grades (1 – 9) calculated on years in service + education	No	No	No	No	Individually determined based on recommendation of the superior (no cap)
Ammendmet 2003 (1. 4. 2001 – 1. 11. 2009)	Sallary Grades (1 – 11) regardless of service years	0 – 3 % cumulative annually (point system)	No	Up to 100 % of Tariff Sallary	50 – 100 % for „Special Posts" 50 % for „Nominated Civil Service"	
Amendment 2009 (1. 11. 2009 – till now)		No	1 % cumulative for each year of service		No	Based on recommendation of the superios up to 20 % of annual functional sallary

Source: Author

Some Ministries have made good use of the new human resource flexibility brought by the 2003 amendment to the Civil Service Law to attract young and high quality candidates. Particularly, the Ministry of Finance became an outstanding example in 2003-6 era (and with the change of Government in 2006 the only one where staff remained the same even in high positions), which became generally recognised as a very highly performing organisation with good leadership, high quality staff and a strong esprit de corps. This was also recognized internationally when in June 2006 the Ministry was the first central European central government institution to obtain the 'Recognized for Excellence' award within the European EFQM quality model.

Although differences exist across the Ministries in the average personal bonuses paid, Staroňová and Láštic (2012) calculated the trends in the remuneration in the civil service and clearly showed that liberalization of the Civil Service Law in 2003 brought the possibility for the ministries to provide higher bonuses for top civil servants and this possibility actually increases the compression ratio and brings it to the level of private sector managers. The calculation of the annual take-home salaries of Directors General showed that in some ministries they would earn up to three times their basic salary, i.e. the basic salary is equivalent to 35 per cent of the final salary (Staroňová and Láštic 2012).

Whereas flexible payment of bonuses helps to overcome the problems of the highly formalized and grade based base pay system, the lack of clearly defined criteria for the allocation of bonuses as well as the ad hoc nature of the system, based as it is on artificially construed wage budgets, make it vulnerable to politicization and risks

creating wage budget levels that have little to do with the real needs of the administration.

Performance Bonuses

Pay for Performance (PFP) tools are thought to encourage high quality performance of civil servants and to reward the best based on their merits. However, Ingraham (1993) warns that the common practice of adopting PMT without broader reforms to support them results in viewing these tools as mere adjustments of the base, rather than fundamental revisions of existing systems.

The 2003 package of changes introduced a first step towards a new system of job evaluation and appraisal –the so called 'performance based points system'. On an annual basis each civil servant was evaluated by his or her superior using a points system (1-4) which could bring him or her additional payments (up to 3% annually that are cumulative in nature) or lead to the termination of employment. Some ministries have experimented with performance management systems internally, particularly the Ministry of Finance, with a big success. The lack of a strong central driver for institutional reform overall has led to a decentralized approach to PFP that has created strong disparities in overall government capacity and has reduced the overall effectiveness of. Data from the period 2004-5 show that 45% of the civil servants received the highest points and 42% the second highest points (Information on service assessment 2004, 2005 Civil Service Office). Thus, due to the lack of coordinated effort and capacity for application, the system was used for annual increase of salary rather than true performance evaluation and was abolished in 2009.

Special Bonuses

The 2003 reform introduced two distinctive posts with permanent special bonuses: *the nominated civil service* and *posts of 'superior significance'*. The nominated civil service is to reward top officials with automatic 50% pay increase to monetary salary base. Posts of superior significance have a permanent special bonus to monetary salary base of 50-100% of their tariff salary, however, with an obligation to disclose their and their family's assets. These posts are designated by the Minister and head of office for tasks and priorities stemming from the Cabinet Memorandum (including EU tasks) and used to be approved by the Civil Service Office and government through systemization if additional finances were required. If the ministry was able to provide the *permanent special bonus* from its own budget without asking additional resources from the state budget, the posts do not need to be approved by the government. There used to be approximately 300 posts of superior significance with permanent special bonuses according to systemization data which after its abolishment are non existent (see table 3). In addition, there are posts of superior significance with *permanent special salary*. These posts are designated by ministers and heads of office in appropriate Ministry and approved together with the proposed salary by the government in order to oversee the process. The salary

is calculated on the basis of comparison with private sector. Under Dzurinda's government in 2002-2006 this was used for the following five posts quite successfully: Head of the State Treasury, Head of the Debt Management Agency, Chief Economist at the Ministry of Finance, Head of the Anti-corruption Unit at the Government Office, and Head of Programming of Structural Funds at the Ministry of Labor, Social Affairs and Family (see Table 6). Posts of superior significance had the aim of attracting and remunerating civil servants in posts that were difficult to fill or posts where good salaries should serve as a prime anti-corruption measure. These measures have been evaluated very positively because highly qualified staff was attracted and also the obligations under this regime are a counterbalance for higher base salary.

Table 6: Posts of superior significance

		2004	2005	2006
Posts of superior significance with special bonus	planned	268	401	428
	Real	230	342	353
Posts of superior significance with special salary	planned	2	5	3
	Real	2	5	2

Source: Author, on the basis of systemization documents of the Civil Service office.

Note: Systemization was abolished as of 1 June, 2006 and no data are available further on.

Conclusion

In this paper, our aim was to map what the World Bank in its 2007 report named as „innovative elements" that the central government developed and introduced in 2003 reform package as well as show to what extent did they work in practice. The findings of the paper do not support many of the assumptions that surrounded the initial adoption of these elements. Consequently, there was a big gap between goals and reality. Big difficulty lies in the *hybrid position-and career-based system* which exists in Slovakia and which does not allow for proper career planning and promotion.

Another major weakness of the reform package was the *low capacity in the coordinating* body – Civil Service Office – which did not succeed to overcome the highly fragmented administrative system and complex coalition politics. When the base of the organization is weak, other management techniques have a poor and unreliable foundation to build on. As a result, many innovative elements were utilized only in some ministries to a big benefit but did not suceed to roll out to the administration as a whole (e.g. performance management). The lack of horizontal coordination systems has led to a general erosion of merit principles. However, any managerial efforts need to be conducted in an integrated manner due to their complex and inter-related nature which means that isolated solutions are insufficient. Following the termination of the Civil Service Office,

very little was done to develop new mechanisms for integration, co-ordination and oversight.

References

DIMITROV, V., K. GOETZ, and H. WOLLMANN. (2006) *Governing After Communism,* Boulder: Rowman and Littlefield.

GOETZ, KH. (2001) 'Making Sense of Post-communist Central Administration: Modernisation, Europeanization or Latinization?, ' *Journal of European Public Policy* 8(6): 1032-1051.

DIMITROVA, A. (2010) "The New Member States of the EU in the aftermath of enlargement: Do new European rules remain empty shell?" *Journal of European Public Policy*, 17:1.

HESSE, J.J. (1998) 'Rebuilding the State: Administrative Reform in Central and Eastern Europe,' SIGMA (ed.), *Preparing Public Administration for the European Administrative Space*. Paris: SIGMA Papers No. 23, 168-79.

INGRAHAM, P., (1993) 'Of pigs in pokes and policy diffusion: another look at PFP, ' *Public Administration Review*, 53, 348–356.

LÁŠTIC, E. (2010) 'Can't Have it Both Ways? Administrative Capacity of European Affairs,' In: Malová, D. et al. *From Listening to Action? New Member States in the European Union.* Bratislava: FiFUK.

MEYER-SAHLING, J. H. (2004) 'Civil Service Reform in Post-Communist Europe: The Bumpy Road to Depoliticisation,' *West European Politics*, Vol.27, No.1, pp. 71–103.

MEYER-SAHLING, J. H. (2009a) "Varieties of legacies: a critical review of legacy explanations of public administration reform in East Central Europe," *International Review of Administrative Sciences* 75/3: 529-528.

MEYER-SAHLING, J. H. (2009b) *The Sustainability of Civil Service Reform in Central and Eastern Europe Five Years after Accession*. SIGMA Paper Nr 44. Paris: OECD Publications.

RAUCH, J. E. and P. B. Evans. (2000) "Bureaucratic Structure and Bureaucratic Performance in Less Developed Countries," *Journal of Public Economics* 75:49–71.

SIGMA (1998) *Preparing Public Administrations for the European Administrative Space.* Paris: SIGMA Papers No. 23.

STAROŇOVÁ, K., MALÍKOVÁ, Ľ., (2005) 'Politico-Administrative Relations under Coalition Politics in Slovakia. ' In: B.G. Peters, T. Verheijen, L. Vass (eds.). *Coalitions of the Unwilling? Politicians and Civil Servants in Coalition Governments.* Bratislava: NISPAcee. Pp. 178-203.

STAROŇOVÁ, K. LÁŠTIC, E., (2012) 'Into the Labyrinth: the Rewards for High Public

Office in Slovakia. ' In: B.G. Peters and M. Brans (eds.). *Rewards for High Public Office in Europe and North America.* London: Routledge. Pp. 248-268.

VERHEIJEN, T (ed). (1999) *Civil Service Systems in Central and Eastern Europe.* Cheltenham: Edward Elgar.

WORLD BANK. (2007) *EU-8: Administrative Capacity in the New Member States: The Limits of Innovation?.* Washington, DC: World Bank

Interviews

Beblavý, Miroslav - state secretary (deputy minister) at Ministry of Labour Social Affairs

and Family (2002-2006), head of the team conducting Audit (Functional review) in 2000, prepared amendments to Civil Service Law in 2003

Červenáková, Jana - head of the office at the Ministry of Finance (2002-2006) that has won EFQM award in 2006

Federič, Igor - head of Government Office (2006-2010, 2012 – now)

Kajánek, František – former director at CSO responsible for HR, later at Ministry of Labor, Social Affairs and Family – CAF, quality management and strategy for HR development

Kozáková, Anastáza - consultant for PHARE Modernization of Civil Service and Public Service

Mikloš, Ivan - minister of Finance (2002-2006) and former vice prime minister for Economy (1998-2002), amendment to Civil Service Law in 2006

Nižňanský, Viktor and Jaroslav Pilát, plenipotentiary at Government Office for decentralization and public administration reform (2002-2006), head of Government Office (2010-2012)

Plai, Ľubomír - head of the Civil Service Office until its termination (2002-2006)

Corruption and Competition:
Toward Economic Theory of Corruption

Wawrosz Petr, Otáhal Tomáš

Abstract

Why corruption persists in governmental organization? While corruption is a problem of private sector as well as governmental sector, economic experts rather attempt to solve corruption in governmental organization. Moreover, economic literature sometimes defines corruption as a problem of the state. In this paper, we argue that the reason for persistence of corruption in governmental organization is the lack of monetary calculation within bureaucratic management and lower intensity of political competition in comparison with entrepreneurial market process. Market process serves as a means of feedback for efficient organizational arrangement.

Keywords

Introduction

Jacob Svensson argues that: "*A common definition of public corruption is the misuse of public office for private gain.*" Svensson (2005, p. 20). But he also argues that: "*No definition of corruption is completely clear-cut.*" Svensson (2005, p. 21) Gordon Tullock (1996) defines corruption as rent-seeking. Robert Klitgaard defines corruption as illicit behavior, which: "*…flourishes when agents have monopoly power over clients, when agents have great discretion, and when accountability of agents to the principal is weak.*" (Klitgaard 1988, p. 75) And Shleifer and Vishny defines corruption: "*…as the sale by government officials of government property for personal gain.*" (Shleifer and Vishny 1993, p. 599) From this perspective, the term corruption or corrupt behavior may be perceived quite superficially by the general public and by professional communities. However, certain generally accepted intuitive characteristics of the problem can be traced from statements released both, to the general public and to experts in the field. Such characteristic can be that corruption is perceived rather as a problem of governmental organization than the market. So why according to these perceptions corruption persists in governmental organization?

The phenomenon of corruption enjoying attention of the media, international institutions, and professional communities is usually viewed from different theoretical perspectives. It is therefore difficult to choose a single point of view for the phenomenon. Historically the phenomenon of corruption was mostly analyzed

by political scientists (i.e. Aristotelés 2004). For excellent literature overview, see Heidenheimer and Johnston and LeVine (1999). Even sociologists are concerned with corruption (i.e. You and Khagram 2005). For representative examples of empirical analyses in the Czech literature, see Frič (1999), Kabele (1999), and Frič (2001). In this paper, however, we would like to provide strictly economic analysis based on methodological individualism. More precisely, in this paper we would like to provide economic analysis of phenomenon that some call corruption, some bribery, some rent-seeking, and some consider it to be a natural human behavior. Our aim is to provide general theoretical definition of corruption, which can be applied on the market organizations as well as on governmental organizations and theoretically explain why is corruption rather problem of the governmental organization than the market as it is usually presented by the general public and by experts in the field of political science, sociology and economics.

Of course, as well as there is no clear cut definition of corruption there is also no clear cut distinction between public sector (governmental organization) and the market. Warren (2004) argues that corruption is a symptom of the lack of democracy. While there are various theoretical approaches to this phenomenon, its fair appearance has different forms. For instance, corruption of executive functions undermines trust in democracy. Corruption of judicial functions on the other hand undermines rule of law, which is complementary to democratic institutions. Corruption of legislative functions undermines outcomes of complex democratic processes based on mixtures of voting procedures, pressure groups influences and legal organizations. And corruption of public sphere is not only corruption of government (i.e. politicians and bureaucrats) but corruption of democratic deliberation process at all. Corruption of civil society undermines its integrity, and corruption in the market undermines rules of its function. We do not, however, attempt to point out particular corrupt behaviors dependent on defined institutional settings. Our purpose here is to provide general theoretical framework to explain phenomenon of corruption that can take various forms so that our general theoretical framework is explanatory for every institutional setting.

In the economic literature corruption is represented for instance by buy offs in public tenders, embezzlement of government funds, patronage, electoral fraud, nepotism, clientelism, or tax evasion. In our model we will use the example of bribery that is the most frequent. It is useful to define corruption as bribery, which is a voluntary exchange between economic agents, where a bribe is the price paid by an agent buying a particular service provided by another particular agent because this wider definition of corrupt behavior allows us to synthesize several theoretical approaches. In the economic literature corruption is also understand differently in respect of its political consequences. For instance Susan Rose Ackerman (1999) distinguishes between high-level corruption involving elected and senior public officials and low-level corruption involving mid- and low-level bureaucrats. While the first category covers, in particular, financing of political parties and their election campaigns, parliamentary

lobbying, and public tenders at any level of state administration, the second category refers to municipalities and all forms of public service provided by the state through regional and local agencies, as well as state-guaranteed health care service. Such level also entails informal links among private companies and low-level state bureaucracy. However, both literature dealing with high-level or political corruption and literature dealing with low-level or petty corruption use the example of bribery in its modeling. For this reason we do not see contradiction in explanation of both political corruption and petty corruption with using the example of bribery in our model.

The article is organized as follows. The first section brings general definition of corruption, which is explanatory for every institutional setting. Our definition is the most general definition of corruption as we know. Similar definition presented Colombatto (2003) but he did not develop theoretical model that would explain persistence of corruption in governmental organization. For previous arguments, see Banfield (1975), and Otáhal (2007). To explain why corruption persists in governmental organization, in the second section we develop evolutionary argument based on Banfield (1975), Kirzner (1973), and Pelikán (2003). We argue that corruption, in essence, is the calculation problem. Since governmental organization is the only owner of the means of production, it cannot calculate profit and losses, thus efficient production of goods and services cannot be established. We extend this argument with Schumpeter (1942), and argue that if governmental organization is the only owner of the means of production, it cannot calculate profit and losses, thus efficient organization without corruption cannot be established. Our argument is also theoretically supported by Becker and Stigler (1974), but in different context of efficiency wages solution (Otáhal 2011). As a contrafactual argument against Becker and Stigler (1974) solution literature points out that corruption increases transaction costs so that it is recommended to restrict it with strict rules provided by government. These rules set and enforced by governmental organizations thus represent second best solution for widespread corruption. Literature also presents other contrafactual arguments. For instance Becker (1983) argues that free competition of pressure groups results in efficient regulations. For criticism of this arguments, see Grochová and Otáhal (2012). Wittman (1989) argues that democratic competition can be as efficient as competitive entrepreneurial process. In the third section, we argue against Wittman in accordance with Tullock (1959) with extension to corruption. In conclusion we summarize our argumentation and suggest further research.

Definition of corruption

Corruption is a term which denotes a specific contract between at least two people – a bribe-giver and a bribe-taker. Through such a contract a bribe-giver makes a commitment to give to bribe-taker some reward and bribe-takers makes a commitment to give to bribe-givers particular advantage (such an advantage can be

of a tangible or non-tangible nature). Within such a context corruption is a result of human action (Rose-Ackerman 1999, Otáhal 2006, Lambsdorff 2007).

The parties of corruption make a corrupt deal because corruption brings them some benefits. From the point of human action, the aim of which is to increase some benefits, corruption explained on example of bribery does not constitute a problem - it is a mutually advantageous exchange (Kohn 2004). People condemn corruption out of a different reason: there is a third party (neither a bribe-taker, nor a bribe-giver), to whom corruption gives some harm, the corruption is not in the interest of this third party (Colombatto 2003, Otáhal 2007).

For example, company A did not obtain some order from company C because it was given to company B (bribe-giver). If there was no corruption, the order from company C would be given to company A. In this case, due to the corruption, the income and benefits of company A were reduced. Let us assume that the offer of company A is more socially advantageous than the offer of company B. Thus there are more people affected by corruption (the third party). In the case of a public tender (governmental organization), where a public official was bribed, almost all citizens are harmed because if there was no corruption, the difference in the price (or quality) which is offered by company B (a bribe-giver) and that offered by company A could be used for the benefit of citizens who are not a part of corrupt exchange (the third party). If a manager of a private company is bribed (so the tender is not of a public nature), then at least all owners of the company are in harm - corruption reduces their income.

Our understanding of corruption as voluntary exchange is consistent with the frequently mentioned definition of corruption (Nye 1967, p. 416): *„behaviour that deviates from the formal duties of a public role (elective or appointive) because of private-regarding (personal, close family, private clique) wealth or status gains"*. An updated version with the same elements is the definition by M. Khan (Khan 1996, p. 12), who says corruption is *"behaviour that deviates from the formal rules of conduct governing the actions of someone in a position of public authority because of private-regarding motives such as wealth, power, or status".* However, in contrast to both definitions, we argue that corruption does not occur only in the public sector (governmental organization). We think that corruption may occur anywhere, where a bribe-giver and a bribe-taker breach duties set by some norms (from the economic point of view - by institutions), regardless of whether it is a legal norm (an formal institution) or a non-legal norm (informal institution). After all, practical examples confirm our approach – for instance football players, referees and officials were in the Czech Republic and other countries condemned for corruption. These persons had not in any way the status of public officials even though they are publically subsidized. For example, Czech football premier league was hit by bribery scandal in 2003 and 2004. As a result of the scandal several referees and football official were condemned. For details see Feik (2007) and Janeček (2009).

In accordance with the most papers we reduced corruption on bribery (i.e. Shleifer and Vishney 1993, 1994). However, it is necessary emphasize that bribery is not only one of form corruption (i.e. Warren 2004). For instance international organization dealing with this issue Transparency International defines corruption as abuse of power in order to receive undeserved personal gain. From that point of view the main characteristic of corruption is that somebody acts dishonestly in the performance of his/her duties arising from his/her position. The essence of this dishonesty is usually that a person misuses his/her status (delegation) and does not act impartially. Corruption behavior can thus be defined as a deviation from the compliance of the legal standards or of the standard behavior of the majority. In other words, corruption is a betrayal of commitment to the community and its moral principles. If somebody acts impartially, the beneficiary has a position of the member of corruption contract even if he/she does not know to be supported. The support damages other persons (the third party).

Competition as monitoring system

Misses (1949) shows, in a system of public ownership do not exist incentives to optimize the expenditures spent on production of public services as well as incentives motivating public officials to optimize the costs spent on the monitoring of the agents. Since the state is the only owner of the means of production, it cannot calculate profit and losses. Because of the absence of private ownership, there is no exchange and consequently no monetary price. That is why the state cannot assess the monetary value of its production and agent's decisions. Mises (1949) further compares different economic organizations framed by different underlying property-rights systems. While the enterprise where monetary calculation creates monetary incentives is called market organization, the public enterprise where is monetary calculation impossible because of the lack of exchange based on the private property is called bureaucratic organization. Public choice literature further stresses problems connected with incentives in governmental organizations (Buchanan and Tullock 1965), which lead to problems with political and bureaucratic rent-seeking (Tullock 1967, Krueger 1974, Niskanen 1971). It is emphasized that rent-seeking within governmental organization significantly reduces economic growth, (Murphy, Shleifer and Vishny 1993).

Banfield (1975) compares business and governmental organizations and stresses that without the profit-and-loss mechanism the public officials cannot easily sanction and reward agent's decisions and consequently create the system of incentives, which would motivate agents to pursue value-maximizing allocation of resources without corruption. Kirzner (1973) argues that the absence of monetary calculation in bureaucratic organization restrains competitive entrepreneurial activities because it lacks the essential incentive in the form of the pure entrepreneurial profit, which motivates the entrepreneurs to discover the value maximizing opportunities nearing the market to equilibrium. Therefore, even if the state tries to eliminate

corruption by means of raising the monitoring costs it cannot guarantee the value maximizing allocation of resources because it lacks monetary calculation based on market prices, which hold, as Hayek (1945) argues, irreplaceable informational function. Schumpeter (1942) argues that entrepreneurial innovation can be targeted to establishing new production technologies as well as to improving organizations. In compliance with previous argumentation it means that if organizations do not face to competitive entrepreneurial process (Kirzner 1973) they can be inefficient and corrupt. Pelikán (2003, p. 34-37) follows and argues that the lack of feedback to governmental organizations in comparison with market organizations operating within competitive entrepreneurial process lead to lower ability of governments to discover technological innovations as well as lower ability of governments to organize themselves efficiently in comparison with large private firms sometimes larger than national economies. This lack of feedback provided by entrepreneurial competitive process lead to persistent of inefficiency of governmental organizations and to corruption.

Following the above logic, Becker and Stigler suggest a solution, which would establish efficient monitoring systems within organizations: *"A highly promising method of compensating enforcers (agents) is suggested by the market in private transaction...."* (Becker and Stigler 1974, p. 13). In other words, the recommendation means if the bribe is just a market price for the demanded profitable service, it is reasonable to think about letting agents sell these demanded services and compensate them by "bribes" (market prices) instead of salaries. More precisely, in the case of the state being the principal (superior organization), Becker and Stigler ask if we are aware of the difficulties of the state's monitoring system why we do not think about loosing the contract with the state and as the result, we allow the agents to take "bribes" (market prices) for their demanded services? This proposal, however, does not mean selling monopoly privileges as Tullock (1996) explains. The proposal is based on entrepreneurial competitive process where private agents (entrepreneurs) provide creation and enforcement of law (maintain legal system). So the state does not form the conditions of the contract with the agents – there is no third party in sense of the principal but only in sense of society. The evidence is the Becker's and Stigler's assertion: *"Free competition among enforcement firms may seem strange... But society does not pretend to be able to designate who the bakers should be – this is left to personal attitudes and taste. Why should enforcers of law be chosen differently? Let anyone who wishes to enter the trade, innovate and prosper or fail."* (Becker and Stigler 1974, p. 12).

Nevertheless, a question may be raised whether there is no third party, no principal in form of the state, who monitors or creates incentives forcing the enforcers (entrepreneurs who maintain legal system) to do their job as their clients, alternatively society, expect. The answer is again entrepreneurial competitive process, which means, as Kirzner (1998) explains, free entry to the market in order to seek entrepreneurial

profit. This, however, does not necessarily mean that simple deregulation and world without rules is efficient monitoring system. Simple deregulation does not solve the corruption problem because no regulation could also encourage entrepreners to rent-seek (Djankov et al, 2002). The argument thus suggests that the enforcement of property rights done through an entrepreneurial competitive process is more efficient and more restricts corruption than enforcement of property rights through state monopoly.

Political competition and corruption

It is necessary emphasizes that bridging social capital (it means weak ties among people with different social, racial or other environment) can also have a dark side. It can connect people who would not meet within their bonding ties but if they meet they make a corrupt deal. However, from our point of view corrupt contract due to its characteristic can be seen as a form of close ties. Warren (2001) or Benson and Baden (1985) show examples of the dark side of bridging social capital situation that brings together government functionaries and business people and systems of bribes develop between both parts. Our analysis implies that in the case of state and politicians and bureaucrats corruption is inevitable consequence. Politicians and bureaucrats are better informed party then voters (their principal – see the first section) and the information asymmetry creates opportunities for misuse their position.

There is literature stressing that political competition can lead to efficient outcomes so that in compliance with our analysis it means that there is no reason to believe that politicians and bureaucrats are more corrupt than firms (i.e. Wittman 1989). This argumentation, however, is probabilistic and does not emphasis the intensity of competition in the case of voting procedures. Other literature argues that voting procedures are of minor importance (Olson 1971, Stigler 1971), therefore only interest groups are able to compete for political power. In compliance with this argumentation for instance Becker (1983) argues that political competition of pressure groups can establish efficient and uncorrupt governmental organization.

Taking aside this arguments, voters, of course, could punish politics and not to vote them again. But democratic voting system has specific quality. It virtually provides to every citizen a very specific privilege to choose his favorite politician in elections. The rule "one vote for one citizen" gives to every citizen a very specific property right (Coase 1960, Alchian 1965, Demsetz 1967) to exercise political power. This kind of artificial property is not convertible; it could be used just in time of elections. It is practically worthless in "day-to-day" economic activities, because it cannot be consumed or exchanged for higher values. These circumstances give to politicians a relatively certain position about the future of their industry. The very specific character of votes, which are useful only in time of elections, guaranties politicians that there has to be always demand for their services established by elections. Moreover, in the case,

that the great part of citizens will decide not to use their rights to vote, the politicians of the particular country are in a better position, because they have to go along with interest of the smaller group of citizens in order to be elected. Within the competitive entrepreneurial process, the politician would be in an opposite situation. If the customers do not wish to buy the politician's services, he would fail to gain the profit and he would be forced to leave the market. In the extreme, if there were no demand for political services in the market at all, the whole industry would disappear. According to the logic of a democratic voting system, even though ninety nine per cent of voters will not vote, one per sent will still give to the wining politician the same power to sell monopoly positions to his voters or interest groups for reelection. To sum up: the democratic voting system cannot sufficiently compensate a competitive voting system of monetary prices. Politician's ability to act against citizen's interest results from the relatively certain position they possess in comparison with the uncertainty of the competitive entrepreneurial process. In this way, a democratic state will always provide less strong incentives that would pursue their agents to avoid corruption. That is why the problem of corruption will prevail in governmental organization.

Conclusion

The article questions persistence of corruption in governmental organization. It explains that enforcement of property rights through entrepreneurial competitive process rather improves efficiency of organization and restricts corruption than political competition. It is shown that in a system of sole public ownership some incentives supporting corruption behavior do not exist. Especially there are incentives to optimize the expenditures spent on production of public services as well as incentives motivating public officials to optimize the costs spent on the monitoring of the agents due to the lack of feedback provided by political competition in comparison with entrepreneurial competitive process.

The other reason supporting enforcement of private property rights through competitive process is that corrupt contract differs from legal contracts that it is sealed in secrecy. That means higher transaction costs and higher risk. Both can be reduced if corruption contract is made among people who already have legal contact who know each other. Previous legal contract makes corruption also more predictable. If person thinking about a corrupt contract faces more intensive competition they have more opportunity to make legal deals and not rely on corruption. More intensive competition also means greater threats and losses if corrupt contract is revealed.

At its last section article shows that political competition has limited possibilities to fight with corruption. The voter's right is not convertible and could be used just in time of elections. It is practically worthless in "day-to-day" economic activities, because it cannot be consumed or exchanged for higher values. These circumstances give to politicians a relatively certain position about the future of their industry. Voters

also faces high costs as deciding who they elect they must take in consideration not only the issue of corruption but other themes that are important for them. With fact that one vote cannot affect the result of most election it is clear why the problem of corruption will prevail in governmental organization.

Further research should be targeted to technical improvement of our theoretical framework, to explanation of our logic on more rigorous models and to further corroboration, which does not exclude empirical testing of our implications.

Acknowledgements

References

ALCHIAN, A.A. (1965) 'Some Economics of Property Rights.' *Il Politico.* 1965, vol. XXX, no. 4, reprinted in *Economic Forces at Work,* 127–149.

ARISTOTELÉS (2004) *Athénská ústava.* Praha: Arista a Baset.

BANFIELD, E.C. (1975) 'Corruption as a Feature of Governmental Organization.' *Journal of Law and Economics,* Vol. 18(3): 587-605.

BECKER, G.S. (1983) 'A Theory of Competition Among Pressure Groups for Political Influence.' *Quarterly Journal of Economics,* Vol. 98(3): 371-400.

BECKER, G.S. and STIGLER, J.G. (1974) 'Law Enforcement, Malfeasance, and Compensation of Enforcers.' *Journal of Legal Studies,* Vol. 3(1): 1-18.

BENSON, B.L. and BADEN, J. (1985) 'The Political Economy of Governmental Corruption: The Logic of Underground Government.' *Journal of Legal Studies,* Vol. 14(2): 391-410.

BUCHANAN J. and TULLOCK G. (1965) *Calculus of Consent: Logical Foundations of Constitutional Democracy.* University of Michigan Press.

COASE, R.H. (1960) 'The Problem of Social Cost.' *Journal of Law and Economics*, Vol. 3(1): 1–44.

COLOMBATTO, E. (2003) 'Why is corruption tolerated?' *Review of Austrian Economics,* Vol. 16(4): 367-379.

DEMSETZ, H. (1967) 'Toward a Theory of Property Rights.' *American Economic Review, Vo*l. 57(2): 347–359.

DJANKOV S., LA PORTA R., LOPEZ-DE-SILANES F. and SHLEIFER A. (2002) 'The Regulation of Entry.' *Quarterly Journal of Economics,* Vol. 117(1): 1-37.

FEIK, V. (2007) *Korupce jako deviantní a patologické chování.* Bakalářská práce. Zlín: Universita Tomáše Bati.

FRIČ, P. (2001) 'Korupce – deviantní chování, nebo sociální dezorganizace?' *Sociologický časopis,* Vol. 37 (1): 65-72.

FRIČ, P. **(**1999) **'**Korupční klima v ČR.' In *Korupce na český způsob*. Praha: G plus G.

GROCHOVÁ, L. and OTÁHAL, T. (2012) 'Corruption, Rule of Law, and Economic Efficiency: Virginia vs. Chicago Public Choice Theories.' *Acta VŠFS,* Vol. 6(2): 132-150.

HAYEK, F. A. (1945) 'The Use of Knowledge in Society'. *American Economic Review,* Vol. 35(2): 519-530.

HEIDENHEIMER, A.J., JOHNSTON, M., LEVINE, V.T. (1999) *Political Corruption: A Handbook.* New Brunswick, (NJ): Transaction Publishers.

JANEČEK, M. (2009) *Korupční kauza a režimy řeči.* Bakalářská práce. Pardubice: Universita Pardubice.

KABELE, J. (1999) **'**Česká byrokracie a korupce' In *Korupce na český způsob*. Praha: G plus G.

KHAN, M. (1996) 'A typology of corrupt transactions in developing countries.' IDS Bulletin, vol. 8, no. 5.

KIRZNER, I.M. (1973) *Competition and Entrepreneurship*. London, (GB) and Chicago, (IL): The University of Chicago Press.

KIRZNER, I.M (1998) *Jak fungují trhy.* Praha: Megaprint.

KLITGAARD, R. (1988) *Controlling Corruption.* Berkley (CA), Los Angeles (CA), London (GB): University of California Press.

KOHN, M. (2004) 'Value and Exchange.' *CATO Journal,* Vol. 24(3): 303-339.

KRUEGER, A. O. (1974) 'The Political Economy of the Rent-Seeking Society.' *American Economic Review*, Vol. 64(3): 291-303.

LAMBSDORFF, J.G. (2007) *The Institutional Economics of Corruption and Reform: Theory, Evidence and Police.* Cambridge, U.K.: Cambridge University Press.

MISES, L. (1949) *Human action: a treatise on economics*. New Haven: Yale University Press.

NISKANEN, W.A. (1971) *Bureaucracy and Representative Government.* Chicago: Aldine Press.

NYE J.S. (1967) 'Corruption and Political Development: A Cost-Benefit Analysis.' *American Political Science Review*, Vol. 61(2): 417-427.

OLSON, M. (1971) *The Logic of collective Action: Public Goods and The Theory of Groups.* London (UK): Harvard University Press.

OTÁHAL, T. (2006) 'Ekonomická analýza definice korupce.' *Národohospodářský obzor,* Vol. 4(1): 50-60.

OTÁHAL, T. (2011) 'Je uplácení dobra cesta k efektivnějšímu vymáhání práva?' *Acta Oeconomica Pragensia,* Vol. 2011(6): 65-79.

OTÁHAL, T. (2007) 'Why is Corruption a Problem of the State?' *Prague Economic Papers,* Vol. 16(2): 165-179.

PELIKÁN, P. (2003) 'Why economic policies need comprehensive evolutionary analysis.' In: Pelikan and Wegner (ed.): *The Evolutionary Analysis of Economic Policy.* Cheltenham (UK) and Northampton (MA): Edward Elgar: 15-45.

ROSE-ACKERMAN, S. (1999) *Corruption and Government: Cause, Consequences and Reform.* New York (NY): Cambridge University Press.

SCHUMPETER, J.A. (1942) *Capitalism, Socialism and Democracy.* New York: Happer and Bros.

SHLEIFER, A. and VISHNY, R.W. (1993) 'Corruption.' *Quarterly Journal of Economics,* Vol. 108(3): 599-617.

SHLEIFER, A. and VISHNY, R.W. (1994) 'Politicians and Firms.' *Quarterly Journal of Economics,* Vol. 109(4): 995-1025.

STIGLER, J.G. (1971) 'The Theory of Economic Regulation.' *Bell Journal of Economics and Management Science,* Vol. 2(1): 3-21.

SVENSSON, J. (2005) 'Eight Questions about Corruption.' *Journal of Economic Perspectives,* Vol. 19(3): 19-42.

TULLOCK, G. (1996) 'Corruption Theory and Practice.' *Contemporary Economic Policy,* Vol. 14(3): 6-13.

TULLOCK, G. (1959) 'Problems of Majority Voting.' *Journal of Political Economy,* Vol. 67(6): 571-579.

TULLOCK, G. (1967) The Welfare Costs of Tariffs, Monopolies, and Theft. *Western Economic Journal,* Vol. 5(3): 224-232.

WARREN, M.E. (2004) 'What Does Corruption Mean in a Democracy?' *American Journal of Political Science,* Vol. 48(2): 328-343.

WARREN, M.E. (2001) 'Social Capital and Corruption.' Paper presented at EURESCO Conference on Social Capital, University of Exeter.

WITTMAN, D. (1989) 'Why Democracies Produce Efficient Results.' *Journal of Political Economy,* Vol. 97(6): 1395-1424.

YOU, J. and KHAGRAM, S. (2005) 'A Comparative Study of Inequality and Corruption.' *American Sociological Review,* Vol. 70(1): 136-15.

SESSION III:
PUBLIC FINANCE

Comparison of Tax Control in Slovenia and Croatia

Hodžić Sabina

Abstract

Taxpayers pay taxes in line with tax rate determined by the law and within legally designated deadline. Tax control in Slovenia and Croatia ensures proper settlement of legally prescribed obligatory tax burden. The purpose of tax control is to detect tax irregularities punishable by the laws of both Slovenia and Croatia. Each country (Slovenia and Croatia) determines its own acts and legal acts on tax control. This paper's main objective is to present tax control in Slovenia and Croatia, as well as their features and characteristics of conducting tax control. A number of mistakes are found during annual tax control of tax base accounts. The mistakes are the results of tax legislation dynamics, unclear regulation and provisions, as well as short period for the adjustment to the new legal provisions.

Keywords

Introduction

The Republic of Slovenia's tax control includes control, inspection reviews and tax investigations. Tasks of the tax control in the Republic of Slovenia are entrusted to the Tax Administration of the Republic of Slovenia. Tax control asks for special attention since it includes complete control upon the implementation of tax legislation in the Republic of Slovenia. Irregularities regarding tax settlement and payment, as well as other compulsory payments, were identified in the process of tax control. Tax control controls legality, regularity and timeliness of fulfilment of tax obligations determined by legislation and taxation. Hence, it is necessary to determine efficiency and equality of taxpayers, and to respect fundamental principles of tax procedure and principles of tax control. It has to be based upon objective criteria; otherwise, it raises the question of ethics and morality of a tax inspector. Tax authority issues annual control plan and attempts to fulfil it. Objective criteria are based upon statistical methods, random sampling method, and previous measures. Persons keeping business records and records in line with law are obliged to provide tax authority with all the documentation necessary for tax inspection control. The main purpose of tax control is not prosecution of taxpayers, nor the sole increase of the received taxes, but independent and impartial judgement of the regularity of tax burden and its definition. It can be in favour of the taxpayer as well. Governments and local

authorities have to deal with increased pressures on their budgets to ensure the fiscal discipline (Barone and Mocetti, 2011, p. 748).

The Croatian tax system underwent a major transformation in the process of transition and harmonization of tax legislation with the European Union. Reformed tax system has been implemented since 1 January 2005. Tax control is conducted according to the laws that define respective tax type, while tax control process is conducted in line with the provisions of the General Tax Act. In Croatia tax control is conducted in 20 branch offices and in the Central office of the Tax Administration in Zagreb. Controls of one or more types of taxes are subject to tax control. For example, the subject of tax control can be revenue tax and control of income tax in 2012 as a taxation period. It can be executed for any legal and physical person that has facts relevant to taxation. For example, if the entrepreneur is a physical person, control can also include facts not related to its economic activity, while in case of for-profit company it includes control of relations relevant to taxation between the company members and the company itself. Before tax control begins, a tax control note must be sent to taxpayer 8 days before tax control taxes place at the latest. Tax control might last from few days to several months, depending on the taxpayer size, type and number of taxes to be controlled, taxation period that is subject to tax control and taxpayer's cooperation etc.

This paper's main objective is to present tax control in Slovenia and Croatia, as well as their features, and to determine differences in the execution of tax control. Furthermore, this paper presents the current state of tax control in countries and their recommendations for further improvements.

Material and Methods

Comparation method and analysis and synthesis method were used in this paper in order to compare tax control in the countries. Besides those methods, tax officials in Tax Administration were interviewed in order to obtain data. Data was collected in the Statistics Department of the Tax Administration.

Tax inspection control, as well as tax audit, in other European countries includes organized, approved and pre-planned procedures. Within that frame systematic review of material evidences and business events determines regularity of fulfilment of tax obligation. The fairness of the legal system is more strongly related to tax compliance than is simple confidence in the legal system. People's tax compliance seems to depend on how well the entire government works, not just the judiciary (Hug and Spörri, 2011, p. 121).

Tax control in the Republic of Slovenia

In the Republic of Slovenia the Tax Administration Act (ZDS-1, 2004 and 2005) has directed the tasks of tax control to the Slovenian Tax Administration. Tax Administration

is organized, directed and managed by the tax register. Slovenian legislation recognizes tax control, tax search and tax inspection as forms of tax control.

Tax control is conducted by the tax controllers that verify formal regularity and timeliness of submission of tax notifications and tax obligations, settlement and payment of tax based upon forms and other compulsory data (Koletnik, 2009, p. 14).

Tax inspection control is conducted by the authorized representative of the tax authority appointed by the tax inspector. Tax control is conducted by the tax authority in case of suspicion that tax legislation has been violated (Koletnik, 2009, p. 15).

The aim of tax inspection is to entice loyalty of a taxpayer. When conducting tax inspection control, the tax inspector has an obligation to focus solely on the tasks listed in the work order. In case wider scope of control is needed, the tax inspector has to obtain the corresponding work order from the tax office.

Tax control is state's way to diminish the difference between voluntary tax acceptance and legal voluntary tax inflow. In the Republic of Slovenia and the Republic of Croatia tax control is intended for economic entities (legal persons) and natural persons.

Pursuant to Article 127 of the Tax Procedure Act (2006) tax control in the Republic of Slovenia includes:

1. Tax control of tax settlement at the tax authority

2. Control and audit according to the Act which regulates customs service

3. Tax search

4. Tax inspection control

Tax inspection serves to detect tax irregularities. Consequences include incorrectly filled tax return form, inadequate choice of tax rates, and untimely fulfilment of tax obligations. In the Republic of Slovenia tax inspection control is conducted by the tax inspectors. Pursuant to the Act on Inspection Control, inspectors perform tasks of inspection control with the aim to protect public interest, and interest of a company and an individual.

Tax inspection is expected to be beneficial in (Koletnik, 2006, p. 72):

1. Protecting loyal and detecting unloyal taxpayers

2. Raising arrangement of taxpayer's business to a higher level, indirectly offering him new knowledge, especially to those entrepreneurs obliged to economically audit annual reports

3. Offering new knowledge for improvement of tax legislation and higher efficiency of tax system to the authors of tax legislation, and strengthening loyalty of taxpayers

The main purpose of tax inspection is to control fulfilment of the taxpayer's obligations, i.e. tax bases, tax rates, quotes and terms of tax payment, in order to ensure public

financing to the state and/or state financial resources for the authorized recipients (Koletnik, 2006, p. 72). Inspection control includes control of regularity and timeliness of tax settlement from the taxpayer's business, inspection of accounting and other records, and identifying unreported revenue, as well as establishing measures envisaged by the law.

The Tax Authority Act considers control and inspection as forms of tax control. Controlling means previous, opposite or subsequent audit of business processes and states, and identification of allowed and forbidden deviation from vocational, and professional and ethical rules. Inspection refers to revision and assessment of compliance with the tax regulations in company's business (Koletnik, 2007, p. 26).

According to the Work Report of the Tax Administration of the Republic of Slovenia, tasks of the tax control are conducted by the Control Department, Inspection Control, Search and Analytic Department, and Department for the International Exchange of Information.

Table 1 presents the results of the Tax Administration in the Republic of Slovenia in 2010 and 2011.

Table 1: The results of the Tax Administration in the Republic of Slovenia in 2010 and 2011

	2010	**2011**	**%**
The results of the control (control and inspection) in EUR	274.817.653	295.851.427	7,7
Control of tax settlement (number of applications with established irregularities	92.630	95.336	2,9
Inspection controls (number of conducted tax inspection controls)	7.760	7.828	0,9

Source: Poročilo o delu Davčne Uprave Republike Slovenije v letu 2011.

Taking a look at the table, it can be easily concluded that the results of the control have risen in 2011 for 7.7 % in relation to 2010. Thus, the Republic of Slovenia has achieved a rise of 7.7 % in the financial inflow in Euros in relation to 2010. Furthermore, the control of tax settlements also notes a rise, i.e. a rise in the number of reports with determined irregularities for 2.9 %, resulting in very high quality of the Tax Authority. The number of the conducted inspection controls has risen for 0.9 % in relation to 2010 due to the increased control of the tax settlement.

Table 2: Types of tax inspections in the Republic of Slovenia

TYPES OF TAX INSPECTIONS							
GENERAL TAX INSPECTION				SPECIAL TAX INSPECTION			
Regular tax inspection		Additional tax inspection		Regular tax inspection		Additional tax inspection	
Complete regular tax inspection	Short regular tax inspection	Complete additional tax inspection	Short additional tax inspection	Complete regular special tax inspection	Short regular special tax inspection	Complete additional special tax inspection	Short additional special tax inspection

Source: Koletnik, 2006, p. 72

Case when taxpayer performs tax control according to the planned schedule and/or due to specific reasons is known as regular, i.e. additional tax inspection.

The group of specific tax inspections includes inspection of payroll tax, value added tax, gambling and betting tax, sales tax etc.

Tax control in the Republic of Croatia

According to the General Tax Act, tax control is a part of relation between tax and law in which tax authority conducts a procedure in order to check and establish facts relevant for the taxation of taxpayers and other persons. Tax authorities conduct control in accordance with the legislation that determines specific tax types. Taxpayer must present true and correct information that are also submitted in tax return form. Persons authorized to conduct tax control include tax auditors, tax inspectors and other government officials authorized to conduct tax control. Authorization to conduct tasks of tax control is given in the form of an identification that has to be presented to taxpayer. Taxpayers are required to make estimated tax payments at specified dates during the year in respect of their current year's tax liability (Feltham and Paquette, 2002, p.29).

Participants in the tax control in the Republic of Croatia are Tax Administration and taxpayers. Tax control is generally conducted at the taxpayer's headquarters; if a taxpayer does not own business premises suitable for conducting tax control, it is conducted in the official premises of the Tax Administration. Tax control is conducted (Galušić et.al, 2009, p. 137):

1. During regular working hours

2. Before or after regular working hours, with the taxpayer's consent

3. Before or after regular working hours if it is unconditionally required by the purpose of tax control.

Tax control is characterized by two elements: it is conducted exclusively by the authorized officials of the Tax Administration and the procedure of tax control is determined by specific regulations. Inspector has a right to inspect taxpayer's business

premises in his presence or his representative's presence. Persons qualified to conduct tax control must abide by the certain principles during tax control. Those principles include: principle of objectivity, principle of proportionality, principle of the party's declaration, principle of legality, principle of establishing the material truth, principle of independence and free evaluation of proof, principle of efficiency and economical quality etc.

The future aim of the Tax Administration is higher quality of monitoring of the tax control results in the applications of the Information system of the Tax Administration and introduction and implementation of cat tools for electronic control.

Results and Discussion

Review of the tax control methodology in these two countries significantly varies. In the Republic of Slovenia there is thoroughly developed system of tax control; on the other hand, such system in Croatia is significantly less reviewed and developed.

Several control techniques are being used for the tax inspection control in the Republic of Slovenia. They differ with regard to (Čokelc, 1997, p. 273):

1. Control direction – the following can be differentiated:

1. Retrograde direction from tax evidence or tax settlements to general ledger

2. Progressive direction controls from business events and accounting records through logs and general ledger to tax evidence, i.e. other tax settlements

2. Originality of comprehensive basis – the following can be differentiated:

1. Direct control – determines regularity of fulfilment of tax obligations on the basis of the control of accounting records and other proofs on business events and conditions

2. Indirect control – assessment of the facts relevant to taxes with the help of indirect information collected together with the assessments of pure assets and money flows

3. Form and contents – the following can be differentiated:

1. Formal control – determines propensity to differentiate business events and conditions, and tax settlements by tax and accounting regulations

2. Contents control – determines contents regularity of declared data in tax settlements, and compliance to tax regulations and code of practice

4. Manner of search – the following can be differentiated:

1. Control of business events and conditions based on accounting control of all selected business events and conditions on which depend type, size and dynamics of tax liabilities

2. Control of the accounting department is justifiable in larger companies that process data electronically.

Depending on the subject of control, legal form of a company, taxpayer's size and general arrangement of the accounting department, tax inspector chooses one of the offered techniques during tax control.

Some of the most commonly used reviewed methods of assessing during tax control include:

1. Method of internal temporal comparison

It is conducted as an internal comparison of income, business results and other settings of different time zones. The implementation of this method in the phase of preparation for the tax inspection control is very helpful for initial perception of taxpayers (Čokelc, 1997, p. 278).

2. Method of comparison between entrepreneurs

It is implemented in the phase of preparation for the tax inspection control. In this method tax inspector compares and assesses data from accounting declaration of the examined company with the data of the same profile companies. For example, if declaration of business result states taxpayer's income is below the average of the comparative company, it can be a sign that not all assessable income has been recorded or that the expenditures have been declared in the excess amounts. Such notions direct tax inspector towards control performed in the execution phase. (Čokelc, 1997, p. 278).

3. Sampling method

It is implemented in the execution phase of the control. The review of the entire business events is rarely executed during tax control due to a large volume of data. In that case, scanning through data and control of the selected parts can be rather helpful to the inspector. This control focuses on the selection of documentation, and accounting and other records that are being use as a sample. If the criteria for determining the sample are not specifically defined, the tax inspection has a right to set their own criteria. Implementation of some other mathematical and statistical methods is rare due to their complexity. (Čokelc, 1997, p. 280).

4. Assessment method

In tax practise it is used as a mean to achieve regularity of items declared in a tax evidence of a taxpayer.

Pursuant to the Tax Procedure Act (2006), principles of the tax inspection control in the Republic of Slovenia include: principle of legality, principle of material truth, principle of ratio, principle of safety and aid, principle of confidentiality, principle

of legal and timely settlement and payment of tax obligation, and principle of duty to provide information. Business phases of the tax audit in the Republic of Slovenia include planning tax audit, realization of tax audit and final implementation of tax audit.

During the phase of planning the auditor collects, examines and evaluates the existing basics, and designs operation plan for the audit. During this phase it is necessary to read and revise substantial material in order to obtain general information. Besides these tasks, both the tasks of internal and external comparison, and the assessment of the revised company should be taken into account. To obtain all the necessary data, the tax inspector must cooperate with the tax department, i.e. administration. The phase of the tax audit realization includes the following business steps (Koletnik, 2009, p. 76):

1. Introduction to and assessment of the wider environment of the audited area;

2. Introduction to and assessment of the relation between the owner and the managers to the company's organization, especially of the one taking care of the permanent company's sustainability;

3. Introduction to and assessment of the accounting system;

4. Introduction to and assessment of the system of internal control in a company and accounting controls;

5. Introduction to accounting data necessary for the calculation of tax obligations.

External tax audit results in final discussion with the taxpayer and in written report on the audit results.

Methodology of tax control in the Republic of Croatia is not as thoroughly developed as in the Republic of Slovenia. Hence, a taxpayer is chosen on the basis of risk assessment, which is a base for annual planning, and in line with requirements by which the Tax Administration shall proceed.

All the relevant facts that can ultimately increase or decrease tax obligation are determined during the tax control. Taxpayer proves facts in the following manner: by providing information, presenting records, business books, business documentation and other documents. Assessment of the tax base is conducted if taxpayer is unable to present books or records that must be kept under the tax legislation, if he is not issuing bills, if he is unable to prove taxation information with plausible documentation, and if he refuses to participate in the tax control. When it comes to natural persons, assessment can be defined as the difference between taxpayer's expenses for private use and/or acquired private assets and reported income. The effect of the tax control in the Republic of Croatia greatly depends on the methods applied during the control. Inspector must check every corresponding book entry in order to determine correctness of a business event and book entering. Economic theory differentiates several methods for quality performed examination. They can be divided into general and specific.

General methods include inductive, deductive, and empirical method. Special methods include method of direction and scope method. Methods of direction include progressive and retrograde, and scope methods include full method and interruption method (pattern).

Progressive method is used in revision, starting point being the control of the course of execution. The objective of this method is to determine correctness or incorrectness of a final action or effect, and action during which the mistakes occur. The first step of retrograde method is to examine finalised jobs, i.e. their results. Both methods are usually used during the tax control or they are used alternatively.

The Tax Administration performs tax control in the Republic of Slovenia. The efficiency of the Tax Administration in tax control depends on the number of successfully resolved controls and reports. It is important for the efficient functioning of the tax system. Tax control is efficient when it reaches a high level of independend fulfilment of tax obligations. Tax administration prepares annual tax control plan. The principle to follow when performing tax control is to perform continuous tax control of large taxpayers. In 2011 tax control in Slovenia yielded very good results. That year 7,828 tax controls were carried out and EUR 162,488.475 of the additional tax liabilities found. In 2011 528 filed independent taxpayer returns were registered in tax control, which is 33.7 % more than 395 registered in 2010. The value of the filed independent taxpayer returns in 2011 arose to EUR 6,020.605, which is 89.9 % more than in the same period of the previous year.

Much like the situation in the Republic of Slovenia, the Tax Administration performs tax control in the Republic of Croatia. Depending on the size of a taxpayer, it can last from few days to few months. Scheduled time that is too short may compromise the quality of control, while scheduled time that is too long increases the costs of control. The results of the tax control over the past ten years show decrease of 364 % in filed reports, the number of tax inspectors has increased by 8.26 %, and duties per tax inspector have risen by 396 %. Furthermore, the average number of spent days per inspector has risen by 342 %, and the number of irregular reports has risen by 53 %. During that period an increase of controls performed over legal persons with respect to natural persons has been noted. Keeping in mind that the control of legal persons is more complex than that of natural persons, the number of days spent per tax control has increased. That lead to better efficiency of tax liabilities per tax inspector or in total.

Conclusion

To each taxpayer it is greatly important to recognize and understand the facts influencing tax culture, tax moral and tax ethics. Those represent a guarantee that the taxpayer will pay his tax within legally set period.

Tax control in the Republic of Slovenia and Croatia is conducted by the Tax

Administration. Tax control in the Republic of Croatia is conducted according to the provisions of the General Tax Act. The same term in the Republic of Slovenia refers to the notion of tax inspection regulated by the Act on Inspection Control. Tax inspection control in the Republic of Slovenia includes all types of taxes and other prescribed expenditures, except customs and excise duties. In the Republic of Slovenia and the Republic of Croatia both legal and natural persons are subjects to the tax control. The subject of the tax control in both countries can be audited for one or more taxes during one or more taxation periods. The great difference between the two countries lies in the fact that the Republic of Slovenia has thoroughly developed the methodology of tax control, while the same cannot be said for the Republic of Croatia. To that part, Croatia should work on organization and method of the tax control conduction. Tasks of the Tax Administration in both the Republic of Slovenia and the Republic of Croatia include collection of taxes and other compulsory expenditures, control of the legality, regularity and timeliness of settlement of the tax obligation determined by the taxation legislation, as well as prevention and detection of tax offenses and other criminal offenses. It can be concluded that the tax control in the Republic of Slovenia refers to the notion of tax inspection, while in the Republic of Croatia refers to the notion of tax control. In both countries, it is conducted by tax inspectors that must have the tax inspector exam, as well as diploma certificate. Furthermore, both countries have in common the fact that the subject of the tax control can be the control of one or more taxes in one or more taxation periods, as well as the fact control of both natural and legal persons. Compared to the Slovenian tax system and legislation, the Republic of Croatia still doesn't have thoroughly developed tax control. The reason lies in the fact that the Republic of Slovenia has clearly defined types of tax inspection to be conducted, while the Republic of Croatia still needs to do the same.

The Republic of Slovenia has thoroughly developed and improved its tax control, in line with other member states of the European Union. On the other hand, the Republic of Croatia still needs to invest a lot of hard work and effort in order to develop its tax control and to implement it in line with the other member states. In order to improve the efficiency of tax control in Croatia, it is recommended to intensify tax controls in Croatian state companies. Such tax control should give way to more detailed analysis of regularities and timeliness of calculation of tax from business activity, more detailed analysis of book-keeping and other records, and it should determine the percentage of unreported income that have inflicted damage on state budget. The Tax Administration of the Republic of Croatia should keep unique and detailed tax control scheme for each company.

Both countries should simplify tax acts and their practical implementation. Currently, taxpayers must fill a number of tax records and provide different evidence in short period before tax calculation. That adds to the possibility of making errors when filing the tax form in. Such errors are then found during the tax control. In order to perform

efficient tax control both countries should ensure larger number of tax inspectors specialized in tax control. The increased volume of tax control calls for an appropriate manner to raise the awareness of the downsides for company and public sector among the persons in charge.

References

BARONE, G., MOCETTI, S., (2011) ʹTax morale and public spending inefficiencyʹ, *International Tax and Public Finance,* vol. 18, No.6, pp.724-749. ISSN: 0927-5940

ČOKELC, S., (1997) ʺDavčno revidiranjeʺ, Zbornik referatov 29. Simpozija o sodobnih metodah v računovodstvu, reviziji in poslovnih financah, Ljubljana, pp. 271-282.

FELTHAM, G.D., PAQUETTE, S.M., (2002) ʹThe interrelationship between estimated tax payments and taxpayer complianceʹ, *The Journal of the American Taxation Association*, vol. 24, pp. 27-45. ISSN: 1558-8017

GALUŠIĆ, A., et.al., (2009) ʹPorezni nadzor u svjetlu novog OPZ-aʹ, Računovodstvo, revizija i financije, No. 10, pp. 134-141. ISSN: 0353-8087

HUG, S., SPÖRRI, F., (2011) ʹReferendums, trust and tax evasionʹ, *European Journal of Political Economy*, vol. 27, No.1, pp.120-131. ISSN: 0176-2680

KOLETNIK, F., (2006) ʹPorezna inspekcija u Republici Slovenijiʹ, Računovodstvo, revizija i financije, No. 5, pp. 71-75. ISSN: 0353-8087

KOLETNIK, F., (2007) *Notranje revidiranje.* Ljubljana: Slovenski institut za reviziju, ISBN: 978-961-6495-30-1

KOLETNIK, F., (2009) *Davčno revidiranje.* Gradivo za študij davčnega revidiranja. Maribor: Ekonomsko- poslovna fakulteta.

MINISTRY OF FINANCE IN CROATIA. *General Tax Act*. The Official Gazette of the Republic of Croatia, No. 147/08 and 18/11

MINISTRY OF FINANCE IN CROATIA. *Tax Administration Act*. The Official Gazette of the Republic of Croatia, No. 67/01, 94/01, 177/04 and 128/10

MINISTRY OF FINANCE IN SLOVENIA. *Zakon o davčni službi*. Uradni list Republike Slovenia, Ljubljana, No.139/2004 and 17/2005

MINISTRY OF FINANCE IN SLOVENIA. (2006) *Zakon o davčnem postupku*. Uradni list Republike Slovenia, Ljubljana, No.117

POROČILO O DELU DAVČNE UPRAVE REPUBLIKE SLOVENIA. (2011) Available from WWW: http://www.durs.gov.si/fileadmin/durs.gov.si/pageuploads/Davcni_uradi_in_ uradne_ure/Letna_poro__ila_o_delu_DURS/Porocilo_o_delu_v_letu_2011-1.pdf

Financial Management in Practice of Czech Regions - Background Points, Experiences and Issues

Horňáková Michaela, Špaček David

Abstract

In this paper the authors discuss to what extent improvements of financial management can be found in Czech regional self-government. Before any findings are presented, the paper briefly introduces main aspects of Czech reform of regional self-government and outlines the requirements on changes in financial management practices as anticipated by current reform policy.

Keywords

New Public Management, financial management, reforms in CEE region, Czech public administration reform

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Introduction

Requirements on more systematic public management (including financial management) emerge in public administration reform mainly as a consequence of ideas of New Public Management (NPM). The label NPM is referring to approaches which, on theoretical as well as practical level, have been emphasizing business-line tools and techniques in public management and its reforms (Pollitt and Bouckaert, 2011).

In general, NPM is usually discussed as a (theoretical as well as practical) result of perceived inefficiency of "traditional" public administration and bureaucracy. Studies about the NPM diversity and impacts are persistently scarce and often favour an Anglo-American perspective on NPM (Barzelay, 2001, in Homburg, Pollitt and van Thiel, 2007). In the region of Central and Eastern European (CEE) countries' attention given to this topic has been rising particularly since the end of the last decade. Still, the literature on NPM impacts on reforms in the CEE region is rather fragmented and it is still not clear how it deals with NPM impacts on reforms outcomes in the CEE region and why.

Public financial management systems represent series of institutional routines that offer a powerful means to direct bureaucratic behaviour (Campos and Pradhan, 1996). They require to go beyond dominant incremental and short-term budgeting, certain income „freedom", transparent and formula-based allocation of resources, outcome based control mechanism and also pluralistic public-private-civic delivery of public services (Nemec, 2003).

In the case of financial management experiences in public administration, in 2003 Nemec criticizes the lack of progress of replacement of the old „budgeting systems",

the predominance of the old style incremental and „brutto" budgeting, compliance methods of control, subjective allocations, centralized management of finances. Nemec (2008) concluded that all new EU member countries significantly improved their financial discipline, also thanks to the implementation of modern budgeting methods. He admits that a switch to programme performance budgeting is an ongoing process in the region which requires linking inputs to outputs, outcomes and results in order to delivery value for money from public expenditures.

Material and Methods

In this paper we discuss to what extent the improvements of financial management can be found in Czech regional self-government. Before we present our findings we briefly introduce the main aspects of Czech reform of regional self-government and outline the requirements on changes in financial management practices as anticipated by current reform policy. The paper was elaborated within the project of the Czech Science Foundation no. 403/12/0366 "Identification and evaluation of region specific factors determining outcomes of reforms based on NPM – the case of CEE".

The paper follows the methodology used in the project of Czech Science Foundation no. 402/08/1158 "Implementation of new instruments for public expenditure at regional level in the Czech Republic.". Within this project questionnaire surveys and following interviews were carried out in order to ask representatives of all Czech 14 regions about several aspects of budgetary mechanisms and financial management they use. The project was completed in 2010. One part of the project focused on the area of financial management of the Czech regions. In this paper, which follows the framework of the project 403/12/0366 we tried to revise findings of the previous research, building on secondary information from websites of Czech regions on regional budgets, budgetary outlook and strategic aims. We synthesized the information gathered by questionnaire surveys realised by the project no. 402/08/1158 and new findings and information available from regional closing accounts, the State Budgets and selected theoretical sources.

Role of Regions and Financial Management in Czech Reform Policy and Legislation

Together with municipalities regions represent self-governmental units in the Czech administrative system. According to the Article 99 of the Czech constitution (Constitutional Act 1/1993), regions are higher self-governmental units. According to the Act No.129 on regions of 2000, a region is a legal corporation under public law, it owns assets and has an income laid down in the law and it manages resources on terms laid down in the law and according to its own budget. Similarly to municipalities, regions shall exercise not only self-governmental responsibilities, but also state administration functions if entrusted to them by acts on the basis

of deconcentration (the called "mixed", or "joined" model of territorial public administration system). A region is then obliged to ensure performance of delegated power in its administrative district. Still in 2003, the report of the Ministry of Interior on the reform progress criticized that the funding of the created regions had not been sufficiently solved, because their incomes were dependent on the state subsidies not on the system of tax shares as it was the case of municipalities. Also at the present time, the regions are funded predominantly by subsidies from the state (through mandatory expenses of the government). Although this mechanism has been criticized, such solution of funding may currently – in the situation of "blackouts" in tax revenues – appear beneficial.

Basic principles of regional economy are described in the Act on regions (Act No.129/2000). This act also requires a regional assembly to establish a financial as well as controlling committee. Another act (Act No. 248/2000 on support of regional development) anticipates that regions shall elaborate strategies of their development and regulates financial support of regional development. Requirements on financial management are also specified in Act No.250/2000 on budgetary rules for budgets of territorial self-government and in Act 320/2001 on financial control. Budgetary rules specify mechanisms of elaboration of budgets, preparation of closing account which shall include report on review as well as budgetary outlook.

Except for legislation almost all Czech reform policies and strategies have touched requirements on public management improvement (starting with Conception of public administration reform from 1999 which is often branded as the first post-communist reform conception in the Czech literature). Much of the previous rhetoric about reform's starting points and objectives can be explicitly or implicitly found in current reform initiatives. The reasons may be various – from not meeting the goals, over the incremental character of the reform, to the (sometimes headless) spread of the good governance ideas which has become very "sexy" in programmes of administrative reforms and modernizations in the world. We may observe that many aims overlap from the previous period and only the weights which are assigned to them in reform policies has changed.

In July 2007, the government approved the document Efficient Public Administration and Friendly Public Services – Strategy on Realization of Smart Administration in the Period 2007 – 2015 ("Smart Administration Strategy") which was submitted with regard to the preparation of the Czech Republic on drawing resources from European structural funds in the programming period 2007 – 2013. Because last governments have not approved other PA reform policy, we can consider the Smart Administration Strategy as the last Czech reform strategy. The strategy works with a hexagon of public administration, among its pillars financing can be found together with legislation, organization of its execution, citizen, bureaucrat and ICTs and also with the emphasize on good governance principles. According to the "situation

analysis", which forms a very brief part of the strategy, main issues of self-governments relate to deficiencies in managerial capacities of small municipalities, heterogeneous quality of services and low pace of innovations. In case of financial management, the strategy criticizes that strategical management is usually not linked to financial management in self-governments. Therefore the strategy (also) anticipates, describing the visionary state of public administration by 2015, improvement of policy-making and policy implementation through higher rationalization and transparency and implementation of strategic planning on the corporate level and in functional areas and their integration with budgets. It also expects revision of budgetary mechanisms and ways of allocation of public resources. According to its aims improved financial management is perceived as instrument producing savings and results-centricity of public administration. The strategy explicitly anticipates implementation of programme budgeting which would be focused on performance monitoring and bring following audits of results and performance. This shall address the situation when efficiency of public spending is not monitored and evaluated.

Economy of Regions - Overall Characteristics

As a result of the impact of the recession, Czech regions had to face a decline in resources in the years 2009, 2011 and 2012 which in practice reflected mainly in a lower tax revenue since 2009. However it is a restrictive policy of the central government lowering the grant revenue from the State Budget since 2011 that manifests more significantly than a failure of regions' so called own resources.

Despite the continuing economic recession regions' economies had ended in a surplus in 2010 the reason being the national tax increases, along with the regions' preparedness for the formerly announced cut of financing of European projects from the State Budget in the field of regional operational programs (Closing accounts of all regions from 2008 - 2011, Budgets of all regions from 2012). This enabled them to prepare and create a kind of financial "base" for the co-financing of European projects for the forthcoming years. Such practice is not uncommon at the regional level and can be also traced in the balance of the regions' economies in the previous periods. Image below illustrates the management of regional budgets.

 In terms of the regions' indebtedness a continuous increase is apparent. The debt situation of the regions is significantly impacted by options of drawing of EU funds and the necessity of their pre-financing and co-financing. The regions make investments throughout the European subsidies, especially in the field of infrastructure and they are thus approaching the projects of a significant investment range. The scope of investment in this case involves not only the extent of a funding, but also the time scale of investments. Liabilities that the regions are currently accepting have an impact on their long-term fiscal sustainability. In this context, it is necessary to address the question of whether regional teams consider realistically all the possibilities and risks of specific investments for the future when deciding on the implementation

of specific investment activities. Nevertheless, it is necessary to mention that the case where the returnable funds resources are being used for the purpose of long-term projects and investment and regional development, is a more appropriate form of financing than using the same funds o cover current expenditures and short term consumption. There are two main sources of repayable funds that county can use for the purpose of co-financing:

- loans from the European Investment Bank (EIB),
- loans from commercial banks operating on the Czech financial market.

By using the above methods of financing the projects, regions have access to very favourable credit conditions. The use of commercial credit products is a subject to the act on public contracts and therefore, a region must issue a tender for a given product prior to the contractual loan obligations. The question is whether, in this area, there is no moral hazard in the form of easy access of subjects of public administration to the loan. A prerequisite for such conduct of private subjects is an assurance of a continual regions' income, conferred on them by the law on a budgetary tax.

Table 1: Development of balance regional budgets

Billion CZK	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012*
I. Tax revenue	0,0	10,2	11,4	12,6	39,6	42,3	46,1	49,8	43,8	45,1	45,3	45,4
II. Non-tax revenue	0,1	0,7	1,4	3,2	2,8	2,9	3,5	3,9	4,0	4,9	4,8	4,9
III. Capital revenue	0,0	0,0	0,2	0,3	0,4	0,4	0,8	0,6	0,4	1,1	0,5	0,4
Own incomes	*0,1*	*10,9*	*13,1*	*16,1*	*42,8*	*45,6*	*50,4*	*54,3*	*48,1*	*51,1*	*50,6*	*50,7*
IV. Subsidies Revenue	14,4	26,7	82,8	84,6	70,7	76,6	75,0	77,4	88,7	89,5	85,8	86,4
	14,5	**37,6**	**95,8**	**100,7**	**113,5**	**122,1**	**125,4**	**131,7**	**136,9**	**140,6**	**136,4**	**137,1**
V.Ordinary expenditures	13,2	32,1	85,0	88,4	100,6	108,5	107,7	112,5	120,9	118,7	119,6	119,5
VI.Capital expenditures	1,2	3,7	9,4	11,5	12,0	15,9	16,6	20,5	23,7	20,0	18,3	18,8
Expenditures	**14,4**	**35,8**	**94,3**	**99,9**	**112,6**	**124,4**	**124,3**	**133,0**	**144,6**	**138,7**	**137,9**	**138,3**
Saldo	**0,1**	**1,8**	**1,5**	**0,8**	**0,9**	**-2,3**	**1,1**	**-1,3**	**-1,2**	**1,9**	**-1,5**	**-1,2**

* Anticipaded situation

Note: Prague is not included in the analysis. This is so because the City Prague, the capital, is also a municipality and the fourteenth region of the Czech Republic and its data are included in the municipal statistics.

Source: The Closing Accounts 2001-2011, The Proposal of the State Budget 2012.

In the years 2011 and 2012 the co-financing of European projects in the field of the ROP (Regional Operational Programmes) witnessed a restricted participation of the State

Budget. Applicants for these resources are especially towns, municipalities, contributory organizations of the regions or the regions themselves.

Instruments of Financial Management in Regional Practices - Results and Discussion

Currently, regions have processed all the documents that the above legislation requires. They are especially dealing with: budgets, regions' closing accounts, regional development strategies and regions' budget projections.

All the above-mentioned legal norms are formulated with a high degree of liberty and enable a heterogeneous practice in the regions' financial management. On one hand this can bring more flexibility when creating regions' own standards and regulations, on the other hand, it leads to certain disadvantages, especially when an unpredictable situation arises for which the regions are not properly prepared in advance and it has to be dealt with promptly. Regions' own rules governing their provisional budget and the actual budget process can be mentioned as an example. The approach to the provisional budget issue is ad hoc in some regions. They have no internal regulations that would govern the process. However, there are also regions with approved principles of the provisional budget, which in the case of non-approval of the budget specify a formal aspect of securing the financing of the regions' activities until a regular budget is approved.

Regions apply their own approach in terms of the budgetary rules too. Some regions have created their own budget rules, based on the law, but which they further specify and elaborate. Furthermore, documents that determine the principles of region's budgetary process or a detailed schedule of the budget process are being prepared in the regions. The regions also differ in their approach to these internal standards. In some regions the rules are binding for the perennial horizon while in the case of other groups of regions the rules are modified annually. Most regions possess a combination of documents dedicated to the procedural aspect of the budget process, which they often combine.

Data gathered throughout structured interviews suggest that, as a part of its twelve-year history, each region have created his own approach to many issues as well as to the solutions to problems that are similar in many ways, but may differ too. This is not different in case of use of different tools for financial management either. In the case of financial management the surveyed interview focused on tools that are being used within the county budgeting and on the management of fiscal imbalances. Structured interviews revealed the following:

- In most cases, regions budget their available resources based on historical approach 12 out of 14 regions. South Bohemian Region proved to be the only region where the budgetary practice differs from establishing the situation of the previous

years. The statement of the Council of the South Bohemian Region is the basic starting base policy in the region. A respondent in a controlled interview, said: "*The regional development program is all encompassing, it is very difficult to present a full view it in when creating the budget. Rather than strategic and conceptual documents there are the municipal policy statements reflected in the budgets. Various programs and strategies are important for sorting out the priorities, objectives and directions of development of individual areas.*" The Policy Statement of the Regional Council presents the priorities and objectives of the regional government and is therefore also seen as a guidance in the preparation of the budget forecasts and in the particular budgets consequently. Approach to budgeting practices applied in the South Bohemian Region should be deeper investigated. However, based on the answers of the respondents in this region it appears that there already exist quite crucial elements pointing out to a totally different logic approach to the decision making about allocation of the resources, the foundation of which is the emphasis on a demand-oriented approach (Closing Account of South Bohemian Region 2011)

- In terms of the fiscal imbalances in 2010 the survey showed that 4 regions use credit facilities of the European Investment Bank, other regions draw returnable funds from commercial banks. The main instrument for managing fiscal imbalances in 6 regions is payment schedule (Dvořakova in Šelešovský, 2010). It was already clear from the previous survey that the regions do not see the active management issue of fiscal imbalance as a tool which could be beneficial to them in the event of financial management. The answers of the respondents point out to the fact that the legal condition of loans conditional acceptance of an invitation to tender is a sufficient tool to ensure a low cost loan, which is the only condition that the regions considered important.

- Of all fourteen regions in the Czech Republic only Plzensky Region did not receive any credit or loan throughout its existence. Conversely, in 2009, Central Bohemian Region was the most indebted region (excepting the City Prague Region). This situation remains the same even in the year 2011, when the Central Bohemian Region is, with its debt 3.72 billion CZK, the most indebted region. The only tool of the fiscal imbalance in Central Bohemian Region is repayment schedule (Closing Account of Plzensky Region 2011).

- A special example of active management was recorded in the fiscal imbalances management of the City Prague Region. Position of the City Prague as a capital of the Czech Republic, region and municipality, is regulated by a special Act No. 131/2000 Coll. the capital city of Prague. Capital City Prague Region has committed liabilities in foreign currency and therefore it is necessary to monitor exchange rate risks, using swaps and derivatives in this case. The Capital City of Prague has established a special department whose responsibility is management of debt service and investing funds.

- In addition to the City Prague Region South Bohemian Region has an active effort to control the fiscal imbalances. The incomes from short-term and long-term loans or balances in term deposits are evident from the text of the closing account of the region. Respondents addressed in South Bohemian Region in 2010 stated that, when convenient, the Region tries to optimize the structure of debt instruments and their early repayments or of interest of available balances by means of term deposits (Dvořáková in Šelešovský, 2010). There are therefore actively used tools of fiscal imbalances management, such as portfolio optimization of debt management tools and available financial resources management in the South Bohemian Region.

Conclusion

The paper summarized selected aspects of financial management that are apparent in practices of Czech regions. Our findings show that the practice is fragmented and heterogeneous and although some pioneers with real financial management practices can be found, most of the regions have not got beyond classical budgetary process ("historical approach to budgets"). Supplementary interviews indicate that representatives of regions do not perceive active management of fiscal imbalance as an instrument that can be beneficial for their financial management. They rather rely on the procedures specified in the public procurement legislation. Except for Prague, an active approach to management of fiscal imbalance can be found in South Bohemian Region.

References

CAMPOS, E., PRADHAN, S. (1996) Budgetrary institutions and expenditures outcomes: binding governments to fiscal performance. World Bank Policy Research Working Paper No. 1646 [online]. [cit. 2012-10-15]. ISSN: 1813-9450. Available from WWW: http://elibrary.worldbank.org/docserver/download/1646.pdf?expires=1350505359&id=id&accname=guest&checksum=4EFDC3BE8D8CAA7A5B48373207394D4F

Closing accounts of all regions from (2011) Budgets of all regions from 2012 available from website of Association of regions, [cit. 15.10.2012] Available from WWW: < http://www.asociacekraju.cz/>.

HOMBURG, V., POLLITT, CH., VAN THIEL, S. (2007) Introduction. In New Public Management in Europe - Adaptation and Alternatives. London: Palgrave Macmillan, pp. 1 - 9, ISBN 978-0-230-00693-5.

Ministry of Finance Czech Republic: State Budget (2012) [cit. 15.10.2012] Available from WWW: http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/zakon_o_sr_66838.html

Ministry of Finance Czech Republic: State closing accounts 2001-2011 [cit. 15.10.2012] Available from WWW: http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/plneni_stat_rozp.html

NEMEC, J. (2002) Budgeting and financial management: methods and techniques in CEE countries. Bratislava: NISPA. pp. 283-340, ISBN 80-89013-08-2.

NEMEC, J. (2008) Public management reforms in CEE: lessons learned. In Public management reforms in Central and Eastern Europe. Bratislava: NISPA, pp. 343-371ISBN 978-80-89013-41-8.

POLLITT, CH., BOUCKAERT, G. (2011) Public management reform - a comparative analysis: new public management, governance, and the neo-weberian state. Oxford: Oxford University Press, ISBN 978-0-19-959509-9.

ŠELEŠOVSKÝ, J. et al. (2010) Hodpodaření krajské samosprávy, Masarykova univerzita: Olprint, ISBN: 978-80-210-5423-3.

The project of Czech Science Foundation no. 402/08/1158 and its findings and outcomes.

WALKER, R. M., BOYNE, G. A., BREWER, G. A. (2010) Cambridge Univesity Press: New York, ISBN: 978-0-521-11663-3.

Microsimulation of the Mortgage Interest Deduction. The Czech Case

Jahoda Robert, Godarová Jana

Abstract

This paper focuses on the mortgage interest deduction for owner occupied housing in the Czech Republic. The main research goal concerns the method how to model the impact of personal income tax liability as a result of legislative changes in 2014. Personal income tax reform is slated to begin in 2014, one part of which will be a cap on loan interest deductibility. It is suggested, that the reform should lead to a decrease in the yearly value of the tax expenditure.

In our analysis data for the Czech Republic from the EU-SILC surveys are used. We estimated the value of this tax expenditure at approximately CZK 5 billion in 2010, with almost half the amount spent by the highest two deciles in income distribution. However, EU-SILC doesn't include all needed variables, so the paper shows and discusses microsimulation method used, its conclusion and limitations.

Keywords

Microsimulation, personal income tax, revenue forgone method, SILC, tax expenditure, mortgage interest deduction

Introduction

Tax support for owner-occupied housing is a common public policy objective. It may take markedly different forms in different countries, but a common approach is to take into account interest on housing loans in calculating personal income taxes. In analysing the impact of tax exemptions for housing loans, researchers normally speak of "mortgage interest deductions" (referred to hereinafter as MID). Households permitted to take interest paid on housing loans into account in calculating their tax obligation pay lower personal income tax (hereinafter PIT). This tax revenue reduction is generally called "tax expenditure" and the aim of a MID policy is to ease property acquisition for home-owners. Such policy is rather expensive and we can see raising discussion on reduction of the maximum amount of support given to the individual households. This debate gains on significance in the times of problems with public finance sustainability and when it seems there exists causal relationship to public support of homeownership, "mortgage bubble" and following economic slump. Distributional aspect might be seen as consequent question to budgetary cost of MID. When the costs of this policy are borne by the whole society, beneficiaries seem to be concentrated among the richest members of the society. One may ask

than what the results of such a policy are. Why should public support benefit individuals who could take care of their living anyway?

Knowing the answer to the extent of support of MID policy, its distribution among different income groups in the society and knowing what might be the impacts of MID policy change is important for many governments in developed countries. Austerity measures in public finance induce changes in the tax policy and restriction in MID is one of the possible way of the reform. Experience from countries which already changed their MID policy show that there are various options for MID reform and therefore diverse outcomes might be expected. Our paper will argue what outcomes could be expected in the Czech Republic when sharp reduction in MID is being decided upon.

The goal of this paper is to model current budget costs of mortgage interest deduction, and to discuss conclusion and limitations of this microsimulation model. In order to achieve the goal we precede with following sub-questions: What is known from previous research about the effect of MID and its reforms on tax revenue? Do we have the data and is possible to analyse them in the research objective?

In the first section we discuss different models of MID, which are dealt in present literature. At the same time we discuss different calculation methods of MID and their impact on budgetary costs and distributional aspects. In the second section we present data and methodology of calculation which we employ for finding the value of MID and for its distribution in the Czech society. In the third section of this paper we present the main results of our calculations. We deal mainly with budgetary costs of MID policy in the Czech society. In the last section we sum up main findings of our paper and discuss research question which emerge after having the answer to the main question of our paper.

Material and Methods

Mortgage interest deduction in current literature

The issue of public support and its distribution is one often addressed by researchers, particularly in a situation in which countries are undergoing MID reform. For example, Italy adopted changes to MID after 1992 ending ties between tax exemptions and the marginal tax rate. Jappelli and Pistaferri (2006) evaluate the impact of this change on Italian households. Another example is given by Bourassa and Grisby (2000), who discuss the impact of modifications to MID in the US.

Pelegrino, Piacenza, Turati (2012) study the present and distributive impact of housing taxation and alternative approach on Italian households. The used microsimulation model considers as input data those provided by the Bank of Italy from 2008 in its Survey on Households Income and Wealth (hereafter SHIW). A contrary to SILC this survey includes: the interests paid on mortgage, and the initial mortgage debt.

In the alternative approach they take into account the imputed rent from owner – occupied dwelling as a component of gross income for the purpose of personal income tax calculation. Authors mention that, the share of Italian households with a mortgage is only 8.1 per cent, whereas in Germany it is 25 per cent, in Great Britain and US 50 percent.

Jappelli and Pistaferri (2006) use the SHIW data from 1989 to 2002 to evaluate the impact of tax system changes on the propensity to borrow in Italy. In their paper changes of tax system consist in reducing deductible mortgage interests. Authors assume that the reform should have an impact on high – income taxpayers and multiple income households.

We can find many diverse models of mortgage interest deduction among different countries. The simplest version is that taxpayer deducts all mortgage interest from his income. If progressive personal income tax applies subsidy from mortgage interest deduction depends only on marginal income tax rate. In this easy-form system high income home owners usually gain higher benefit than middle income.

Mortgage interest deduction has been part of the law in the Czech Republic since 1998, when taxpayers were first allowed to reduce their tax base by the amount of interest on housing loans paid up to CZK 300,000. The answer to the question "who is the recipient of such a policy and what are the budgetary costs" is rarely found for the Czech Republic. The first comprehensive evaluation of tax expenditures in the CR was in Kubatová and Jareš (2011), where authors discuss various viewpoints on tax expenditures and methods for measuring them. Their approach to quantification tax expenditure is generally known as "foregone revenue method". Yet the results of their study of 210 tax exemptions in the CR have primarily illustrative character, since they don't discuss distributional effects. Moreover their methodology and assumptions of calculations are simplistic, since their main goal is to study all tax exemption which can be found in the Czech tax system. Distributional effects of different residential tools and their effectiveness in the CR was analysed by Lux, Sunega and Boelhouwer (2009). Even their methodological approach, which led them to the claim of highly unequal distribution, might be questioned. According to them, taxpayers from the 10th income decile benefited most from the tax relief; their share is equal to 84 per cent of total tax relief. They state, that data from tax declaration in 2002 were used for calculation, but they don't discuss nature of these data and where do they get it from.

Data and microsimulation model used

A primary reference used by the authors is data from the EU-SILC survey European Union Statistics on Income and Living Conditions for the CR from 2005-2010. The EU-SILC database provides comparable, cross-sectional data on income, poverty, social exclusion and living conditions in the European Union. The Czech sample contains

approximately 10,000 Czech households (for more on EU-SILC survey methodology, see CZSO 2011).

The model used is based upon a simplified version of the Czech tax system. A study carried out by the Ministry of Finance of the CR (Jareš, pp. 77-103, 2010) showed that the value of some deductible items and tax credits is negligible compared to total tax revenues. The model therefore employs only deductible items for interest on housing loans, along with the following tax credits: the basic credit (for individuals), the tax credit for low-income spouses and the child tax credit starting in year 2006. Before the year 2006 a mix of tax credits and tax allowances was applied.

The dependence of tax expenditures on housing loans may be expressed using the following equation:

$$T = f(I, TA, TS) \tag{1}$$

$$T^* = f(I, TA^*, TS) \tag{2}$$

$$TE^H = T^* - T \tag{3}$$

where T In Equation (1) represents the household tax obligation. The household tax obligation is influenced by the amount of its taxable income I. Another factor influencing the household tax obligation is the way the tax system is set up. For purposes of the equations, the focus is on the means by which tax is calculated from the tax base TS taking into account tax exemptions TA. The means for calculating tax from the tax base TS ordinarily presumes that the appropriate taxation rates will be applied to the tax base. Tax exemptions TA, then take the form of items reducing the tax base (deductible items) or items which reduce the tax obligation calculated (tax credits). The calculations must then take into account the method by which taxable income is transformed to the tax base. The above indicated procedure for calculating the tax obligation presumes that the unit of taxation is the household, which was indeed the case in the CR in 2005-2007. If the unit of taxation is the individual, calculations proceed analogously but the tax obligation of households then consists of the sum of tax obligations of their individual members. The above indicated schematic procedure for calculating income tax is given in detail for the CR in OECD (2010). A survey finds the same calculation approach for other OECD countries, as well as a description of any deviations from the above indicated general procedure.

In Equation (2), the hypothetical household tax obligation is given for situation in which the taxpayer cannot reduce the tax base by the amount of interest paid on the housing loan. In such a situation, there is a higher tax obligation and lower net household income. Equation (3), then, expresses the value of the tax expenditure made by the household taking into account the potential reduction in tax due to housing loan interest. The following table summarizes the basic characteristics of the taxation system influencing the amount of household tax expenditure.

Table 1: Recap of chief tax system parameters for calculating employee income tax

	Period 2005-2007	Period 2008-2012
Tax Base	Gross Wage	Supergross Wage
Tax exemption employed	Mix of deductible items and exemptions	Tax credits
MI figured into tax base	max. CZK 300 000/yr	max. CZK 300 000/yr
Tax rate from tax base	Progressive scale	15 %

Source: Authors according to Czech legislation

In the succeeding step, we apply the above calculation procedure for tax exemptions to the SILC survey data to calculate the overall tax exemption for the CR and its distribution among individual groups of households.

The SILC 2010 household survey data codes for whether households employ a mortgage or other form of loan for housing purposes, but the data matrix does not indicate what the effective exemption amount is. Also missing is data on total loan payments for 2009, as well as interest payments for the same period. The Czech Statistical Office determines the answers to these questions but does not provide them to analysts (allegedly because of the low data validity). Because of this, data concerning yearly housing loan interest had to be imputed into the matrix by the model. It is described in the following equations:

$$MIV^i = \varnothing MV^i * IR^i \qquad (4)$$

$$\varnothing MV^i = V^i * \frac{MV_*^i}{V^i} * \frac{\varnothing MV^i}{MV_*^i} \qquad (5)$$

in which Equation (4) shows that interest payments on mortgages (housing loans) MIV^i for each household are equal to the average amount of the mortgage for the year in question $\varnothing MV^i$ and the interest rate for that year IR^i. Equation (5) then specifies the average amount of the mortgage in greater detail, as given by the market value of the residence V^i, the share of the market price of the residence covered by the original mortgage $\frac{MV_*^i}{V^i}$, And the share indicating what portion of the mortgage remains unpaid for the year in question $\frac{\varnothing MV^i}{MV_*^i}$.

The SILC 2010 data contains only information on the estimated market value of household residences. We have used it to determine the amount of interest payments. We start from the fact that households making payments on housing loans have the best information on the market value of their residence and have no reason not to divulge this information to a survey. Further, the housing loan depends upon the residence in which the household currently lives (a necessary condition for taking into account loan interest on housing loans in determining income taxes). Information on interest rate paid by each household is not contained in the SILC survey, we have to replace it with a uniform rate of 5 % p.a. The average rate is given as the weighted average of the Hypoindex for new loans made between 2006-2009 (the average rate of interest ranges between 4.7 % and 5.2 %, depending upon the weighting method used).

With the SILC 2010 data, we have therefore modelled the average amount of unpaid loans so that their sum for all households is set equal to CZK 687 billion. Under the formula, we have anticipated that the unpaid loan amount for each household would consist of a fixed percentage of the market value. Because the unpaid loan amount for each household is different, two distinct modelling approaches were used. These approaches differ on the way, how we work with the age of mortgage. For differences see bellow section.

Results and Discussion

Tax expenditure connected with MID and its distribution within Czech society

As shown in Table 2, however, the results of these two variant calculation methods are close to each other. Though the simple variant leads to a lower value for the tax exemption, the difference is minor. Figure 1 shows that the reason for this is the fact that the more complex variant shows more households with an annual amount of interest spent on housing of greater than CZK 300,000 and may therefore not deduct the entire amount from the tax base. The figure also confirms that the results will not be fundamentally influenced by the calculation variant chosen. To make calculation easier, therefore, the analysis which follows will make use of the simpler calculation variant for tax exemptions on housing loans.

Table 2: Estimated yearly tax exemptions for housing loans – simple and complex calculation variants [estimates in mil. CZK]

SILC 2010	Percentile Group according net money household income per equivalency (EU)										
	1	2	3	4	5	6	7	8	9	10	Total
Count (mortgage=1)	27 746	31 295	31 775	45 471	50 923	63 246	74 658	72 964	89 112	106 612	593 803
simple variant	132	187	193	297	300	477	543	643	774	1 413	4 959
complex variant	120	184	178	302	309	450	554	683	793	1 515	5 089
difference	12	3	15	-5	-9	27	-11	-40	-19	-102	-130

Source: Author's calculations based upon SILC 2010 data

Figure 1: Distribution of Households with Housing Loans by amount of exemption and calculation variant selected in 2010
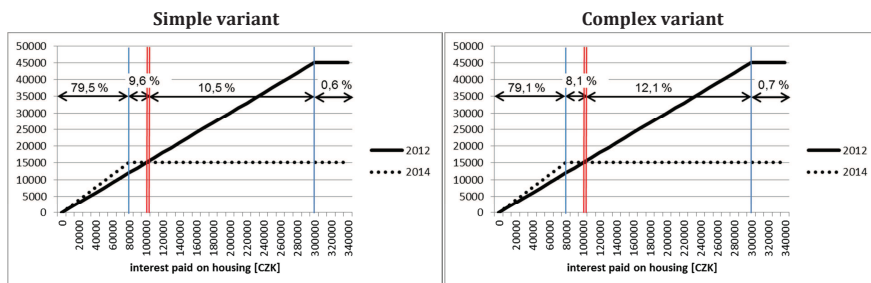
Source: Author's calculations based upon SILC 2010 data

Number of Households with Housing Loans and Effective Tax Exemption 2004-2010

One may note in the following table a growth trend in the number of households using mortgages to finance their housing. In 2005, the proportion of households with a mortgage was not quite 10 % of all households in the CR. By 2010, this share had already exceeded 14 %. As has already been noted above, the SILC data does not contain information on the amount of loans or interest paid, making it impossible to state with certainty whether the loan amount is also growing. However, using the model as described, we have estimated the annual amount of tax expenditure during individual years.

Table 3: Development of nos. of households with mortgages, potentially incl. tax exemptions 2004 - 2010

year	SILC Data	No. of households		share	tax expenditure		
		total	with housing loan		Nominal [mil. CZK]	year-on-year change	per household with loan
2004	2005	4 012 695	378 573	9,43 %	n.a.		
2005	2006	4 027 670	422 622	10,49 %	n.a.		
2006	2007	4 043 341	405 293	10,02 %	n.a.		
2007	2008	4 081 852	445 704	10,92 %	3 082	-	6 915
2008	2009	4 116 364	521 212	12,66 %	4 639	1 577	8 900
2009	2010	4 149 665	593 803	14,31 %	4 959	320	8 351
2010	2011	4 180 620	611 902	14,64 %	5 263	305	8 602

Source: Author's calculations based upon SILC 2005-2011 data

The table thus indicates that between 2004 and 2006, there are no data on value of the residence in SILC surveys. After 2006 the total number of loans provided grew, to greater expansion in the number of housing loans. The amount of effective exemption per household also grew, influenced on the one hand by growing real estate prices and thus housing loans, and on the other by the enrichment of Czech society, with taxpayers moving into higher brackets within a progressive tax system. What seems interesting, the trend was not dampened by the replacing the progressive tax scale by a proportional 15 % tax.

Conclusion

Tax support for owner-occupied housing is one of the most common focuses of research. In times when austerity measures in public finance are posed one may suggest MID reform which would cut back budgetary cost of this policy. During the previous 20 years we can see various attempts of such reforms with different outcomes. Some countries limited maximum amount of MID when defining tax base, not only maximum amount of MID might be limited but also maximum value of the support might be set, other countries separated the value of the support from the influence of the actual rate of tax.

When we take into account present problems with public finance sustainability, which could be seen in most developed countries, question on budgetary costs of MID policy arises. What are the present costs of MID policy? What do we design the model MID? Who are the present beneficiaries and what would be the change of their position after using different approach to model? These are the questions which are the concern of present governments and which we solved in our article.

In comparison with previous Jares's study (2010), we believe our method of calculation provides a more precise estimate of the tax exemption, even though our calculation method is not based upon interest payment records. This paper is based upon SILC survey data which monitors whether households are making use of housing loans. The amount of interest is then modelled using the value of the residence occupied by the household. There are two methodological points in our research which might be discussed in future research. The first one is the question of the lack of transparency – the amount of support and its distribution are not recorded in data, but have to be modelled. The second one is the budget impact on tax inflows, which is connected with the foregone revenue method of calculations. According to our method the value of this tax expenditure at approximately CZK 5 billion in 2010.

Tax exemptions for housing loans among households influence tenure choice, which is not neutral. The amount of exemption is dependent in particular upon the marginal tax rate on incomes. Changes thus influence household demand for loans and thereby including behaviour changes of households into calculations could slightly change the outcomes of the analysis. Yet according to our belief, we present most accurate budgetary estimate of MID policy in the CR and provide its distribution aspects in the Czech society.

Acknowledgements

References

BOURASSA, S.C. and GRIGSBY, W.G. (2000) Income tax concessions for owner-occupied housing. Housing Policy Debate 11, 521–546.

CZSO., (2011) [online]. *Household Income and Living Conditions 2010*. Methodological notes. Czech Statistical Office, Code: e-3012-11 [cit. 20. 3 .2012] Available from WWW: http://www.czso.cz/csu/2011ediciplan.nsf/engt/CD0026ED71/$File/301211ma.pdf

JAPPELLI, T. and PISTAFERRI, L. (2006) Do People Respond to Tax Incentives? An Analysis of the Italian Reform of the Deductibility of Home Mortgage Interests. *European Economic Review*, *51*(2), 247-271.

JAREŠ, M. (2010) [online]. *Výzkumná studie č. 2/2010: Daňové úlevy v České republice*, Ministry of Finance of the Czech Republic. [cit. 15. 2 .2012] Available from WWW: http://www.mfcr.cz/cps/rde/xbcr/mfcr/VS_Danove_ulevy_v_CR.pdf

KUBÁTOVÁ, K. and JAREŠ, M. (2011) Identifikace a kvantifikace daňových úlev v ČR v roce 2008. (Identification and Quantification of Tax Reliefs in the Czech Republic in the Year 2008. With English summary.). *Politická Ekonomie*, *59*(4), 475-489.

LUX, M., P. SUNEGA, and P. BOELHOUWER (2009) The effectiveness of selected housing subsidies in the Czech Republic. *Journal of Housing and the Built Environment* 24 (3): 249-269.

OECD., (2010) Taxing Wages 2008-2009: Special Feature: Non-Tax Compulsory Payments As An Additional Burden On Labour Income, Paris and Washington, D.C. ISBN 978-92-64-08299-1

PELEGRINO, S., PIACENZA, M. and TURATI, G. (2012) [online]. Assessing the Distributional Effects of Housing Taxation in Italy: From the Actual Tax Code to Imputed Rent. CESifo Working Paper Series No. 3368. [cit. 15. 2 .2012] Available from WWW: http://ssrn.com/abstract=1775799

Government Debt Management in the Czech Republic: Sensitivity Analysis of the Optimal Allocation

Melecký Aleš

Abstract

Sound debt management practices help prevent occurrence of debt crisis, reduce vulnerability to macroeconomic and financial shocks, and support economic growth. Unexpected increases in debt-service charges can substantially change the dynamics and accumulation of government debt. The unexpected increases can occur due to significant risk exposures to exchange rate, interest rate and refinancing risks that the government has assumed when allocating its debt. Vulnerability of public debt to macroeconomic shocks can be reduced by responsible allocation of debt. This article emphasizes some of the best practices of the public debt management and empirically finds the optimal debt allocation for the Czech Republic using Giavazzi and Missale (2004, p. 7) approach. To calibrate the latter, conditional expectations, based on a vector autoregression (VAR) model for the Czech macroeconomy, are used. Using sensitivity analysis, the paper then studies robustness of the empirically determined, optimal government debt allocation for the Czech Republic.

Keywords

Introduction

A government's debt portfolio contains complex financial structures and can create substantial balance sheet risk for the government. Sound debt management practices can help to prevent occurrence of debt crisis, reduce vulnerability to macroeconomic and financial shocks, and support economic growth. The IMF and the World Bank therefore published, in cooperation with national debt management experts, a set of guidelines on public debt management for policy makers (IMF and WB, 2001, pp. 10-32). This work includes formulation and properties of public debt management objectives, the underlying institutional framework and possible coordination issues, ensuing formulation of the debt management strategy, attributes of a sound risk management framework, and other important areas of public debt management. The on-going financial and debt crisis demonstrates the important role of public debt management. Melecky (2012a, pp. 226-231) presents an empirical analysis of possible drives behind different formulations of public debt management strategies across a sample of countries. From a practical risk management perspective, Buera and Nicolini (2002, p. 24) find that the size of financial transactions that the government must

undertake each period to replicate state contingent bonds is very large and increases dramatically with the number of states. Melecky (2012b, pp. 136-148) provides a review of policy approaches to choosing the currency structure of foreign-currency debt in view of the fact that historically the exchange rate risk is the most important risk for the debt managers in emerging market economies. A detail description of sound risk management frameworks and debt portfolio risks, including market risk, refinancing (rollover) risk, liquidity risk, credit risk, settlement risk, operational risk, could be found in Wheeler (2004, pp. 91-100). Hawkesby and Wright (1997, pp. 4-12) adapt a tax-smoothing methodology used in Bohn (1990, pp. 1217-1230) and impose realistic constrains to public debt management to conduct debt allocation analysis for nine OECD countries. Hawkesby and Wright (1997, p. 24) conclude that issuing short term domestic currency debt provides the best hedge against further income and purchasing long-term foreign currency debt can provide tax smoothing leverage. Gerard and Gilson (2001, pp. 5-15) show, in a simple two country model, how an exchange rate regime can influence the public debt structure. Melecky (2010, pp. 107-117) then develops empirical framework that debt managers could use when deciding on the currency allocation of public external debt using a set of synchronization indicators of exchange rate volatility. Concerning public debt management in the Czech Republic, Matalík and Slavík (2005, pp. 39-43) state that it went through dynamic development during the transition period of 1990s and early 2000s. A very low initial level of state debt, missing fundamental segments of the financial market, and the absence of basic debt instruments, combined with no or low fiscal deficits, impeded development of the domestic debt market. The requirement to establish functioning government bond market to spur domestic capital market development thus arose. Matalík and Slavík (2005, p. 50) conclude that public debt management should be included as part of the state treasury management, which in contrast with the recommendations of Wheeler (2004).

This article focuses on public debt management in the Czech Republic because this area is relatively under-researched, especially in terms of empirical studies. It uses the theoretical approach of Giavazzi and Missale (2004, p. 7) to empirically analyze the optimal debt allocation for the Czech Republic. It then extends the findings presented in Melecky and Melecky (2012, pp. 573-574) using alternative data transformation and calibration of the Giavazzi and Missale framework. The novelty of the calibration is in its use of conditional expectations based on an estimated VAR for the Czech Republic. Moreover, it extends the previous research by studying the robustness of the determined optimal debt allocation using a sensitivity analysis. This is to focus on the effect of initial indebtedness and assertiveness of debt consolidation, as measured by the level and overall adjustment in the debt-to-GDP ratio, respectively.

The modeling approach and calibration

For the estimation of optimal debt allocation, this article follows the modeling approach of Giavazzi and Missale (2004, p. 7). The model consists of three equations that describe optimal shares of short-term floating-rate debt ($s*$), foreign-currency denominated debt ($q*$), inflation-indexed debt ($h*$), and long-term fixed-rate debt ($1-s*-q*-h*$). For the detailed derivation of these equations see Giavazzi and Missale (2004, pp. 3-8).

$$s^* = \frac{(\eta_y + \mathrm{B}_t)}{B_t} \frac{Cov(y_{t+1} i_{t+1})}{Var(i_{t+1})} + \frac{(\eta_\pi + B_t)}{B_t} \frac{Cov(\pi_{t+1} i_{t+1})}{Var(i_{t+1})}$$
$$-q^* \frac{Cov(e_{t+1} i_{t+1})}{Var(i_{t+1})} - h^* \frac{Cov(\pi_{t+1} i_{t+1})}{Var(i_{t+1})} + TP_t \frac{\sqrt{2\Pr}}{1 - \sqrt{2\Pr}} \frac{E_t\left(A_{t+1} - \Delta B_{t+1}^T\right)}{B_t Var(i_{t+1})}$$

(1)

$$q^* = \frac{(\eta_y + \mathrm{B}_t)}{B_t} \frac{Cov(y_{t+1} e_{t+1})}{Var(e_{t+1})} + \frac{(\eta_\pi + B_t)}{B_t} \frac{Cov(\pi_{t+1} e_{t+1})}{Var(e_{t+1})}$$
$$-s^* \frac{Cov(e_{t+1} i_{t+1})}{Var(e_{t+1})} - h^* \frac{Cov(\pi_{t+1} e_{t+1})}{Var(e_{t+1})} + FP_t \frac{\sqrt{2\Pr}}{1 - \sqrt{2\Pr}} \frac{E_t\left(A_{t+1} - \Delta B_{t+1}^T\right)}{B_t Var(e_{t+1})}$$

(2)

$$h^* = \frac{(\eta_y + \mathrm{B}_t)}{B_t} \frac{Cov(y_{t+1} \pi_{t+1})}{Var(\pi_{t+1})} + \frac{(\eta_\pi + B_t)}{B_t}$$
$$-q^* \frac{Cov(e_{t+1} \pi_{t+1})}{Var(\pi_{t+1})} - s^* \frac{Cov(\pi_{t+1} i_{t+1})}{Var(\pi_{t+1})} + IP_t \frac{\sqrt{2\Pr}}{1 - \sqrt{2\Pr}} \frac{E_t\left(A_{t+1} - \Delta B_{t+1}^T\right)}{B_t Var(\pi_{t+1})}$$

(3)

where η_y and η_π are elasticity of government budget to GDP with respect to output and inflation respectively. B_t denotes percentage value of government debt-to-GDP ratio. *Cov(.)* stands for covariance and *Var(.)* for variance of corresponding variables. *Pr* denotes probability that the adopted stabilization plan fails, and $E_t (A_t - \Delta B_t^T)$ is the planned reduction in debt-to-GDP ratio over period T. TP_t, FP_t, IP_t represents the term premium, the foreign exchange premium on Czech koruna vis-à-vis the euro, and the inflation premium respectively.

The process of estimation consists of the following steps. First, I estimate unrestricted VAR model with one lag (VAR(1)), as suggested by the Schwartz information criterion. The VAR contains, as endogenous variables, domestic output, inflation, the interest rate, exchange rate growth and, as exogenous variables, the constant, time trend, and foreign (Eurozone) output, inflation and the interest rate. The variables y_t, i_t, π_t and e_t are then calculated as forecast errors of the VAR model's static (one period ahead) prediction of output, inflation, interest rate and exchange rate difference. The next step is calibration of the remaining parameters of equations (1)-(3). The subject parameters, their description and numerical values are presented in Table 1:

Table 1: Calibration of input parameters

Parameter	Description	Initial Value
η_y	Elasticity of government budget to GDP with respect to output	0.05
η_π	Elasticity of government budget to GDP with respect to inflation	-0.21
B_t	Government debt to GDP (1st quarter 2012), (in %)	40
TP_t	Term premium (2011 average), (in %)	1.87
FP_t	Foreign Exchange Premium on CZK (2011 average), (in %)	3.90
IP_t	Inflation premium (2011 average), (in %)	-0.38
Pr	Probability that stabilization plan fails, (in %)	2.00
$E_t(A_t\text{-}delthaB_t^T)$	Planned reduction in debt-to-GDP ratio over T, (in %)	2.00

Source: Authors' calculations

The semi-elasticities of government budget over GDP with respect to output and inflation were estimated as the respective correlations over 1999Q1-2012Q1. Note that the elasticity to inflation is negative which is somewhat puzzling but this result is robust to using annualized q-to-q inflation, y-to-y inflation or detrended inflation. The negative correlation of budget balance to GDP with inflation prevails. This finding deserves further investigation which I leave for further research. The government debt to GDP ratio, B_t, was set to 40 percent in line with the Czech government indebtedness.

The term premium was calculated as the 2011 average of the difference between the yield of 10-year government bond and the yield of 6-month money market rate (assumed to be equivalent to the 6-month Treasury bill rate). The foreign exchange premium on the Czech koruna vis-à-vis the euro is computed as the 2011 average of the difference between the percentage change in the CZK/EUR nominal exchange rate and the interest rate differential, between the 3-month PRIBOR rate and 3-month EURIBOR rate. The PRIBOR rate was obtained from the CNB database and the EURIBOR from Eurostat. The inflation premium is calculated as the 2011 average of the difference between actual CPI inflation at time t and the expected CPI inflation conditional on information set dated t-1. The AR(1) process was used to generate expected inflation for simplicity. This is because data on inflation expectations are not readily available or inflation linked bonds traded. I leave more sophisticated treatment of expected inflation for further research. Note that another simple approximation of inflation expectations could be achieved by using the CNB inflation target at a given time, assuming perfect credibility of CNB's monetary policy and its inflation target. Alternatively, fast learning of the economic agents would need to be in place to ensure this approximation holds during a monetary policy-driven disinflationary period, as experienced by the Czech Republic. The probability that a given stabilization (fiscal consolidation) plan may fail was initially set at 2 percent following Giavazzi and Missale (2004, p. 9). In further research, I will consider more thoroughly the track record of the

Czech government in adhering to its announced stabilization plans, most notably those involving significant fiscal consolidation. The consolidation plan, the planned reduction in debt-to-GDP ratio, $E_t \left(A_{t+1} - \Delta B_{t+1}^T \right)$, was initially set to 2 percent. Note that the Czech Republic is currently envisaging continuing, though declining, fiscal deficits and debt accumulation with the balance budget planned to be reached in 2015. After having calibrated the model, I use the Matlab function *fsolve* to solve for the optimal values of the three unknowns in the equations (1)-(3).

Discussion of Results

Employing the initial calibration of the parameters in the equations (1)-(3) and data described above, the *fsolve* function solution results in optimal values of debt allocation that are presented in Table 1.

**Table 2: Optimal debt allocation with initial values setting**

Considered Allocation	s*	q*	h*	fix
Estimated Optimal	4%	4%	1%	91%
Actual (December 2011)	10%	18%	0%	72%

Source: Authors' calculations; MoF Development of the Government debt.

Note: s -short-term floating-rate debt, q* - foreign-currency denominated debt, h* - inflation-indexed debt, and fix - long-term fixed-rate debt, which is computed as 1-s*-q*-h**

These results suggest even higher share of long-term fixed-rate debt than applied in December 2011 (91% vs. 72%) and lower shares of short-term floating-rate debt and foreign-currency denominated debt. Allocation of a small part of the government debt to inflation-indexed bonds should be part of the optimal debt structure for the Czech Republic, such local currency instruments should be available.

Figure 1: Sensitivity of the optimal debt allocation to changes in the consolidation plan $E_t(A_t\text{-}delthaB_t^T)$
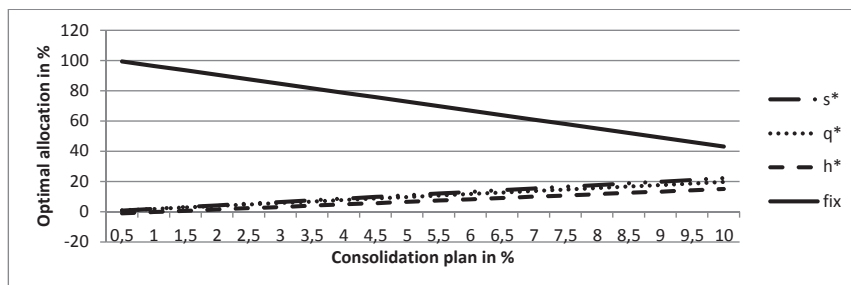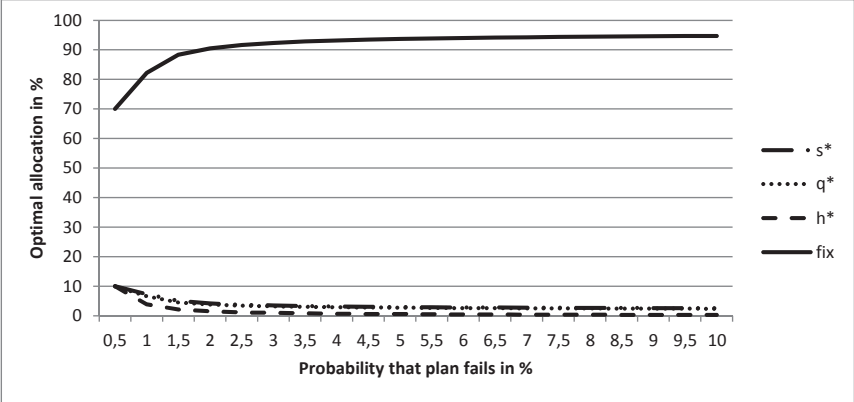

Source: Authors' calculations

Note: s -short-term floating-rate debt, q* - foreign-currency denominated debt, h* - inflation-indexed debt, and fix - long-term fixed-rate debt, which is computed as 1-s*-q*-h**

Next, I discuss the results of the applied sensitivity analysis concerning the parameters $E_t(A_t\text{-}delthaB_t^T)$, Pr, and B_t respectively. Consider the sensitivity of the optimal debt allocation to the $E_t(A_t\text{-}delthaB_t^T)$ parameter first. As can be seen from Figure 1, optimal debt allocation is very sensitive to how ambitious the fiscal consolidation plan will be. A more ambitious plan (increase in parameter $E_t(A_t\text{-}delthaB_t^T)$) significantly reduces the share of long-term-fixed debt in comparison with the other possible allocations. This reduced share of long-term debt is then mostly in favor of the share of short-term floating rate debt. The inflation-indexed debt increases the least if the fiscal consolidation plan changes from 0.5 to 10 percent debt to GDP reduction a year.

Figure 2: Sensitivity of the optimal debt allocation to plan failure (*Pr*)
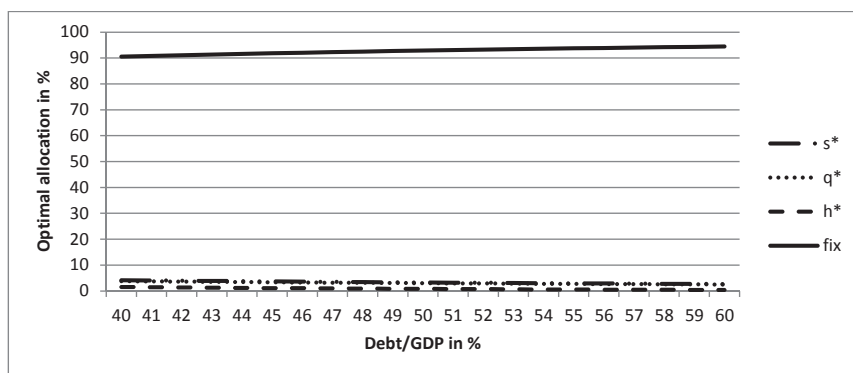

Source: Authors' calculations

Note: s* -short-term floating-rate debt, q* - foreign-currency denominated debt, h* - inflation-indexed debt, and fix - long-term fixed-rate debt, which is computed as 1-s*-q*-h*

Consider now the sensitivity of the optimal debt allocation to the *Pr* parameter (the probability that the fiscal consolidation plan would fail). Results of the corresponding sensitivity analysis are plotted in Figure 2. An increase in the probability of failure (gradually from 0.5 to 10%) implies a more conservative allocation with a rising share of long-term fixed-rate debt and falling shares of other debt types i.e. short-term floating rate debt, foreign-currency denominated debt and inflation-indexed debt. This sensitivity is particularly strong within the interval in which the probability of failure ranges from 0.5 to 3%. After that, in the interval from 3 to 10%, the sensitivity of the optimal debt allocation to the consolidation plan failure falls.

Consider now the sensitivity of the optimal debt allocation to the initial level of indebtedness B_t. Figure 3 shows how increases in debt to GDP influence the optimal

debt allocation into different types of debt instruments if B_t (debt to GDP) ranges from 40 to 60%. It mainly increases the share of long-term fixed-rate debt (and reduce shares of short-term floating rate debt, foreign-currency denominated debt and inflation-indexed debt) with higher initial level of indebtedness, in the direction of more conservative allocation that leave less margin for error. However, the effect of the initial debt to GDP seems to be only marginal.

Figure 3: Sensitivity of the optimal debt allocation to Debt-to-GDP (B_t)

Source: Authors' calculations

Note: s* -short-term floating-rate debt, q* - foreign-currency denominated debt, h* - inflation-indexed debt, and fix - long-term fixed-rate debt, which is computed as 1-s*-q*-h*

Conclusion

Sound debt management practices could help avoid unexpected increases in debt services charges, prevent occurrence of debt crisis and reduce vulnerability to macroeconomic and financial shocks. This paper carried out empirical analysis of the optimal debt allocation for the Czech Republic using Giavazzi and Missale (2004, p. 7) approach and conditional expectation of variables generated from a VAR model for the Czech Republic. Based on the adopted calibration, the estimation results suggest that the Czech government should allocate most of its debt (about 91%) to long-term fixed-rate bonds. This is a higher share than the Czech Ministry of Finance (CMoF) allocated to this instrument by end-2011. Further, the CMoF should allocate about 4 percent of its debt to short-term floating-rate bonds, 4 percent to foreign-currency denominated bonds, and 1 percent to inflation-indexed bonds. However, these optimal shares are particularly sensitive to the strength of the fiscal consolidation plan, and the probability of the plan's failure, mostly within the 0.5-3.0 percent range. On the other hand, the optimal debt allocation is much less sensitive to the initial level of indebtedness (debt to GDP). The Czech Ministry of Finance should be mindful

of the possibility that the optimal debt allocation over the studied instruments may need to be significantly changed should a new consolidation plan be adopted, or the probability of failure of the existing one altered significantly.

Acknowledgements

References

BOHN, H. (1990) 'Tax Smoothing with Financial Instruments', *American Economic Review*, vol. 80 No. 5, pp. 1217-1230. ISSN: 0002-8282.

BUERA, F., NICOLINI, J. P., (2002) 'Optimal Maturity of Government Debt without State Contingent Bonds', Universidad Torcuato Di Tella, DoE Working Papers 016.

GERARD, M., GILSON, N., (2001) 'Public debt structure and exchange rate regime', Dipartimento di Economia Politica dell'Università di Milano Bicocc Working Paper.

GIAVAZZI, F., MISSALE, A., (2004) 'Public Debt Management in Brazil', National Bureau of Economic Research, Inc., Cambridge, NBER Working Paper No.10394.

HAWKESBY, C., WRIGHT, J. (1997) 'The Optimal Public Debt Portfolios for Nine OECD Countries: A Tax-Smoothing Approach', University of Auckland Working Paper.

IMF AND THE WORLD BANK, (2001) 'Guidelines for Public Debt Management', Washington D.C., Available from WWW:
<http://www.imf.org/external/np/mae/pdebt/2000/eng/guide.pdf>.

MATALIK, I., SLAVIK, M. (2005) 'Debt Management in the Czech Republic (formation in the 1990s and the current state) '. *Prague Economic Papers* vol. 1, pp. 33-50. ISSN 1210-0455.

MELECKY, A., MELECKY, M., (2012) 'Optimal Allocation of Government Debt for the Czech Republic: Managing Vulnerability of Debt Service Charges to Macroeconomic Shocks', *Proceedings of the 30th International Conference Mathematical Methods in Economics 2012, Karviná,* pp. 569-574.

MELECKY, M., (2012a) 'Formulation of Public Debt Management Strategies: An Empirical Study of Possible Drivers', *Economic Systems,* Vol. 36, pp. 218-234. ISSN: 0939-3625.

MELECKY, M., (2012b) 'Choosing The Currency Structure Of Foreign-Currency Debt: A Review Of Policy Approaches', *Journal of International Development,* Vol.24, pp. 133-151. ISSN: 1099-1328.

MELECKY, M., (2010) 'Currency Allocation of Public External Debt and Synchronization Indicators of Exchange Rate Volatility', *Comparative Economic Studies* 52 (2010), pp. 104-129. ISSN: 0888-7233.

WHEELER, G., (2004) *Sound Practice in Government Debt Management,* International Bank for Reconstruction and Development: World Bank USA, ISBN: 0-8213-5073-0.

The Problem of Measuring the Income Situation of the Self-employed in the Czech Republic

Pavlíček Tomáš

Abstract

The article discusses the different ways of determining the financial situation of the self-employed in the Czech Republic. The available data and surveys related to the administrative, direct and indirect methods, specifically the data from tax reports, income surveys and expenditure surveys are described. In this context the data coming out of the tax reports for years 2006-2010 are presented in more detail and their development is discussed. The situation in 2008 and 2009 is explained in context of the macroeconomic development and major tax law changes.

Introduction

The problem of the determination of the financial well being of the self-employed(SE) is a complex one because it combines the analysis of business results and personal income. The SE business profit creates a so-called mixed income part of which is an equivalent of profit and part of which is the equivalent of salary. The clear distinction between these categories, between the private and company is not possible. For specific tax and social policies the measurement of the state of the smallest businesses and the income situation of the SE is essential which is why there is a broad literature on this topic, very often primarily concerned with the problem of tax evasion. There are three types of information sources in the Czech Republic which I discuss in the paper: the tax report(TR) aggregate data, the surveys independent of the tax system and indirect methods based on comparison of expenditure. These are compared to the national accounts value of net mixed income.

In the Czech Republic the most significant work on socioeconomic status of the SE has been conducted in 2006 by the Research Institute for Labor and Social Affairs (Průša et al., 2006; Průša et al., 2008). Novák published a series of articles dealing with the problem (Novák, 2006; Novák, 2007; Novák, 2008; Novák, 2009) providing important statistical insight. There is a chapter on the topic in (Večerník, 2010) and in (Kotýnková, 2006) which discuss the situation of the SE from 1989. The Czech studies never used the indirect comparative expenditure based method as introduced in (Pissarides and Weber, 1989) and the publishing of more detailed data from administrative sources is also rare.

The objective of this short paper is thus to discuss the current options of measuring the financial well being of the SE in the Czech Republic, which is to be found in the first part, and in the set context present one of the basic ones – the results obtained from the TRs – specifically for years 2006-2010.

Material and Methods

Determining the actual success of businesses in a given year is a problematic issue in general but grows even more difficult for the group of SE. In this section the different options available in the Czech Republic are discussed.

The reported tax base

The reporting available is distorted by many factors from which the tax optimization is the most important one. SE may lower their revenue by not reporting it and they may enhance costs. The enhancement of costs is done either through the legal percentage declared costs (PDC, "paušál") or illegally by reporting fictional costs. They also may directly be influenced by changes in tax law, which are not rare in Czech context. The direct deductibles have the biggest direct administrative influence.

Even with the obvious limit to interpretation the TR has some significant advantages. Firstly it is an administrative source where all subjects with some income from §7 (i.e. from direct entrepreneurship) must report their result and they do so together with their taxable income from other sources. This combination allows us to filter all the records for the ones where the profit or tax base from §7 is existing, where it is dominant and where there is no combination with employment. These data are theoretically comparable with the many criteria provided in the TR which includes the geographical area, gender, age and the field of business. The data are a useful source of information about the numbers of the active SE enhancing the standard methods described in (Novák 2006). Secondly the data have direct connection to the tax revenue. Because the changes in the tax system are well known it is possible to roughly estimate their influence on the data. The comparison of data from this source with information from other sources listed bellow allows the estimations of shadow economy.

Some very aggregate results based on tax base which were provided by the General tax directorate are presented at the end of the paper. The availability of more detailed data for research is limited.

The income surveys

There are various income surveys going on, out of which the yearly SILC (survey of income and living conditions) is the most comprehensive. The sample of SILC is very strong providing information about more than 1000 people with SE income. In the questionnaire the question on income is somehow connected with the profit reported in the TR. Specifically the respondent can express either the profit from the TR or his best estimate. Also the selection weights are not applied specifically to the SE

group which may slightly distort the sample and for comparison with the TR data it will need to be reweighed. The source of the weights for NACE, KZAM and possibly AGE may be either the Labor force survey or data directly observed from the TR. For year 2011 the data from complete population census will be available. Some authors use the observed difference from TR as a way of estimating the amount of income underreporting in the TRs. E.g. (Matsaganis and Flevotomou, 2010) use this method using a sample of blind data from the Greek TR database – their result was the underreporting level of 10%.

The indirect expenditure based method

There are many studies abroad which try to measure the underreported income and use expenditure based evaluation of the income of the SE.

The basic method was first described and used by (Pissarides and Weber, 1989) in a study trying to estimate the amount of British black economy. By black economy they mean very narrowly the amount of income underreported by the SE whom they compare to the people employed in normal employment. They assume that the consumption of goods generally depends on income and thus it is possible to infer the income by information about spending. The method assumes that the reporting on some goods specifically food is reported accurately and that there is one reference group where both income and expenditure is reported accurately. The implicit and most important assumption is that of the stability of the relation between income and consumption among the measured and reference groups. The food consumption is chosen for its reported accuracy and organizational independence.

This general approach was replicated number of times in different countries. Very interestingly the results don't vary too much and all move around 30% or the need to multiply the the reported income by 1.55 to get a ‚real' number. The results of some of the studies (Pissarides and Weber, 1989; Johansson, 2005; Hurst et al., 2010; Engström and Holmlund, 2009) are summarized in Table . These studies differ in a specific definition of the SE household depending on local conditions and also on the data available.

Table 1 : Selected expenditure based underreporting studies

Country	% cca	Authors	Year of publication
Finland	16-40	Johannson	2006
USA	30	Hurst, Li, Pagsley	2010
Sweden	30	Engstrom,	2009
Britain	35	Pissarides, Weber	1989

Source: Author

The similarity of the results across nations with different tax system actually is very interesting. There actually may be a different tax independent explanation for such difference like a real difference in the food consumption habits between the two groups.

One of the things that was not controlled for is an increased consumption of food from restaurants and smaller opportunity to use employer subsidised lunches in case of SE people which might be important in Czech context.

The big problem of this method is the necessity of analysis of spending for the whole households where we are interested only in the SE income. The more the income is mixed from different other sources like social benefits, employment or even capital gains the less relevant will be the results. The original study of (Pissarides and Weber, 1989) solves this problem by limiting the analysis to households where both money earners are SE. I suggest determining the relative proportion of SE income for each family and including it as one of the factors.

For an analysis of the consumption patterns in the Czech Republic the usage of the only expenditure survey available – the family accounts statistics (FAS) - is possible but it has certain limits. The sample does not contain the high income units, which means that any result can be applied only to the lower parts of the distribution. The advantage of the survey is the regularity and long term consistence, potentially allowing the comparison of the tendency to underreport over different time periods. Most importantly the use of Czech FAS for evaluating the underreporting due to tax reasons as performed in the aforementioned forein studies is limited because the connection between the income reported in a TR and the income reported in FAS is rather vague. In FAS the income represents the net amount of money that the entrepreneur gives to the family budget each month and theoretically shouldn't be influenced by tax related underreporting but is rather unpredictably influenced by the proportions of money assigned to family consumption each month. We can still calculate the theoretical net income of the families in the surveys based on food expenditure but it will be very hard to choose the right group to compare it with either from SILC or TR as it is assumed that the higher income families are not part of FAS.

Indirect mixed income estimation in National accounts

Czech statistical office uses different indirect methods to estimate the mixed income based on TRs and other sources. The production obtained from the TR is adjusted by combination of data including a comparison to the results of small businesses from the same field for the purpose of the production accounts. The Published net mixed income figures as a balance item in the „household income creation account" in national accounts under a code B.3n. However the resulting and published aggregate data and the comparative character by which they are estimated don't allow a more detailed look on the distribution. More on the topic e.g. in (Fořtová, 2009). Some authors use this measure as a measure of average income of the SE (Fassmann, 2007, pg. 269) simply dividing it by the estimated number of SE. The actual counting of people contributing to this aggregate number, which is necessary to calculate an average, is however rather problematic because of different numbers from different sources – see

(Novák, 2006) and the necessity to estimate the number of people in the particular segment of shadow economy.

Results and Discussion

The comparison of average non-weighted data from SILC, FAS and the TRs relevant to 2009 is presented in Table . The differences are significant. The average reported § 7 tax base from TR is by far the smallest and the difference between the SILC hints a possible very high level of underreporting just under 50%. If we take the whole households it is visible that the number from FAS is lower than the one from SILC because it is a net value and the sample is less representative excluding the highest earners. By dividing the Czech statistical office calculation by the number of SE from LFS we get the by far highest number.

Table 2: The Czech Republic SE yearly income measures from different sources (year 2009)

|		
Fiscal year 2009	TR Average §7 tax base of people with SE income and 0 employment income from TR(includes students and pensioners)	166,805 CZK
	SILC Average entrepreneurship income from SILC (people with entrepreneurship income and 0 employment income)(not weighed)	273,011 CZK
	SILC Average entrepreneurship income from SILC – households headed by SE	*398,770 CZK*
	FAS Average entrepreneurship income in households headed by SE person (this is net income, the sample does not include the high earning families)	*216,800 CZK*
	National Accounts mixed income per SE person	577,630 CZK

Source: Czech statistical office, Author computation based on SILC, FAS, LFS and data from general tax directorate

Bellow I present the data gathered from the selection of administrative TR data for tax periods 2006 – 2010 and I discuss their relevance under the different tax influences. In the context of what was explained above, they provide one dimension of the development of the SE financial situation. The analysis shown cannot be based on microdata, which are not available, but I believe that the comparison of these rough data still provides an interesting insight even if we stay at the general level. A more detailed analysis of such data was shown in (Průša et al., 2008) by Vančurová but this unique analysis is limited to the district of Southern Bohemia and was performed only in 2006.

Figure 1 shows the comparison between a total mixed income reported in the TRs and the Czech statistical office estimate of net mixed income in the economy (white bar). While the NA figure grows steadily the TR value peaks in 2008 with significant fall in 2009 and then remains stable. Their highest ratio in the described period

thus appears in 2006 - 1:3.11 with a low in 2008 – 1:2.13 and returning to 1:3.02in 2010.

Figure 1: the total mixed income from national accounts and from TRs
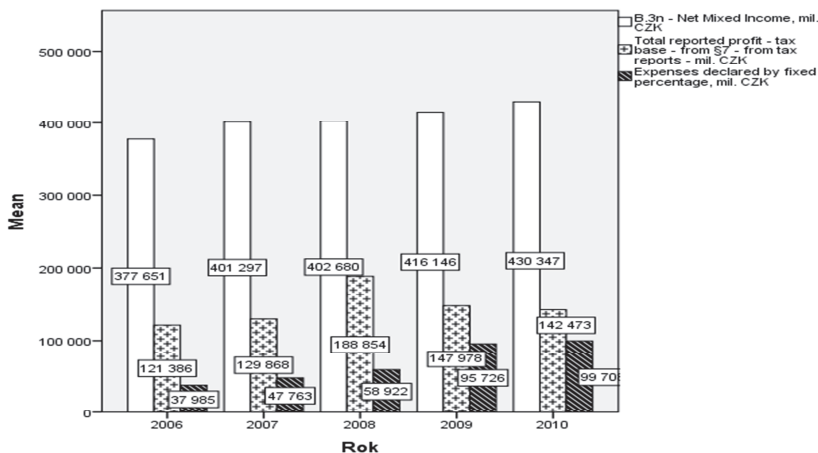
Source: Czech statistical office National Accounts, Own computation based on general tax directorate information

Table shows the average §7 tax base of the people who reported a non-zero tax base from §7 while not having any income from employment. This filtering is chosen as the statistics would be distorted downwards by people who have their business license only as a side business to employment.

Table 3: Average tax base from entrepreneurship, Number of subjects reporting a loss, SE registered as unemployed, GDP at current prices

	2006	2007	2008	2009	2010
Total cumulative number of SE registered as unemployed(CZK)	28,398	22,270	22,276	41,487	53,662
y/y %		-21.58%	0.03%	86.24%	29.35%
Average §7 tax base for subjects with +SE income and 0 income from employment	147,368	157,981	218,744	166,805	160,437
y/y %		7.20%	38.46%	-23.74%	-3.82%
Number of subjects reporting a loss	117,660	111,402	89,843	95,453	96,111
y/y %		-5.32%	-19.35%	6.24%	0.69%
GDP at purchaser prices(mil. CZK)	3,352,599	3,662,573	3,848,411	3,739,225	3,775,237
y/y %	7.59%	9.25%	5.07%	-2.84%	0.96%

Source: Author, based on general tax directorate data and, data from ministry of labor and social affairs, GDP from Czech statistical office

To analyse the causes for such a development of reported tax base(Pr) it is useful

to differentiate between the part influenced by economical development(E) and the part influenced by tax optimization(T).

$$P_r = f(E,T)$$

Abstracting from structural changes I try to explain the development of the tax base depending on the changes in tax legislation and on macroeconomic development. In the selected period these were represented by two main events:

- The tax system changes introduced in financial years 2008 and 2009

- The Macroeconomic development with the economy going through a slump in 2009 while peaking in 2007.

The major tax changes included a change to flat tax rate, different way of deducing the compulsory insurance payments and a significant rise in the minimum untaxable amount (defined by the so called tax discount) for fiscal year 2008 and the changes in PDC effective in the years 2009 and 2010. From the tax optimization point of view, the actual lessening of the tax in 2008 should lessen the incentive for tax optimization resulting in a rise of declared profits. The major shift upwards is however influenced heavily by an administrative move – the compulsory payments for social and health insurance were no longer subtracted from the reported tax base. The payments for social security were 21084 mil. CZK in that year with the exact data on health payments not available but we can estimate a similar number meaning the total would be enough to shift the 50 bl. back closer to the trend.. The change in PDC in 2009 was significant, resulting in much more costs declared by these percentage declarations. It lowered the profits reported (the total amount of costs declared by fiction is represented by the last column in Figure 1). The total amount of costs declared by this fiction grew from 57,891mil. in 2008 to 94,674 in 2009 which could explain some part of the fall between 2008 and 2009 seen in Figure 1 and Table . In 2010 there was a relatively minor reduction of the PDC.

To confirm a non tax system induced component in the development i.e. the actual result of the real economic situation we will look at other related indicators.

The first one is the number of subjects declaring a loss which developed inversely to the tax base - Table . It was influenced by the change in insurance payments in 2008 but this statistics unlike the tax base is independent from the effect of changes in PDC, thus confirming a non tax influenced component of the development in 2009.

For further confirmation of the effects other than the tax optimization I use a statistics which is not directly affected by tax optimization but also indicates the financial well being of the sector – the number of SE closing their business and registering as unemployed. The statistics of businesses which were actually closed and their owners signed as unemployed in the labour office is in the first two rows of Table . The available statistics of the Ministry of labour and social affairs can tell us how many people actually

signed but it unfortunately does not cover people who left the unemployment status for self-employment. This means that the numbers shown in the table can be positively distorted by increased seasonality or by increased number of people who tried the business and failed immediately – registering people who moved back and forth between statuses throughout the year. There was an important increase of this statistics from 2009 with the lowest numbers in 2008 and 2007 which again suggests a real basis of the effect of the 2009 drop.

To make the image more precise, we may look at the distribution of the tax base over the whole group which can be seen in Figure 2.

Figure 2: the change in distribution of §7 tax base for SE without additional employment, y - axis: number of people, x- axis: the tax base ranges in thousands of CZK
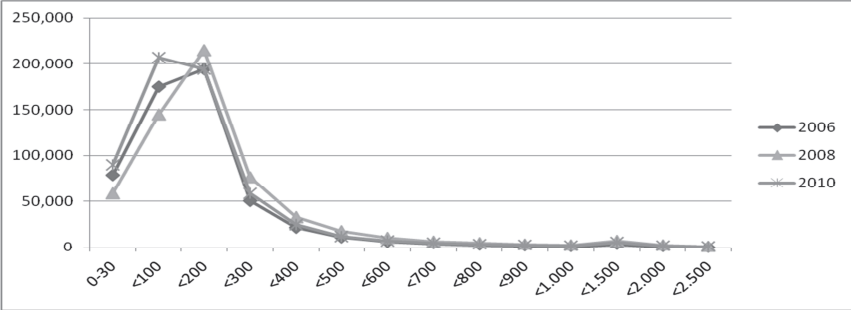
Source: Author, own computation based on general tax directorate data

Only the curves for years 2006, 2008 and 2010 are shown which represent the major changes. There was a gradual move from 2006 to the shape seen in 2008 with less subjects with under 200.000 Kč §7 tax base and growing numbers over this mark, while from 2008 the shift reversed with the peak shifting into the range 100-200. This corresponds with the average shift that we described in Table and Figure 1. This shift might have been caused by the PDC change but also by bigger numbers of high earners closing businesses and low income people from labor market opting for self employment as a refuge from unemployment. More detailed analysis of the cause of this move is beyond the scope of this paper.

Conclusion

The complex problem of the financial well being of the SE does not have a single correct answer with the results varying from administrative sources, independent surveys and indirect methods.. Although the real financial inflow is only one, the estimates that we get vary significantly depending on the perspective that we use.

The presented data from the tax reports would suggest the SE had exceptional years

in 2008 and 2009,. Their average reported §7 tax base moved out of the general trend with both tax and non-tax factors playing a role, but the biggest moves in those two years were caused by change in the tax system. Some non-tax influence is supported by supplemental data on the amount of people registered in unemployment and number of subjects reporting a loss especially for the drop between 2008 and 2009. However, from the national accounts point of view, 2008 and 2009 were both "business as usual" on aggregate. The ratio between the tax base reported in tax report and the national accounts mixed income grows since 2008.

Acronyms

FAS – Family Accounts Survey(sometimes referred to as „household budget survey"), LFS – Labor force survey, NA – National accounts, PDC – percentage declared cost, SE – Self Employed, SILC – Survey of Income and Living Conditions, TR – Tax Report

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References

ENGSTRÖM, P. and HOLMLUND, B. (2009) Tax evasion and self-employment in a high-tax country: evidence from Sweden. *Applied Economics*, 41(19), pp.2419–2430.

FASSMANN, M. (2007) Stínová ekonomika a práce na černo, Sondy.

FOŘTOVÁ, J. (2009) Sestavení matic národního a sociálního úcetnictví. *Statistika.* Available from WWW: http://panda.hyperlink.cz/cestapdf/pdf09c2/fortova.pdf [Accessed November 22, 2012].

HURST, E., LI, G. and PUGSLEY, B. (2010) Are Household Surveys Like Tax Forms: Evidence from Income Underreporting of the Self Employed, *National Bureau of Economic Research*. Available at: http://www.nber.org/papers/w16527 [Accessed October 15, 2012].

JOHANSSON, E. (2005) An estimate of self-employment income underreporting in Finland. *Nordic Journal of Political Economy*, 31(1), pp.99–109.

KOTÝNKOVÁ, M. (2006) *Trh práce na přelomu tisíciletí*, Oeconomica.

MATSAGANIS, M. and FLEVOTOMOU, M. (2010) Distributional implications of tax evasion in Greece. *Hellenic Observatory Papers on Greece and Southeast Europe.*

NOVÁK, J. (2006) Sociálně ekonomické postavení osob samostatně výdělečně činných ve společnosti 1. část – Rozsah samostatné výdělečné činnosti a počet jejích nositelů.

Statistika. Available from: http://panda.hyperlink.cz/cestapdf/pdf06c5/novak.pdf [Accessed April 17, 2012].

NOVÁK, J. (2008) Sociálne-ekonomické postavení osob samostatně výdelečně činných ve společnosti 3. cást – Souhrnné vyhodnocení vývoje kvantitativních ukazatelů tvorby a užití hodnot. *Statistika.*

NOVÁK, J. (2009) Sociálne-ekonomické postavení osob samostatně výdelečne činných ve společnosti 4. cást – OSVC a jiné sociálne-ekonomické skupiny v tvorbě a užití hodnot. *Statistika.* Available from WWW: http://panda.hyperlink.cz/cestapdf/pdf09c1/novak.pdf [Accessed February 22, 2012].

NOVÁK, J. (2007) Sociálně-ekonomické postavení osob samostatně vỳdělečně činnỳch ve společnosti. 2. cást–Strukturální pohledy na soubor OSVČ. *Statistika*, 4, pp.306–321.

PISSARIDES, C. A. and WEBER, G. (1989) An expenditure-based estimate of Britain's black economy. Journal of Public Economics, 39(1), pp.17–32.

PRŮŠA, L. et al. (2006) *Sociálně ekonomické postavení osob samostatně výdělečně činných ve společnosti,* VÚPSV. Available from WWW: http://praha.vupsv.cz/Fulltext/vz_208.pdf [Accessed February 2, 2012].

PRŮŠA, L. et al. (2008) *Sociálně ekonomické postavení osob samostatně výdělečně činných ve společnosti II*, VUPSV. Available from WWW: http://praha.vupsv.cz/Fulltext/vz_254.pdf [Accessed February 22, 2012].

VEČERNÍK, J. (2010) *Individuals and Households in the Czech Republic and CEE countries*, Academy of Sciences of the Czech Republic. Available from WWW: http://books.google.cz/books?id=5yJCAwEACAAJ.

Local Government Finance and the Case of the Anti-flypaper Effect

Pevcin Primož

Abstract

The empirical findings presented in the majority of literature have shown that lump-sum transfers tend to have greater stimulatory effect on local government spending than the equivalent increase in the income of the median voter. This notion has been labeled as the fly-paper theory of incidence. Nonetheless, the empirical evidence presented in this study suggests that the fly-paper effect could not be validated for the unconditional lump-sum transfer revenues (i.e. financial equalization) of Slovenian municipalities. Potential theoretical explanation for this phenomenon could be derived from adjusted premises of the agenda control model of the fly-paper theory, although it may also be considered that money might be fungible in the specific case of substantial "external predetermination" of local public spending.

Keywords

Introduction

The empirical findings have shown that lump-sum transfers of central government tend to have greater stimulatory effect on local government spending than the equivalent increase in the income of the median voter (Brennan, Pincus, 1996; Strumpf, 1998). This phenomenon has been labeled as the »fly-paper theory of incidence«, since »money sticks where it hits« (Gramlich, Galper, 1973). Theoretical and empirical literature provides several possible general explanations for this phenomenon. For instance, Wyckoff (1985) has produced several potential data explanations of the effect, such as misinformation, improper classification of governmental aid programs, endogeneity of both grants and local expenditures variables in the empirical models, lower implicit expenditure effects of income, persistence of agenda control where local spending is determined with exogenous reversion levels etc. Similarly, Bailey and Connolly (1998) have provided an overview of several theoretical explanations of the effect. Those explanations include deadweight loss argument (as local governments use distortionary taxes to finance some of their expenditures), transaction cost argument (as high transaction costs induce local governments to prefer grant spending instead of tax cuts), fiscal illusion hypothesis (as grants received do not affect perceived local budget constraints) etc.

Although the fly-paper effect has been extensively addressed in the literature, several points should be added regarding the research. First, the research seems to be somehow biased as the majority of studies tend to focus on industrialized countries (see Acosta, 2010). Second, although the majority of studies were able to confirm the validity of the effect, the real issue remains about the explanation of the effect. In this context, Wyckoff (1985) has already pointed in the mid 1980-s that the majority of explanations tend to be rather limited, so the fly-paper existence should exist due to the combination of theories discusses earlier. Third, it needs to be acknowledged that some studies were not able to confirm the validity of effect (Worthington, Dollery, 1999).

The investigation into the reasons why the fly-paper effect could not be observed seems to be rather limited. For instance, Inman (2008) has regarded the effect as potential puzzle since money is fungible and the source of financing should therefore not affect the optimal allocation of resources. Moreover, Becker (1996) has even argued that fly-paper effect is actually a statistical artifact, since inappropriate functional form of estimation may generate the illusion of fly-paper effect presence. However, the label anti-flypaper effect, describing the situation where private income has greater stimulatory effect on local government spending than the equivalent increase lump-sum transfers, has been rarely addressed in the literature. Only several authors (e.g., Filimon et.al., 1982; Wyckoff, 1985; Vegh, Vuletin, 2011) present that label and possible reasons, why the anti-flypaper effect should and could occur. Filimon et.al. (1982) have portrayed the local government expenditure formation in the context of the agenda control model. This model predicts that local spending is determined with exogenous reversion level – local spending is approved or disapproved through referendum. Yet, if additional spending is not approved, the expenditures are set to a reversion level of spending, which is usually mandated by the government. Actually, if reversion is less than or near the median voter's preferred level, even anti-flypaper effect can occur, which means that income generates larger expenditure effect than equivalent increase in grants.

In contrast, Vegh and Vuletin (2011) have recently developed the so-called portfolio theory of the fly-paper effect, which actually involves insurance arguments helping explain the size of the effect. They have argued that the size of the fly-paper effect is a decreasing function of the correlation between fiscal transfers and private income at local level, where such relationship should be stronger the higher is the volatility of fiscal transfers and/or private income. Yet, if two sources of revenues (private income and transfers) are positively correlated, than those two sources become more similar in terms of risks, which ultimately causes that the magnitude of the fly-paper effect is smaller, potentially becoming even negative (the anti-flypaper effect).

Consequently, this paper would predominantly like to empirically validate the existence of the fly-paper effect in specific context of post-socialist country (Slovenia), since this theory has been predominantly empirically validated for the old industrialized countries. Since municipalities represent the only existing tier of local government

in Slovenia, the empirical modeling is based on the regression analysis that estimates the "standard" expenditure function of Slovenian municipalities for the period 2006-2009, where specific intergovernmental transfer, called financial equalization, will be analyzed, serving as a typical example of the unconditional lump-sum grant.

Material and Methods

The purpose of this study is to empirically examine the evidence on the "stickiness" of intergovernmental transfers and to test possible existence of fly-paper effect in the population of Slovenian municipalities for the period 2006-2009. Intergovernmental transfer considered in the analysis is the specific type of financial equalization. Namely, the Act on Local Finances (1998) introduced a system of appropriate expenditure in order to allow municipalities to carry out their constitutional and legal responsibilities. According to this system appropriate expenditure is calculated on the basis of a special equation, which included correctional factors for diversity in municipalities for the purpose of achieving the equalizations (in comparison to national average), such as the spatial size of municipality, number of residents, number of residents aged below 15 and above 65 and the length of local roads.

Moreover, Local Self-Government Act (2007) stipulates that municipalities must raise their own revenue. Specifically, Act on Local Finances ZFO-1A (2008) envisages that municipalities finance their activities from four major groups of resources, that is own tax revenues (revenues from inheritance and gift taxes, property taxes, taxes on real estate business transactions, shared 54% of personal income tax paid by municipal residents, etc.); other own revenues (administrative fees and duties, concession duties and municipal communal rates, environmental duties, revenues derived from the municipal property management, donations, transfers from central government budget, etc.); municipal duties (i.e., compensation fees for use of municipal land, etc.); and borrowing (the amount is limited by the law).

Financially disadvantaged municipalities, unable to fully perform their duties, are eligible to receive additional financial assistance from the central government in accordance with the principles and criteria prescribed by the law. This actually means that municipalities, where own resources may not be sufficient to finance provision of the services that certain municipality is obliged to deliver, are eligible to receive special financial equalization from central government budget. Put differently, municipalities with insufficient own revenues to finance municipal appropriate expenditures, receive additional revenues in order to be able to perform their duties (see Act on Local Finances ZFO-1A, 2008). This means that this type of intergovernmental transfer would fall into the group of the so-called unconditional lump-sum grants, where the main purpose of the instrument is to equalize horizontal fiscal imbalance (Bird, Smart, 2002; Slack, 2007). Given the fact that fly-paper effect

testing is related to lump-sum grants only, it seems suitable to use this instrument to investigate the "stickiness" of intergovernmental transfers in Slovenia. Moreover, financial equalization amounted to approximately 54 million EUR in 2009, which is not substantial when compared to total revenues of municipalities, although 191 (out of 210) municipalities received that kind of central government support (Ministry of Finance, 2010).

Based on the conventional empirical literature concerned with the estimation of expenditure effects of intergovernmental transfers (e.g., Worthington, Dollery, 1999; Acosta, 2010), the estimated reduced-form regression model for local government expenditure is described as:

$$EXP_{it} = \beta X_{it} + u_{it}, \tag{1}$$

where EXP_{it} is total expenditure per capita for municipality i in year t, X_{it} represents explanatory variables that affect municipal expenditure level in particular year, and u_{it} describes unobservable shocks to municipal spending. Specifically, regression analysis uses per capita municipal total expenditures as dependent variable (LEXP). Explanatory variables used in the analysis are per capita financial equalization received from central government budget (LFINEQUAL), per capita income (LINCOME) , which relates to idea that available income should be the other important prerequisite for municipal spending, consequently making the possibility to test the magnitude of the fly-paper effect. All those variables are expressed in log terms in order to reveal magnitudes of income and grant elasticity, i.e. relative effects of income and transfers on municipal spending.

Besides, some other additional control variables are used in the analysis such as expenditures needs (LNEEDS), total municipal population (POP), changes in municipal population per 1,000 inhabitants on yearly basis (POPGROWTH), municipal population per squared kilometer of territory (DENS), proportion of population unemployed (UNEMP), proportion of population older than 65 years (65+) and proportion of population younger than 15 years (-15). These control variables are integrated into the model, since the majority of them tend to be rather standard in the empirical literature on fly-paper effects. The source of data for the variable FINEQUAL is Ministry of Finance (2010), for variables EXP and NEEDS Ministry of Finance (2011), and for the other variables SORS (2011).

It is worth noting that the paper utilizes only log-linear regression analysis for the possible explanation of the magnitude of the fly-paper effect in the specific case of Slovenian municipalities. Two main reasons for using only this methodology exist: (1) the utilization of this method is the most common in the empirical literature on the fly-paper effect, since it enables the estimation of the income and grant elasticity, which is the dependency of municipal expenditures on local income and transfer revenues received by municipalities; (2) the use of other possible parametric or non-

parametric approaches (e.g., correlation analysis, data envelopment analysis etc.) would not yield the particular intentions of the research, since there is no purpose to estimate the associations between expenditures, income and transfer revenues, neither the production function of municipalities wants to be portrayed, but the main purpose of the empirical part of the paper is to simply estimate income and grant elasticity to enable the discussion on the possible existence and magnitude of the fly-paper effect.

Results and Discussion

The results of the regression analysis are presented in table below. It should be noted that two distinct regression functions are estimated; for the 2006-2008 period and for the 2009 period, the elimination of explanatory variables being based on the χ^2 test. The main reasons for the estimation of two functions are: (1) the number of municipalities has increased in 2009 (from 193 to 210), so the population of municipalities under consideration is not identical; (2) the economic environment changed dramatically in 2009, causing that there was large increase in the number of municipalities that needed financial equalization to finance their legally mandated responsibilities.

Table 1: Stickiness of financial equalization, Slovenian municipalities, 2006-2009

Explanatory	Dependent: LEXP	
	Period 2006-2008 Pooled LS	Period 2009 Ordinary LS
LINCOME	1,675773***	0,138710
LFINEQUAL	0,250578***	0,125676***
65+	/	0,016965
15-	/	-0,031856*
UNEMP	/	-0,012532**
LNEEDS	0,878473***	/
POP	1,46E-05	/
POPGROWTH	0.005913	/
Intercept	-16,11107***	5,485903***
N	421	191
$R^2_{adj.}$	0,104688	0,207728
d-stat.	1,898021	2,183723
F-stat.	10,82208***	10,9633***

Statistically significant: *** - 99% level; ** - 95% level; * - 90% level.

Source: Author's calculations based on the above stated data.

Evidently, the obtained results suggest that the income elasticity is larger compared to grant elasticity in both periods, which means that the fly-paper effect could not be

revealed for the instrument of financial equalization. Although the explanatory power of both models is rather weak and also their structure differs substantially, this is not unexpected as financial equalization is only one instrument of intergovernmental transfer revenues and the economic conditions in both periods are substantially different. Moreover, the elasticity of financial equalization compared to elasticity of income is substantially lower in the 2006-2008 periods, which suggests the existence of the anti-flypaper effect. However, income elasticity almost equals equalization elasticity in 2009, which would suggest that money is fungible, although regression coefficient for income is not statistically significant. This suggests rather limited dependence of municipal expenditures on private income, although the results might be biased due to the economic downturn experienced in that year.

Conclusion

It could be claimed that the anti-flypaper effect could be observed in local government finances in Slovenia, as the grant elasticity is statistically significantly lower compared to income elasticity when the fiscal impacts of financial equalization are investigated. Although theoretical explanations for the anti-flypaper effect are rather limited, potential explanation for this phenomenon, maybe relevant in the context of local government expenditure formation and determination, could be delivered from (modified) agenda control model, initially developed by Filimon et.al. (1982). Namely, this model predicts that local spending is determined with exogenous reversion level. This reversion seems plausible since municipalities in Slovenia are actually financed within the system of the so-called appropriate expenditure determination. Technically, this means that the municipal spending is mandated by the government, and voters are reluctant to (explicitly or implicitly) support any additional spending, since it would require additional sources of financing, which are not assured by government. This perhaps indicates that the rough foundations for the potential validity of modified agenda control model could be experienced, reinforced even with the presumption that reversion level is rather low since only constitutionally and legally determined tasks are financed. Still, additional empirical research in this topic for Slovenia should be encouraged, aimed also at other kinds of lump-sum transfers.

References

ACOSTA, P. (2010) 'The "fly-paper effect" in presence of spatial interdependence: evidence from Argentinean municipalities', *Annals of Regional Science*, vol. 44, No. 3, pp. 453-466. ISSN: 0570-1864.

ACT ON LOCAL FINANCES (1998) Official Gazette of RS, No. 56/98.

ACT ON LOCAL FINANCES ZFO-1A (2008) Official Gazette of RS, No. 57/2008.

BAILEY, S., CONNOLLY, S. (1998) 'The Flypaper Effect: Indentifying Areas for Further

Research', *Public Choice*, vol. 95, No. 3-4, pp. 335-361. ISSN: 0048-5829.

BECKER, E. (1996) 'The Illusion of Fiscal Illusion: Unsticking the Flypaper Effect', *Public Choice*, vol. 86, No. 1-2, pp. 85-102. ISSN: 0048-5829.

BIRD, R.M. , SMART, M. (2002) 'International Fiscal Transfers: International Lessons for Developing Countries', *World Development*, vol. 30, No. 6, pp. 899-912. ISSN 0305-750X.

BRENNAN, G., PINCUS, J. J. (1996) 'A minimalist model of federal grants and flypaper effects', *Journal of Public Economics,* vol. 61, No. 2, pp. 229-246. ISSN: 0047-2727.

FILIMON, R. et. al. (1982) 'Asymmetric Information and Agenda Control: The Bases of Monopoly Power in Public Spending', *Journal of Public Economics*, vol. 17, No. 1, pp. 51-70. ISSN: 0047-2727.

GRAMLICH, E., GALPER, H. (1973) 'State and Local Fiscal Behavior and Federal Grant Policy', *Brookings Papers on Economic Activity,* vol. 1973, No. 1, pp. 15-65. ISSN: 1057-8641.

INMAN, R. (2008) *The Flypaper Effect*, Working Paper No. 14579. Cambridge: NBER. Available from WWW:<http://www.nber.org/papers/w14579>.

LOCAL SELF-GOVERNMENT ACT (2007) Official Gazette of RS, No. 94/2007.

MINISTRY OF FINANCE (2010) *Calculations of the appropriate expenditures of local authorities and needed financial equalizations, 2003-2009*. Ljubljana: RS, Ministry of Finance. Available from WWW:<http://www.mf.gov.si>.

MINISTRY OF FINANCE (2011) *Financial Statements of Municipalities*. Available from WWW:<http://www.mf.gov.si>.

SLACK, E. (2007) *Grants to Large Cities and Metropolitan Areas*, in: Boadway, R., Shah, A. (Ed.). Intergovernmental Fiscal Transfers: Principles and Practice, Washington: The World Bank. ISBN: 08-21-36-49-28.

SORS (2011) *SI-Stat Data Portal*. Ljubljana: Statistical Office of the Republic of Slovenia. Available from WWW:<http://www.stat.si>.

STRUMPF, K. (1998) 'A predictive index for the flypaper effect', *Journal of Public Economics*, vol. 69, No. 3, pp. 389-412. ISSN: 0047-2727.

VEGH, C., VULETIN, G. (2011) 'Unsticking the flypaper effect in an uncertain world', *2012 AEA Meeting Papers.* Available from WWW:<http://www.aeaweb.org>.

WORTHINGTON, A.C., DOLLERY, B.E. (1999) 'Fiscal Illusion and the Australian Local Government Grant Process: How Sticky is the Flypaper Effect?', *Public Choice*, vol. 99, No. 1-2, pp. 1-13. ISSN: 0048-5829.

WYCKOFF, P. (1985) 'Revenue Sharing and Local Public Expenditure: Old Questions, New Answers', *Economic Review,* vol. 1985, No. IIQ, pp. 13-26. ISSN 0732-1813.

The Double Taxation of Savings and Economic Growth in Czech Republic

Rosenberg Zdeněk

Abstract

This paper presents the results of the simple agent-based model. The model simulates the abolishing of the double taxation of savings in the Czech economy and its impact on economic growth using three levels of growth sensitivity to total amount of savings in the economy. The model concludes that double taxation of savings has very little if any effect on GDP growth rates. This is true for all three settings of growth sensitivity to savings. Double taxation has basically no negative impact on economic growth in the short run and slightly bigger but still questionable impact in the long run. The final years of simulation also show that rather than small changes in tax system settings it is the future demographic change that deserves attention.

Keywords

tax, savings, economic growth, multi-agent based simulation

Introduction

In most countries the interest paid on already taxed savings is also taxed and this fact is part of the problem known as double taxation of savings. Additional taxation may cause lower levels of savings on the behalf of consumption and so it may harm future economic growth through diminished accumulation of capital. This finding is attributed to J.S. Mill and gained a lot of attention in 1930s. Back then, some saw interest as new income and had little understanding of any exemption from taxation whatsoever (Weaver, 1932). Others like A. Marshall and C.A. Pigou endorsed the argument and demanded no taxation of savings. Irving Fisher clearly explained that those who save the most and for the longest period of time will suffer the most from the duplication of taxation. He also pointed out that no silent business partner takes his part and later comes for the fruits from the other part which is exactly what government does (Fisher, 1939). Arguments supporting both sides from many economists are mentioned in a recent article (Fossati, 2010) which summarizes the whole debate that spans over a century and is still fairly open.

In this article no theoretical claim is made about whether double taxation of savings is just. It shows that the negative impact of double taxation of savings on economic growth is measurable but basically insignificant. This result was simulated using an agent-based

model resembling the Czech economy and stays true even with a strongly enhanced role of savings in the economy.

Model and Data

The presented model consists of 10,000 agents which represent the economically active Czech population. Increasing the number of agents does not affect the results. The prices are constant and the only taxes are income tax on personal income and 15% tax on interest of the agent's savings. The model works under many assumptions which were set to represent current trends in the Czech economy. Generally, the model is very simple but is aimed to simulate the Czech population's dynamics of aging. The fiscal year is used as a time unit and simulation covers the years 2011 to 2050.

The differences in wages of individual agents are predetermined at birth and represented with a coefficient for every individual agent. Wages increase with age till 50 and then keep constant until retirement. Individual saving rates also increase with age until 50 and stay constant from then till retirement. Agents decide if they will have a job which depends on their age and randomly assigned willingness to work, which forms the start of a model which copies actual employment from the Czech Republic (Ministry of Labour and Social Affairs of Czech Republic, 2011). Willingness to work and to save is affected by taxation. Agents save at real the interest rate of 1-2 % p.a. and their savings are affected by their salary and age following the data from Ministry of Finance of the Czech Republic (2010).

Agents also lose work and die, and the probability of the death of the agent is tested every year with respect to data from the Czech Statistical Office (2010). A new agent is born aged 15-25 years when another agent dies or reaches age of 65, which represents the age of retirement, and so keeps their number constant. The original age structure of agents copies the one of the Czech Republic.

As the model is very simple, many important features of tax collection are completely omitted which is not unusual even for more complicated models. Tax evasion for example is often the goal of specific agent-based models, but for models similar to this one it is usually reduced only to use of lower tax rate (Bloomquist, 2006).

The economic growth in the model is determined as the multiple of two elements. The first is net national savings, which is the sum of savings of all agents after depreciation. This basically represents the growth of capital stock in the model. The second element is the coefficient c representing the three possible levels of impact savings can have on economic growth. The model is run once with taxation of savings and once without it. Three levels of c are used in the model for both of these settings. The general income level is identical to GDP in the model and is affected by the amount of previous savings. This is because higher savings lead to higher stock of physical capital and that increases the productivity of labor.

The model operates under fixed government's budget constraint. The income tax rate is used to compensate for loss of government income after abolishing taxation of interest and also for increase in revenue due to higher economic growth caused by the same reason. The income tax rate does not change immediately and so the simulation may end with higher government's revenues for settings without the double taxation of savings. The income tax was set according to the actual Czech tax rate. This rate was slightly increased for the settings without double taxation of savings at the beginning of the simulation to compensate for revenue loses.

The model is programmed in JAVA. Many thanks go to Stanislav Heller for the technical realization of the model.

Results

The model showed that for conservative values of c (the impact the savings have on economic growth) there is very little difference between systems with and without double taxation of savings. Even for $c = 0.5$ which represents a growth in national savings by 1%, resulting in 0.5% growth of GDP and which is more than is realistic for small open economy, the results are much smaller than was expected. All the presented figures show results for $c = 0.5$ because for a lower c, the differences are negligible.

**Figure 1: Income tax revenues with and without double taxation of savings (mld. CZK)**
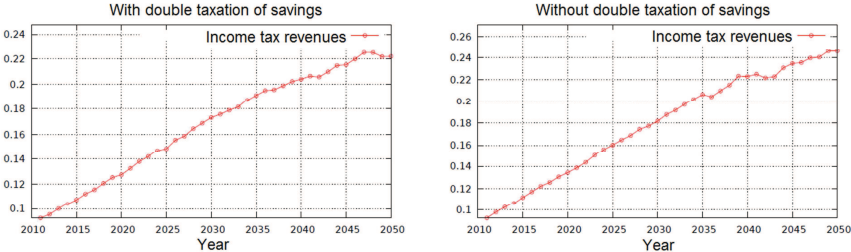
Source: Author

Figure 1 shows that within 10 years the revenues from personal income tax of 10,000 agents in settings without double taxation surpasses that of model with this taxation. Later, a slight drop is caused by lowering the rate of tax, which is made possible by the slightly faster GDP growth without double taxation.

Figure 2: Average income (CZK)
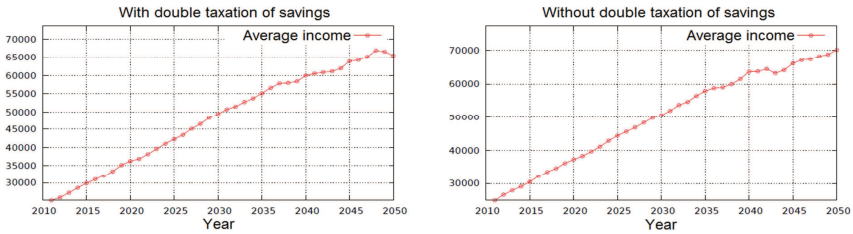
The average income has very similar outcomes to income tax revenues due to its specification in the model. The growth of pretax income is strongly affected by the changes in age structure of the population, as is visible most explicitly around 2043. This is mainly caused by higher unemployment which the model predicts at that time. This behavior of the model may not be necessarily realistic but does not affect the final outcome in any significant way.

Figure 3: Unemployment rate (%)

Table 1, which follows, presents the final results of the simulation. It is clear that for low values of c (strength of saving's income on economic growth) there is no significant difference between different approaches to the taxation of savings. The difference of 0.03% and 0.08% in average annual growth rates is much too low to deserve any interpretation. This is most obvious from 1.84% (= 41.91 – 40.07) of current GDP difference after 40 years of simulation.

Table 1: Growth rates

	With double taxation			Without double taxation		
c	0.1	0.25	0.5	0.1	0.25	0.5
Total growth (%)	40.07	142.61	555.34	41.91	151.03	589.29
Average growth rate (%)	0.83	2.19	4.69	0.86	2.27	4.82

The results for *c = 0.5* suggest that something positive has been achieved by abolishing the double taxation of savings, however the difference 0.13% in the annual growth rate is still rather small. The cumulative effect seems somewhat significant but it is necessary to keep in mind that an obtained gain of 33.95% GDP is the product of 2011, which would be equal to only 5% gain in GDP if products of 2050 were compared.

Another interesting finding of the model was observed for the low impact of savings on economic growth. For this setting, the pretax income of agents grows quite well in the early years, reaching 37000 in 2035, but then the growth basically disappears because of the aging of the Czech population. This is true for an economy both with and without the double taxing of savings.

Discussion

Rather than studying the effect that savings had on the growth in the past, which would hardly be very significant in the long run given the youth of the private banking system in the Czech Republic, the presented model used three different levels of this. Confirming these results using a developed model with a valid labor market is one of the next logical steps in the analysis.

The whole role of the interest rate and its taxation calls for further research. Even if the Czech population was fully aware that, for example, 3% pretax interest rate is 2.55% after 15% tax on interest, it is still unclear how much effect this would have. Especially in recent years, it is obvious that current GDP growth as well as expectations of future development have much larger impact on total amount of savings than changes in interest rate.

Conclusion

The results provided here show that under reasonable assumptions the double taxation of savings in the form of taxing the interest has very little impact on economic growth even in long run. This holds true through any tested level of the impact that savings have on growth. On the other hand, it is worth noting that even for the small role of savings, economic growth was slightly bigger without double taxation of savings, whilst keeping government revenues unchanged. The model also shows the surprisingly high impact of the Czech population's aging on economic growth, especially when large previous savings cannot compensate for this gap.

Acknowledgements

References

BLOOMQUIST, K.M., (2006) A comparison of agent-based models of income tax evasion. *Soc. Sci. Comput. Rev.* 24, 4 (December 2006), pp. 411-425. Available from WWW: http://ssc.sagepub.com/content/24/4/411.full.pdf+html

CAROLL, C.D., WEIL, D.N., (1994) *Saving and Growth: A Reinterpretation*, Carnegie-Rochester Conference Series on Public Policy, 40:133-92.

EDWARDS, S., (1995) Why are Saving Rates so Different Across Countries?: An International Comparative Analysis, NBER Working Papers No.5097.

FISHER, I., (1939) The Double Taxation of Savings, *The American Economic Review* Vol. 29, No. 1, pp. 16-33. Article stable URL: www.jstor.org/stable/10.2307/1806984

FOSSATI, A., (2010) The double taxation of savings: the Italian debate revisited, No 3/2010, *DISEFIN - series of economic working papers*, University of Genoa, Research Doctorate in Economics and Finance of European Union. Available from WWW: <http://EconPapers.repec.org/RePEc:gea:wpaper:3/2010>

KALDOR, N., (1956) Alternative Theories of Distribution, *Review of Economic Studies*, 23(2): 83-100.

LEWIS, W.A., (1955) The Theory of Economic Growth. Homewood, III: Irwin.

Ministry of Finance of Czech republic, (2010) [online]. Závěrečná zpráva PES: Úspory domácností a hrubý pracovní příjem [cit. 17-5-2012]. Available from WWW: http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/vf_duchod_ref_pes_55891.html

Ministry of Labour and Social Affairs of Czech Republic, (2011) [online]. Analýza vývoje zaměstnanosti a nezaměstnanosti v 1. pololetí [cit. 2012-04-15]. Available from WWW: http://portal.mpsv.cz/sz/politikazamest/trh prace/rok2011p1/analyza1p2011.pdf

MOHAN, R., (2006) "CAUSAL RELATIONSHIP BETWEEN SAVINGS AND ECONOMIC GROWTH IN COUNTRIES WITH DIFFERENT INCOME LEVELS.." *Economics Bulletin*, Vol. 5, No. 3 pp. 1–12 Available from WWW: http://www.economicsbulletin.com/ 2006/volume5/EB–05E20002A.pdf

SOLOW, R. M., (1956) A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* (The MIT Press) 70 (1): 65–94.

THORNTON, D. L., (2009) Personal saving and economic growth, *Economic Synopses*, issue , number 46. Available from WWW: http://EconPapers.repec.org/RePEc:fip: fedles:y:2009:n:46

WEAVER, D., (1932) An Economic Fallacy: The Double Taxation of Savings. *The Economic Journal* Vol. 42, No. 167, pp. 495-498. Article stable URL: www.jstor.org/stable /10.2307/2224053

Accuracy of Tax Revenue Forecasts in Czech Municipalities

Sedmihradská Lucie

Abstract

The paper explores factors influencing accuracy of tax revenue forecast in 198 municipalities of extended scope between 2003 and 2011 using the fixed-effects model analysis. The accuracy of municipal tax revenue forecasts is influenced not only by the national economic situation (especially GDP growth rate) but local economic and fiscal conditions have their importance as well. Tax revenue forecasts tend to be more optimistic in smaller municipalities and in municipalities with less favorable economic and fiscal conditions. Our results also suggest that municipal tax revenue forecasts are subject to political business cycle.

Keywords

budget accuracy, tax revenue forecasting, political business cycle

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Introduction

Some inaccuracy of revenue forecasts is inevitable; however our previous research (Sedmihradská and Kramoliš, 2012) shows that majority of municipalities underestimate their revenue forecasts and approve budgets with much more conservative estimates than the revenue forecast of the Ministry of Finance. Municipal tax revenues were on average underestimated by more than 4% in the last decade with significant differences among individual municipalities. The aim of the paper is to identify factors which cause these differences.

First, based on the literature review, there are recognized major factors which influence accuracy of revenue forecasts. Then we test if these factors can explain the differences in tax revenue forecast accuracy in 198 municipalities of extended scope between 2003 and 2011 using the fixed-effects model analysis.

Revenue forecast accuracy and its determinants

Revenue forecasting is one of the first steps while preparing the draft budget. Its results influence the decision-making of resource allocation, so that inaccuracy of the forecasts may have tangible impacts. Budget inaccuracy is the difference between the approved (budgeted, estimated) and actual (real) revenues. In this paper the following budget inaccuracy indicator is used:

$$BI_x = \frac{B_x - A_x}{A_x} \cdot 100 \text{, where} \tag{1}$$

x = analyzed budget segment (revenues or a line of them), BI = budget inaccuracy, B = approved amount and A = actual amount.

The inaccuracy can be either in the form of overestimation, i.e., the approved revenues exceed the actual revenues and $BI_x > 0$ or underestimation, i.e., the estimated revenues are lower that he actual ones and $BI_x < 0$. Thus in case BI_x grows the forecasts are less conservative, i.e., the underestimation is smaller or it turns into overestimation or the overestimation grows. Growth of BI_x thus does not generally mean improvement of budget accuracy.

In case of revenue overestimation not all approved expenditures can take place and cuts are needed. Revenue overestimation softens the hard budget constrain and shifts the decision-making about the needed cuts from the preparation and approval phase of the budgetary process to the execution phase. Rubin (1987, p. 83) stresses the associated shift in power in favor of the budget officer. As in the Czech Republic municipalities do not operate under strict balanced budget requirement, revenue overestimation may result in budget deficit.

Underestimation means that during the budget year there appear some additional revenues which can be either added to the year-end balance or spent on newly approved expenditures. The process of the decision making during the year, however, may be less transparent than the standard budgetary process, as less publicity for budget amendments than the draft budget is required and because of common praxis of delegation of decision-making power from the municipal council to municipal commission or the mayor (see Češková and Kinšt, 2011, p. 209). As underestimation of budget revenues is considered to be fiscally responsible – thus positive – some authors, e.g. Rodgers and Joyce (1996, p. 49), argue that a part of the revenue forecast error "can only be explained by the very rational choice to underestimate revenues in order to provide cushion against a recession that is unanticipated".

Figure 1 shows the development of budget inaccuracy of municipal tax revenues (BI-TAX) and total municipal revenues (BI-REV) in the analyzed 198 municipalities of extended scope together with the tax revenue forecasts provided by the Ministry of Finance. It shows the average inaccuracy and the 95% confidence interval of the indicator. The difference between the drawn line and zero line shows the percentage of additional revenues received during the budget year with only exception of tax revenue in 2009 when the tax revenues were missing.

The total revenues show relatively stable development, the correlation analysis confirmed our expectation that the revenue inaccuracy is negatively influenced by the share of grants and capital revenues in total revenues, the correlation coefficients being -0.2531 and -0.1754, respectively. The inaccuracy of tax revenues shows, with exception of 2009, improvement. We suppose that one of the reasons could be continuous decline of the importance of the revenues from the individual income tax paid by entrepreneurs. 30 % of proceeds from this tax remain in the municipality

of the permanent residence of the particular entrepreneur. Therefore this tax is much more volatile as well as hard to forecast than the taxes shared based on the revenue sharing formula. The average share of this tax in total tax revenues in the analyzed municipalities fell from 9.8% in 2001 to 2.1% 2011.

Figure 1: Revenue inaccuracy (2001-2011)
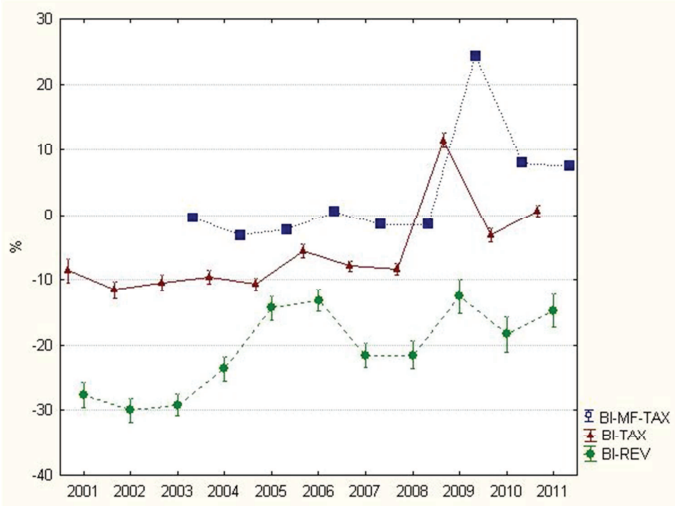
Source: ARIS, ÚFIS, documentation to the state budget proposals (2003-2011), own calculations and presentation

The accuracy of revenue forecasts is influenced by numerous factors which Chatagny and Soguel (2012, p. 6-9) divide into four main groups: economic environment, fiscal situation, technical and organizational aspects and political factors. Some of the factors are the same for all municipalities such as the national GDP growth rate, inflation rate or date of municipal council elections, but many factors are specific for each municipality. For example economic situation in a particular municipality may influence some tax revenues. Similarly each municipality is in a different fiscal situation. Fiscal situation influences the revenue forecasting bias toward underestimation. Rubin (1987, p. 92) found that "the greater the cities' overall fiscal stress, the greater the likelihood of overestimating revenue." Thus fiscal hardship leads to acceptance of thinner "forecast cushion" than generally wanted. This finding is consistent with Rose and Smith (2012) who found that U.S. states which adopted budget stabilization funds, i.e., have reserve funds at their disposal in case of an unexpected event, are less conservative in their revenue estimates. Thus again, thinner "forecast cushion" is accepted because real reserves exist.

While revenue forecasting is most of all a technical process regardless how sophisticated

methods are used, the approved budget, or exactly the expected revenues approved in the annual budget, is a result of political decision-making and thus can be manipulated. As mentioned above, less conservative revenue estimates may allow approval of higher or additional expenditures. This can be especially tempting before elections when the incumbent tries to show voters their competence and get reelected. Empirical evidence of the existence of political business cycle in revenue forecast shows, however, only weak support such as Bischoff and Gohout (2010) in case of German lands or Chatagny and Soguel (2012) in case of Swiss cantons.

Material and methods

Forecasting of budget revenues is influenced by the revenue structure. The ability to exactly estimate individual revenue types differs significantly and therefore our analysis focuses only on tax revenue inaccuracy (BI-TAX) and we deal with variables representing the economic environment, fiscal situation and political factors.

The key factor influencing the forecast inaccuracy is the economic situation, which can be characterized by three major indicators: GDP growth rate, inflation rate and unemployment rate. While data on the former two are available only nationally, the unemployment rate is available for individual municipalities of extended scope. Higher economic growth (GDP) results in higher actual revenues (BI decreases), higher inflation (INFL) means higher actual nominal revenues (BI decreases) and higher unemployment (UNEMPL) results in lower tax collections due to both lower incomes and lower consumption. Due to the revenue sharing mechanism, the differences in the unemployment rate among municipalities have only a limited impact. We can, however, consider it as a proxy for characteristic of economic situation in the particular municipality. So it can indirectly impact the activity and so the taxes paid by entrepreneurs, i.e., higher unemployment means lower actual revenues (BI grows).

The impact of the size of the municipality (POP) can be twofold: bigger municipalities employ more specialized staff and revenue forecasting can be based on more sophisticated methods. On the other hand, bigger municipalities start budget preparations earlier (see Sedmihradská, 2006), so the uncertainty about further development is bigger. Neither Rubin (1987) nor Goeminne, Geys and Smolders (2008) found effect of population size on forecast accuracy.

Fiscal situation of a municipality is described through two indicators: total revenues per capita (REV) and budget balance as a share on total revenues (BAL). These indicators do not indicate if a municipality observes fiscal stress, however they indicate if the fiscal situation is more or less favorable. We expect that municipalities with lower revenues per capita and budget deficit will be more optimistic. Thus BI grows if per capita revenues and budget balance falls.

The theory of political business cycle assumes that revenue forecasts are more optimistic before elections (ELECT); therefore BI should be higher in the election years.

To empirically assess the relation between budget inaccuracy and economic, fiscal and political factors we use a panel dataset from 2003 to 2011 for 198 municipalities of extended scope. Out of the total 206 municipalities of extended scope we have excluded 8 cities (Brno, Liberec, Opava, Ostrava, Pardubice, Plzeň, Praha and Ústí nad Labem) which are divided into districts with own budgets. We do not have data on individual districts budgets and the evaluation of accuracy of the aggregated (consolidated) budgets seems inappropriate.

Financial data were acquired from the information systems Automated Budget Information System (ARIS) and Accounting and Financial Information System (ÚFIS) administered by the Ministry of Finance. The data are based on the Czech budget classification, i.e., all the data are recorded on the cash principle. The data for GDP growth rate and inflation rate are from the Czech Statistical Office and for unemployment rate from the Ministry of Labor and Social Affairs.

We estimate the following multivariate model to test our predictions (subscripts i and t referring to municipalities and time respectively):

$$\text{BI-TAX}_{i,t} = a + b_1\text{GDP}_t + b_2\text{UNEMPL}_{t-1} + b_3\text{INFL}_{i,t} + b_4\text{POP}_{i,t} + b_5\text{REV}_{i,t} + b_6\text{BAL}_{i,t} + b_7\text{ELECT}_t + e_{i,t} \quad (2)$$

where

$\text{BI-TAX}_{i,t}$ is the budget inaccuracy of the tax revenues calculated based on formula (1),

GDP_t is the annual change in the gross domestic product expressed in the real terms, in percent,

UNEMPL_t is the unemployment rate, i.e., number of registered unemployed divided by number of economically active inhabitants, in December, in percent,

$\text{INFL}_{i,t}$ is the yearly average inflation rate, in percent,

$\text{POP}_{i,t}$ is the number of inhabitants, in thousands,

$\text{BAL}_{i,t}$ is the budget balance as a share of total revenues, i.e., difference between total revenues and total expenditures divided by total revenues, in percent,

$\text{REV}_{i,t}$ are total municipal revenues per capita, in thousands CZK,

ELECT_t is a dummy variable that takes the value 1 in election years (i.e., 2006 and 2010) and 0 in other years.

For estimation of the model we have used fixed-effects models analysis in the software Gretl 1.9.2. This approach is similar to Rose and Smith (2012). Results

Results

The obtained results are presented in Table 1 and confirm some of our expectations:

higher GDP growth and lower unemployment leads to higher actual revenues and consequently higher tax revenue underestimation, i.e., lower BI-TAX. The impact of GDP growth is much stronger, increase by 1 percentage point leads to increase of tax underestimation by 2 percentage points in case of GDP growth and decrease by only 0.2 percentage points in case of unemployment rate. At the same time there is no impact of inflation. Despite our expectation the impact of the population size is significant: smaller municipalities are more optimistic than bigger ones.

Table 1: Estimates of the tax revenue inaccuracy models (198 cross-sectional units, time-series length 9; 1,782 observations)

CONST	17.3043***
	(5.1261)
GDP(t)	-2.0582***
	(0.0555)
UNEMPL(t-1)	0.2179***
	(0.0828)
INFL(t)	0.0211
	(0.1024)
POP(t)	-0.5538**
	(0.2664)
REV(t)	
	-0.3119***
	(0.0394)
BAL(t)	-0.033**
	(0.016)
ELECT(t)	3.8666***
	(0.3569)
Mean value of the dependent variable	-4.8505
Standard error of dependent variable	9.7392
Adjusted R-squared	0.6364
Durbin-Watson statistic	1.7206

Source: Author

*Note: std. error reported in parenthesis, *** significant at 0.01 %, ** significant at 0.05 %*

Fiscal situation influences BI-TAX as expected, municipalities in less favorable situation, i.e., with lower revenues per capita and budget deficit, tend to underestimate tax revenues less. This finding is consistent with Rubin (1987). The influence of these factors is, however, not very strong: decrease of per capita revenues by one thousand CZK leads to increase of BI-TAX by 0.3 percentage points and increase of budget deficit share in total revenues by 1 percentage point leads to increase of BI-TAX only by 0.03 percentage points.

The most surprising result is the strong and highly significant positive impact of election which suggests the existence of political business cycle in municipal revenue forecasts, i.e., the BI-TAX is in the election years higher by 3.9 percentage points than in the other years. Interpretation of this finding is quite difficult, when we consider the following: First, both the municipal council elections and the elections to the Chamber of Deputies take place in the same year. Second, there is some interdependence between municipal

tax revenue forecasts and the forecasts of the Ministry of Finance. Municipalities are independent in their revenue forecasts, however, they know the tax revenue forecasts provided by the Ministry of Finance and they consider them to some extent during their own forecasting process. Existing case studies (Talíř, 2012 and Radilová, 2012) show examples, when the budget officers take the ministerial forecasts as the most optimistic scenario. So, without further research, it is unclear, whether this forecast optimism rises at the municipal side or if is caused by optimism in the forecasts of the Ministry of Finance.

Conclusions

Czech municipalities systematically underestimate their revenues and there are significant differences among municipalities. Our results confirmed that the accuracy of municipal tax revenue forecasts is influenced not only by the national economic situation (especially GDP growth rate) but that local economic and fiscal conditions have their importance too. Underestimation of tax revenues tends to be higher in bigger municipalities with more favorable economic and fiscal conditions. This finding is consistent with Rubin (1987) and suggests that in worse times municipalities use all available resources including "hidden" reserves in the form of revenue underestimation.

Obtained results suggest, that municipal tax revenue forecasts are subject to political business cycle. This finding is interesting, especially, because there is only very limited empirical support of this common assumption. Due to the interdependence of municipal forecasts and forecasts of the Ministry of Finance and concourse of municipal council elections and the elections to the Chamber of Deputies in the same year, further research is needed to find out if the forecast optimism rises at the municipal or ministerial side.

Revenue forecasts may be subject to manipulation and the determination of the factors, which influence them, allows assessing if this is happening in case of Czech municipalities. While the rational behavior in case of worse economic and fiscal situation of a municipality does not confirm this suspicion, the confirmation of the political business cycle does. Therefore we intend to continue this research by exploring additional factors and possibly prolonging the time series so that also the election year 2002 is included.

Acknowledgements

References

BISCHOFF, I., & GOHOUT, W. (2010). The Political Economy of Tax Projections. *International Tax And Public Finance*, *17*(2), 133-150. Available from WWW: http://dx.doi.org.ezproxy.vse.cz/10.1007/s10797-008-9103-y

ČEŠKOVÁ, M. and KINŠT, J. (2011) *Rozpočtová skladba v roce 2011*.Olomouc : ANAG. ISBN 978-80-7263-638-9

GOEMINNE, S., GEYS, B., & SMOLDERS, C. (2008). Political Fragmentation and Projected Tax Revenues: Evidence from Flemish Municipalities. *International Tax And Public Finance*, *15*(3), 297-315. Available from WWW: http://dx.doi.org.ezproxy.vse.cz/10.1007/s10797-007-9021-4

CHATAGNY, F. and SOGUEL, N.C. (2012) Determinants of Tax Revenue Forecasting Errors : Evidence from Swiss cantons. Available from WWW: http://www.pubchoicesoc.org/papers_2012/Chatagny_Soguel.pdf

RADILOVÁ, M. (2012) Predikce příjmů obecních rozpočtů. Master thesis, University of Economics, Prague.

RODGERS, R., and JOYCE, P. (1996). The effect of underforecasting on the accuracy of revenue forecasts by state governments. *Public Administration Review*, *56*(1), 48.

ROSE, S., & SMITH, D. L. (2012). Budget Slack, Institutions, and Transparency. *Public Administration Review*, *72*(2), 187-195.

RUBIN, I. S. (1987). Estimated and Actual Urban Revenues: Exploring the Gap. *Public Budgeting & Finance*, *7*(4), 83-94. doi:10.1111/1540-5850.00766

SEDMIHRADSKÁ, L. (2006) Možnosti využití nových rozpočtových metod a nástrojů v rozpočtovém procesu obcí ČR. In: *Theoretical and Practical Aspects of Public Finance [CD-ROM].* Praha: Nakladatelství Oeconomica. ISBN 80-245-1032-4.

SEDMIHRADSKÁ, L. and KRAMOLIŠ, J. (2012) How accurate are revenue forecasts in Czech municipalities? An initial analysis. In: *Teoretické a praktické aspekty veřejných financí* [CD-ROM]. Praha: Nakladatelství Oeconomica. ISBN 978-80-245-1764-3.

TALÍŘ, J. (2012) Predikce příjmů obecních rozpočtů. Master thesis, University of Economics, Prague.

Modeling of Tax Policy Influence on Taxpayers' Behavior

Sokolovskyi Dmytro, Sokolovska Olena

Abstract

This paper aims to propose the approach to classify the industries in terms of easiness of tax evasion. Based on assumptions of taxpayer's behavior, our results allow defining the type of dependence of real tax rates on their nominal ones. We find that the graph, describing the taxpayer's behavior, has two key points: maximum – the optimal tax rate (if this rate increase, the real tax revenues fall), and also the point of simple reproduction (after achieving this level, firms stop to pay taxes at all with appropriate shifting into informal sector or closing down). I.e. two key levels of tax burden: «optimal» and «zero» can be defined. The values of those parameters for taxpayers operating in different groups of industries were calculated.

Keywords

tax burden, economic behavior, tax evasion, game theory

Introduction

In the current context the developing and transition countries, including Ukraine, face the problems of insufficient revenues, collected in different level budgets. The economic reforms need rather more costs (i.e. revenues), than stable situation. For this reason, any arrears in developing and transition countries create more problems than in developed ones. The budget arrears due to direct nonpayment, concealment of income, transferring the economic activity into illegal sector leads to budget shortfall. In this situation the threats come from insufficiently clear planning of tax base (number of taxpayers, their revenue), from insufficiently clear behavior rating of taxpayers in case of changes in state tax policy and also from insufficiently organized inspection of tax collection. All foresaid and-or can lead to default by taxpayers from their obligations.

Our research provides the development of a game-theoretical model of interaction between taxpayers and tax authorities.

In theory, one of the main aspects of budget nonfulfillment problem is the issue of tax evasion, which is well known in world literature as «tax evasion problem». For purpose of our research the studies of tax evasion by means of game-theoretic modeling are of interest. The application of game-theoretic tools to solve the problem of tax evasion first was made by Alligham and Sandmo (1972, pp. 323-338), Srinivasan (1973, pp. 339-346), McCaleb (1973, pp. 287-294), Christiansen (1980, pp. 389-393) analyzed problems of optimization of correlation between identifying tax violation and amounts

of penalties, and also application of those penalties to struggle with tax evasion. Andreoni et al., (1998, pp. 818-860) using game theory and principal agent theory suggest that penalties and audit probability are difficult to describe in compliance models. The main aspects of tax avoidance, evasion and administration were overviewed by Slemrod and Yitzhaki (2000). Vasin (2002), starting out from classical model of Alligham-Sandmo-Srinivasan, handles a problem of tax revenue maximization, taking in consideration the different variants of penalty function. The Lipatov's model (2005) assumes the minimal information about auditing probability and the possibility of payoffs for tax inspectors from taxpayers. As against Vasin, who optimizes the actions of tax authority, Lipatov, deciding the main problem of his research, resolves itself into adopting of agents' decisions, which are satisfactory but not optimal. Alm and McKee (2004, pp. 297–312) using game-theoretic tools investigated compliance behavior when returns are selected for audit based upon the deviation of each individual's tax report from the average report of all other taxpayers. Bilotkach (2006, pp. 31-49) examined the tax evasion by Ukrainian enterprises through underreporting activity. But proposed game-theoretic model will be feasible only after introducing into the model the third person – a customer (a principal), because if the principal and the tax inspector are all in one, than taking bribes on his part will be absolutely irrational behavior. Congdon and Kling (2010, pp. 375-386) consider the theoretical implications of behavioral economics for tax policy and the welfare consequences of taxation.

Among studies in applied economics, concerned with evaluation of specific figures of tax evasion for certain countries, for purposes of our research we examined the following ones. Engel and Hines Jr. (1999), Gemmel and Ratto (2012, pp. 33-58) proposed the model of behavior of rational taxpayer. Despite the feasibility of proposed approaches, they can't be used for our study because they characterize the individuals' behavior, but not the enterprises' one. De Melo et al. (1992) in their study compared the tax systems of low-income countries (which is more close to Ukrainian realias); however they analyzed Madagascar's tax system as a comparative base, which characterizes by various distortionary taxes. The application of given model to Ukraine is complicated by reason of presence of less distorting tax system and by reason of model's incompleteness, which examines only the indirect taxes..

Based on analysis of research in the area of tax evasion it can be concluded that one of the currently important problems, which now is not solved, is the problem of optimization of tax burden, which is grounded on analysis of dependence between taxpayers' behavior and changes of tax pressure. Indispensably it should be taken into account the possibility of opportunistic behavior of taxpayers. In this context our model differs from existing ones properly by the fact that, besides of traditional unsecured detection of taxpayers' tax evasion by tax inspector, we also introduce the possibility of recognition the "fair" taxpayer as a tax evading person. Consequently, the scope of research is the influence of changes of tax burden on taxpayers' behavior.

The goal of research is to define the real tax burden which depends on the nominal tax burden falling on enterprises of different industries; also the response of enterprises to possible tax rates changes will be analyzed.

Material and Methods

The assumptions are the following. 1) The perfect demand elasticity for firms' production (i.e. the prices are set endogenously). 2) The taxpayers practice bounded rationality in their actions, i.e. they try to maximize their revenues, irrespective to means of objective achievement, taking the decisions according to their awareness. 3) The motives of behavior and principles of environment valuation are invariable for all taxpayers in all industries.

Classification of taxes and industries. Based on economic and statistical analysis for further research it was decided to limit the number of taxes to six: profit tax, payroll tax (as burden on production cost, which the economic agent can manipulate), land tax, excise tax, customs duty. One of the main taxes – the VAT, did not consider in the model, because it has a specific procedure of assessment and refund. Further it is reasonable to specify some taxes, notably: *customs duties* – on export and import duty, since the export duty is levied only for some raw materials, while import tariff is levied on most of products, imported in Ukraine by taxpayers; *excise tax* – on excise tax on import and domestic excise tax.

So, the chosen taxes are the following: profit tax, payroll taxes, land tax, domestic excise tax, excise tax on import, export duty, import tariff.

Principles of identification of some taxes in terms of possibility and methods of tax evasion.

Taxes related to external trade differ by procedure of taxpaying, notably, they are paid by event (i.e. the basis for taxpaying is only the fact of product's border crossing) in contrast to taxes non related to external trade (in this case the basis for taxpaying is the coming of determined period of time). The same is for procedure of control over taxpayers: for taxes related to external trade the control exercises directly at the moment of product's border crossing; for taxes non-related to external trade the control exercises at specified time. The evasion from different taxes involves different cost. The main rule is the following: it is easier to evade taxes, which need technically complicated calculation of financial results, and it is more complicate to evade taxes, which are based on simple physical or cost indicators.

The ranking of taxes by easiness of tax evasion was made as follows. The easiest is the evasion from paying profit tax and payroll taxes. The easiness of evasion from paying profit tax is caused by possibility of ambiguous profit calculation in accounting documents. Moreover, large enterprises, notably in metallurgical industry and machinery, often shift the significant part of their profit into offshore zones.

Based on analysis of statistical data the taxes were ranked by easiness of tax evasion, namely: profit tax, payroll taxes, domestic excise tax, excise tax on import; export duty; import tariff, land tax. Such ranking by easiness of tax evasion is confirmed by tax debt profile. Particularly, one of the higher debts is the debt related to non-payment of profit tax, and one of the smaller debts is the debt related to land tax.

Industries are grouped according to: share of different taxes, procedure of paying of each tax in given industry, general characteristics of firms operating in given industry, which influence on behavior of separate firm. Based on analysis of Ukrainian legislation for each industry we established a list of taxes, paying by firms operating in this industry.

Results and Discussion

Model of taxpayer's behavior. In the case when the nominal tax rate increases (and this tax affects on economics of enterprise), this leads to increase of cost and decrease of profit – regardless the type of tax. This means, that all taxes irrespective of their name and procedure of assessment can be regarded as profit taxes. It is important because in practice some taxes can increase, while other ones can decrease. In this situation only the final impact matters – did the total tax burden increase or decrease, i.e. did the share of profit, withdrawing for social needs will be increased or decreased.

If this share increases, the firms will tend to decrease the increment of tax burden due to additional tax evasion, associated with additional cost. And if this cost is not extremely high, this will result to the certain increase of scope of tax evasion and further enlargement of gap between nominal and real tax coefficient. This can be explained by following way: every tax rate (for example, land tax) can be increased, but tax evasion will not take place to tax with increased rate; it will take place to those taxes, for which the agent has a best practice to evade (for example, the profit tax and VAT).

The decrease of share of profit leads to decrease of gain, proceeded from tax evasion. Thus let us assume that the firm will decrease a little the scope of tax evasion, and the gap between nominal and real tax coefficient will be also decreased.

To define how exactly the relation between nominal and real tax coefficient will be changed for each industry, it is important to take in account the value of additional cost, related to increase of scope of tax evasion (or cost-cutting in case where the scope of tax evasion decrease), and also the value of cost, needed to detect the evidence of tax evasion. Because of the fact that the procedure of taxpaying provides the interaction between agents –taxpayers and principals – the state authorities, which control the tax collection, is expedient to model such process based on game-theoretic model of interaction between mentioned agents.

To define the value of certain strategies of interaction, we envisage the following

parameters: tax base (income, profit, volumes of external trade etc, further – "income") (R), tax rate (τ), value (function, coefficient) of penalties for tax evasion (γ), cost of concealment procedure, related to tax evasion (depends, particularly, on complication of tax evasion in certain industries) (v), cost needed to agent to maintain the transparence of his activity (depends on industry) (μ), cost of procedure of control for tax treatment (depends, particularly, on complexity of inspections in different industries) (π), value of detecting by principal the real tax evasion of agents (depends on costs of concealment of tax evasion bearing by agents, and inspection costs bearing by principal) (p), value of detecting by principal the fictitious tax evasion of agents (depends on costs of maintaining the transparence bearing by agents, and inspection costs bearing by principal) (q), cost (complication) of estimation (maid by principal) of predicted value of collected tax, frequency of tax inspections. The game, modeling the interaction between agents in the process of taxpaying, is presented in Table 1.

Table 1: The cost matrix of «principal – agent» interaction

		Agent (taxpayer)	
		does not pay	pays
Principal	does not inspect	$\{0;\ R-v\}$	$\{\tau R;(1-\tau)R-\mu$
	inspects	$\{p(v,\pi)\tau(1+\gamma)R-\pi;$ $(1-p(v,\pi)\tau(1+\gamma))R-v\}$	$\{(1-q(\mu,\pi))\tau R+q(\mu,\pi)\tau(1+\gamma)R-\pi;$ $(1-q(\mu,\pi))(1-\tau)R+(1-q(\mu,\pi)\tau(1+\gamma))R-\mu\}$

Source: Authors

The following additional assumptions of the model are:

1. The taxpayer's incentive to evade taxes grows up with the increase of aggregate tax. As a consequence, when the aggregate tax increases, the expectable share of taxpayers, who come to a decision about tax concealment, also increases.

2. For each taxpayer there is a threshold; before achieving the threshold, he fairly pays taxes, after exceeding this threshold, the taxpayer decides to evade taxes.

3. For each taxpayer there is a «threshold of reproduction on a simple scale» ($\hat{\tau}$). This means that if the profit after aggregate tax is equal to zero, the taxpayer withdraws from market (or he passes completely into shadow sector), and aggregate tax he paid is identical to zero.

According to 1) the certain agent to determined level fairly pays the aggregate tax (bringing an income τR for principal); after that he changes his strategy for tax evasion strategy with principal income $p\tau(1+\gamma)R$. According to 2) the certain agent pays the aggregate tax (fairly or with partial evasion) until the amount of his aggregate tax is $\tau < \hat{\tau}$, after that the taxpayers abandons the market, zeroing the amount of paid tax.

To extend this principle for all taxpayers, it should be taken into account that the number of opportunists increases monotonously with the increasing of tax rate.

Subsequently, the general income equation can be written as follows:

$$R_{real} = \left(1 - \tau^n\right)\tau R + p\tau^{n+1}\left(1 + \gamma\right)R = \tau R - \tau^{n+1}R + p\tau^{n+1}\left(1 + \gamma\right)R;$$

$$R_{real} = \left(1 - \left(1 - p - p\gamma\right)\tau^n\right)\tau R.$$

Reducing this equation by R and taking into account the dependences from industry and time, we obtain dependence of real tax rate on its nominal rate:

$$\tilde{t}^{\varepsilon}\left(j\right) = \left(1 - \left(1 - p^{\varepsilon} - p^{\varepsilon}\gamma^{\varepsilon}\right)b^{\varepsilon}\left(t^{\varepsilon}\left(j\right)\right)^n\right)t^{\varepsilon}\left(j\right), \qquad (1)$$

where $t^{\varepsilon}\left(j\right)$ is the nominal tax coefficient for ε-th industry at moment j; p^{ε} is the coefficient of complication of tax evasion for ε-th industry; γ^{ε} is the generalized coefficient of penalties for ε-th industry; b^{ε} is the scale coefficient related to level of replacement for ε-th industry; n is the coefficient of curvature of graph function.

Figure 1a. represents the type of dependence (1)

For each industry the tax structure differs. So it makes sense to assume that the degree of easiness/complication of tax evasion for each industry is predicated upon the tax structure, paid by firms of given industry, and does not depend directly on other aspects of functioning of those firms.

$$\tilde{t}^{\varepsilon}\left(j+1\right) = \left(1 - a^{\varepsilon}\left(t^{\varepsilon}\left(j+1\right)\right)^{n^{\varepsilon}}\right)t^{\varepsilon}\left(j+1\right), \qquad (2)$$

where $a^{\varepsilon} = \left(1 - p^{\varepsilon} - p^{\varepsilon}\gamma^{\varepsilon}\right)b^{\varepsilon}$.

Since the coefficient of equation (2) base on statistical estimation, the possible statistical error and the divergence of obtained numerical values, should be taken into account; therefore it is expedient to unite the similar (by value) functions of tax burden using the averaging of a^{ε} values. With consideration of values of parameters, obtained after analysis of statistical data for Donetsk region for period 2006-2010 (Sokolovska (2011)), it appeared rational to divide all industries of region into four groups (representing the main budget revenue generating industries in Donetsk region):

group 1: mining of fuel and energy raw materials;

group 2: production of vehicles and transport equipment; commerce; auto service; reparation of household goods and items of personal-use; transport and communications;

*group 3*: production of food, beverages and tobacco; machinery and equipment;

group 4: mining of raw materials (except fuel and energy raw materials); production of metal and metal products; electrical, electronic and optical machinery and apparatus.

As input data for empirical estimation of our model, we used the main economic indications characterizing: actual rates of main taxes; economic performance data across

main industries: sales revenues and added value; characteristics, defining the value of various strategies of interaction between enterprises (taxpayers) and tax inspectors (authorities). For each of those groups we obtained a value of function of real tax burden with respect to tax base – the added value; Figure 1b represents the graphs of those functions and also the optimal and threshold values of tax burden.

Figure 1: Dependence of real tax burden on nominal one
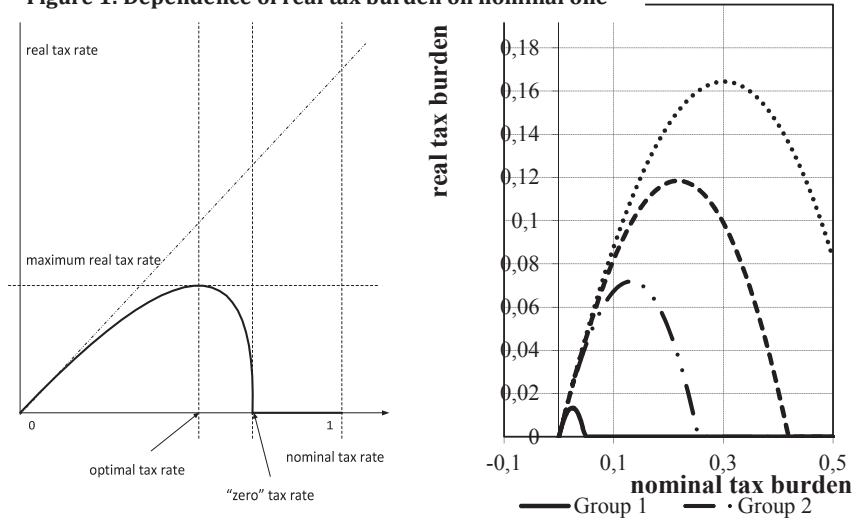
a) Analytic dependence of real tax burden on nominal one

b) Dependence of real tax burden on nominal one for groups of industries

Source: Authors' investigation

The interpretation of obtained results is presented on Figure 2.

Figure 2: Correspondence between nominal and real tax burden for industries

The optimal tax burden for taxpayers of industries of group	1	will be	2,5%	of total revenue, while the expected tax revenues (real tax burden) is	1,34%
	2		13,0%		7,19%
	3		21,5%		11,80%
	4		30,0%		16,40%

Source: Authors

It should be noted, that the some model parameters are not the statistical data and they should be modeled in addition. The type of dependence of p and q values on v, μ and π variables is to be defined. To strengthen the model adequacy, the possibility of side payment (briberies, criminal protection racket etc.) is to be considered. It is important to include the history of interaction, the additional information about tax inspections,

the different variants of penalties etc. Also further specification and extension for classification of taxes and industries in terms of easiness of tax evasion are required.

Conclusion

This study proposed the approach to classify the industries in terms of easiness of tax evasion of taxpayers operating in certain industry. Based on assumptions of their behavior we define the type of dependence of real tax rates on their nominal ones. It is confirmed that the graph, describing the taxpayers' behaviour (depending on change of tax pressure), has two key points: maximum – the optimal tax rate (if this rate increase, the real tax revenues fall), and also the point of simple reproduction (at this point, firms stop to pay taxes at all, i.e. they either shift into informal sector or close down).We calculated the values of those parameters for taxpayers operating in different industries.

References

ALM, J., McKEE, M., (2004) Tax Compliance as a Coordination Game, *Journal of Economic Behavior & Organisation*, vol. 54, pp. 297–312. ISSN: 0167-2681.

ALLINGHAM, M. G., SANDMO, A., (1972) Income Tax Evasion: a Theoretical Analysis, *Journal of Public Economics,* vol 1, No3/4, pp. 323-338. ISSN: 0047-2727.

ANDREONI, J, ERARD, B., and FEINSTEIN, J., (1998) Tax compliance. *Journal of Economic Literature*, No36, pp. 818-860. ISSN: 0022-0515.

BILOTKACH, V., (2006) A Tax Evasion - Bribery Game: Experimental Evidence from Ukraine, *European Journal of Comparative Economics,* No 3:1, pp. 31-49. ISSN: 1824-2979.

CHRISTIANSEN, V., (1980) Two Comments on Tax Evasion, *Journal of Public Economics, vol.* 13, No3, pp. 389-393. ISSN: 0047-2727.

CONGDON, W., KLING, J. and MULLAINATHAN, S., (2010) Behavioral Economics and Tax Policy, *National Tax Journal*, vol. 62 (3), pp. 375-386. ISSN: 0028-0283.

DE MELO, J., ROLAND-HOIST, D., HADDAD M., (1992) Tax Evasion and Tax Reform in a Low-Income Economy General Equilibrium Estimates for Madagascar, *The World Bank, WPS No 918.*

ENGEL, E., HINES, J. R. Jr., (1999) Understanding Tax Evasion Dynamics, *NBER Working Paper No. 6903*. ISSN 0898-2937.

GEMMELl, N., RATTO, M., (2012) Behavioral responses to taxpayer audits: evidence from random taxpayer inquiries, *National Tax Journal*, vol. 65 (1), pp.33-58. ISSN: 0028-0283.

LIPATOV, V., (2005) Evolution of Tax Evasion, *Munich Personal RePEc Archive*, MPRA Paper *No. 966.*

McCALEB, T. S., (1976) Tax Evasion and the Differential Taxation of Labor and Capital Income, *Public Finance*, vol. XXXI, No 2, pp. 287-294. ISSN: 0033-3476.

SOKOLOVSKA O., (2011) Modeli agentov i rinkov. *In*: Kak obosnovat' budgetno-nalogovuiy politiku gosudarstva? Opit nauchnogo proektirovaniya i realizacii avtomatizirovannoy systemi soprovojdeniya budgetnogo processa na regionalnom urovne. Ed. by V. Vishevskyy and R. Lepa. Donetsk. ISBN 978-966-02-6203-4.

SANDMO, A., (2005) The theory of tax evasion: A retrospective view, *National Tax Journal*, No 58, pp. 643-63. ISSN: 0028-0283.

SLEMROD, J., YITZHAKI, S., (2000) Tax Avoidance, Evasion and Administration, *NBER, Working Paper No 7473.* ISSN 0898-2937.

SRINIVASAN, T.N., (1973) Tax Evasion: a Model, Journal of Public Economics, vol. 2, No 4, pp. 339-346. ISSN: 0047-2727.

VASIN, A., VASINA, P., (2002) Optimizatsya nalogovoy systemi v usloviyah ukloneniya ot nalogov. Rol ogranitcheniy na chtraf, *Economic Educational and Research Consortium.*

Economic (dis)Advantage of Entering the So-called Second Pension Pillar under the Present Czech Conditions

Vostatek Jaroslav

Abstract

From 2013, the Czech Republic allows a partial opt-out to pension savings in private pension companies (funds). Two major studies were prepared in 2012; these studies came to a conclusion that at most 50% of the insured will benefit from entering the so-called second pension pillar. Both studies disregard the costs of the pension system transformation, in contrast to the world literature and previous Czech studies. In addition, sensitivity analysis is not included, and some of the input parameters used are optimistic. A number of other input parameters remain unknown. Even without further analyses, it is so obvious that entering the second pillar is quite disadvantageous for the economy and the state. The opt-out is only effective for a small group of the wealthiest employees, which is also caused by the current construction of the public pensions. An optimal pension policy would comprise a division of today's public pillar into a solidarity pillar (financed from the state budget) and a public insurance pillar, in which old-age pensions would fully depend on contributions made to the pillar.

Introduction

Ideological advocates of the social security privatization rely on the unquestionable advantages of private security compared to any security provided by the state. The economic basis of such advantages is the market mechanism, which leads (should lead) to lower costs of providing the relevant products. In case the given market does not exist or function properly, it is up to the Government to establish conditions required for the functioning thereof. However, the public sector is still dominant in the area of old-age pensions as well as some other social security branches in most developed countries. In practice, several social models and systems coexist, which, in principle, compete for their dominance in individual countries. Some international institutions – historically mainly the World Bank – play an important role in this regard. (World Bank 1994).

In the first half of the 1990s, the World Bank generalized the Chilean pension reform of 1981; the World Bank study tried to document the need for the public pension privatization – whether rapid or gradual – in excess of a purely redistribution pillar.

This resulted in the "second" pension pillar concept, which was meant as a mandatory private pillar, preferably in the form of personal pensions, in line with the Chilean model. In principle, a number of pension reforms had taken place pursuant to this World Bank "formula", namely in the countries of Latin America and post-communist countries, whereas the implementation of such reform usually represented a precondition for the provision of loans by the World Bank. It is thus even more remarkable that there were signs of great self-criticism within the World Bank during the same decade, after it was revealed that many facts and premises included in the given publication do not correspond to reality. In this respect, the contribution at the World Bank conference in 1999 is well-known in the world (Orszag and Stiglitz 1999). The proceedings of the conference (Holzmann et al. 2001) and subsequent major scientific materials include a clause, by which the World Bank disclaims all responsibility for the content of the publication (the publication of 1994 does not include such disclaimer).

The views of the World Bank teams, led by R. Holzmann, underwent further significant transformations during the first decade of this century. Starting with the 2003 conference, the World Bank has been promoting the Pan-European pension system concept, which absolutely disregards the mandatory private pension pillar, dominant within the 1994 concept. It has been replaced with universal social old-age pension insurance in the form of NDC – this is (newly) an abbreviation of a non-financial defined contribution scheme (Holzmann and Palmer 2006). Further scientific activities of the World Bank in this respect concentrated on NDC schemes. In 2012, two volumes of a new publication were published, which assess existing (clearly positive) experience with this product /scheme/ (Holzmann, Palmer, Robalino 2012). The Pan-European pension system comprises three different pillars: NDC scheme at the core and two "wings" in the form of a social pillar and an voluntary private pillar.

In 2005, the World Bank "reclassified" the pension pillars: the "second" pillar (mandatory private savings/insurance) stayed; (old)new first pillar "came into existence", conceived as a public insurance pillar, while the existing first pillar from the 1994 classification was renumbered to a "zero" pillar. All this characterizes the development trends of the pension theory and policy. We mainly mention this so that the supporters of the public pension privatization in the Czech Republic finally start taking interest in the principal development trends in the world. Even though it still applies (should apply) that namely the paradigmatic pension reform should be subject to a decision within the qualified public choice process, specific product parameters, comparison and assessment of various pension reform options should play significant role as well. Not ideological arguments and commercial interests.

The economic (dis)advantage of implementing the second pension pillar for its potential participants at the expense of the public pension pillar is always a question of comparing two different products/pillars, as they exist or should exist in a specific country. Moreover, it is also important to consider other major reformatory measures that come

into question. This issue is particularly urgent in the Czech Republic, as the existing Czech public pillar is a mixture of the first and the zero pillars pursuant to the new classification of the World Bank. Furthermore, there is an issue concerning the transition from the existing to the new system, which is always associated with costs and benefits of such transition. In case the second pillar implementation is associated with additional government budget expenditure, it is crucial to know how such costs would be financed and what would the resulting economic and social impact be.

The objective of this paper is to compare the various methods aimed at comparing the advantages of entering the second pension pillars under Czech and similar conditions, within international and Czech literature. We have not attempted to create our own model – this is not even necessary, considering the outputs of the below mentioned studies and under the given construction of the second pillar. Therefore, it will be a brief comparison analysis of input parameters of individual studies and calculations as well as elements missing from such calculations.

Material and methods

The key question in comparing a funded pillar and a pay-as-you-go public pillar relates to the investment returns that are crucial for the economics of the second pillar. Besides, all laic and expert deliberations regarding the benefits of the pillar rely from this parameter. Laics argue that it is more beneficial for clients to invest their contributions on the financial market than to pay them to a public budget; even though there is some exposure to investment risk, it is safe to assume the risk will be appropriately rewarded in the long run. M. Feldstein (1997, p. 4) uses an example to demonstrate that with real returns of 9% per annum, it would be possible to provide the given level of old-age insurance with a contribution rate of 2.7%, while a pay-as-you-go scheme would require a contribution of 19% of income – both under otherwise constant (future anticipated) conditions of the United States. The calculation also comprises implicit returns (internal rate of return) of a pay-as-you-go scheme. In addition to this, it is also necessary to take into account the costs of transition to the funded scheme that would be borne by taxpayers during the transition period and that would approximately amount to 3% of revenue (wage). The later published simulated development of the contribution rate foresees an increase in the current payroll tax rate in the U S by 2% of income, which would go down to 13.8% in the tenth year of the transition, falling below the current rate (12.4%) in the 19th year of the reform, and amounting to only 6.9% of wage in the 35th year. It would subsequently decline quickly to the target of 2% of wage (Feldstein and Samwick 1998).

Many authors have addressed the comparison of pension products and pillars since the publication of the study by Feldstein and Samwick. Furthermore, the situation has significantly changed as well. OECD studies on investment returns in the most developed countries of the world are important. The differentiation between investment

returns for pension funds and for clients is essential for the purpose of comparing different products and pillars. While the average investment returns for pension funds in G7 countries and Sweden amounted to 7.3% of assets for the period of 25 years ending with 2007, the same returns for clients amounted to approximately 5% of assets. The difference comprises the total overhead of the private financial sector, including the costs of providing pensions and other transaction costs (Whitehouse et al. 2009).

No estimates are available so far of the costs of a state pension company under identical conditions – and of the increase in returns within a nationwide public funded pension pillar. L. Kotlikoff gives a symbolic example in this regard – at his lectures, he shows his ultrabook, claiming that the investment overhead of a public, fully funded scheme conceived by him would virtually equal to zero: "All investing is done by a single government computer at zero cost." In line with his proposal, employees of up to 60 years of age would pay contributions of 8% of wage. Poor, unemployed, and disabled people would also receive additional state support. Furthermore, the state should also guarantee a nonnegative return for the entire period contributions are made (Kotlikoff 2012). In this respect, many theoreticians and governments accentuate the existence of a low-cost state pension company that would also service occupational schemes; the British NEST Corporation is a current example (Barr 2012, p. 186).

Several authors have addressed the above mentioned issues in the Czech Republic. In the 1990s, a trio of young national economists recommended a rapid transition to mandatory private savings/insurance; the applied model relied on the effect of high investment returns under the condition of relatively low wage increases and also assumed a positive impact of the pension reform on economic growth (Kreidl 1998). The model was based on the aforementioned World Bank concept of 1994.

The study of M. Ježek, published in 2003, relies on the same principles; however, it more accentuates approaches, under which public pensions represent clients' investments (portfolio theory) – it foresees portfolio diversification. In this approach, the public pension pillar "comes back into play", working with a scheme where clients may opt out from the public pillar and enter the second pillar, depending on the benefits of such transfer; however, they may never return back (opt-out). At the same time, M. Ježek (2003) relies on the continuation of the existing pay-as-you-go public pension pillar, essentially a redistributional one, which allows studying intensity of the advantages relating to the opt-out for individual income groups. (On the other hand, V. Kreidl assumed radical reduction of the public pension for the solidary pillar.) However, the results are essentially identical, because most employees will switch over to the second pillar voluntarily, due to the clear benefits of the opt-out.

The issue was later further elaborated by R. Jahoda and J. Špalek (2009), who – in their micro-simulation model – disregard the precondition of rational behavior of employees making decision on whether or not they should take advantage of the opt-out. The model becomes more realistic by reducing the expected investment returns for clients

(to the level of 3% per annum; alternatively to 4% and 2% per annum) and – in my view – mainly by considering the so-called noncontributory periods within the existing public pension scheme. The importance of these noncontributory periods is significant in the Czech Republic – they amounted to more than 20% of the total insurance periods several years ago. Even though their importance has decreased to some extent, there are still other elements of the existing public system construction that have redistribution effects. The most significant fact is that a private FDC scheme, in its basic construction, disregards these noncontributory and other similar periods, since the only revenue of the scheme is the contribution made (paid). The same approach has now been implemented in introducing the second pillar in the Czech Republic. This considerably discriminates the pillar, with significant effects on its attractiveness. At the same time, the consideration of such noncontributory periods is possible under any DC scheme – it just needs to be known and desired. The basic conclusion of the model by R. Jahoda and J. Špalek is the disadvantage of the opt-out for the majority of the insured, provided they behave rationally. Moreover, they emphatically point out that other factors will also play an important role in practice, i.e. the actual outcome may be opposite – the majority of prospective clients may enter the second pillar in the Czech Republic as well, with any and all consequences arising from such step, particularly for the government budget from the perspective of time.

Following the adoption of the pension savings acts, several analytical studies have emerged – with different focus and content – that strive to characterize the advantage or disadvantage of the opt-out for individual income groups and for men and women.

At the beginning of November 2012, the Ministry of Labor and Social Affairs (MoLSA) published its Actuary Report on Pension Insurance, which also comprised the analysis of entering the second pillar. The analysis tries to cover rational decision-making of individuals, concluding that the opt-out is beneficial for approximately 50% of potential participants, irrespectively of their age at the beginning of the opt-out. In this regard, the crucial criterion is the "implicit debt, which expresses the difference between the sum of discounted insurance premium payments and the sum of discounted benefits drawn by an individual within the pension insurance scheme. An individual would enter the second pillar, in case the implicit debt is higher if he/she participates than if he/she does not." (MoLSA 2012, p. 107). The definition of implicit debt obviously switches the order of both sums, because it should be the scheme debt. The calculation foresees a nominal discount rate of 4% per annum, which may be seen as rather adequate. The rational behavior of individuals will thus result in an increase of the total implicit debt of around 7.5% of GDP or almost CZK 300 billion. The report does not address the financing of the scheme deficit as a result of the (potential) rational decision-making of the insured. The impact on the public finance must be even greater in case of an extensive opt-out in excess of the rational decision-making – i.e. a customary practice in the post-communist countries. The budget deficits will necessary affect the economy as a whole, as well as individual citizens – whether directly

or indirectly: via negative impact on economic growth. Summing up these impacts, it is clear that the pension reform cannot be considered to be beneficial for the population and the economy as a whole, and rather considerably at that. The causes of such results cannot be derived from the report – a large number of inputs are not available.

The MoLSA website has featured a pension reform calculator since 2011. Users will select the nominal return of their pension fund ranging from 1.5 to 8.5% per annum, with an expected inflation rate of 2% per annum. The precondition is that an insured person participates in the pension scheme since the age of 20, with full contribution (insurance) period. It is not clear whether the calculator considers noncontributory and other similar periods, which may misrepresent the results, favoring the second pillar. Even without this, the calculator basically cannot be used to make a decision on entering the pillar. This may be viewed positively, because the actual investment returns of individual clients within the second pillar will mainly depend on luck. In the second half of November 2012, the Government of the Czech Republic published model calculations of entering the second pillar, which apparently rely on the innovated (albeit unpublished) version of the given calculator (Government 2012). Unlike the calculator that is still available on the MoLSA website, this new version does not include the differentiation of women based on the number of children; however, there are slight differences for young men and women; based on this fact, we can assume certain handicap is foreseen for women by reason of raising children. The most significant difference of this government material is the fact that nominal investment returns have been allocated to individual pension funds implemented (2.5%; 3.5%; 4.5%; and 5.5%) and that, following the calculation results, it recommends to enter the second pillar. The overall conclusion is that approximately 50% of the insured will benefit from entering the second pension pillar. The key problem associated with these government calculations is the fact they ignore the transformation costs as well as incomplete information on input parameters. Even though the explanatory text to the calculator states that, for example, the fee for the transformation of savings to annuity had been taken into account within the calculation, we do not know the specific amount and whether or not it respects the well-known issue of adverse selection, etc.

In 2012, the advantages of entering the second pillar were also addressed by O. Schneider and J. Šatava. They came to a conclusion that the opt-out may be beneficial for up to 50% of men and 30% of women. The basic method for the assessment in question is the calculation of the net present value (NPV) of the pension insurance premiums and the pensions for the expected investment returns. Similarly as the MoLSA in its materials, the IDEA study (Schneider and Šatava 2012) only reveals some parameters of its model. It foresees zero inflation – similarly as in case of the MoLSA, and it is also practical; contrary to this approach, the MoLSA calculator requires inputs in the form of a nominal investment return, whereas the expected inflation rate amounts to 2% per annum; however, the resulting pension amounts are quoted at the level of existing wages. Furthermore, the IDEA study assumes wage increases of 3%

per annum – it could even be more (4%). Investment returns within the second pillar are assumed at 3% per annum (in real terms) – this is an optimistic value. The NPV calculations take into account a 3% discount rate, which is not significant for relative advantage calculations. The key problem, which is not discussed, is the expected amount of an annuity in the amount of one twentieth of the savings – the relation namely to the calculated costs of providing the annuity, which are reflected in the net investment returns for the above mentioned OECD studies, is not clear.

Results and discussion

The previous chapter shows that the current Czech studies have several significant flaws. Firstly, preconditions for model calculations – model parameters used – are insufficiently specified. For example, data concerning the annuity calculation are missing, with the exception of the mortality tables used. However, it is generally known that the annuities within the private insurance sector are considerably more expensive than within the public sector – just considering the adverse selection in case of possible selection of another product (other than an annuity). I have not found a specific estimate of such parameters, which very significantly affects the entire outcome of assessing the benefits of entering the second pillar, in any background materials to the Czech pension reform. The annuity price also reflects the mechanism of the private annuity indexation.

The current Czech studies also tend to use optimistic assumptions regarding investment returns; in any case, this type of parameters should be discussed, with the use of international literature. Sensitiveness analysis is rarely performed. In case we also assume today's wage level in the future, it is necessary to clearly specify, whether this means an assumption of zero-growth of real wages or whether it is only a retroactive recalculation of real wages to ensure better comprehensibility by readers, because the assumption of zero-growth of real wages renders the calculations more beneficial in favor of the second pillar.

An absolutely crucial problem is the ignoring or underestimating of the transaction costs of transition to the funded pillar. This does not only concern the specification of the government budget deficit for individual years, but also the need to estimate the impact of increasing taxes necessary to cover such deficits on the development of the economy – GDP, unemployment, collection of pension insurance premiums, and public pensions as such. A downright cynical approach to resolving this problem is the assumption of financing such government budget deficits (as a result of partial privatization of public pensions) by an immediate reduction of public pensions, which is subsequently also reflected in the "benefits" of the opt-out (Hovorka 2012).

If we take into account the conclusions of all the aforementioned analyses, it is clear that – considering all the missing elements of such analyses – almost all potential

participants will be disadvantaged by entering the second pillar: whether directly or indirectly – considering the fiscal and national economic implications.

When assessing the economic advantages of entering the second pension pillar, it would be much easier to divide the existing Czech public pension pillar into a zero pillar and a first pillar, in line with the above mentioned classification of the World Bank. The zero pillar would automatically drop out of the analysis. The easiest approach would be to compare the first pillar of a NDC type with a combination of an NDC scheme and a second pillar of an FDC type. In line with the recommendations given by international experts, the public pension reform would also comprise the reduction of the wage ceiling from today's 400% of average nationwide wage to 125-200%. The comparison would then be considerably easier.

Conclusion

Comparisons of potential advantages of two alternative products – i.e. assessment of benefits associated with the opt-out to the second pension pillar – should relay on the comparison of two comparable products, if possible. An optimal competitor of the Czech second pillar is the universal social old-age pension insurance in the form of an FDC scheme, whereas international experiences explicitly suggest that – with other conditions remaining constant – the given public insurance pillar is undoubtedly more beneficial, both for clients and for the state. In this regard, it makes sense to further analyze solely the specific potential form of such public pillar.

In case both the government and the pro-government studies have concluded that at most 50% of the insured will benefit from entering the second pillar, while ignoring the implications of the reform for the government budget and the economy as a whole, it is apparent that the opt-out is only beneficial for a very small group of the wealthiest insureds. Disregarding the tendency to use optimistic parameters in such studies, it is clear that the Czech pension reform is economically pointless – from the perspective of the majority of the insured as well as the state. This actually renders any further studies of economic benefits associated with the reform unnecessary.

References

BARR, N., (2012) *Economics of the Welfare State.* 5th Edition. Oxford: Oxford University Press. ISBN 978-0-19-929781-8

FELDSTEIN, M., (1997) Transition to a Fully Funded Pension System: Five Economic Issues. *NBER Working Paper 6149.* Cambridge, Mass.: National Bureau of Economic Research. [cit. 2012-11-19] Available from WWW: http://www.nber.org/papers/w6149. pdf?new_window=1

FELDSTEIN, M., SAMWICK, A. (1998) The Transition Path in Privatizing Social Security. In: FELDSTEIN, M. (ed.), 1998. *Privatizing Social Security.* Chicago: University of Chicago

Press. ISBN 0-226-24101-7. [cit. 2012-11-19] Available from WWW: http://www.nber.org/chapters/c6251.pdf

GOVERNMENT, (2012) Modelové propočty výhodnosti vstupu do II. pilíře penzijního systému *(Model Calculations concerning the Benefits of Entering the Second Pension Pillar).* [cit. 2012-11-20] Available from WWW: http://www.mpsv.cz/files/clanky /13920/Varianty_reforma_penzi.pdf

HOLZMANN, R. et al. (eds.), (2001) *New Ideas About Old Age Security Toward Sustainable Pension Systems in the 21st Century.* Washington: The World Bank.

HOLZMANN, R., PALMER, E. (eds.), (2006) *Pension Reform. Issues and Prospects for Non-Financial Defined Contribution (NDC) Schemes.* Washington: The World Bank. ISBN 0-8213-6038-8

HOLZMANN, R., PALMER, E., ROBALINO, D. (eds.), (2012) *Nonfinancial Defined Contribution Pension Schemes in a Changing Pension World.* Washington: The World Bank. ISBN 978-0-8213-8848-8

HOVORKA, J., (2012) Důchod od státu klesne na 6500 Kč. Komu pomůže reforma? *(The state pension will go down to CZK 6,500. Who will benefit from the reform?)* [cit. 2012-11-20] Available from WWW: http://aktualne.centrum.cz/finance/ penize/clanek.phtml?id=749945

JAHODA, R., ŠPALEK, J., (2009) Pension Reform through Voluntary Opt-Out: The Czech Case. *Finance a úvěr – Czech Journal of Economics and Finance*, volume 59, issue no. 4

JEŽEK, M., (2003) A Microanalysis of Pension Reform: To Switch or Not to Switch in the Czech Republic? *Finance a úvěr – Czech Journal of Economics and Finance*, volume 53, issue no. 11-12

KOTLIKOFF, L., (2012) The Purple Social Security Plan. [cit. 2012-11-19] Available from WWW: http://www.thepurplesocialsecurityplan.org/

KREIDL, V. , (1998) Penzijní reforma v ČR *(Pension Reform in the Czech Republic). Finance a úvěr - Czech Journal of Economics and Finance*, volume 48, issue no. 1.

MoLSA, (2012) Actuary Report on Pension Insurance 2012. Prague: MoLSA [cit. 2012-11-19] Available from WWW: http://www.mpsv.cz/files/clanky/13783/PMZ-2012.pdf

SCHNEIDER, O., ŠATAVA, J., (2012) Český důchodový systém na rozcestí: Pro koho je výhodný přechod do reformovaného systému? *(Czech Pension System at the Crossroads. Who Will Benefit from Transition to the Reformed System?)* IDEA CERFE-EI Study. [cit. 2012-11-20] Available from WWW: http://idea.cerge-ei.cz/documents/studie_2012_ 04.pdf

STIGLITZ, J. E., ORSZAG, P. R., (1999) Rethinking Pension Reform: Ten Myths About Social Security Systems. *Presented at the conference on "New Ideas About Old Age Security"*, The World Bank, Washington, D.C., September 14-15, 1999

WHITEHOUSE, E. R., D'ADDIO, A. C., REILLY, A., (2009) Investment Risk and Pensions: Impact on Individual Retirement Incomes and Government Budgets. *OECD Social, Employment, and Migration Working Papers*, No. 87. Paris: OECD Publishing. [cit. 2012-11-19] Available from WWW: http://www.oecd-ilibrary.org/docserver/download/f ulltext/   5ksgq0xtx1vc.pdf?expires=1344894197&id=id&accname=guest&checksum =028D2329B0D66A4817E38F128FBE2345

WORLD BANK, (1994) *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth.* World Bank Policy Research Report No. 13584. New York: Oxford University Press. ISBN 0-19-520996-6

List of Participants

SURNAME	FIRSTNAME	ORGANIZATION	COUNTRY	E-MAIL
BEBLAVÝ	Miroslav	Comenius University in Bratislava, Faculty of Social and Economic Sciences	SVK	beblavy@governance.sk
BERNÁ	Zuzana	Masaryk University, Faculty of Economics and Administration	CZE	zuzana.berna@econ.muni.cz
DEDOVA	Mariya	National Research University Higher School of Economics	RUS	mdedova@hse.spb.ru
DOSTÁL	Jakub	Masaryk University, Faculty of Economics and Administration	CZE	jakdostal@volny.cz
FIŠAR	Miloš	Masaryk University, Faculty of Economics and Administration	CZE	milos.fisar@mail.muni.cz
GODAROVÁ	Jana	Masaryk University, Faculty of Economics and Administration	CZE	hamsova@mail.muni.cz
HODŽIĆ	Sabina	Faculty of Tourism and Hospitality Management in Opatija	HRV	sabinah@fthm.hr
HORŇÁKOVÁ	Michaela	Masaryk University, Faculty of Economics and Administration	CZE	76105@mail.muni.cz
HRŮZA	Filip	Masaryk University, Faculty of Economics and Administration	CZE	phillipus@mail.muni.cz
JAHODA	Robert	Masaryk University, Faculty of Economics and Administration	CZE	jahoda@econ.muni.cz
JURČÍK	Radek	Mendel University in Brno, Faculty of Business and Economics	CZE	radek.jurcik@email.cz
KOPPITZ	David	MEPCO	CZE	david.koppitz@mepco.cz
KOPRENCKA	Luciana	University of Vlora	ALB	lucianakoprencka@yahoo.it
KREBS	Vojtěch	University of Economics in Prague, Faculty of Economics	CZE	krebs@vse.cz
MELECKÝ	Aleš	VŠB-Technical University of Ostrava, Faculty of Economics	CZE	ales.melecky@vsb.cz
MERTL	Jan	The University of Finance and Administration	CZE	honza.mertl@gmail.com
MUŽIK	Roman	Comenius University in Bratislava, Faculty of Social and Economic Sciences	SVK	muzik.roman@gmail.com
NAVRÁTIL	Jiří	Masaryk University, Faculty of Economics and Administration	CZE	Jiri.Navratil@econ.muni.cz
NEMEC	Juraj	Masaryk University, Faculty of Economics and Administration	CZE	juraj.nemec@umb.sk

SURNAME	FIRSTNAME	ORGANIZATION	COUNTRY	E-MAIL
OTÁHAL	Tomáš	Mendel University in Brno, Faculty of Business and Economics	CZE	Tomas.otahal@mendelu.cz
PAVLÍČEK	Tomáš	University of Economic in Prague	CZE	tpavlicek@centrum.cz
PAVLÍK	Marek	Masaryk University, Faculty of Economics and Administration	CZE	pavlik@econ.muni.cz
PETANAJ	Migena	University of Vlora	ALB	migenapetanaj@hotmail.com
PEVCIN	Primož	University of Ljubljana, Faculty of Administration	SVN	primoz.pevcin@fu.uni-lj.si
PLAČEK	Michal	Masaryk University, Faculty of Economics and Administration	CZE	Michal.Placek@econ.muni.cz
POSPÍŠIL	Miroslav	Masaryk University, Faculty of Economics and Administration	CZE	Miroslav.Pospisil@econ.muni.cz
PROUZOVÁ	Zuzana	Masaryk University, Faculty of Economics and Administration	CZE	prouzova.z@centrum.cz
PRŮŠA	Ladislav	The University of Finance and Administration	CZE	Ladislav.prusa@vupsv.cz
PŮČEK	Milan	MEPCO	CZE	milan.pucek@seznam.cz
RICHEA	Maria-Magdalena	National School of Political Science and Public Administration	ROU	richeamaria@yahoo.com
ROSENBERG	Zdeněk	Masaryk University, Faculty of Economics and Administration	CZE	Zdenek.Rosenberg@gmail.com
SEDMIHRADSKÁ	Lucie	University of Economics in Prague, Faculty of Economics	CZE	sedmih@vse.cz
SOBOTKA	Martin	University of Pardubice, Faculty of Economics and Administration	CZE	martin.sobotka@upce.cz
SOKOLOVSKYI	Dmytro	Institute of Industrial Economics of National Academy of Sciences of Ukraine	UKR	dmy.falko@gmail.com
SOKOLOVSKA	Olena	Institute of Industrial Economics of National Academy of Sciences of Ukraine	UKR	elena.lukyanenko@gmail.com
STAŇOVÁ	Ľudmila	Comenius University in Bratislava, Faculty of Social and Economic Sciences	SVK	ludmila.stanova@gmail.com
STAROŇOVÁ	Katarína	Comenius University in Bratislava, Faculty of Social and Economic Sciences	SVK	staronova@governance.sk
STRUK	Michal	Masaryk University, Faculty of Economics and Administration	CZE	struk@mail.muni.cz

SURNAME	FIRSTNAME	ORGANIZATION	COUNTRY	E-MAIL
SVIDROŇOVÁ	Mária	Matej Bel University, Faculty of Economics	SVK	maria.svidronova@umb.sk
SZALAYOVÁ	Angelika	Comenius University in Bratislava, Faculty of Natural Sciences	SVK	szalayova@hpi.sk
ŠKARABELOVÁ	Simona	Masaryk University, Faculty of Economics and Administration	CZE	simona@econ.muni.cz
ŠPAČEK	David	Masaryk University, Faculty of Economics and Administration	CZE	david.spacek@econ.muni.cz
ŠPALEK	Jiří	Masaryk University, Faculty of Economics and Administration	CZE	spalek@econ.muni.cz
ŠPALKOVÁ	Dagmar	Masaryk University, Faculty of Economics and Administration	CZE	dasa@econ.muni.cz
TŮMOVÁ ALMANI	Kateřina	Masaryk University, Faculty of Economics and Administration	CZE	118709@mail.muni.cz
VACEKOVÁ	Gabriela	Matej Bel University, Faculty of Economics	SVK	gabriela.vacekova@umb.sk
VOSTATEK	Jaroslav	The University of Finance and Administration	CZE	jaroslav.vostatek@vsfs.cz
WAWROSZ	Petr	Mendel University in Brno, Faculty of Business and Economics	CZE	Petr.wawrosz@centrum.cz
WILDMANNOVÁ	Mirka	Masaryk University, Faculty of Economics and Administration	CZE	mirkaw@econ.muni.cz

Comments

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