Proceedings of the
16th International Conference

Modern and Current Trends in the Public Sector Research

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SESSION III: PUBLIC SERVICES

PROLOGUE

It was my great pleasure to be invited as a keynote speaker, and I am delighted to have been asked to provide a prologue of this highly interesting and topical international event held in Slapanice, organised by the Department of Public Economics at the University of Masaryk, Czech Republic. The event attracted many high quality scientific papers from a range of international speakers, including those from established and early career research academics and postgraduate and doctoral students. The level of debate during the day allowed all delegates, but especially students, to clarify conceptual, theoretical and empirical understandings of the subject of public administration and management. It was also very encouraging to see the attendance of many non-academic delegates who work in the field of policy and practice. Their involvement enabled all those present to align research with the practicalities of implementing some of the scientific findings.

In my keynote address I drew on scientific research on Leadership and Change in Sustainable Regional Development. I reported on some of the findings of an on-going comparative research project on place based collective leadership as a driver of regional development and sustainability. This cross national project involves researchers from UK, Finland, Netherlands, Australia, Latvia, Italy, Spain and Estonia, and the first phase resulted in a Routledge publication, due out in April 2012, entitled 'Leadership and Change in Sustainable Regional Development (edited by Professor Markku Sotaurata, Dr Ina Horlings and Professor Joyce Liddle). The second phase of the research will commence in April 2012 at a research conference in Tampere, Finland. In my keynote address I showed how leadership within public administration plays a crucial role in re-inventing regions and branching out from an old path to something new to create more balanced sustainable development. I also argued that leadership in public administration is not a solo activity but a multi-agency, multi-level and multi-sector activity, as it is shaped differently, depending on the institutional, political, cultural and social context.

This was followed by a thought provoking presentation by Professors de Vries and Nemec on the way ahead for public sector reform. The speakers had undertaken a comprehensive review of existing literature on changes underway in public administration across the world. The speech was very provocative, but nevertheless touched on some and the dilemmas that governments have in aligning the need for improving the quality of the public service delivery against the need to downsize public services and leave everything to the private sector. It provided a thorough review of New Public Management (NPM) reforms, but urged caution as we may have said adieu to NPM in as far as the ideology of minimum state and privatization as an ideology are concerned. Nonetheless, they contended that many NPM based tools and instruments are still used and optimized in order to support process improvements.

The remaining scientific papers presented throughout the event, were very wide ranging, and of high quality content. They included an eclectic mix of papers on important national, regional and local governance issues, including public sector reform, strategic planning, financing and decentralization, performance management, partnerships, social insurance, corruption, flood risk, waste, libraries employment and housing services, taxation, third sector, charities and voluntary sector. The scale

of the papers and the topics they reported on were both interesting and of concern to those researching and working in the public services.

The quality of the papers was of such a high standard that a selection of the best ones will feature in a special edition of the International Journal of Public Sector Management (Emerald Publishing) to be published in 2013/2014 and edited by Professor Maly and Spalek. This journal has a world-wide coverage in the developed and developing world. It focuses on common issues which are facing public administrators and managers globally. The continuing need to improve efficiency and effectiveness in a period of scarce resources but at the same time deal with rising citizen expectations of improved quality, means that the papers arising from this international event held in the Czech republic, but on topics from a wide range of countries and scholars, will be of immense interest to scholars, policy makers and public administrators in other parts of the world.

Professor Joyce Liddle

Professor of Public Leadership and Strategy,
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Public Sector Reform: Which Way are We Headed? An Overview of Recent Literature and Research

Michiel de Vries, Juraj Nemec

Abstract

This paper investigates recent literature and research on public sector reform and aims to answer the question to what degree public administration systems and reforms are still influenced by recommend0ations flowing from the NPM tradition.

This paper distinguishes two dimensions of NPM: the internal and external workings of government. Whereas American scholars such as Osborne and Gaebler wanted primarily to improve the way government works vis-à-vis society, which would in their view only be possible if the public sector would withdraw and leave service delivery to the private sector, European scholars like Hood emphasized the meaning of NPM as a set of recommendations in order to make the public sector better organized and managed internally.

The internal and external workings of the public sector pose an important, albeit somewhat neglected distinction between two dimensions of New Public Management. Important, because as this paper argues, the direction of the developments of public administration reform differs on both dimensions and whereas the ideas of NPM has become less dominant on the one dimension (downsizing the role of the public sector vis-à-vis society), this is not necessarily the case regarding the other dimension (improving the organization and management within the public sector).

Keywords

Introduction

Are the underlying ideas behind New Public Management (NPM) passé? Many scholars in Public Administration have argued that other paradigms such as those of (good or sound) governance, the Neo-Weberian state, public value pragmatism and public service motivation have replaced the until recently dominant idea of NPM. This paper investigates on the basis of an overview of recent literature and research, whether these ideas are reflected in the real world of public administration or mere wishful thinking?

That NPM lost ground has been argued many times before. Already in 1998 Lynn told us that "[m]ost of us could write the New Public Management's post mortem now. (Lynn, p. 231, 1998). In 2004 Pollitt and Bouckaert pointed to the ineviTable reaction to NPM based reforms because after a period of NPM based reforms reactions to the norms and values on which these reforms were built are to be expected (Pollitt and Bouckaert, 2004). Simultaneously Pollitt (2003) acknowledged that NPM is not over. Olsen in 2006 wrote an article with a title leaving very little to our imagination: 'Maybe it is Time to Rediscover Bureaucracy?' (Olsen, 2006). At the same year Dunleavy proclaimed NPM was indeed dead (in: Christensen and Lagreid, p. 1, 2007). Orozco (2009) argued that

NPM is based on neo-liberalism and owed its development to this doctrine. According to him with the exhaustion of neo-liberalism also the end of NPM is visible. Levy (2010) calls NPM arguably as much a casualty of the global economic crisis as are the markets and market mechanisms which underpin it. Some talk about post-NPM (Christensen and Lagreid, 2007, Olsen 2008), others argue the emergence of the New Weberian State (Drechsler, 2005). This idea is seen in Drechsler's publication of 2005 under the expressive title: "The Rise and Demise of New Public Management". There the author tells us that "I would say that in PA: in 1995 it was still possible to believe in NPM, although there were the first strong and substantial critiques; in 2000 NPM was on the defense, as empirical findings spoke clearly against it as well; in 2005 NPM is not a viable concept anymore". However, he immediately adds that "Yet in many areas both of scholarship and of the world as well as in policy NPM is very much alive and kicking."

Lapsley noted that there is evidence that, over the period 1999 to 2009, New Labor policy advisors in the UK translated NPM into modernization (Lapsley, p. 8, 2010). Still others spoke about the upcoming Public Value pragmatism and the new paradigm on Good Governance emphasizing the increased need and recognition that the quality of the public sector should be improved instead of its efficiency.

Notwithstanding the enormous increase in theory-building around governance seen in recent scholarly publications and the relative decrease of scholarly publications regarding developments related to NPM in the practice of public administration all over the world, the ideas behind NPM in such systems might still very much alive even though they are nowadays translated in different tools, the ideas about their functionality and delivering results might still be functional.

This paper investigates to what degree processes of public administration systems and reform are still influenced by recommendations flowing from the NPM tradition. First of all it aims to provide an account of public administration reform processes and the role of NPM therein at the end of the first decade of the 21st century. Secondly it provides indications of the nature of the changes taking place in public administration in different parts of the world and the communalities therein.

This provides information which is indicative for an answer to the question posed above: What has remained of NPM and what is the role of NPM tools in public administration today?

What Is Characteristic of NPM?

Before that overview of research is presented it is necessary to frame it within the context of our research question. This implies it is necessary first to give the main characteristics of New Public Management and the main ideas about its successors. In this regard it is customary to refer to the landmark book by Osborne and Gaebler, of 1992, who wanted to reinvent US government in order that it works better and costs less. Their ideas on New Public Management were summarized in Denhart (p. 136, 2004) under ten principles: Government under NPM should by catalytic (steering rather than rowing), community-owned (empowering rather than serving); competitive by injecting competition into service delivery, mission-driven instead of rule-driven, results-oriented, customer-driven, enterprising, anticipatory, decentralized and market-oriented. This view on the public sector is based on a very critical stance towards it.

There is no way out and no matter what one does, the public sector will inevitably perform worse than the market sector. Therefore, leave the rowing to those organizations that know how to deliver services, i.e. the free market. The neo-liberal roots of NPM tell us that society would be better of if the public sector as such would be downsized and the number of public officials could be decreased by privatization and economic liberalization (see Gore 2000; Brinkerhoff, p. 986, 2008).

At approximately the same time Hood (1991, 1995) identified as typical for New Public Management as it developed in the UK elements such as hands-on management, performance measures, emphasis on output and controls that objectives are met, disaggregation of and competition within the public sector, copying private sector management styles and input discipline (Hood, 1991, 1995).

According to Hood NPM does not see the performance of the public sector as something hopeless, but rather as something to be improved, which could be done if it would act similarly as the market sector does, i.e., if it would be more product instead of function-oriented, if internally it would become merit-based and careers would be organized on a professional instead of formal-legal basis, if management-objectives would become dominant over legal arrangements, if mobility would increase and flexible work contracts would replace seniority principles, if the bureaucratic ethos would disappear and the emphasis would be on the quality of service delivery and e-government (Gualmini, 2007).

These two conceptions on the internal and external workings of government, with which NPM is associated, have despite of their common denominator in the market ideology, a rather different focus. Whereas Osborne and Gaebler wanted primarily to improve the way government works vis-à-vis society, which would in their view only be possible if the public sector would withdraw and leave service delivery to the private sector, Hood emphasized the meaning of NPM as a set of recommendations in order to make the public sector better organized and managed internally. Reading both many times cited publications and with the benefit of hindsight one can see that NPM became the heading of two related but simultaneously rather different streams of reform: on the one hand aimed to improve the quality of the public service delivery on behalf of its customers and on the other hand with an emphasis on the need to downsize the public service, because in neo-liberal terms there is no way out for the public sector but to leave everything to the private sector.

The internal and external workings of the public sector pose an important, albeit somewhat neglected distinction between two dimensions of New Public Management. Important, because as the remainder of this paper will argue, the direction of the developments of public administration reform differs on both dimensions and whereas the ideas of NPM might have become less dominant on one dimension, this is not necessarily the case regarding the other dimension. Our paper includes both dimensions, but its detailed focus is on external working of government.

Results: A Preliminary Analysis of Actual Trends

The first thing to note is that the current period of reforming public administration systems in developed and developing countries emerge within varying contexts and thus vary in themselves. There is no one-size-fits-all approach visible. In that sense and because of what we see in recent account of national public sector reforms, it can be

argued we are in a period of transition. A transition from decades in which promoting efficiency and minimizing government has been the incantation for all problems in the public sector towards a period in which governments in different parts of the world seek their own way out of this ideological based fad. Labels such as the "new" state, good governance, a neo-Weberian state or even Developmental State are phrases heard in different parts of the world. The concrete descriptions of such a "model state" may vary (also depending where in the diapason between centralization and decentralization the country's ideology could be located), but is seems that they include common features, especially emphasizing the rule of law, reliability, openness and transparency; accountability and responsibility; participation and effectiveness.

Common paradigm shifts are also visible – like from emphasizing short term goal achievement to stressing the need to address long term effectiveness; from an emphasis on efficiency to stressing effectiveness; from emphasizing outputs to outcomes; from input (what is put in) to process (how to do it) thinking, et cetera.

The list of main principles of modern administration indicates what the role of NPM is today. Recent research provides evidence that many NPM tools, if properly implemented, may support important efficiency improvements – and better efficiency is, according to our opinion, still an adequate tool to help balance the so much imbalanced governmental finances today. Spending less and taxing more is very risky, from a economic, political as well as a social point of view. Spending "better" may help out. All this implies that NPM is not dead with regard to the recommendations given to the improvement of the internal workings of government. The recent literature on this subject indicates that really many NPM "generated" tools and instruments are "alive" all over the world. The results of their implementation depend on the quality of preparing and implementing respective reforms. Most common and frequently used NPM tools and instruments, with their positives and bottlenecks, are the use of performance measures, the emphasis on output and controls that objectives are met (performance audit and control), the contracting and outsourcing, the disaggregation of and competition within the public sector, the emphasis on the quality of service delivery, e-government tools. In many cases private sector management styles are copied by public organizations - hands-on management, input discipline, more product instead of function-oriented management, careers organized on a professional instead of formal-legal basis, mobility increase and flexible work contracts.

This is especially important since the single most important problem nowadays seems to be the current financial crisis. Many authors (like Foster and Magdoff, 2009) argue that the issue of fiscal/financial/economic crisis is just symptomatic, but the future trend might be long term and deep stagnation, with comprehensive impacts on the human existence - the crisis is connected with the accumulation of several critical factors and such a piling-up of problems might well pose a threat to basic vital structures which determine the functioning of the society as the whole.

The response to the economic crisis has been partly a global one, through measures such as increased resources for the IMF and policy co-ordination between central banks on monetary policies and to an extent between national governments on fiscal policy. Central banks, including the European Central Bank, have engaged in continual interest rate cuts to historically low levels, but have coupled this with a measure called quantitative easing, which is close to simply increasing the money supply. The central

bank buys up assets such as government and corporate bonds - using money it has simply created itself out of thin air. The institutions selling those assets, often banks, will then have "new" money in their accounts, which then increases the money supply. In effect this adds to the fiscal stimulus. Economies are being boosted with a fiscal stimulus by borrowing and also by 'quantitative easing'. However, this has not been a traditional Keynesian fiscal stimulus as much of the money is being used to help failing firms and in particular the finance sector.

Huge sums of money are involved. Their immediate aim was to stop the world collapsing into a 1930s style depression. But, this deficit spending and process of quantitative easing cannot carry on indefinitely. It will have to be paid for and that means constraining spending and increasing taxes in the years to come. This will have an impact, in some countries a very large impact, on all areas of government spending in all countries and it seems also to impact changing ideas about the proper role of government, public institutions, such as oversight committees and increased controls in which the public sector is necessarily involved. This problem was for a long time latent and hardly addressed under the guise of neo-liberalism, but entering the second decade of the millennium the problems and pitfalls of a free market without a proper institutional control, cannot be denied anymore. How serious the problems are even in the wealthiest part of the world is seen in Table 1.

Table 1 Public finance trends in selected countries (% GDP)

	Average 1994-2003	2004	2005	2006	2007	2008	2009	Projection		
								2010	2011	2015
Developed economies										
Net borrowing		-4,2	-3,3	-2,3	-2,1	-4,7	-10,1	-9,3	-8,0	-5,0
GDP gap	-0,1	-0,5	-0,3	0,3	0,5	-1,1	-5,4	-4,2	-3,5	-0,7
Structural balance		-3,6	-2,8	-2,3	-2,1	-3,8	-6,1	-6,8	-5,9	-4,5
USA										
Net borrowing		-4,4	-3,2	-2,0	-2,7	-6,7	-12,9	-11,1	-9,7	-6,5
GDP gap	0,1	-0,5	0,0	0,3	0,0	-1,8	-6,0	-4,9	-4,3	-1,3
Structural balance		-3,2	-2,3	-2,0	-2,3	-4,9	-7,2	-8,0	-7,1	-5,7
Net debt	44,4	42,2	42,6	41,9	42,4	47,6	58,8	65,8	72,7	84,7
Gross debt	63,3	61,4	61,6	61,1	62,1	71,1	84,3	92,7	99,3	110,7
Euro area										
Net borrowing	-2,7	-2,9	-2,5	-1,3	-0,6	-1,9	-6,3	-6,5	-5,1	-2,8
GDP gap	-0,7	-0,8	-0,9	0,5	1,7	0,8	-3,7	-2,9	-2,5	-0,1
Structural balance	-2,8	-3,0	-2,7	-2,1	-1,8	-2,6	-4,3	-4,5	-3,6	-2,5
Net debt	54,4	55,0	55,2	53,3	51,0	53,4	62,3	67,4	70,4	73,8
Gross debt	69,7	69,5	70,1	68,3	65,9	69,5	79,0	84,1	87,0	89,3
Germany										
Net borrowing	-2,5	-3,8	-3,3	-1,6	0,2	0,0	-3,1	-4,5	-3,7	-1,4
GDP gap	-0,2	-1,8	-2,2	-0,1	1,3	1,1	-4,3	-2,2	-1,5	0,2
Structural balance	-2,5	-2,9	-2,2	-1,6	-0,3	-0,3	-0,8	-3,1	-2,9	-1,5
Net debt	41,4	50,5	53,1	52,7	50,1	49,7	55,9	58,7	60,4	61,7
Gross debt	58,6	65,7	68,0	67,6	64,9	66,3	73,5	75,3	76,5	75,6
France										
Net borrowing	-3,3	-3,6	-3,0	-2,3	-2,7	-3,3	-7,6	-8,0	-6,0	-2,2
GDP gap	0,0	0,4	0,3	0,8	1,1	-0,4	-3,9	-3,5	-2,9	-0,2
Structural balance	-3,1	-3,6	-3,4	-2,6	-3,2	-3,1	-5,0	-5,0	-3,7	-1,9
Net debt	48,4	55,2	56,7	53,9	54,1	57,8	68,4	74,5	77,9	78,7
Gross debt	57,6	64,9	66,4	63,7	63,8	67,5	78,1	84,2	87,6	88,4
Italy										
Net borrowing	-4,2	-3,6	-4,4	-3,3	-1,5	-2,7	-5,2	-5,1	-4,3	-3,0
GDP gap	-0,1	0,0	-0,4	0,8	1,5	-0,5	-3,7	-3,0	-2,6	0,0

Structural balance	-4,4	-4,8	-4,6	-3,4	-2,5	-2,6	-3,9	-3,6	-2,8	-3,1
Net debt	99,7	88,3	89,2	89,7	87,2	89,0	96,8	99,0	100,1	99,5
Gross debt	113,9	103,8	105,8	106,5	103,5	106,1	115,8	118,4	119,7	118,8
Japan										
Net borrowing	-6,0	-6,2	-4,8	-4,0	-2,4	-4,1	-10,2	-9,6	-8,9	-7,4
GDP gap	-0,9	-1,1	-0,8	-0,3	0,4	-1,6	-7,1	-5,0	-4,1	-0,2
Structural balance	-5,6	-5,7	-4,6	-3,9	-2,5	-3,6	-7,3	-7,6	-7,2	-7,3
Net debt	48,3	82,7	84,6	84,3	81,5	94,9	111,6	120,7	129,5	153,4
Gross debt	126,0	178,1	191,6	191,3	187,7	194,7	217,6	225,9	234,1	249,2
UK										
Net borrowing	-2,1	-3,4	-3,3	-2,6	-2,7	-4,9	-10,3	-10,2	-8,1	-2,4
GDP gap	-0,1	0,1	-0,3	0,0	0,7	0,4	-4,0	-2,7	-2,3	-0,6
Structural balance	-1,9	-3,3	-3,1	-2,7	-3,1	-5,6	-8,3	-7,9	-6,2	-1,7
Net debt	37,8	35,5	37,3	38,0	38,2	45,6	61,0	68,8	74,0	76,0
Gross debt	43,1	40,2	42,1	43,1	43,9	52,1	68,5	76,7	81,9	83,9
Canada										
Net borrowing	-1,0	0,9	1,5	1,6	1,6	0,1	-5,5	-4,9	-2,9	-0,2
GDP gap	0,5	1,1	1,5	1,7	1,7	0,1	-3,8	-2,4	-1,5	0,0
Structural balance	-1,1	0,4	0,9	0,8	0,6	0,0	-3,2	-3,4	-2,0	-0,2
Net debt	56,2	35,2	31,0	26,2	23,1	22,4	29,0	32,2	33,5	32,2
Gross debt	90,6	72,6	71,6	69,4	65,1	69,8	81,6	81,7	80,5	71,6

Source: IMF World Economic Outlook, October 2010

It was the idea of New Public Management based on the ideology of neo-liberalism that promoted the idea of minimal government. However, currently the free market in crisis demands from government to regain its proper role, even though until now, this is mainly seen in public deficits that reach record heights in nearly all countries and public debts that grow very fast. The dramatic decline in GDP, public revenues and stabilization expenditures reveal the urgent problems that many countries face. It is in those circumstances that industry, banks but also common people turn to their governments and demand solutions which cannot be provided for by the market nor by a minimalistic public sector. It is not sufficient just to increase taxes and to implement cross-sectoral general cuts. In such a severe situation it becomes obvious that the one-size-fits-all solution of minimizing the influence of government has serious drawbacks and that the ideology behind NPM has reached its limits.

The Remains of NPM in the Relation of the Public Sector vis-à-vis Society

This brings us to the major research question from which this paper departs: Is NPM in decline, dead, demised, to be forgotten and not to be taken seriously anymore, or is it still alive and kicking? If NPM's impact has declined, what came in return? Many scholars have tried to answer this question and this section gives a brief overview of the alternative answers.

First of all, some have argued that, comparatively speaking, there never has been a uniform adaptation of NPM principles. König already argued in 1997 that public management reform is first of all a national matter. Polidano (p. 4, 1999) argued similarly that "while many developing countries have taken up elements of the NPM agenda, they have not adopted anything close to the entire package; and they are simultaneously undertaking reforms that are unrelated or even contrary to that agenda." Ferlie, Lynn and Pollit argued likewise in 2005 that "each country makes its own translation or adaptation" (Ferlie, Lynn and Pollitt, p.721, 20051) and Walter Kickert concluded in 2008 that in such reforms often old and new traditions are combined. This

also was visible in recent research on developments in Central and Eastern Europe (Bouckaert et al. 2009). As Nemec argued in 2011, the variance in the nature of such reforms and their effectiveness might well be a consequence of varying (extreme) territorial administrative fragmentation in the public sector in countries, the variance in the level of established competition in the market sector, the varying quality of the state of law, the existence of an institutionalized administration in the Weberian tradition (Peters, p. 176, 2001) and the varying extent in which the public administration suffers from corruption. In this regard one can also refer to Wolfgang Drechsler who noted already in 2001 that "NPM is particularly bad if pushed upon transition and development countries, because if it can make any sense, then it is only in an environment of a well-functioning democratic administrative tradition" (Drechsler, p. 101, 2005). The same was argued by Schick telling already in 1998 that "The greater the shortcomings in a country's established management practices, the less suitable are the [NPM] reforms" (Schick, p. 124, 1998).

Notwithstanding specific national mixtures, the argument that the NPM impact never has been significant is, however, given the numerous case-studies on many countries in the developed and developing world, hardly tenable (Peters, 1998, Johnson and Romzek, 1999; Behn, 2003, Haque, 1998; Laughlin and Pallot, 1998, Luder, 1998; Bouckaert and Pollitt, 2004, Powell and De Vries, 2011). To quote Manning (p. 310, 2001) "It [NPM] has undoubtedly left its mark".

The second view on recent reforms in the public sector is that NPM related reforms have not be replaced by completely different reform directions, but rather been supplemented by additional reform paths resulting in more or less complex mixtures of public management reforms. Such mixtures were, for instance, reported for Norway. In 2006 Christensen and Lagreid reported that reform in Norway had become more complex in the previous decade. Apart from NPM related reforms, such as management by objectives, devolution and the use of market tools, they witnessed more attention for cultural management tools seen in knowledge-based management and ethical guidelines and team-based management. They conclude that (p. 20, 2006) "The main picture is increased complexity. New reform tools have been added to existing measures. What we see is more supplementary reforms than a process in which post-NPM reforms are replacing NPM reforms." Lagreid, Verhoest and Jann argued in (p. 94, 2008) that: "Over the past decade, a second generation of administrative reforms with a post-NPM 'flavor' has emerged and supplemented the NPM reforms. Yet it remains unclear how the recently implemented post-NPM reforms—e.g., those focusing on whole-of-government issues, joined-up government, horizontal coordination, reassertion of the centre, culture and value-based management—have affected the autonomy and control of public organizations."

The third view which is becoming increasingly popular in Public Administration is that NPM-oriented reforms have been replaced by reforms with a rather different nature. This is seen in the theories on the Neo Weberian State (Pollitt, Drechsler), theories on reforms towards a so-called developmental state, an theories on reforms to achieve something like 'good governance' (Kettl, 2002; Van Kersbergen and Van Waarden, 2004) and/or "network government" (Bourgon) and reforms aimed at Public Value pragmatism.

In these trends the varying focus on both the internal and external dimension of NPM

are reflected. For instance, characteristic for the emergence of the Neo Weberian state is according to Wolfgang Drechsler (p. 99-100) the combination of Weberian elements such as the reaffirmation of the role of the state as the main facilitator of solutions to the new problems, of representative democracy as the legitimating element within the state apparatus and of administrative law in preserving the basic principles pertaining to the citizen-state relationship and the preservation of the idea of a public service with a distinct status, culture, and terms and conditions, with "Neo" elements such as a shift from an internal orientation towards bureaucratic rules towards an external orientation towards meeting citizens' needs and wishes, consultation with, and direct representation of, citizens' views, a modernization of the relevant laws to encourage a greater orientation on the achievements of results rather than merely the correct following of procedure, and a professionalization of the public service. The same goes for ideas on the Developmental state. That there would be a trend towards such a state is said to be especially furthered in countries not quite belonging to the developed countries but still much further in their socio-economic development than low-income developing countries. The developmental state is a state which is different from the neo-liberal state as well as from the all encompassing state and this has primarily to do with its priorities. Bagchi sees the developmental state as a state that puts economic development as the top priority of governmental policy and is able to design effective instruments to promote this goal. The instruments would include the forging of new formal institutions, the weaving of formal and informal networks of collaboration among the citizens and officials and the utilization of new opportunities for trade and profiTable production. Castells argues that "The developmental state establishes as its principle of legitimacy its ability to promote sustained development, understanding by development the steady high rates of economic growth and structural change in the productive system, both domestically and in its relationship to the international economy" (Castells, p. 55, 1992). Recently Marwala (2009) described the developmental state as different from the hollow state and the model of neo-liberalism, because of its emphasis on market share over profit, of economic nationalism over globalism, of protection of domestic industry over foreign direct investments, of technology transfer instead of capital transfer, of a capable state apparatus over privatization, of corporatism instead of the strict divide between public and private sector, of output legitimacy (effectiveness) over input legitimacy (efficiency) and of economic growth over political reform. (Marwala and Tshilidzi, 2009).

Characteristic is an intertwinement of private and public money, an embeddedness of government in economy and society and the building of social capital in order to get a willingness to invest in the building of institutions that further economic development and to devote resources to improve social living conditions (education, health, sanitation et cetera). Hence, the developmental state model is not as much about making money, but primarily about making progress. One needs a strong (hard) state (as opposed to the soft state) which in cooperation with, but if necessary without the market takes care of the socially needed institutions, out of the idea that the process of economic development is first and foremost to be seen as a process of expanding the capabilities of people" (whole phrase from Tshishonga and De Vries, 2011).

As to ideas of good governance these are based on the (re-)emerging notion of scholars and international organizations that government should do what it is supposed to do, that is at least to create security, protect property rights, reduce societal problems and

take back its leading role in controlling and steering societal developments in at least these regards (See for instance the recent literature on failed states and nation building). However, scholars promoting good governance still seem to agree with Ella Fitzgerald that 'T' ain't What You Do It's the Way That You Do It'. The way governments conduct their business can be good or bad and that makes the difference according to many scholars (see a/o Kaufmann). Kettle argues that governance is about the links between government and its broader environment and governments' changing role in society. Governance in this way is interpreted as a shift in the conduct of government.

Governments should act according to the criteria of good governance. The UNDP sees five good governance principles, namely legitimacy and voice (including participation and consensus orientation), direction (including strategic vision) performance (including responsiveness, effectiveness and efficiency) accountability (including transparency) and fairness (including equity and rule of law). The World Bank has given six dimensions to the concept, namely: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption (Faqs provided by World Bank) and the EU sees as characteristic for Good Governance a government's reliability, predictability, coherence; its openness and transparency; its accountability and responsibility; its professionalism; the extent of participation; and its effectiveness.

If government would proceed in this way and improve itself as much as possible on these dimensions this is supposed to be sufficient for eradicating societal problems.

Since 1995 many aspects and dimensions were added to the concept of governance. In this sense the concept has become 'slippery' (Kettl, p 119, 2002). How slippery can, among others, be seen in the much quoted article by Van Kersbergen and Van Waarden who depicted the study in Governance as 'a veriTable growth industry' although also as a possible bridge between disciplines.

On the basis of the above one can hypothesize that reforms in the public sector are nowadays of a very different nature than say ten to twenty years ago. Different from the basic principles of NPM or at least no longer solely dominated by this paradigm.

Conclusion

Our main question was: What has remained of NPM and what is the role of NPM tools in public administration today? Our main hypothesis stated: Reforms in the public sector are nowadays of a very different nature than say ten to twenty years ago; different from the basic principles of NPM or at least no longer solely dominated by this paradigm.

The recent literature provides evidence that such hypotheses may not be too far from the reality of reforms in public administration systems today. Many authors speak about: "Adieu NPM" (as summarized in the introductory chapter). Our preliminary conclusion is that "Adieu NPM" has to be still be conceived with some sense of relativity. Ideas that try to model modern public administration systems based on a minimal state, outsourcing all public duties to privatized markets and constantly aiming for more market type mechanisms in the public sector principles are for sure "passé" for most if not all public sectors in the world.

Privatization delivered in some cases, in others not, the same is valid for other tools like

performance management and less public expenditures in relation to GPD may but does not necessarily supports sustainable growth. Market forces (free market) are today, according to our opinion, the best mechanisms for regulating economic relations in competitive environments, with the clear necessity of an existing rule of law in force (and able to minimize corruptive actions). However, economy is only one dimension of the human existence and moreover, even though they like to create such an Figure, many industries are not sufficiently competitive.

There is a lot of discussion about the purposes of the current global crisis – providing "market failure" and "government failure" arguments. Where is the truth? Somewhere in the middle? In any case, current global experiences indicate that the role of the state in the modern society is not diminishing anymore, and in the light of this discussion, might be said to have been diminished too much with the already in many states visible increase of state involvement.

With the respect to all arguments above, we may conclude with regards to our research question and hypothesis: It is possible to say "Adieu NPM" in as far as the ideology of minimum state and privatization as an ideology are concerned. Nonetheless, many NPM based tools and instruments are still used and optimized in order to support process improvements. Internally governments are still trying to optimize their internal workings. They do this by many different patterns, at least partly diverging from of the ideas of NPM, which in itself showed significant shortcomings, although the emphasis therein seems to shift from increased efficiency to improved effectiveness. On the external side, regarding state-market relations the chapters in this book are indicative for the conclusion that a shift is indeed visible from emphasizing minimal government (NPM) into a trend towards good governance. Government is not yet completely back, but the first - still divergent - steps into this direction are visible.

Acknowledgements

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SESSION I:
PUBLIC ADMINISTRATION AND PUBLIC SECTOR

Decentralized Punishments in Fighting Corruption: Experimental Evidence from Czech Republic

Zuzana Berná, Jiří Špalek

Abstract

The paper presents possibilities and limits of introducing experimental methods in measuring propensity to engage in and punish corrupt behavior. We are inspired by results of the multicultural experiments run to date. Our experiment is inspired by Cameron et al (2009), which took place in Australia, Indonesia, India and Singapore. It takes a form of a simple sequential game in which three players are involved. The decision of each player has an impact on the behavior and profit of the other players. Results of the experiment are in line with results of replicated experiment. We found several differences between the behavior of the Czech and Slovak participants. Particularly, the Czechs seem to be less tolerant to corruption behavior they witness.

Second part of the paper shows the possibilities and limits of using altruistic punishment as anti-corrupt tool. Our finding may support the perceived higher tolerance to corruption behavior in Czech republic and Slovakia. People sometimes do punish free riders (and those who engage corrupt behavior), but the fail to educate others to prevent this behavior.

Keywords

Experiment, corruption, punishment

Introduction

Corruption and corrupt behavior are considered one of the major issues of developing or transforming economies. Undoubtedly it is one of the areas in which the newly established democracies of Central Europe differ from their neighbors although they had been united with them through their common political and mainly cultural history.

Analyses and description of corrupt acts, particularly their measurement (e.g. using the above CPI index) are based on opinions and experiences of the involved or surveyed persons. Due to a typically secretive nature of corrupt behavior it is rather complicated to acquire real data on the number of corrupt acts, let alone motives of persons who commit corrupt acts. One of the methods how to acquire the necessary data is the application of experimental economics method. Economic experiments make it possible to observe people in situations simulating the conditions of potential corrupt behavior. In such a way reasons that lead individuals to a decision to engage or not to engage in a corrupt act can be studied in laboratory environment.

As argued by Dušek et. al. (2004), corruption investigation in experimental environment could start off with publishing the paper by Frank and Schultze (2000) and can be divided into two areas:

- experiments exploring the reasons and motives that lead a subject to corrupt behavior;

- experiments examining relative efficiency of anti-corruption measures and mechanisms.

Our paper combines the two above mentioned approaches. For the first one, we ran an experiment which is based on replication of the experiment carried out by Cameron et al. (2009) in Australia, Indonesia, Singapore and India. The experiment takes a form of a simple corruption game that is run as a sequential game and is based on the behavior of three players. Their payoff depends on decisions of each player that are naturally influenced by behavior of other players.

The second field of interest represents analysis of altruistic punishment, i.e. situation when people punish each other for "false" behavior.1 According to Fehr and Gaechter (pp. 137, 2002), altruistic punishment means that individuals punish, although the punishment is costly for them and yields no material benefit. Recent experimental evidence (see e.g. Riedl and Egas, pp. 2, 2005) suggests that altruistic punishment is of large importance in favoring cooperation among individuals.

In respect to corruption behavior, such cooperation could mean that people do not tolerate corrupt behavior and directly or indirectly punish person, who engage in any form of corrupt behavior.

On the basis of result of our experiments, we aim to (i) evaluate the level of generalization the result of similar foreign experiments carried out to date; (ii) derive the motives of corrupt behavior of Czechs and Slovaks; (iii) evaluate the possibilities of using the decentralized punishment as anti-corrupt tool.

Material and Methods

Design of the first (corrupt) experiment is based on Cameron et al. (2009). Experiment is a simple corruption game decreasing the overall outcome of players in the regime of higher penalties. The corruption game is run as sequential and develops according to behavior of three players. Their monetary payoffs depend on decisions of each of them but they are also influenced by behavior of other players. Payoffs of individual subjects are usually calculated in units of experimental currency (token). At the end of the experiment they are converted to cash at the rate that is known beforehand.

Game participants are randomly assigned roles of a firm's manager, a public official and a citizen. Each role is endowed an initial capital (6000, 3000 and 8000 units of tokens). The game itself is played in three steps:

The game is opened by the act of the firm's manager who is making a decision whether to offer or not to offer a bribe to the official. The bribe can be offered at the level B = {400, 500, 600, 700, 800}. If the firm offers a bribe, the cost of this behavior equals 200 tokens depending on the official's response.

The game continues with the act of the official who has to decide whether he accepts the bribe or not. If the bribery act is accomplished, i.e. the firm offers a bribe

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1 Such behavior is in our experiment represented by free riding in Public good game with Voluntary contribution mechanism.

and the official accepts it, the payoff of both players will increase by a triple of the bribe amount (3B). However the citizen's payoff will be reduced sevenfold (7B).[2]

The citizen can report the corrupt act of the other players and so to punish them by penalties amounting to P = {200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200}. If the citizen does so, the payoffs of both the firm and the official will be reduced threefold (3P), but will reduce his own payoff too by the penalty amount (P).

The Figure 1 summarizes the experimental structure. The amounts shown at individual steps correspond with the setting of experiment in experimental crowns.

The structure implies that while the firm and official benefit from their corrupt behavior (if they are not punished), its punishment (or intolerance) is costly for the citizen. Such setting reflects real costs that an individual reporting corruption incurs (usually referred as a whistleblower).

Game settings make it obvious that if people considered only the bribe amounts and deemed the game as an investment game, the subjects acting in the role of citizens should rather tolerate corruption. Such tolerance is further included in corrupt behavior.

Figure 1 Structure of performed experiment
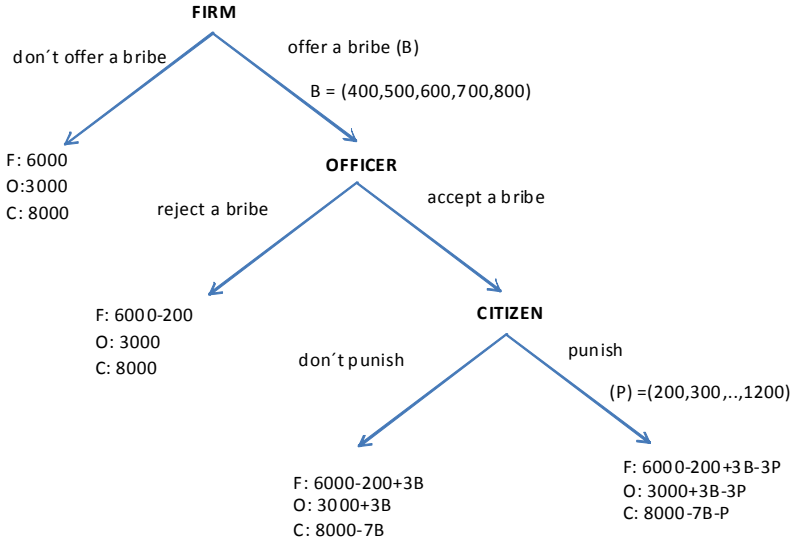
Source: Authors according to Cameron et al. (2009)

Altogether 168 subjects participated in the corrupt experiment. They were divided into 56 three-person experimental groups (firm-official-citizen). Individual sessions of the experiment were organized in three stages at Masaryk university, the so-called Night of Scientists in 2010 (September 2010), and at Technical University in Košice (winter 2010).

Apart from participants' nationality we explored some further characteristics (education, gender, age, work experience, whether the participant is a student, etc.), which could suggest influences that affect corrupt behavior. Since completing

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[2] A relatively high harm imposed on a citizen due to bribery of his team-mates indicates here a significant negative impact of corruption on the society.

the questionnaire was optional, the characteristics could be compared only in some cases (when there were enough answers in individual categories).

Basic scheme the second - Public Good Game (hereinafter "PGG") - experiment with punishment opportunity is following: Participants of an experiment dispose of certain amount of (experimental) money and have to decide how much they will keep in their personal account and how much they will contribute to a group account which represents public good3 within the experiment. While the private account yields profits only to its owner (profits are generated upon a known ratio – often 1:1), profits generated by the public account are distributed among all members of given group (the ratio is known as well). After all players have made decision concerning amount of their investments to the group account, information about individual contributions is published. All subjects (in given group) learn how much each of their co-players has contributed to the group account and as consequence get opportunity to punish low contributing subjects by assigning them points which reduce their outcome. However, assignment of points is costly even for the punishing subject.

Our experiment aimed to study impact of repeated punishment opportunities to level of cooperation in public good game. It replicated four selected experimental treatments used in the experiment of Denant-Boemont et al (2007). We found out that results of experiment involving Czech and Slovak students were in accordance with conclusions of this original experiment.

The series of experiments took place on the ground of Faculty of Economics and Administration during academic year 2009-2010. The participants – students of different faculties of Masaryk University – were recruited via advertisement published in University's information system. In total 96 subjects took part in experiment earning on average 230.5 CZK. All experiments were executed using experimental software z-tree4.

The experiment comprised four experimental treatments which replicated experiment of Denant-Boemont et al (2007). In each session 24 subjects played in groups of 4. Contrary to the experiment of Denant-Boemont et al (2007), composition of groups changed before every round5. Each session comprised 20 identical rounds (repetitions) and there was one trial round in the beginning to make sure that the players understood the instructions.

The basic treatment was called Baseline and comprised only two stages. The first one, so-called investment stage, was classic public good game. Subjects were given 20 tokens6 and were asked to decide which part of this income they would keep in their personal account and how much they would contribute to a group account they shared with 3 other players of same group. Each token kept on a personal account conserved its value, i.e. returned to its owner one token, whereas one token invested on a group

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3 Group account has characteristic features of a public good: non-rivarly and non-excludability from consumption.

4 For more see Fishbacher (2007).

5 In original experiment subjects played in groups with identical composition during whole session. However, players were re-numbered before each round so that they weren't able to identify their co-players.

6 Tokens are experimental money units which are transformed to real money at the end of experimental session. The rate of transformation is known in advance.

account returned outcome of 0.4 token to each player of the group. The calculation is summarized by equation (1).

$$\pi_i = (20 - c_i) + 0.4 * \sum_{j=1}^{4} c_j \qquad (1)$$

where π_i is i's players outcome, c_i is his contribution to the group account and c_j is contribution of j's player to the group account.

At the end of investment stage subjects learnt their current outcome. Then a punishment stage followed in which each player had possibility to reduce his co-players' profits by assigning them points (0-10 points to each co-player). Each point reduced the profit of its receiver by 10% and if a player obtained 10 or more points his profit was reduced by 100%. However, assigning of points was costly even for a punishing subject[7]. There was a cost for points assigned to each co-player and these costs to particular co-players were summed up. Costs beard by punishing subjects were generated by convex function of these punishments as presents Table 1. (Subjects disposed of this Table and were thus able to calculate consequences of their actions.)

Table 1 Cost function of punishments assigned

Points assigned	0	1	2	3	4	5	6	7	8	9	10
Costs of points assigned to one person	0	1	2	4	6	9	12	16	20	25	30

Source: Fehr a Gaechter (2000).

The calculation of individual profits at the end of first punishment stage was given by Equation 2.

$$\pi_i^2 = \pi_i^1 * \left[\max\left\{ 0, 1 - (1/10) \sum_{j \neq i} p_{ji} \right\} \right] - \sum_{j \neq i} k(p_{ij}) \qquad (2)$$

where π_i^2 is outcome of player i at the end of the second stage, π_i^1 is his original outcome at the end of first stage, p_{ji} is punishment of j's player to player i and convex function $k(p_{ij})$ represents cost of player i caused by punishing of player j.

In case of Baseline Treatment this profit represented total outcome of a subject in given round. At the end of this stage subjects got (recapitulated) information about their original outcome (after first stage), number of points obtained and total outcome in current round. The origin of punishments remained hidden to subjects.

Three other treatments included one more stage of punishments and they differed by nature of information about punishments assigned published to the subjects. In this stage subjects had one more possibility to punish all of their co-players.

In the Revenge Only treatment all subjects got to know who had punished them (personally) during the first stage. In No Revenge players were informed about all

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[7] As it is in accordance with definition of altruistic punishment introduced above.

punishments except for those assigned to them and in last Full Information treatment they learnt about all punishments assigned and their authors.

Within whole session subjects played with experimental monetary unit token. At the end of an experiment total sum was converted to CZK using rate 1 token = 0.50 CZK and consequently paid to subjects. The calculation of profits was based on Fehr and Gaechter's (2000) experiment.

Results and Discussion

1. Corruption Experiment

Among 34 officials, who were offered a bribe, 22 (65%) accepted, which was again less than in the mentioned foreign experiments (87 %). Out of 22 citizens damaged by corrupt behavior of firms and officials 64 % (as compared with 49 % in Cameron, et al.) punished this kind of behavior. Total corrupt behavior rate among participants is summarized in the following Table:

Table 2 Corrupt behavior rate in experiment participants

Corrupt behavior	Number of cases	% of all participants	% of participants playing the game
Yes	64	38,1	57,1
No	48	28,6	42,9
Total	112	66,7	100
Not involved in the game[*]	56	33,3	
Total	168	100,0	

Source: Authors

* Participants playing the role of officials or citizen, who could be involved in the game since they had not been offered a bribe or had not witnessed the corrupt act of the official.

A corrupt act, which consists in offering a bribe by a firm, its acceptance by an official or a failure to punish corruption by a citizen, was committed by 64 participants, which is 57% of all subjects who were actively involved in the game.

Our results prove that the Czechs and Slovaks have different rate of corruption behavior. Only about one half of Czech participants chose some form of corrupt behavior or its tolerance (48%) versus more than two thirds of subjects (68%) among Slovak participants.8

An interesting finding, which has no explanation yet, is the fact that women showed a higher corruption behavior rate than men. The marked difference is visible in the participants playing a role of a firm, where (statistically significantly) more women offered a bribe (81 % women compared to 50 % men).

Our hypothesis that religion can influence the probability of corrupt acts completely failed. The proportion of corrupting believers and atheists was the same across all sessions.

On the contrary, the presumption that students have a greater propensity for corrupt acts than other participants of the experiment was confirmed. We believe that the chief cause is that students perceive less the context of this situation (i.e. corrupt behavior),

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8 Differences are statistically signifiant at 95% level. The p-values are available upon request by authors.

which is in agreement with the feedback from the subjects participating in the experiment. Students understood the situation rather as an investment game and used a strategy, which was consistent with the game theoretic solution.

2. Results of Public Good Game with Punishment Experiment

Our experiment was primarily aimed to study the impact of repeated opportunity to punish the level of cooperation and to test the validity of foreign results published by Denant-Boemont et al (2007). Our results brought basically the same conclusions as original experiment. The results concerning impact of repeated opportunity to punish to level of cooperation and to individual earnings are reported in detail in Berná (2010). We concluded that Czech (and Slovak) data also demonstrate negative effect of possibility to counter punish to level of cooperation. The threat of counter punishments reduces the willingness to punish free riders which results in lower contributions than in situation without this risk. The possibility to counter punish has also negative effect on players' average earnings.

Obtained results demonstrate definitely positive effect of possibility of sanction enforcement to level of cooperation, however this phenomena is not strong enough to compensate the negative effect of counter punishments. It had also positive effect on average earnings of players.

As it was stressed in numerous works on altruistic punishment[9], (single) opportunity to punish free riders leads to increasing cooperation among contributing individuals. Such cooperation is manifested by number of contributions to a group account. Our results concerning single opportunity to punish (i.e. results under Baseline treatment) confirm this statement. While average contributions in first periods of public good games with no punishment condition vary as a rule between 40 and 60 % of disposable endowment (and decrease over time)[10], under the Baseline treatment they varied between 67.5 and 75.4 % in first six rounds and then started to decrease. However, this decreasing trend was maintained over repetitions and in last periods contributions converged even to zero which was the theoretical Nash equilibrium of a game. Contrary to results of Fehr and Gaechter (2000) we must conclude that in our experiment cooperation weren't sustainable solution. Average contributions to group account are reported in Figure 2.

Figure 2 Average contributions to group account
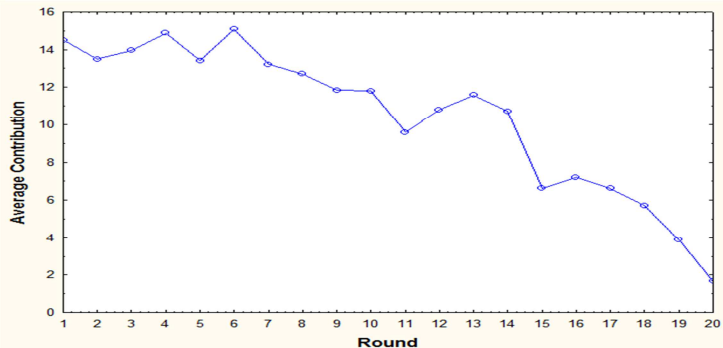
Source: Authors

[9] see for instance Fehr and Gaechter (2002) or Riedl and Egas (2005).
[10] see e.g. Ledyard (1995).

As mere opportunity to punish free riders led to higher contributions a logical question was whether and how individuals in reality engaged in assigning punishments.

In total, subjects sanctioned 190 times and total sum of punishments assigned reached 325 points. Level of average punishments during 20 rounds of game (i.e. average number of points assigned by individual) may be observed in Figure 3.

Figure 3 Average punishments assigned
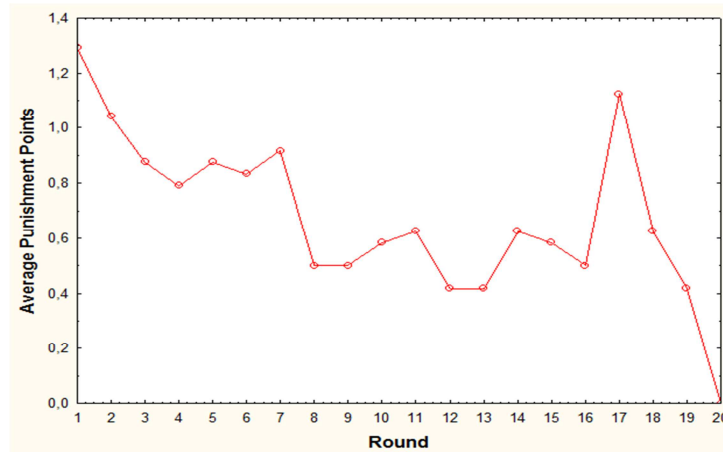
Source: Authors

As one may see, individuals engaged in punishments in each round expect the last one where no punishment point was assigned. We can note that excluding the last period our results contradict the theoretical assumptions saying that there will be no punishment at all during all periods. However, there were 2 subjects who behaved exactly according to the theory – they didn't punish in any period.

The level of punishment points assigned decreased over time excepted round 17 where significant increase was observable. As it has already been said, there was no punishment point assigned in last period. This phenomenon is in line with Game Theory assumptions (see e.g. McCain, pp. 257, 2004): as subjects are aware that there will be no more opportunity to punish or be punished, they behave as in one-off game in which their dominant strategy is not to contribute and not to punish.

Conclusion

To find the potential factors that influence the propensity to engage any form of corrupt behavior is very demanding task. This is particularly true in the context of Central Europe, where there is a tangible difference between the countries of the formed visible Eastern bloc and traditional Western democracies. Our paper is aimed at contributing to the debate why Czechs or Slovaks commit some kind of corrupt acts more often than people in the West.

The most important conclusion from the first experiment is statistically significant and so systematic difference in tolerance of corruption between the Czechs and the Slovaks. While only 20% of Czech participants did not punish corrupt acts they witnessed, among Slovak participants 80% of subjects did not punish such behavior. This conclusion is in full agreement with the results of the experiment run by Cameron et al. in 2005 in Indonesia, Singapore, India and Australia. Their results did not show major differences between the behavior in the role of a firm or an official. But it is the role of

a citizen where the Australians substantially differ (53 % of them punish corruption) from the Indians (only 23 % of them punish corruption).

The second experiment proved, that people – when they have opportunity – do altruistically punish other for free riding. But, contrary to the results of western experiments, such behavior does not result in sustainable cooperation. These finding may support the perceived higher tolerance to corruption behavior in Czech Republic and Slovakia. People sometimes do punish free riders (and those who engage corrupt behavior), but the fail to educate others to prevent this behavior. In other words, people fail to rule themselves.

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Impact of Structures Based on Mutual Cover-up on the Course of Public Sector Reforms in the Czech Republic

Michal Blahout, Radim Valenčík

Abstract

While implementing reforms in the above areas, individual countries are confronted not only with conflicts of interest between various interest groups but also with attempts at misusing the reforms for the benefit of private lobbies. This is where science should tackle the important task of developing and using appropriate instruments to conduct a theoretical analysis of the issue. Certain private entities successfully influenced the legislative process. Powerful interest groups were able to enforce their objectives at all levels of the legislative process. This paper analyzes the above claims, which were partly presented at the 14th annual international scientific conference on human capital and investment in education (University of Finance and Administration, September 2011) and partly contained in the Annual Report of the Security Intelligence Service of the year 2011), in terms of their ability to develop and apply the tools based on game theory, describe the nature of structures based on mutual cover-up which operates in the public sector, and to formulate conclusions regarding the anticipated development.

Keywords

Game theory, contextual games, public sector, reforms, structures based on mutual cover-up

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Introduction

In September 2011, the 14th annual international scientific conference entitled Human Capital and Investment in Education was held at the University of Finance and Administration. There was a series of interesting posts presented under the section on Methods of Analysis of Conflicts in the Implementation of Reforms of Social Investment and Social Insurance Systems. These were characterized by the search for a tool to analyse the causes and processes of derailing reforms during their preparation and implementation, including the application of game theory to the issue in question. Considerable attention was given to the ethical or benefit aspect, or the possibility of making use of the instruments developed in the professional literature relating to the examination of corruption.

Subsequently, he was formulated fourth point of the conclusions: *"While implementing the reforms in the above areas, the individual countries are confronted not only with conflicts of interests between various interest groups but also with attempts at misusing the reforms for the benefit of private lobbies – this is where science should tackle the important task of developing and using appropriate instruments to conduct a theoretical analysis of this issue."* (Valenčík, p. 4, 2011)

Independently of the knowledge included in the theoretical analysis of the current developments using tools presented at the conference, the same views were also arrived at in the Annual Report of the Security Information Service of the Czech Republic (BIS) for 2010, which, in section 1.2 Protection of Major Economic Interests, Administration

of Public Assets, states: *"Certain private entities successfully influenced the legislative process. Lobby pressures targeted the legislation that addressed the regulation of the gambling and power industry. Powerful interest groups were able to enforce their objectives at all levels of the legislative process."* (BIS 2010)

The situation in the Czech Republic is really serious. This may be why conditions have now been created here for a positive shift – in connection with the aforesaid issue – in the area of scientific description of the social processes which can also be applied internationally.

The paper aims is to introduce the apparatus that was developed on game theory basis and applied to the issue of the preparation and implementation of reforms in the public sector and in relation to the operation of financial markets, from the perspective of the possible effects of lobbying pressures. The apparatus is based on:

- description of contextual game characteristics,
- the definition and description of structures based on mutual cover-up of the violation of generally accepted principles,
- detailed analysis of the Mafia type structures which are a special case of the above structures type).

This is in response to the 4th point of the conclusions of the 14th annual international scientific conference entitled Human Capital and Investment in Education, as well as to the passage quoted from the 2011 Annual Report of the Czech Security Intelligence Service.

Methods of Analysing Problems Occurring in the Preparation and Implementation of Reforms in Public Sector

If we want to examine the issue of the preparation and implementation of reforms in the public sector from the point of view of conflicts of interest that occur in this area and from the point of view of various lobbies, we need to make use of certain methodological procedures that are only rarely used in the theoretical literature. We referred to these issues in earlier years (Šnajdar, Valenčík 2011a). This–particularly concerns the following:

1. To focus not just on "how it should be", but particularly on the specific *process of pursuing* "how it should be", i.e. to examine the implementation process. This should not only be in terms of "how the process of the preparation and implementation of reforms should take place" (Pergler 2011; Mintzberg et al. 1995; Ochrana 2010); it is also necessary to look at the explanation of "why the process runs in a specific way".

2. To examine the preparation and implementation of reforms using the tool of game theory. The possibility of applying game theory was mentioned for the first time, among other aspects, by J. Nemec (2008) in Šlapanice, during one of the seminars on which the current one is built.

3. To improve the game theory tool so that it can be used to identify how individual games follow each other in reality, i.e. to understand the corresponding games as contextual games (Meliers, Birnabou 1983).

4. To concentrate on the relationships between overt and hidden games, i.e. use the resources that make it possible to identify the factors influencing the course

of the creation of coalitions and the distribution of payments in the games where we have empirical data about how employees behave – which are however affected by (and sometimes subordinated to) hidden games. In this context, this–particularly concerns the analysis of structures based on the mutual cover-up of the violation of generally accepted principles. This is a technical term introduced by us (Heissler 2011).

Points 1 – 4 follow one another, in the form of gradual instantiation, i.e.: The creation of structures based on the mutual cover-up of the violation of generally accepted principles is an example of the mutual/reciprocal effects of overt and hidden games, one of the cases of contextual games relating to the activity of various lobbies. The examination of these structures is among the most important theoretical bases of the analysis of the preparation and implementation of reforms in the area observed.

The structures based on the mutual cover-up of the violation of generally accepted principles may grow from patronage. This means that people are appointed in various positions based on certain affinities, such as family relationships. Sooner or later, such structures will be infested by relationships based on mutual blackmail and mutual cover-up. The previously cited 2010 Annual Report of the Czech Security Intelligence Service, Article 1.6 Organised Crime defines these structures as follows: "*Rather than a fixed structure, this is a system of open, interoperable and permeable networks with access to money and/or influence and contacts. In addition to hidden action, exercising influence and use of corruption, the typical phenomena also include the use of specialists (e.g. lawyers, tax and media experts). Such structures do not tend to make use of obvious physical violence. Their action is also related to affecting the authorities involved in criminal proceedings and the courts.*" (BIS 2010) It is also worth noting that in the quoted passage, the element of mutual blackmail and cover-up is not explicitly expressed, which is entirely essential for the understanding of how the corresponding structures work.

An example of a specific interpretation in the examining of the structures based on mutual cover-up of the violation of generally accepted principles is the case of farmers who distribute limited supplies of water in an area suffering from a lack of water (this case is briefly described as a "Farmer Task"). This is especially so for the following reasons:

1. This is a very good example illustrating the game of the Collective Ownership Tragedy.

2. The three players can be described with the use of key mathematical models, which:

- Make it possible to proceed from the game of the Collective Ownership Tragedy type to a game with three players within a redistribution system.
- Make it possible to demonstrate how the players would behave if the system was not affected by any external influences, and then make it possible to identify the external influences.

3. The empirical descriptions and analyses of the situations arising precisely in that case were reflected in the work of E. Ostrom, a winner of the Nobel Prize for economics, and of other authors (Ostrom 1990; Špalek 2011a).

4. It makes it possible to describe accurately standard situations (and decision-making dilemmas) that arise when a player violates the rules for drawing water, and when such a player is caught by another player (Špalek 2011b).

When interpreting the real-life situations related to the Farmer Task, the team at the University of Finance and Administration dealing with the models of people's behaviour via the application of the theory of games identified an important pattern in the behaviour of the player who has discovered that another player has violated the rules for drawing water. The theoretical literature has so far only dealt with the following options:

- The player who has discovered the violation of rules by another player will notify the community within which the violation occurred
- The player who has discovered the violation of rules by another player will do nothing
- The player who has discovered the violation of rules by another player will start violating the rules of water drawing as well

The relevant situations were examined empirically, experimentally; their analyses can also be based on theoretical models (e.g. system of Bayesian games).

The case which was not given sufficient attention in the theoretical literature, but which we consider absolutely crucial, is a situation where a player who has discovered that another player has violated rules starts blackmailing such a player, or forcing them to carry out activities associated with the violation of other generally accepted principles, either directly within the system (the community of farmers who adopted the rules for drawing water), or within other systems (in which case we see the creation of a link between the original system and these other systems). The distinction between cases when the blackmailed player is forced to violate generally accepted principles in the original system and in another system is important for the creation of basic models for the testing of various alternatives.

From a simple case for which it is possible to compile and test formalized models, the analysis of the social reality leads to more complex tasks, when the following particularly needs to be considered:

- The possibility that blackmail players are "produced" in a certain way (compromising materials are sought; the players face difficult life situations and are thus forced to violate generally accepted principles; forgeries are produced and used for blackmailing, etc.). I.e. the structures based on the mutual cover-up of the violation of generally accepted principles not only grow occasionally, but also systematically.
- The development of structures based on the mutual cover-up is directly related to the development of the institutional structure of a society; at one level, the institutional structure of a society prevents the creation of structures based on mutual cover-up of the violation of generally accepted principles; at the other, the structures based on mutual cover-up penetrate the key elements of institutional structures (Wawrosz 2011, pp. 537 – 540).
- The influence of the structures based on mutual cover-up of the violation of generally accepted principles strengthens as these structures compete with each other within the social sphere in question. This leads to a situation when only the most aggressive and viable will survive.

From the methodological perspective, it is important to respect and use the relationship between the two types of tasks:

- Creation of mathematical models which can be used to describe the simplest cases related to the violation of generally accepted principles (for which the Farmer Task is well suited, as we have shown earlier) and the simplest cases of the behaviour within the structures, based on the mutual cover-up of the violation of generally accepted principles.
- Examination of the real social events and subsequent creation of concepts for more complex structures based on the mutual cover-up of the violation of generally accepted principles (the terminology base and appropriate schemes can be used for their description).

In the next section, which will – from the perspective of our input – contain the main message, we will make use of the briefly presented methodological basis for the analysis of the Structures (based on the mutual cover-up of the violation of generally accepted principles) of the Mafia type (the term "Mafia" is understood here as a technical term). This will be presented from the perspective of the process of the implementation of reforms in the Czech public sector.

Theory of Structures Based on Mutual Cover-up of the Mafia Type, and Their Current Application

We usually understand the term "Mafia" as something with a strongly negative effect. In our case, as we have mentioned before, we use the term "structure based on the mutual cover-up of the Mafia type" as a technical term, and therefore we consider it necessary (at least at this stage) to avoid the negative connotations because they may be misleading. The term "Mafia" is so significant that it is covered by extensive popular and scientific literature.

One of the most famous cases of the use of the word "Mafia" to describe social reality in the context of the current situation was the statement rendered by M. Benešová regarding the "Judicial Mafia", which led to quite interesting and complicated legal implications. The case is even covered by a comprehensive (but unfortunately not quite updated) entry at Wikipedia. Also in standard communication describing the current situation in the Czech Republic, people tend to use the word "Mafia" quite frequently. Unlike at the location of the origin of this term, we often use it to describe some institutional structures of a society. Such an overuse of the term or word "Mafia" may however be quite misleading.

It is our intention to describe – based on the brief presentation of the theoretical background – the concept of the structures built on the mutual cover-up of the Mafia type, and to compare it with some of the phenomena associated with the preparation and implementation of reforms in the public sector. The Mafia type structures are characterized as follows:

1. There are more such structures within a certain public sphere; they compete with each other but are able to reach a mutually acceptable agreement and keep this (better than other entities). Each of the Mafia type structures existing within the social sphere is the outcome of a process of natural selection, and is therefore resilient and adapTable. The ability to keep the agreement is based on:

- The significant difference in payments resulting from the existence versus non-existence of a mutually acceptable agreement. (Any war between individual Mafia groups is devastating for all of them.)
- The experience based on the conditions and consequences of the existence of structures built on the mutual cover-up of generally accepted principles, and therefore the elimination of such structures from the area of its operation. Tendency to a commonly acceptable agreement therefore faces no overlapping as regards the negotiations of individual Mafia type structures.

2. They violate a precisely defined type of the generally accepted principles applicable within the social sphere, while they themselves (as collective bodies of a structure type) and their individual players forming the inner structure comply with the commonly accepted principles (there is a very strong tendency to enforce these principles within and between individual structures). From the violation of the generally accepted principles within the social sphere in which they operate, they acquire resources that enable their reproduction.

3. They have a high degree of resistance to sanctions in the event that the rules of the wider community are violated. This is based on the fact that those who violate the principles may be blackmailed and pulled into the structure of the Mafia type. The higher the penalties are from the outside (e.g. imposed by the state), the more coherent is the structure of the Mafia type and the entire system of Mafia type structures, and the easier it is to find those who can participate in these structures. This is no longer possible inside a Mafia structure. Here the penalties for the violations of internal principles are harsh and effective.

4. The system of the Mafia type structures tends to be very durable and enclosed. Individual structures of the Mafia type that create the system will not allow anyone in among themselves.

One of the manifestations of Mafia type structures is that from the outside, those who enter these structures behave immorally, while from an internal point of view there is a high degree of compliance with moral principles (which many communities of another type could envy).

These structures can only operate on a long-term basis if the social sphere from which they obtain funds for their operation is sufficiently large and has sufficient production capacity. The production capacity of a social sphere must not be significantly undermined by the Mafia type functioning structures. From this perspective, a system of structures of the Mafia type may be interested in the proper functioning of the state or states within the social sphere in which it operates.

A completely different situation arises if the system of structures based on mutual cover-up penetrates the state structures. This leads to the following consequences:
- Permanent crossing the boundaries of what can be violated under the generally accepted principles, based among other aspects on the competition of individual structures of this type within a social system.
- Increasing decline in the production capacity of the social sphere.

Both aspects lead to the situation of an intensified clash between individual Mafia type structures, which operate within the given social sphere and are intertwined with state

institutions. In such a case, the situation inevitably leads to a war between Mafia type structures, which can take two extreme forms:

- The war ends with the victory of one of them, which then becomes the constructive force. It will guarantee the enforceability of the generally accepted principles that are essential for the society's production capability, and at the same time reveal and punish the representations of other Mafia type structures. A necessary condition is to gain public confidence (i.e. the confidence of those not incorporated in the Mafia type structure). As a general rule, a period of positive reforms follows.
- The wars among Mafia type structures, which are repeated again and again due to the inability to achieve an increase in the system's production capacity through the necessary reforms, lead to a situation where the public is drawn into the process of finding solutions. In such a case developments are difficult to predict and are historically conditioned by what the public is willing to accept as an ideological and institutional concept or project, and by who is actually able to present such a concept or project. Even the creation of the relevant concept or project is affected by the surviving Mafia type structures which attempt to influence it.

The existence of Mafia type structures therefore requires a strict separation of the following three types of laws:

1. Social (legislatively anchored) laws which members of the Mafia type structures may or even must violate, for the following two reasons:

- So that they are able to draw resources for their own benefit from the respective social system (as a general rule, these are from various forms of criminal activities).
- So that the Mafia type structure is able to defend its identity against persecution by state authorities or in any mutual conflicts.

2. Own (morally anchored, but very strictly enforced) laws that must be strictly followed, similarly to the related types of agreements entered into within or among Mafia type structures based on mutual cover-up.

3. Social (anchored in legislation, or only morally) laws conditioning the effective functioning of the social system and its sufficient production level, without which the Mafia type structure would be unable to drawn sufficient resources from this system for its benefit. These are laws that the Mafia type structure does not violate and even usually provides significant assistance towards their protection.

If a clearly defined and respected boundary is created between these three types of laws, the whole social system rests in a relative balance. Because the Mafia type structure based on mutual cover-up is built on the basis of identified (or in some cases enforced) violation of generally accepted principles, because its own structure is based on mutual cover-up of the violation of a certain type of generally accepted principles (formulated above in clause 1), it is able to guarantee very effectively the functionality of the principles and laws formulated in clause 2 and 3. Not all types of structures based on mutual cover-up of the violation of generally accepted principles have "advanced" to such a high level.

If, for example, we look at the recent developments in the Czech Republic, we will see that the structures based on mutual cover-up do not meet the requirements for the type that we have defined as Mafia type structures. This especially concerns clause 3. As pointed out in the Annual Report of the Czech Security Intelligence Service (as well as the indirect identification using the concepts based on game theory), not only are the laws necessary for the effective functioning of the social system violated, but the individual structures based on mutual cover-up of the violation of generally accepted principles have increasingly been violating these laws under the influence of mutual competition. Thus, the problems of the social system's functionality have been dramatically escalating.

The theoretical analysis also shows that the situation in the given area is dynamic and grows into instability:

- The penetration of structures based on the mutual cover-up of the violation of generally accepted principles into the institutions continues.
- These structures make use of more invasive means.
- Competition between these structures is escalating.
- The amount of funds received and sought from the public sector in favour of private lobbying is increasing.
- The impact of their influence on the inefficiency of the public sector is growing.

Note that from the methodological point of view the concept of Mafia type structures based on mutual cover-up (as compared with the reality in the Czech Republic) made it possible to demonstrate significant differences between this type and the type of structures based on mutual cover-up currently existing in the Czech Republic. These can best be described as structures based on mutual cover-up of the violation of generally accepted principles, which face no constraints. There are no constraints (rules, regulations or similar), which would restrict the escalated violation of generally accepted principles by the structures of this type. Meanwhile we do not have a suitable terminology to describe them. Such a situation is unsTable. In this respect, the theory may:

1. Anticipate a variety of possible future developments.

2. Identify and present the typical indications associated with the genesis and effects of the structures based on the mutual cover-up of the violation of generally accepted principles, which face no constraints.[11]

Conclusion

Over the past few years, we have gradually spelled out in the related papers (Stáňa, Valenčík 2010; Šnajdar, Valenčík 2011a), including the present one, the analysis of conflicts, problems and social contexts accompanying the reforms in the public sector.

Defining "structures based on mutual cover-up of generally accepted principles" serves as an important theoretical basis for understanding how the process of lobbying affects preparation, negotiation and implementation of reforms in the public sector. We can use

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[11] Within the limited options, the team operating at the University of Finance and Administration focuses, not by mere accident, on the issue of the reform of the pension system advocated by the government.

the game theory, such as models derived from the Collective Ownership Tragedy, to analyse these structures with their most significant aspects. These structures also comprise Mafia-type structures. We revealed marking differences between Mafia-type structures based on mutual cover-up and structures based on mutual cover-up that influence the preparation, negotiation and implementation of public sector reforms. First, the former managed to seize better control over the institutional system (including legislation and control mechanisms, as illustrated in the report issued by the Security Intelligence Service of the CR). Moreover, it does not contain any internal means of restraining the escalating violations of generally accepted principles. Such violations give rise to a lot of problems which can be tackled by means of well-developed perfect tools of theoretical analysis. These tools can benefit from the power of the mathematical approach and "visualize" what would otherwise remain hidden and what without adequate theoretical tools would only be suspected. It is probably true that the more theory succeeds in analysing this issue, the more important the role it will play and the less dramatic society's dealing with this issue will be.[12]

Acknowledgements

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[12] The fact that the fitness of the theory to deal with the questions which we tried to outline is growing is also evident from a number of papers presented by younger authors during the 14th annual international scientific conference entitled Human Capital and Investment in Education

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Measurement of Performance of Municipal Waste Management System in the Czech Republic

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Abstract

The developed methodology for measurement of the performance of a municipal waste management system (MWMS) is introduced in the paper. It aims to measure an efficiency of regional integrated waste management system (IWMS) for municipalities. The set of standard indicators of Waste Management Plan of the Czech Republic for 2003–2013 (WMP) was extended by specific developed indicators, directly evaluating individual elements and effects of the regional IWMS. The paper introduces and shortly describes thirty nine certified indicators for the measurement of the performance of MWMS. They are divided into three groups and the methodsof their determination were introduced on samples of chosen indicators. The first set of indicators represents parameters which are necessary for the preparation of a regional IWMS together with indicators evaluated commonly in WMPs. The second set of indicators provides an effective tool for ongoing evaluation of the objectives of the IWMS. The third set of indicators consists of the supplementary indicators, which evaluation is not necessary for the preparation and operation of the IWMS, but they may provide important information in some specific cases for decisions of IWMS managers on individual system elements.

Keywords

Waste management, integrated waste management system (IWMS), municipal waste management system (MWMS), performance indicators, mathematical processing

Introduction

Unambiguous definition of a regional Integrated Waste Management System (IWMS) is not stabilized, even on an international level and approach to the issue of the IWMS vary depending on location, time and purpose of the system. The IWMS is usually understood mainly as an approach, which allows the separation of municipal waste streams and therefore results in effect on the impact on the environment (Daskalopoulos, Badr, Probert, pp. 33–50, 1998), (Rathi, 2007), UNEP (2005), UNEP (2009) or on an urban area (Fiorucci et al, 2003), often in conjunction with the life cycle impact assessment (LCIA) (Rigamonti, Groso, Giugliano, pp. 934–944, 2009) or an economic optimization (Shmelev, Powell, 2006).

In the Czech Republic the general term IWMS was embedded formally in the current Act no. 185/2001 Coll. (Waste Act) in 2001, nevertheless there is not given its closer definition. The more precise definition of the IWMS in the Czech Republic was published in the Evaluation Report on the Implementation of Waste Management Plan of the Czech Republic for 2003–2013 (WMP) where is described IWMS as "a simple strategy that coordinates the collection, recovery and disposal of waste in the entire waste stream, aimed at optimum efficiency while respecting economic and environmental requirements". The twinning project CZ06/IB/EN/01-TL: "An integrated approach

to regional waste management in the Czech Republic" (2006–2007) and the research project SPII2f1/30/07 "Research on integrated waste management system and new support tools for its implementation in the Czech Republic" (2007–2011) postulated in 2007 that "IWMS is functional, environmentally acceptable, cost effective and socially acceptable system of waste management in the area that requires minimal state intervention, has little or no negative impacts on the environment and is able to ensure the performance of waste policy economy adopted in a given region.", (Hřebíček et al, pp. 131, 2009).

In the concept of authors is considered a regional IWMS as a part of the waste management of the Czech Republic with closer integration, including except the minimizing environmental impacts also a technological and economic integration (Hřebíček et al, pp. 510–515, 2010).

The paper issues from original results of pilot studies conducted in the region of Šumperk within the research project SPII2F1/30/07 of the Ministry of Environment of the Czech Republic (MoE), (Hřebíček et al, 2010), during whose was by the team of authors developed a methodology for setting indicators of municipal waste management system (MWMS), which provide simple algorithms for calculation of a performance of MWMS (Piliar et al, 2011). This is dealing with six waste streams that cause main problems for municipalities. There are: *household, commercial, biodegradable and packaging waste, waste from electrical and electronic equipment and car wrecks* (Hřebíček, Soukopová, pp. 1–11, 2010). A standard region for building IWMS is considered as a territory of the size about several tens to hundreds of square kilometres. It is usually restricted by a group of municipalities, which total population is between 50 000 and 150 000 inhabitants.

The objective of the regional IWMS is to optimize the MWMS of its municipalities, which is currently a part of the municipal management that are facing many problems of waste treatments (Hřebíček et al., 2010) in similar way as was introduced by Fiorucci et al (2003) and UNEP (2005). Synergistic effects are given by overlapping of offered services, the division of competences of stakeholders and the consequent reduction of the shortcomings under the competitive struggle and vice versa using the capacity of facilities released to improve services (Soukopová, Bakoš, 2010).

It means, in particular, the larger number of commonly used facilities in the IWMS brings the larger variability of waste treatment, an elimination of outages of facilities and price movements of material usable waste components etc. The differences in prices caused by different distances of the facilities from the municipalities are eliminated by building of waste transport terminals (Hřebíček, Soukopová 2010), (Soukopová, Struk, 2010), (Martinho, Santos 2011), efficient workload of sorting lines and offering greater volumes of raw materials to end customers (Shmelev, Powell, 2006). The IWMS takes into account the position of more significant producers to achieve a higher comfort for the customers/users of the system by the unification of waste treatment prices and methods of payment of fees for waste and especially with the help of IWMS web information system, (Hřebíček, Hejč, pp. 35–40, 2008). It acquaints inhabitants of the region with the processes within the IWMS (collection points, collection and payment terms, customers, pricing, structure of system, environmental impacts and other statistics).

For seamless operation of the IWMS, measurement of its effectiveness and achieving of its objectives it is necessary to establish standardised assessment tools, i.e. certain statistics, measures or parameters that can be used to track of achieving targets and changes in the IWMS (Martinho, Santos, 2011), (UNEP, 2005). These indicators can provide a basis for management decisions on existing as well as potential problems of local, regional and possibly national level (Piliar et al, 2011). ee also Waste Management Performance Indicators of Bridgend County Borough Council, UK (Bridgend, 2010).

The main goal of the paper is to introduce regional IWMS together with its approved methodology (Hřebíček et al., 2011) by the MoE and the set of developed original IWMS indicators (Piliar et al, 2011) also approved by the MoE, enabling to measure the performance of MWMS and supporting the construction and operation of the IWMS at regional level.

Material and Methods

The WMP specified WMP indicators are reviewed annually by means of an Assessment Report, published on the MoE website. Waste Management Information System (ISOH) of the Czech Republic provides detailed data on waste management (production and treatment) to this Assessment Report in compliance with UNEP (2009), OECD and EU regulations. It enables to assess the waste management plans responsibly and to obtain data for administrative and inspection work. The obtained information is crucial for further waste management planning, legislative work, and for the ministerial advisory bodies (Hřebíček et al, pp. 338–343, 2011).

The annual assessment of the level of performance of waste management of the Czech Republic and achieving targets set of the WMP is carried out using the set of thirty eight WMP indicators that issue partly from (UNEP, 2009), OECD, EEA and Eurostat waste indicators. These are mostly waste treatment statistics and that show the values for a certain period (usually one year). The example of such indicator might be the total annual waste production for the year. It helps decision makers of the MoE to assess the temporal national and regional development of waste management. It is necessary to recognise the trend of such indicators, which is evident from the development of their values against the comparative ones in (usually last) period and comparison with trend in EU.

National WMP indicators are based on §42 section 4 of the Waste Act, which together with the Binding part of the WMP provides a set of WMP indicators and methods of their evaluation for:

a) the prevention of waste, reduce the amount and hazardous properties,
b) the management of selected wastes pursuant to fourth part of the Waste Act,
c) the management of other wastes, especially hazardous,
d) waste from packages,
e) the recovery of waste,
f) reducing the proportion of waste disposal in landfills and the proportion of its biodegradable components,
g) the creation of IWMS.

In the original national WMP from 2003 had thirty eight indicators divided into three

groups of eighteen basic indicators (I.1 to I.18), four additional indicators (I.19 to I.22) and sixteen specific indicators (I.23 to I.38). This division has been amended several times, while the addition of new indicators or cancellation of existing ones.

Development of IWMS Indicators

During the solution of the project SPII2f1/30/07 a regional IWMS was implemented and tested as a pilot project in the Šumperk district (2009–2011) and we tried to measure a performance of MWMS with appropriate indicators, where we considered Appendix B – Examples of Performance Indicators of UNEP (2005). We tried also to assess the achievement of the objectives of the project SPII2f1/30/07 which could not be done with using existing sets of WMP indicators. Therefore, a new set of IWMS indicators has to be defined, specific to the complex needs of the pilot IWMS (Piliar et al, 2011). The proposal of this set of IWMS indicators was reviewed and approved by the MoE as its certified methodology (Hřebíček et al, 2011). They were published in "Methodology for design systems integrated waste management" of the MoE at 3th January 2011 under No. 109 395/ENV/10 and 6743/720/10. They will be briefly introduced later.

The measurement of a performance of MWMS is based on multi-criterial evaluation of chosen IWMS indicators at two levels: territorial and administrative in similar way as Waste Management Inc. (Waste management, 2011) (protecting the environment; enhancing the communities where IWMS works and lives; complying with all rules and regulations of legislation) and (Martinho, Santos, 2011). The primary evaluation is the assessment of the waste management level of municipalities before the creation of the IWMS. Here are necessary parameters of MWMS provided directly by municipal authorities (Ochrana et al, 2007, Nemec et al, 2007, Pavel, 2007, Piliar et al, 2011, Rathi, 2007, Šauer et al, 2003). Indicators for the entire system are evaluated after the establishment of functional IWMS or in the preparation of the region for the planned creation of IWMS. This assessment has to been carried out already by the IWMS operator (such as associations of municipalities or for this purpose established company).

While surveys of waste composition or production in specific waste flows take place in comparable conditions of Central Europe on many places (Bartoszczuk, 2011), (Benešová et al, 2009), (Pospíchal, 2002), (Šauer et al, 2003) for the characterization of waste management in comparably large region was probably not yet used such a broad set of indicators. Similar results as in this paper provides the project of municipal waste determination in the Czech Republic (Benešová, 2011); comparable are values of some indicators (especially the composition of waste and seasonal effects), but this project deals only with the determination of a few indicators from the set described in this paper.

Information Resources Available for the Calculation of IWMS Indicators

IWMS indicators are necessary to determine and calculate from validated data to keep a quality of indicators. Available data for determination and calculation of IWMS indicators are stored on several distributed sources with different data structures and accessibility (Hřebíček et al, 2009).

The best source of most of on-line aggregated waste management data of the Czech

Republic could be considered the system ISOH, where the data on waste management are annually announced by waste producers and facility operators pursuant to Waste Act. The problem is, however, access to this data, because they are published at the system ISOH only at the level of the whole district, a regional IWMS area usually exceeding the size of the district. The usability of data from the ISOH is significantly reduced also with its insufficient quality (Hřebíček, Hejč, 2008).

It is necessary to get a sufficiently fine structured waste treatment data from a voluntary cooperation with municipalities and other entities involved in the operation of the IWMS or to use calibrated model of Hřebíček and Hejč (2008). In this case should be sent duplicate requests on this data to the district and municipality administration offices to correct and validate these data.

Orthophotomaps, cadastral and base maps area are Available from-line on the website of the Czech Office for Surveying, Mapping and Cadastre in section Geoportal direct in geo-browser, which enables directly in the web browser viewing all the maps and calculate the acreage of designated area.

Aggregated data on population and average GDP in each region can be drawn directly from the website of the Czech Statistical Office or Statistical yearbooks of the environment.

Detailed data on municipal equipment, acreage of land according to their stretches of land use, population and other practical information about municipalities are provided by the service of the Regional Information Systems (RISy) from their Web applications.

Lists of authorized waste management facilities are published mandatory by 14 individual regional authorities according to Waste Act and these lists can be relatively easy to find on the website of the regional authorities.

Data on the volume of production of electrical and electronic equipment could be reached by municipalities after logging into the systems of collective systems for the collection of these devices. Credentials are available to municipalities or other entities, which provides collection of facilities and communicate with collective systems for their removal.

The remaining partial data and information can be obtained directly from waste collection companies operating in the IWMS area, both directly from the operation and use of questionnaires by contacting the relevant bodies in the region. In several indicators also figures as source some public institutions such as the Czech police, municipal police or entities providing cleaning of public spaces.

Results and Discussion

The above mentioned approved methodology by the MoE on the determination of IWMS indicators (Hřebíček et al, 2011) is a practical tool for the measurement of a performance of regional IWMS. This twenty nine pages document includes also algorithms and tools for design, management and internal and external communication together with detail description of thirty nine IWMS indicators.

The IWMS indicators are divided into the following basic areas:

- characteristics of the environment;
- data on the volume of municipal waste production;
- data on the structure of municipal waste production;
- data on the development of municipal waste production;
- parameters of the waste treatment;
- characteristics of the collection and transport of municipal waste;
- data on waste management in the territory;
- characteristics of the regional comparison;
- economic characteristics (Soukopová, Bakoš, 2010), (Soukopová, Struk, 2011).

The general importance of waste management indicators underscores the fact that according to the comprehensive statistical survey (882 municipalities) (Ochrana et. al, pp. 80, 2007) is just waste management the only one municipal service, whose efficiency is evaluated by the majority (42 %–79 %) of the municipalities in the Czech Republic. In the same publication, the authors state that in the vast majority of cases, it is only a monitoring of the cost of the citizen (taxpayer).

In contrast, in a four years earlier survey (196 municipalities) (Šauer et al., Vol. 101, 2003) is convincingly demonstrated that per capita (payer) cost for the majority of households is not a relevant factor for deciding on the municipal waste management (behaviour). Just this conclusion demonstrates by the best way the intensive need to extend the set of indicators.

The above IWMS indicators were divided also into three groups according to application areas of the IWMS:

1. Indicators from the first group are necessary to determine the conditions (state) of waste management in the area in which the ISWM should be build and deal with the description of the area and its equipment (population, distribution, treatment facilities and their capacities, production of waste etc.).

2. The second group of indicators assesses the actual operation of the ISWM and its performance, the use of resources including simple recommendations, which can increase and maintain a sustainable performance. It consists of the operational indicators of technological or economic character (fulfilment of the facility capacity, time changes and trends in waste production, determination of incomes, expenses and prices etc.).

3. The third group consists of additional indicators, the determination of which may lead to streamlining of some specific activities within the ISWM; their use depends on the nature and requirements of the ISWM coordinator/operator.

It is difficult to present the whole set of indicators in this paper, therefore only a subgroup of chosen indicators from the second group is presented at Table 1, where we give examples from pilot and the Figure 1 of the performance of the biowaste collection in the pilot area in the town Šumperk.

Table 1 The sample of the waste management performance indicators

Indicator name	Unit	Source	Purpose	Examples
performance of the collection network (per one collection)	kg·m⁻³	own measurement of the collection company	information about the amount and volume of waste containers	200 kgm⁻³ of the biowaste in the town of Šumperk (three years average from 2008 to 2010; see Figure 1 below).
rate of mixed municipal waste reduction (after start of new waste stream collection)	%	own measurement of the collection company	calculation of the cost of introducing a new waste stream collection	After the start of biowaste collection (2008) the production of mixed waste fell by 17.96% (total waste increase 34.8%) in the town of Tišnov.
municipal costs of waste management	CZK·y⁻¹	data from the web portal of State Accounting Information System (CSÚIS)	monitoring and comparing the cost of WM, cost calculation per capita/container	2 079 110 CZK was municipal cost of waste management for the town Hanušovice in the year 2009.
cost structure of waste management (municipal, hazardous, separated waste)	%	State Accounting Information System (CSÚIS), budgets of municipalities	monitoring and comparing the cost of WM, cost calculation per capita/container	Municipal waste management in 2009 in the village Sobotín covered 95.1% of the total cost of waste management.

Source: Authors

Each of the thirty nine IWMS indicators is similarly bound to a concrete practical use of one of the participants of the IWMS (mostly municipalities and waste treatment companies) and provides steadily usable information to optimal control of the IWSM. Another contribution of IWMS indicators is the ability to construct temporal series and trends, providing valuable data for evaluation of the regional IWMS development, its strengths and reserves in relation to the economy and the environment, see Figure 1.

Figure 1 The performance of the biowaste collection [kgm⁻³] in the pilot area and container volume [m³] in the town of Šumperk
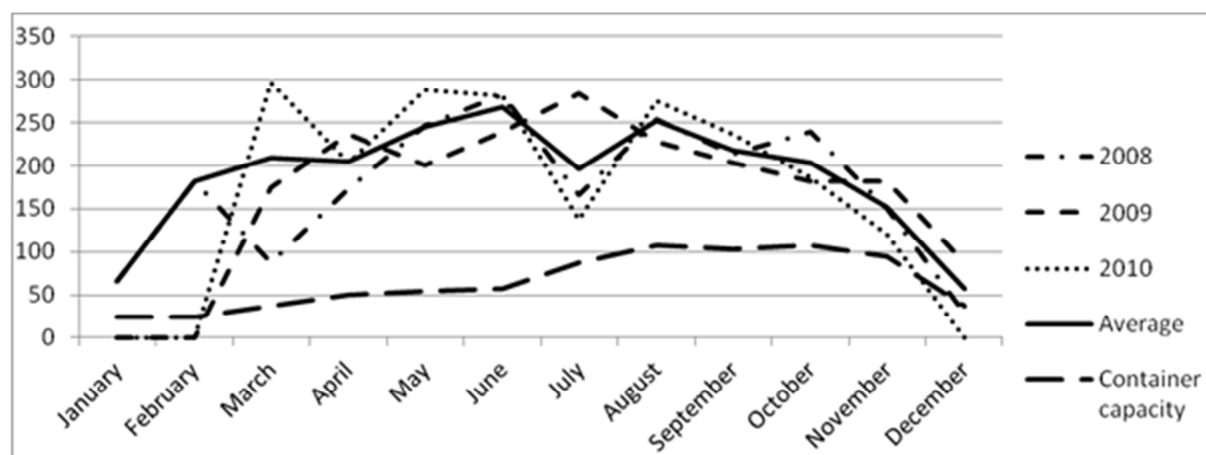
Source: Authors

The Figure 1 shows how was changed the performance of biowaste collection in the three years period (2008–2010) in pilot area in the town of Šumperk. The three

years average of the biowaste collection performance was 200 kgm^{-3}. It shows also how the operator of ISWM had to solve seasonality of biowaste production by changing the total container capacity (i.e. the volume and the collection frequency). We can also see the influence of extraordinary cold summer weather in 2008 and 2010 which operator of ISWM didn´t cover and therefore average performance decreased in July. There is also a significant decrease of interest of citizens of Šumperk to separate biowaste during winter months. After the beginning interest in the 2008 citizens didn´t separate biowaste in winter 2009 and 2010.

Very useful in terms of operation of the regional IWMS would be determined the values of a subset of eight indicators of the third group (costs and revenues of the municipal waste management, structure and costs of collection and disposal/recovery of waste, the cost of transport containers and raw materials prices in the region of IWSM) which enable to determine "economic" performance of ISWM.

The determination of these indicators, however, alludes to the reluctance of the affected subjects to supply detailed information on costs, revenues and prices in regional waste management. In the commercial sector, there are no legislative requirement to provide such a data to the IWMS coordinator/operator, but the situation is different in the case of municipalities, which is within the scope of the law on environmental information, whose (non)compliance in this case is a matter of legal interpretation (Soukopová et al, 2011), (Soukopová, Bakoš, 107–119, 2010). These indicators were discussed with MoE and their determination was, as well as several indicators of WMP, postponed.

Conclusion

The paper introduces and shortly describes methodology for the design of thirty nine IWMS indicators for the measurement of performance of MWMS approved by the Ministry of Environment of the Czech Republic. These indicators were developed based on the analysis, synthesis and transformation of data (environmental, economic, demoFigureic and technical) to the required information. They can provide a basis for waste management decisions about existing and potential issues at different levels of severity. They can also be used as parameters for evaluation, monitoring and forecasting IWMS at national, provincial and regional level as the effective tool for building and operating a regional IWMS. The use of these IWMS indicators is not legislatively mandatory and indicators can therefore serve as a voluntary extension of standard WMP indicators that are evaluated annually on the regional and national level by 14 individual regional authorities and the MoE.

Definition of a majority of these indicators is limited either by the necessary technological equipment of the regional IWMS on its operator side (balances, capacity of facilities) or by inaccessibility of the required data to the operator from the side of municipalities and regions (data are available, but their accessibility is not clear by the law on the right to environmental information). A determination of the economic characteristics collides also with the unwillingness of waste management companies to publish their prices of waste treatment, which is not required by a law.

The developed IWMS indicators (except the economic ones) were regularly established in the project pilot area in the period 2008–2010 and the obtained results were used in accordance with the presented methodology during establishing IWSM in the

territory as a tool for quantification of technological requirements of the proposed waste management facilities.

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Evaluating the Performance of Clusters
with Focus on Czech Stone Cluster

Petra Marešová

Abstract

One of the fundamental objectives of the European Union is to increase the competitiveness of all Member States and regions. Support from European funds is also focused on the establishment and development of clusters. Even in the Czech Republic, in recent years many groups were established many groups which call themselves clusters. Indeed, given the fact that this phenomenon is still quite new in the conditions of the Czech Republic, it is necessary to pay attention to different methods and measurements of the clusters performance, respectively whether these groups actually have a positive impact on the competitiveness of the region in which it occurs.

The aim of this paper is to become familiar with partial results of research project conducted at the University of Hradec Kralove. In the project is evaluated the performance of clusters. This article introduces the state and performance of Czech Stone Cluster.

Keywords

Cluster, performance, case study, Czech Stone cluster

Introduction

Currently the emphasis on co-operation is growing with the influence of globalization, both within and especially outside a business enterprise. Business comes and will become increasingly networked. It is not only about creating links between businesses, but also non-business entities, in order to achieve higher profit and total joint effect. We can say that the creation of networked business is one of the few ways to be competitive against powerful and often highly integrated partners.

One of the issues of the Czech business environment is the continuing isolation of companies. Support from European funds, therefore, focuses on the creation and development of clusters. Successful clusters in the world show that even small regions have managed to create and maintain world leadership in key sectors, despite the increasing global competition. Small literature examining the empirical impact of cluster composition on regional economic performance (Glaeser et al., 1992; Henderson, et al, 1995; Feldman and Audretsch, 1999; Porter, 2003). Cluster strength affects related performance dimensions, such as productivity and innovation, in subtle ways (e.g., see Cingano and Schivardi, 2004; Duranton and Puga, 2004). It is possible that positive employment growth in regional clusters could also be associated with a reduction in marginal productivity, a low rate of innovation, and a deterioration of average wages. It was found a positive impact of the cluster strength on the growth rate of average wages and the growth rate of establishments (Delgado, M., Porter, M. E. and Stern, S. (1), 2010). In a related paper, Delgado, Porter and Stern (2010) find evidence for the positive impact of clusters on the growth rate of entrepreneurship. This findings thus suggest that the positive impact of clusters on employment growth

does not come at the expense of wages, investment, or innovation (Delgado, M., Porter, M. E. and Stern, S. (2), 2010).

Such regions are effective wealth creators and offer its citizens better job positions and future prospects. Within the OPIE (Operational Program Industry and Enterprise) in 2004-2007, the CzechInvest agency focused on business support, paid certain amounts in two stages to support this activity. In the first stage of the program: search and mapping clusters, the Czechinvest supported 42 applications and paid off 27.7 million CZK. In the second stage: establishment and development of the cluster, twelve associations received almost 200 million CZK. It is not easy to find initial support for cluster initiatives in other sectors such as tourism, spas, transportation, health and creative and educational fields. The broader focus of cluster policy is therefore a challenge for the Czech Republic Government (Regional Development Agency, 2010).

This article aims to characterize the performance of cluster, whose main focus is mining and processing of unique sandstones. This cluser called Czech Stone Cluster. In the project is used the method of multidimensional assessment of clusters and cluster initiatives.

The Method of Evaluating the Performance of Clusters

Successful clusters offer many specific benefits to participating companies. These benefits are reflected primarily in growth of efficiency, productivity, innovation activities and thus to increase competitiveness. What benefits the cluster achieved and how the involvement of firms in clusters effective for each of them, are important information providing feedback of the implemented activities. For this purpose, a relatively large number of methods evaluating the performance of clusters exist. So far, none of them have been recommended as the most appropriate. Different models within the clusters and national policies are emerging. It is a specific research titled "Methods of evaluating the performance of clusters with a focus on Czech Stone Cluster". The issue of performance evaluation of clusters was solved at UHK FIM in 2006 – 2008 within the GACR project "Measuring and managing of performance of clusters with birth No. 402/06/1526." For continuing specific research, the knowledge gained in this period, particularly methods for assessing the performance of clusters will be used. The research team working on the continuing specific research titled "Methods for evaluating the performance of clusters with a focus on Czech Stone Cluster" agreed on the fact that among the methods considered in the context of the issue in the Czech Republic, the following can be included (Marešová, Jašíková, Trousil, 2011):

a) cluster initiative performance model,
b) benchmarking of cluster initiatives,
c) mapping projects and exploration of development of clusters implemented by the M.Porter group,
d) evaluating the performance of clusters in accordance with Canadian NRC (NRC),
e) evaluation of regional intellectual capital in clusters,
f) multi-dimensional evaluation of clusters and cluster initiatives.

On the basis of the multi-criterion analysis of variants, it was decided that a tool for evaluating the performance of the cluster is a multi-dimensional evaluation of clusters and cluster initiatives. For this purpose, the questions appropriate for the questionnaire survey among members of the cluster were complied. Based

on these questions, there will be an option to evaluate the performance of the cluster by using the multi-dimensional assessment of clusters. The whole research team dealt with the compilation of questions, and the questions also were discussed with chairmen of the cluster. The questions were chosen with a view of the established vision and objective of the cluster. Within the method of multi-dimensional evaluation of cluster, individual questions from the questionnaire can be assigned to five basic areas as follows:

1. evaluation of the cluster performance as a whole,
2. evaluation of cluster management effects (cluster initiative),
3. evaluation of cluster policy of a region / state (and its "performance"),
4. evaluating the performance of individual actors engaged in the cluster activity,
5. evaluation of the effectiveness of individual activity carried out in a cluster.

The Characteristic of Czech Stone Cluster

Within the specific research, attention is focused on Czech Stone Cluster, whose main focus is mining and processing of unique sandstones. Currently the cluster has 25 members. The aim of the association founded in 2006, is getting larger contracts for reconstructions of historic buildings, building transport infrastructure and artistic stone processing. Czech stone cluster aims to link science, education and practice to enhance competitiveness and increase number of innovations in the rational usage of mineral wealth in the country. With the collaboration of individual members an increase in revenues will be achieved whilst reducing costs. *"Our philosophy is to create products made from unique materials, which are not elsewhere in Europe, to preserve the values of honour and remember the roots that our alma mater gave us."* (František Žoček). The cluster strategy is to be a strong community of co-operating and competing firms in the stone processing field, an organization providing supportive infrastructure, research and educational institutions and to promote and coordinate its co-operation. To support natural stone manufacturers from the Czech Republic to the maximum extent possible. Cluster mission is to support and develop education and the stone processing industry by strengthening competitiveness and innovation activities. The implementation of projects with a high added value. The cluster vision is to create conditions for starting economic growth throughout the industry and companies that create supportive infrastructure and thereby promote employment growth and the wealth of the region. Other aims of cluster (Marešová, Trousil, Jašíková, 2011):

a) to elevate the entire stone processing industry in innovations, science and research, joint advertising and marketing, development of human resources and education,
b) to create a strong group of co-operating companies in various fields of production, suppliers, research and educational organizations, and optimalization of supply chains,
c) creating a strong domestic competitive clusters of stone firms able to succeed in the global economy.

Mining and the processing of stone directly threaten a number of attractions of a destination. This is a negative influence on land by morphologically heterogeneous formations of useless rock, heavy dust, noise, vibrations, etc. Influence of the local

climate breaking the saddles of protective massifs and the destruction of entire mountains can be also expected. On the other hand, the positive effect may be the creation of new tourist products in the case of lateral co-operation with destination managers. Tourism and the organizing of cultural events are on a global scale the most perspective way of economization of cultural monuments and their protection. Which may have significant economic benefits for the stone cluster? It is clear that within the stone cluster, there are both positive and negative consequences of this co-operation. It is therefore an appropriate object to be analyzed in the context of the research project and the application of the method used to evaluate clusters. The cluster state analysis, will use existing contacts of the research team of investigators to the cluster members and representatives from tourism management

An Analysis of Selected Questions

Given the scale of the contribution, selected questions from each study area will be analyzed further. First, attention is focused on the use of the production capacities of business cluster members (the Figure 1).

Figure 1 The use of production capacities of a business
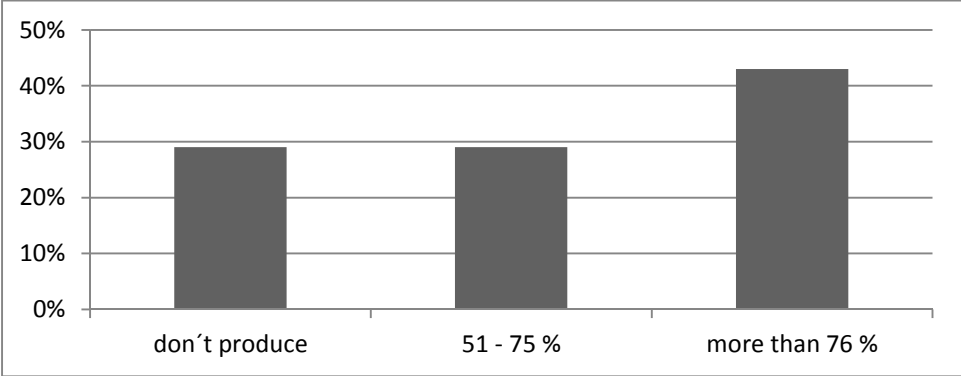
Source: Author

The respondents were asked about the utilization of production capacities. Almost 30% of the respondents utilize production capacity of between 51-75%, which is not a very positive phenomenon. Efficiency of these members and consequently of the whole cluster could be higher.

Figure 2 The export share of the average annual turnover of a business
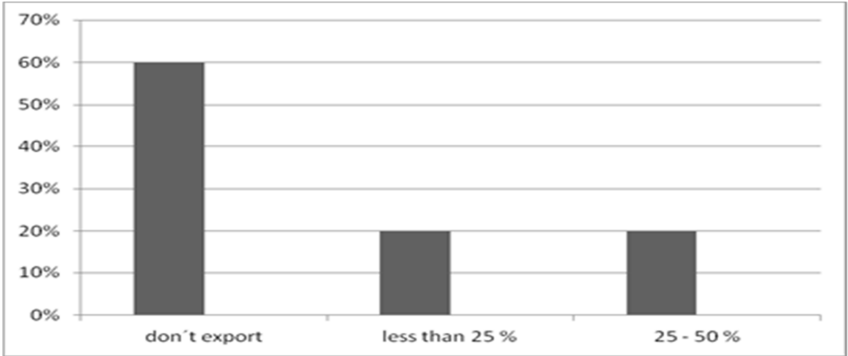
Source: Author

The vast majority of the cluster members do not export their production (Figure 2).

Since the members include non-manufacturing entities, the resulting 60% cannot be considered quite rightly denouncing. If we focus on members who export, their share of the annual turnover does not exceed 50%, overall it is around 25%. The cluster is focused on mining and the processing of stone, which can be considered as a relatively specific activity. It should take advantage of it is at the source of this production factor, and try to expand to other markets. The answer clearly shows, that some contacts with foreign buyers exist, so it can be recommended to continue in their activity.

One of many problems of cluster are, Insufficient sources for financing research and development plans (Bialic-Davendra , M., Jirčíková, E., Pavelková, D., 2010). However, it is essential that most of the cluster members do consider further development important enough to allocate their capacity for it. From the perspective of today's highly competitive environment, rapid development in various areas of business activities, this is a negative phenomenon. In times of crisis, when many entities will reduce their spending, it is especially important to cause interest with something new, efficiently and at lower cost. Furthermore, the attention was focused on the perceived benefits of membership in the Czech Stone Cluster (Figure 3).

Figure 3 Earmarking capacities for research and innovation activities
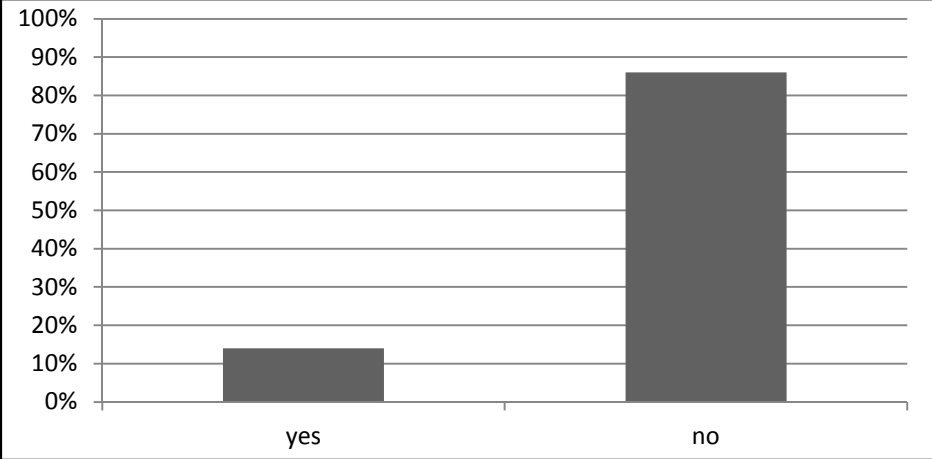
Source: Author

Benefits of clusters in Czech Republic are for example (Czechinvest, 2010): economies of scale and lower costs, reduce restrictions on smaller companies and greater specialization, increased local competition and rivalry, and the global competitive advantage, higher speed transfer of information and technology, increased power and voice of smaller firms, effective partnerships.

The main benefits for individual cluster members in Czech Stone cluster include the ability to exchange knowledge (Figure 4), establishing co-operation with educational institutions and to a smaller extent, better use of production resources. Given that these benefits occur to a relatively small extent (between 10-15%), it is advisable to increase the activity within the common communication and start closer co-operation between individual members.

Figure 4 Benefits of membership in the Czech Stone Cluster
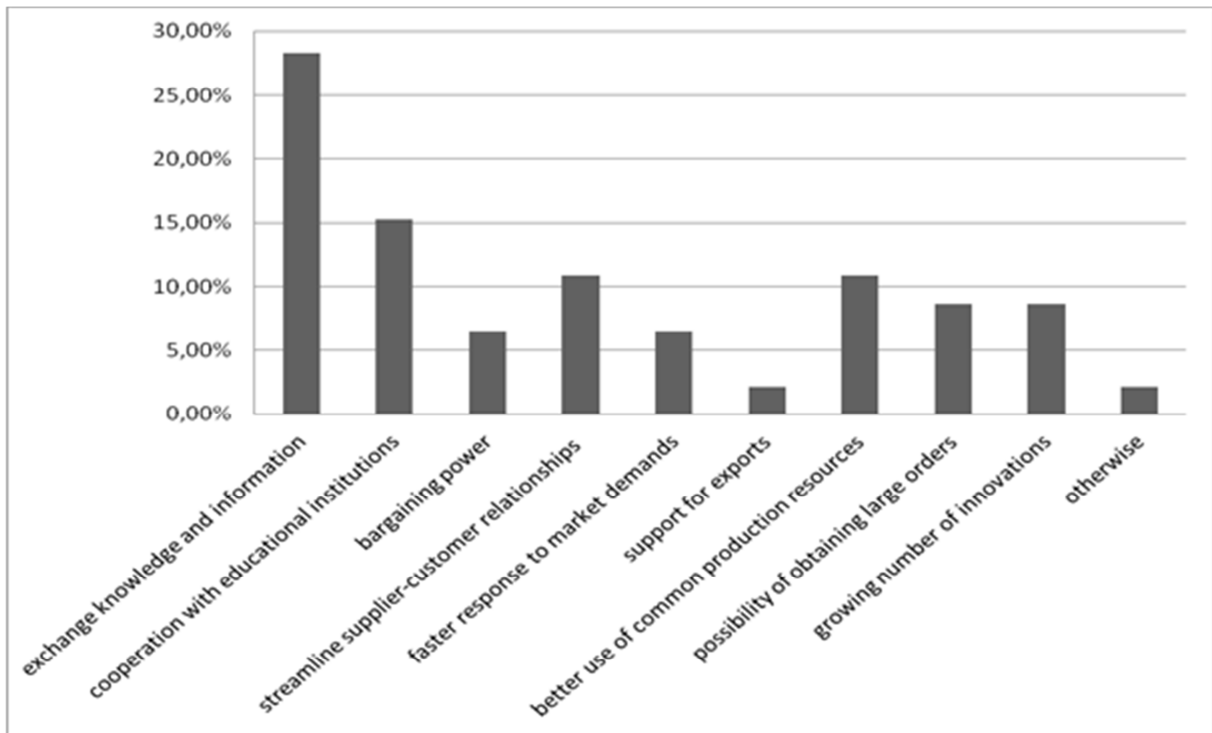
Source: Author

In terms of promotion of the cluster, enterprises mostly use the opportunity of the internet, newspaper advertising and sponsorship. The other respondents' answers also included participation in a fair or exhibitions, but only to a limited extent (Figure 5). Barriers are funds needed for promotion.

Figure 5 The ways to promote a cluster
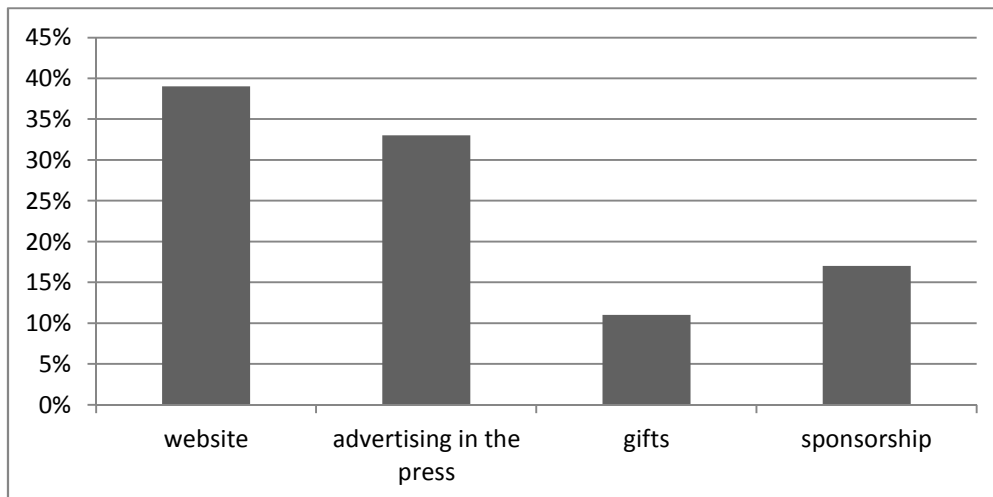
Source: Author

The research team also analyzed the way of presentation on internet. The web site of the cluster is made fairly clearly, but they are not updated and no further promotion of the cluster is on the internet. An inexpensive option would appear to be the use of different social networks, etc. Furthermore, not all individual members of the cluster have their own websites, and if they have a link for the Czech Stone cluster, it is not

always mentioned. Overall, the promotion is at weaker level, due to lack of funds and the members´ inactivity.

Figure 6 The sources of information on the activities of the cluster
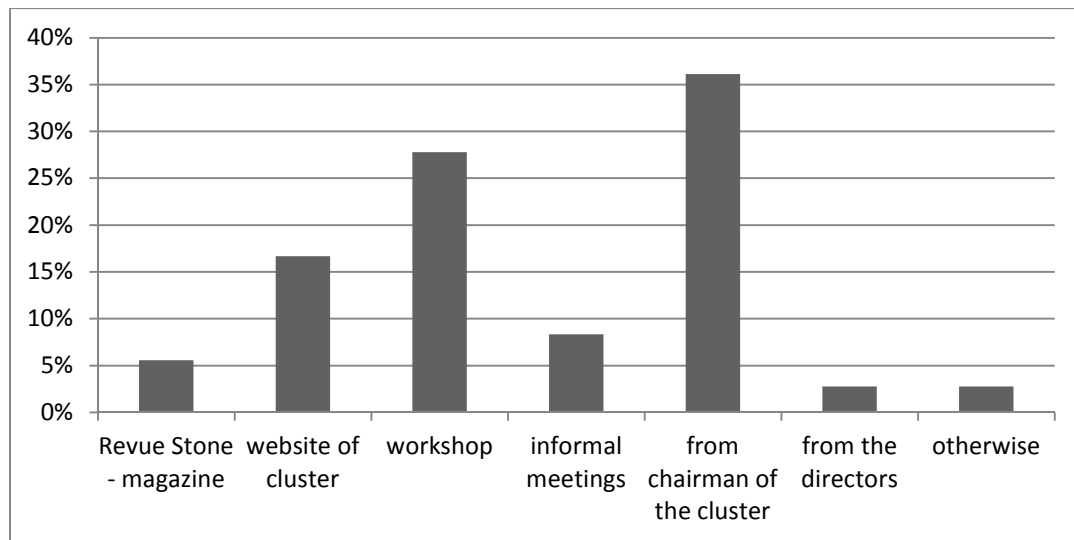
Conclusions and Recommendations

Based on the questionnaire survey carried out, it can be stated that the strengths of the cluster include its democratic functioning, which is positively expressed by all members of the cluster. The weaknesses of the functioning of the cluster in relation to the theory outlined above, relatively low direct participation in its functioning can be described and the insufficient flow of information from sources other than the internet. Members themselves consider insufficient knowledge of each individual members, the lack of assigning tasks and the resulting low level of cooperation, as the weakest part. Although due to the form of co-operatives and size of business members of the cluster, it is not the type of network organization with one dominant partner, it is evident that communication, organizational and activating level, one of the companies, respectively their representative, and chairman of the cluster play an important role. However, they naturally perform tasks arising from their function and the other members have the opportunity to change the leadership. Cluster members consider the greatest benefit of membership as the acquisition and sharing of information. This information, however, is received and shared particularly through the chairman of the cluster and websites that are outdated. A less important source of information is working meetings and a very small role is played by informal contacts. Therefore, the application of basic principles of knowledge management can be recommended here. Although restrictions regarding freedom of speech were not recorded, the activity of majority of members is relatively low. Despite these weaknesses, the co-operative managed for example, to arrange financing and implementation of the costly project, and membership in it is perceived as beneficial – as you can see in other research (Jašíková, Trousil, Marešová, 2011).

To increase the effectiveness of the cluster, it can be recommended to increase knowledge sharing directly amongst cluster members, not only through the President of the cluster. Due to the fact that among some members there is a greater geoFigureical

distance, it is advisable to choose a particular technological environment with limited access for members of the cluster, and from anywhere. It is also necessary to increase the activity of individual members within the cluster and thus to make co-operation in its further activities. Space opens for example between businesses entities and educational spheres, which could contribute to the promotion of development and innovation and also to ensure the promotion of the cluster on internet, website of the cluster and with the use of social networks.

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Politically Appointed Positions in Slovak Local State Administration Changes and Tendencies

Darina Ondrušová, Miroslav Beblavý

Abstract

This paper focuses on changes over time in number of politically appointed top positions in Slovak local state administration. Political appointments to top positions contrary to advertised competition can be seen as one of the most important dimensions of politicisation (see Peters and Pierre, 2004).

In Slovakia, several dramatic changes have occured in local state administration since 1993, e.g. integration in 1996, fragmentation in 2004. What were the main implications of these changes for number of appointed positions and how has the ratio of appointments in local state administration to total number of appointments in Slovakia changed over time? The main hypothesis is that this ratio remains high, thus making local state administration in terms of party interests far from marginal.

The methodology is based on legal acts review, measuring de jure number of top positions. Changes in ratio of collective and ministerial political positions, and non-political statutory positions are explained and examined as well.

Keywords

Politically appointed top positions, changes in legal framework, local state administration, Slovakia

Introduction

Political appointments to top positions in the state administration are especially in the CEE countries seen as a negative phenomenon. The reason is that such appointments are considered to be related to party loyalties and personal contacts of a politician and an appointee in contrast to the expertise of a candidate selected in open competition for such position. At the same time, perhaps paradoxically, many scholars within politico-administrative relations research pointed to the fact that the number of politically appointed positions in Western democracies has increased (Dahlstrom, p. 3, 2009; Peters and Pierre, p. 4, 2004; Page and Wright, p. 10, 1999). And the reality of appointed positions becomes far more complex taking into an account legal state, different motivations to select an appointee or various reasons for change in ratio of appointed to advertised positions over time – to name at least few aspects of analysis of this form of politicisation of civil service.

As for the legal state, one may distinguish between de jure and de facto politicisation and political appointments. In fact, there has been not much debate on this aspect so far, although such distinction can be useful both in terms of interpretation and methodology. When interpreting politicisation, one should keep in mind that recruiting top positions by political appointment need not be illegal. Often, positions appointed by a minister are recognised in a civil service law. Such positions are politically appointed de jure. In Western democracies, this might be for granted. However, in most of the CEE, there

was for long no legal framework regulating civil service and binding politicians to recruit top positions by advertised competition. In Slovakia, for instance, such law was adopted for the first time in 2001 only. Meier-Sahling (p. 99, 2004) 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. Furthermore, distinguishing between de jure vs. De facto appointments can refer to different sets of data when trying to estimate the extent of politicisation. In this context, de jure appointments refer to the number of appointed positions on legal basis. For instance, according to the law, the director of Slovak Statistical Office is appointed by the government. Based on this approach, it is possible to figure out changes in a space for appointments: how does the number of appointed positions change over time? Are there any areas where this type of recruitment is dominant? On the other hand, de facto appointments usually refer to the turn-over rate in the top positions. This method of examining frequency of personal changes can be used to test the extent of informal politicisation, politicians influence on positions legally recruited in open competition. It can also be used to analyse changes in politicisation through the length of an appointment term: does each Slovak government appoint different person as a director of Statistical Office? What are the changes in average term of a state secretary being in Office? While we are not aware of any research explicitly focusing on de jure politicisation, there are couple of them dealing with the personal turn-over rates (see Christensen, p. 29, in Peters and Pierre, 2004; Meier-Sahling, p. 26, 2008).

As for different motivations for a particular appointment, two of them are most often discussed in the literature: responsive competence and party patronage. The need for responsive competence stems from distrust of politicians to bureaucrats in pursuing their policy goals (Meier-Sahling, p. 12, 2008; Christensen in Peters and Pierre, p. 16, 2004). Politicians may find bureaucrats too rigid and difficult to control due to high information asymetry. Therefore, they seek for loyal experts sharing their policy preferences and capable of pursuing them (Aberbach and Rockman, p. 462, 1993). On the other hand, as Kopecky et al (p. 2, 2011), or Bearfield (p., 65, 2009) point out, appointments based on party patronage are an instrument of a political party to reward supporters of that party. Here main purpose shifts from policy, expertise and public interest to politics, pure loyalty and party interest. Appointments based on patronage are considered illegitimate. However, in the end, it is rather difficult to measure changes in these motivations, due to behind a scene negotiations on appointments and a huge number of appointees.

Finally, the last aspect of political appointments analysis to be mentioned here is decision-makers. In particular, distinction between appointments made by minister as an individual and a government or other collective body seems to be useful as well. Whereas ministers – managers have direct responsibility over their appointments, including risk of dismissal in case of appointee's failure, selection process by the government differs in that it is subject to negotiations among leaders of political parties. Therefore, it can be hypothesised that ministerial appointments are more likely to be based on responsive competence of a candidate, whereas appointments by the government are more likely to be influenced by various party preferences and patronage.

The main objective of this paper is to analyse the extent of politicisation in Slovak local

state administration. The research is based on mapping changes in number of politically appointed top positions in Slovak legislation. Although researches focusing on politicisation in the CEE have mainly concentrated on the central level of state administration (Meier-Sahling, p. 3, 2008; Gajduschek, p. 345, 2007), in Slovakia, it seems also worth focusing on local state administration in the context of integration and fragmentation changes that took place there. Changes in ratio of collective to ministerial appointments and open competition positions are examined as well.

Material and Methods

As stated above, the methodology is based on mapping of appointment and dismissal procedure in Slovak legislation for a large scale set of senior officials in the public sector.

In this research, only statutory positions were included (e.g. minister or director of an institution). Other top positions, sucha s director general of a section in ministry were not taken into an account, since the framework for all these is civil service act according to which they are advertised, not politically appointed. Thus changes in number of these positions would only reflect institutional, not structural changes.

Three types of statutory positions were distinguished according to how they are recruited:

- Collective political positions (CPP) are conceptualized as positions which are recruited by a decision of a collective political body, such as the parliament, the government and the president, where the responsibility of these bodies for appointments that are made is indirect, meaning that these bodies would not be in a risk of dismissal in case of an appointee's failure.
- Ministerial political positions (MPP) are positions which are recruited by a decision of an individual, with direct managerial and political responsibility for these appointments.
- Advertised non-political positions (ANP) are such positions, which are recruited by an advertised competition and meritocratic criteria.

Changes in number of these positions were monitored for central level, local state administration and a range of other public bodies; thus it is also possible to illustrate ratio of LSA to total number of statutory positions in Slovak state administration. Monitoring was based on changes in related acts and its amendments from 1993 to 2011, year by year. Such approach enables us to estimate trends and tendencies in the ratio of political to non-political statutory positions. In this paper, however, only results for years with most significant changes will be presented. These were mainly 1993 as an innitial state, 1997, when LSA became integrated, 2002, when civil service law came into force, 2004 and 2005 after LSA fragmentation and 2011 as a current state.

Results and Discussion

Particular changes for each of the three types of statutory positions mentioned above in Slovak LSA for selected years can be seen in the following Table 1.

Table 1 Changes in number of collective, ministerial and advertised statutory positions in Slovak local state administration

	CPP	MPP	ANP	Total
1993	40	932	15	987
1997	89	251	15	355
2002	89	302	74	465
2004	330	184	132	646
2005	245	230	172	647
2011	283	196	165	644

Source: Authors

The following Table 2 shows these changes in percentage.

Table 2 Percentual changes in the three types of statutory positions in LSA

	CPP	MPP	ANP
1993	4,05%	94,43%	1,52%
1997	27,07%	70,70%	4,23%
2002	19,14%	64,95%	15,91%
2004	51,08%	28,48%	20,44%
2005	37,87%	35,55%	26,58%
2011	43,94%	30,43%	25,62%

Source: Authors

As shown in these Tables, perhaps most importantly, the proportio of ANP remains low compared to politically appointed positions, although it has increased significantly, especially after the adoption of civil service law in 2001. Secondly, compared to the innitial state, the number of CPP has increased, whereas number of MPP has decreased. However, the total number of statutory positions in Slovak LSA has changed as well, due to several organisational reforms in this area.

Finally, the following Table 3 shows how the ratio of LSA positions to total number of statutory positions in Slovak state administration as a whole has changed over time.

Table 3 Ratio of statutory positions in local state administration to total number of positions in Slovak state administration

	CPP	MPP	ANP	Total
1993	40,82%	92,37%	100%	95,36%
1997	53,29%	74,93%	100%	85,75%
2002	47,85%	76,65%	100%	88,74%
2004	79,71%	58,23%	81,48%	91,37%
2005	74,47%	65,53%	81,52%	91,64%
2011	71,17%	64,53%	90,16%	91,22%

Source: Authors

Naturally, proportio of LSA statutory positions in state administration as a whole remains high, never falling below 85 %. CPP and MPP are below these rates, although the proportio of CPP to total number of CPP in Slovak administration has increased especially in 2004 up to now, when fragmentation reform of LSA took place and some of the positions previously appointed by ministers have become appointed by government.

When explaining all these changes in terms of organisational reforms, it has to be noted that in Slovak LSA, two types of institutions exist:

- general LSA, consisting nowadays of 50 district offices, covering various agenda such a s entrepreneurship or civic defence;
- specialised LSA – district and / or regional offices subordinate to particular ministries, e.g. forestry offices or education offices, which vary in numbers.

Within the general LSA, the most significant feature was changes in number of regions, counties and districts. These changes had impact on number of CPP, which has in the end increased from 38 in 1993 to 50 in 2011, although the number of offices has fallen significantly from 161 to 50. All positions within the general LSA are appointed by government.

In specialised LSA, two main changes took place. In 1997-2003, specialised LSA was integrated and merged with the general LSA. After that time, it became fragmented again. These changes had also some impact on the number of CPP, although originally, in specialised LSA, MPP was the most numerous type of positions. Thus until 1997, all heads of specialised LSA offices were appointed by ministers. Number of district offices differed from one sector to another and in some cases, there were regional offices, too. In 2004, however, all heads of reestablished specialised LSA offices were appointed by government, varying again in number from one another. Since 2005, however, heads of environmental offices are appointed by minister again and heads of 40 forestry offices are selected based on open competition. The last change so far took place in 2006 when the competence of minister of labour, social affairs and family to appoint 46 heads of district offices was transfered to government.

Thus as also shown in the Tables, two main milestones that had impact on number

of de jure politically appointed positions were: the integration of LSA in 1996, leading to a decrease in total number of statutory positions in LSA and mainly MPP, and its refragmentation in 2004, leading to an increase of CPP. The main explanation of these changes is political context at that time and opinions of different Slovak governments on contents of public administration reform. As O'Dwyer (p. 5, 2002) notes, in the CEE, public administration reform usually included three types of policies: deconcentration, decentralisation and the establishment of civil service. As already mentioned above, in Slovakia, the civil service act was for the first time adopted in 2001. Path towards adopting decentralisation reform was even longer and perhaps more dramatic. Its final stage, fiscal decentralisation, was launched in 2005.

In the context of deconcentration of state administration, the first government whose decisions had impact on LSA was one dominant party coalition government lead by Vladimír Mečiar, ruling the country in 1994-1998. This government was considering to change territorial organisation of the country and create a new, regional level of governance. Thus in 1996, eight regions were established, and the number of counties doubled to 79. At the same time, specialised LSA offices were integrated into the newly established bodies. However, despite the disagreement of the opposition parties, process of establishing the new level of governance took form of deconcentration rather than decentralisation. The aim of Mečiar's dominant political party was to keep political control in these regions, guaranted by the appointments to the top positions of newly established offices rather than citizens elections to these positions. In sum, as O'Dwyer (p. 8, 2002) claims, such patronage strategy could not and did not bring potential advantages of deconcentration, such as greater state capacity or the rationalization of state administration.

After the elections in 1998, a coalition government of right to left political parties, each of them opposing Mečiar's politics, was formed. This broad coalition was lead by Mikuláš Dzurinda. In that election term, the question was not whether decentralise or not, but how many regional self-governments should be established. This was e.g. an important issue for national minorities living in Slovakia. Anyway, in 2001, laws on decentralisation were finally approved, also thanks to the EU pressure and conditioning the entry also by passing that reform (Staroňová, Malíková, p. 218, 2003). As a result, there are currently 8 self-governed regions in Slovakia and the LSA has changed as well. Within the general LSA, in 2004, 79 county offices established by Mečiar's government were replaced with 50 district offices and in 2007, regional offices as such were even cancelled. Specialised LSA was reestablished (see above). Since then, no major changes have occured in Slovak LSA and the number of CPP and MPP is quite sTable. In fact, nor do current debates in the area of LSA and local self-government among scholars but also politicians focus on LSA reforms but amalgamation of small municipal units (Klimovský, p. 87, 2010). Despite not many changes in numbers of CPP and MPP in recent years, the ratio of politically appointed top positions in Slovak LSA compared to advertised positions remains surprisingly high.

Conclusion

In this paper, our aim was to analyse the extent of politicisation in Slovak local state administration. This research was a pioneering one in that it focused on de jure changes in number of politically appointed statutory positions rather than personal changes

at these or other top positions. At the same time, it focused on LSA since LSA positions stand for a large number of positions in state administration as a whole, most often more than 90 %. Apart from that, LSA can be a good environment for appointments based on party patronage rather than responsive competence of an appointee, since much less attention has been paid to this level of administration (either by the media, scholars or citizens) than the central level. Our research seems to confirm this hypothesis in that it shows that the number of appointments made by government has increased from 40 to 283, taking into an account that such appointments are subject to coalition parties negotiations. The developments and changes in Slovak LSA were to a large extent influenced by the deconcentration approved by Mečiar's government in 1996 and decentralization reform launched by government lead by Mikuláš Dzurinda in 2001. Although since 2005 and 2007, the number of collective political positions as well as ministerial political positions is rather sTable, the ratio of politically appointed positions compared to the advertised ones remains high.

In the future, the most promising topics to be explored in this area are real personal changes in each of three types of positions in LSA, as well as comparison of current state in other CEE countries. In such broader perspective, one could better understand what is the extent of and motivations for politicisation in state administration, and in which ways, there are similarities and limits to political appointments as an implication for potential impacts on the process of policy-making.

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Management by Objectives in the Czech Public Administration

Milan Půček, Oldřich Hájek, Jiří Novosák, Jana Drahošová

Abstract

Various forms of New Public Management (only NPM hereafter) have been implemented in the Czech public administration so far. Not surprisingly, a number of authors, such as Ochrana, Němec, Potůček, Rektořík, Široký, Rumpel, Půček, Špaček and others, described the methods and case studies related to NPM. The paper describes approach to the performance management in terms of NPM.

There are many factors which contribute to the implementation process of the performance management related to NPM. These factors include, among others, (1) the Law on Financial Control, (2) the Regulation no. 415/2008 on Goal Oriented Budgeting, (3) the Strategy on Smart Administration Implementation, and (4) the government order has enabled to implement the principles of competence management since 2011.

The paper deals especially with two methods related to the NPM approach - (a) the Balanced Scorecard method and (b) management by objectives. Methodologically, a case study approach is followed. In this regard, three different institutions of Czech public administration are surveyed – Ministry, Municipality and Region-funded institution.

Keywords

New Public Management, performance management, Balanced Scorecard (BSC), management by objectives (MbO), Smart Administration

Introduction

In order to establish the effective research strategy at the beginning of the paper, it is essential to define and clarify the relationship between the object and subject of the research. The relationship is depicted in Figure 1.

Figure 1 Definition of object and subject of the research

Object of research:
Elements of New Public Management in the Czech Republic

Subject of research: The performance management according to the „Management by Objectives" method (further MbO) or „Balanced Scorecard" method (further BSC) from the point of view of (a) selected factors enabling its application in the Czech public administration and (b) experiences of organizations (three case studies – Ministry, Municipality, regional

Source: Authors

It is clear from the picture that the object of research is the use of elements of NPM in the conditions of the Czech public administration. NPM designation used by theorists and practitioners for naming different styles and specific characters management

of public services, that build on the experience of the management of private sector (Barzelay, 2001; Hughes, 2003; from Czech authors such as Špaček, 2009).

The issue of NPM and the questions connected with the performance management are discussed by a wide range of authors. From the foreign authors we can name for example Péteri, Horváth (pp. 15-34, 1996, pp. 13-98 2001), Pollit, Bouckaert (2000). The leading creators of NPM are Aucoin (pp. 115-137, 1990), Pollit (1990), Walsh (1995). The Czech and Slovak authors engaged in this topic are Nemec (Wright, Nemec, 2003; Nemec, Ochrana, pp. 353-369, 2008; Němec, Meričková, pp.673-684, 2008), Ochrana (Nekola, Ochrana, pp. 458-474, 2009) and others. Some authors however criticize the NPM (e.g. Drechsler 2005, pp. 94-108).

The authors also took into account alternative solutions to the economic constitution of the reform of Czech public administration, for example according to Ochrana (pp. 715–717, 2011), that can be understood as an effort to formulate a new paradigm from the point of view of experimental economy.

With regards to the extent of the NPM the authors decided at the beginning of the research to clearly specify the **subject of research** (see Figure 1). So the performance management (according to the MbO or BSC method) became the subject of research. The performance management has been used for many decades. The authors of the paper based their research especially on the works by Drucker (the public learnt about the topic of management by objectives in his book "The Practice of Management" published originally in year 1954), Goldratt, Senge (2006), Kaplan and Norton – authors of the BSC method (1992, 1996). The application of these methods in the Czech public administration was researched by Ochrana, Půček, Rektořík, Špaček et al.

In this paper, the concept of NPM is understood as the framework for correct use of performance management. In this regard the authors set **following goals** (1) to define selected terms related to the performance management (according to the MbO or BSC method); (2) to describe selected factors (legislative and financial) supporting the use of performance management in Czech public administration; (3) to analyze and evaluate the experience of three different organizations. Through the research the authors build on current knowledge of the issue, on the analysis of public administration documents as well as on their own findings from practical experience in the public administration.

Material and Methods

Methodology, Description of Used Methods, Characteristics of Data Files

When accomplishing the research goals and analysing the subject of research a mix of normative and non-normative (positive) methodology was used. The positive methodology was applied especially in the analysis and description of the problems, in the theoretical resources study, in the analysis of international experience and experience with these methods in the profit sector. The basic question in this type of analysis is: "What happened? What is the state of the problem?" Next, we tried to formulate the "best" (optimal) solution with regards to the selected criteria. We asked

a normative question: "What resulting state would be suitable (desirable) for the Czech Republic?"

Within the frame of the abovementioned mix of positive and normative methodology a wide range of scientific research methods is used. The predominating one is the analysis which was used when studying scientific literature, research projects (for example projects in the program "Research for needs of regions", in the priority "Management of regional and local administration") and legislation of the Czech Republic related to the subject of research. From the general scientific methods the deduction was used mainly when drawing conclusions from already existing approaches and the induction was used when making conclusions from the analysis of individual primary and secondary data.

When creating the case studies the authors had access to necessary data files and information from all three organizations, including management and strategic documents, performance evaluation and remuneration by objectives as well as data from accounting and information systems. This paper also follows two monoFigures dealing with management of organizations in the Czech public administration in the sense of the Smart Administration Půček, Ochrana (2009), and Ochrana, Půček (2011).

Definition of the Terms

To perform correct analysis it is crucial to define selected basic terms that will be used in the text. This definition also reflects the fact that the authors faced in both the literature as well as in the practice different understanding of given terms which caused complications. In this paper we accept the opinion that it is possible to influence the social processes by management activity. From the extensive set of management problems we focus on the area of management in the public administration and especially on the area of efficient performance management (according to the MbO or BSC method) in Czech public administration. We try to answer the question how to manage the processes in the public administration efficiently by using the performance management.

For the specification of the terms from the formally logical point of view we can use more alternatives of basic terms definition. For the initial definition of the "efficient management in the public administration" and "efficient performance management in the public administration" we chose definition by genus and species. From this standpoint we can specify the terms the ways which is depicted in the following Figure 2.

Figure 2 Relationship between terms

Management in the society („social management")	
Management in the public administration	
Efficient management in the public administration	
Efficient performance management in the public administration	
Efficient performance management according to the BSC method	
Efficient performance management according to the MbO method	
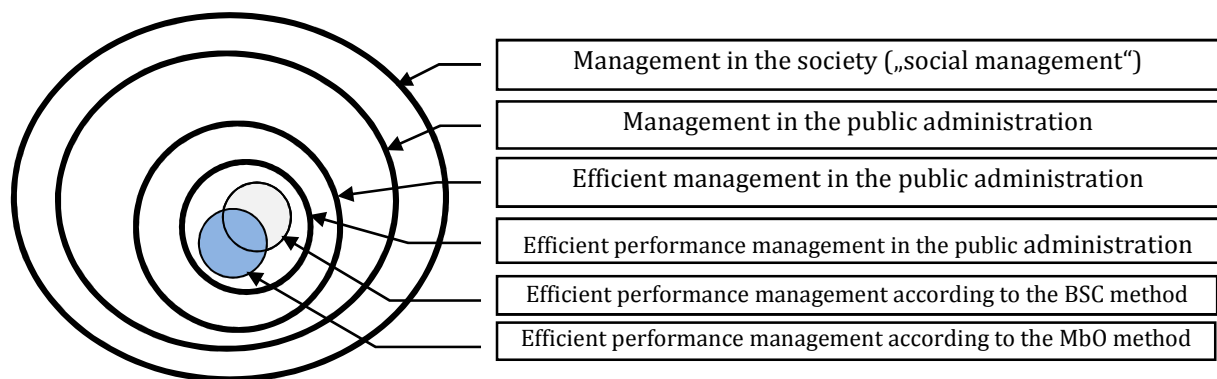
Source: Authors

Figure 2 shows that the term "efficient management in the public administration" represents species term of "management in the public administration". The term "management in the society" can be substituted by the term "social management" (this paper will use them as equivalent).

The definitions of the terms originate in the NPM and in the analysis of the abovementioned subject of the research are summarized in following Table. These definitions can be understood as the result of the authors´ analysis of content and extent of selected terms. It also brings opportunity for further discussions.

Table 1 Definition of the terms

Term	Term definition
Social management (management in the society)	It has the characteristics of subject-object relationship where the subject of management can be represented by individual actors (either individuals or institutions or social subjects). The object of management is represented by the processes, subjects and social problems on which the management activity is focused. Being an intended activity is also characteristic for the social management. The managing subject sets up the goal that should be achieved. The core of social management is the effort to "manage the processes" with regards to the established goals. The social management can be realized in different social areas and related segments. One of these areas is the public administration.
Management in the public administration	It has all common features that are distinctive for the social management but it differs by particularities given by the fact that this management is realized in the public administration. For purposes of this paper we will specify the term "management in public administration" as an intended purposeful regulative activity of the subjects of public administration that should channel the processes in order to achieve the stipulated goals. It is typical for the regulative management activity that it is based on information obtained by the managing subject through feedback. The feedback provides information about the progress of realized (and initially intended) processes which enable the managing subject to compare the achieved results with the specified goals and their indicators. In case of deviations the managing subject performs necessary corrections. The result of the managing activity is either achieving the intended goals or not achieving them.

Efficient management in the public administration	If the indicators of individual objectives are continuously fulfilled while the achieved results correspond to the stipulated goals and the spent resources necessary for realization of the goals are used economically and efficiently then these cases of management in public administration are labelled by the term "efficient management". The efficient management is opposite to the "inefficient management" which labels such management where the given goals are not achieved and the resources are used uneconomically, inefficiently, without purpose. Some necessary preconditions have to be fulfilled for management to be efficient. They are: (1) external and (2) internal framework conditions, (3) availability of managing subjects, (4) adequate goal setting, (5) goal achievement – orientation on achieving results, (6) feedback.
Efficient performance management	Efficient performance management (according to the MbO or BSC method) has all common features typical for "efficient management in the public administration" while it is carried out according to the principles of performance management, for example by using the MbO or BSC method.

Source: Authors according to Ochrana, Půček 2011

Results and Discussion

This chapter is divided according to the research goals that were set at the beginning of the paper. The definitions of terms were provided in the previous chapter. For the basic terms definition (respectively for the analysis of the content and extent of the issue "efficient management") it is suitable to mention that characteristics given in the chapter 1 are not fully comprehensive. However, in the opinion of the authors they are sufficient for the needs of the analysis in this paper. The authors acknowledge (in accordance to Němec, Ochrana 2008; Ochrana, Půček 2011) that it would be possible to define another preconditions of "efficient management".

1. Selected Factors Contributing to the Implementation of NPM Elements

A wide range of factors contributed to the NPM elements implementation in the Czech practice. However the authors of the paper focus on only four of them: (1) the Law about Financial Control, (2) the government decree on the Goal Oriented Budgeting, (3) adoption of the state Strategy on Smart Administration, (4) change of rules for remuneration enabling establishment of competence management.

1.1 Economy, Effectiveness and Purposefulness

The main value added by the Law about Financial Control (adopted in 2001) is the fact that (1) it implemented the system of financial control – especially the obligation of preliminary, continuous and subsequent control, and (2) it clearly defined the commitment of economy, effectiveness and purposefulness in the public administration.

The definitions of the terms economy, effectiveness and purposefulness in the sense of Law about Financial Control and especially according to the common practice of its use in organizations of public administration are presented in following Table. It also includes problems with the application of law revealed in the practice (see Němec, Ochrana 2008, Ochrana, Půček 2011).

Table 2 Economy, effectiveness, purposefulness - discussion, comments, problems

Term	Term explanation / discussion, comments – problems with practical implementation
Economy Is based on § 2 letter *m* of the Law about Financial Control	**Economy** means such use of public resources where the stipulated goals and tasks are achieved with the lowest possible resource spending. **Discussion, comments and problems:** The condition for using resource minimization maintaining requested quality. The indicator of economy is the minimization of input costs while reaching stipulated goal. When monitoring the criteria of economy we ask following questions: Do we obtain necessary inputs for the "best possible (i.e. lowest) prices?" Does the "best possible price" ensure required quality of the output?
Effectiveness Is based on § 2 letter *n* of the Law about Financial Control	**Effectiveness** is understood as such use of public resources which leads to the highest possible extent, quality and benefit of performed tasks in comparison to the volume of spent resources. **Discussion, comments and problems:** The definition of effectiveness corresponds to the productivity of the spent expenses. The highest productivity is achieved by the production unit of public administration that reaches the highest number required quality output units with its fixed budget. The second form of effectiveness is the cost effectiveness which means costs per unit of output (for example costs of one served citizen, costs of one square meter of cleared area). The best production unit is the one that reaches the lowest costs per unit of output (while maintaining required quality). The most effective unit achieves the lowest costs per one unit of output.
Purposefulness Is based on § 2 letter *o* of the Law about Financial Control	P**urposefulness** means such use of public resources that ensures the optimal level of goal achievement while fulfilling stipulated tasks. **Discussion, comments and problems:** While foreign literature uses the term efficiency the Czech legislation introduced the concept of purposefulness. The criterion of purposefulness is with respect to the criterion of economy and criterion of effectiveness the highest kind of criterion. It examines the economic rationality of used resources. The history of Czech public administration knows many cases where the criterion of economy or criterion of cost effectiveness was used however the made in the end was not consistent with the purposefulness (with the economic rationality).

Source: Authors according to the Law about Financial Control, Půček, Ochrana 2009

In spite of the fact that the Law about Financial Control strongly supports the performance management, the implementation of the BSC and MbO methods is rather unique in the Czech public administration. The system of financial control did not create any bridge to the economic, effective and purposeful public administration. However respecting these very principles is necessary (see Aucoin, 1990, Pollit 1990, Walsh 1995). Here we remind that the Czech legislation defined the term "purposeful", however, commonly the term "efficient" is used – see Table 2. Nevertheless in the three observed institutions strong link with the performance management was proven (see Table 3, line 8).

1.2 Goal Oriented Budgeting

The second important factor for implementing the performance management approach is the Goal Oriented Budgeting according to the Regulation no. 415 from the year 2008 (goal oriented budgeting is one of the key principles – see Kaplan, Norton 1992, 1996, Aucoin 1990, Péteri, Horváth 2001). The aim is to perform systemic changes in budgeting that are based on the criterion of economic rationality. The core economic information tells us why the resources should be spent, what economic effect was expected and what economic effect was actually gained.

In the CR there are shortcomings in the area of budgeting and expenses monitoring in terms of their economic, effective and purposeful spending. In spite of the proclaimed changes the current budgeting system is still dominated by the incrementally institutional approach to creation of budget. It is based on the logics of index approach where the base for creation of a new budget is the previous one (see Ochrana and Půček 2011).

1.3 Implementation of the Smart Administration Principles

The third key factor is represented by the financial resources for projects aimed at increasing efficiency of the public administration according to the government strategy "Efficient public administration and friendly public services" with the subtitle "Strategy of Smart Administration implementation in the period 2007 – 2015" adopted 11th July 2007.

The strategy was adopted mainly because of the preparation of CR to draw EU Cohesion Policy resources within the frame of Smart Administration measure. When we sum up the resources of the Integrated Operational Program and the Operational Program Human Resources and Employment intended directly for Smart Administration we will come up with number 700,4 mil. € that is 2,62 % of the total resources for the Cohesion Policy in the CR (Půček, Ochrana 2009, pp. 57-59). These are important resources aimed at improvement in efficiency of the public administration in six areas (the strategy calls them "Hexagon of the public administration"): legislation, organization, citizen, office worker, technology, finance.

1.4 Possibility of Change of Remuneration – Competence Management

Concerning the remuneration a significant change occurred in January 2011 due to change in the governmental regulation on remuneration more specifically the change was in the § 6. Since then it is possible to determine the wage tariff for an employee (with exception of pedagogical staff) within the range of tariffs set for the lowest and highest wage level of any given wage class. Previous system determined the wage level according to only criterion – crediTable practice. The change enables implementation of competence management and efficiently links the remuneration with performance management (which is another necessary precondition according to authors Kaplan, Norton 1992, 1996, Barzelay 2001, Senge 2006).

2. Case Studies (the Description of the Approach, Benefits and Negative Effects)

Our research analysed the process of planning, implementation and performance management in three different institutions of the public sector. The selected institutions were: (1) Ministry of Regional Development, (2) The Municipality Vsetín (respectively City Council Vsetín), (3) The Museum of the region Valašsko, state-funded institution of the Zlínský region. A brief description of these organizations, the process of authorization, the description of the approach, benefits, negative effects are summarized in the following Table.

Table 3 Comparison of the approach, benefits, negative effects of the 3 organizations

Area	Ministry	Municipality Vsetín	Museum
1.Type of organization	Central administration – Ministry	Local administration – Municipality; City Council	State-funded organization of the region – museum
2. Analysis period	2007-2009	2004-2006	2010-2011
3. Number of workers	560	200	40
4. Process of authorization	Authorized by Minister as an internal project; guarantor Deputy Minister (strong engagement)	Authorized by local government, council and the mayor (strong support); guarantor secretary (strong engagement)	Authorized by director (strong engagement) and by museum management
5. Brief description of the approach	The goals were set for 4 perspectives of BSC (in total 15 goals for the Ministerial level); decomposition of the goals and interconnection with the remuneration was planned but not implemented; it was linked to controlling and partially reflected in management documents	The goals were set up for the vision of the Municipality (3 main goals – number of inhabitants, satisfaction of inhabitants, ecological track) and for the 4 perspectives of BSC (in total 34 goals); goals were divided among departments and individuals; partially connected with remuneration; linked to the processes, reflected in the structure and management documents	Measurable goals in 4 areas (1) visitors, (2) collections, (3) research, (4) finance and requirements of the founder; a main goal was always stipulated and about 5 additional goals per area; agreement with all divisions about the goals derived from the goals of the museum; interconnected with remuneration; reflected in the structure and management documents
6. Main benefits (positive effects)	(1) Reduction of number of employees and managers; (2) more efficient fulfilment of goals and tasks by using a "Plan of main tasks"; (3) optimization of the budget and budgeting of the Ministry	(1) Ability to fulfil the investment and project plan; (2) orientation of resources to goal achievement; (3) efficiency of processes proved by benchmarking to comparable municipalities; (4) successful grant management of resources from the EU; (5) increasing satisfaction of the customers of the office, etc.	(1) Measurable improvement in all areas; (2) increase in number of visitors by 62%; (3) gain of 36 mil. CZK for reconstruction from the EU funds; (4) savings of operating costs – used for visitors; (5) more research results; (6) improvement of the care for the collections etc.
7. Problems or negative effects	(1) The process of implementation interrupted by government fall in year 2009; (3) at the beginning strong internal opposition of several Ministerial leading workers; (3) it was very difficult to gain trust of the key workers	(1) This was the first implementation of BSC in the Czech public administration which always brings problems resulting from inexperience; (2) after the change of the major and secretary in year 2007 the system was fully functional, however, the new management interrupted the link with remuneration, there was lack of strong management of the process and motivation.	(1) Part of the leading workers did not retain their positions and were substituted by their colleagues including the expert deputy of the director; (2) fulfilment of the goals resulted extreme overload of all workers; (3) some of the workers did not identify themselves with the new understanding of the "open museum" and left.

8. Continuity to system of financial control	Yes, the link was built	Yes, there was very strong link – common information base was used and systems were complementing each other	Yes, there was very strong link - common information base was used and systems were complementing each other

Source: Authors

From the Table above it is evident that despite many limitations, negative effects and problems (see 7th line of the Table) it is possible to consider the application of the performance management (according to the MbO or BSC methods) in all organizations as successful, bringing benefits to the institutions and their customers.

The most unambiguous benefits were reached in the museum which strictly followed the MbO method according to Drucker (2004) and Senge (2006): (1) The goals were derived from the mission of the museum and from the expectations of the visitors (there was a survey carried out and interviews with key partners) the goals were also discussed and agreed upon with the workers (their expectations and abilities were determined based on a survey and interviews). The goals were ambitious and also achievable. The indicators were set with help of benchmarking and detailed SWOT analysis. (2) Necessary competences were delegated to the workers and teams. (3) The goals were linked to remuneration while the total sum of the wages was not increased. (4) A continuous team learning took place.

The verifiable benefits of museum are: (1) Measurable improvement in all areas (goals in the 4 areas (a) visitors, (b) collections, (c) research, (d) finance and requirements of the founder); (2) increase of attendance by 62%; (3) gain of 36 mil. CZK for reconstruction of sights from the EU funds; (4) savings of operating costs – used for visitors; (5) more research results; (6) improvement of the care for the collections etc.

Table 3 also describes the problems and negative effects. In case of museum these were: (1) Part of the leading workers did not retain their positions and were substituted by their colleagues including the expert deputy of the director; (2) fulfilment of the goals resulted in extreme overload of all workers (however the overtime was an issue even before the MbO method was implemented); (3) part of the workers did not identify themselves with the new understanding of the "open museum" and left.

From the analysis of the 3 different organizations it is not possible to deduce any unambiguous generally valid conclusions. However it results in the finding that the necessary condition identical for all organizations is the strong engagement of leading workers in the performance management. In case of two organizations we revealed (partial of full) creation of link with the remuneration that strongly increased the ability to achieve the goals which corresponds with findings described for example by Senge (2006), Drucker (2004), Kaplan, Norton (1992, 1996).

Conclusion

Within the frame of this paper the authors succeeded to fulfil the stipulated goals – on the basis of literature research and practical experience the basic terms were defined, the key factors having impact on the implementation were solved and specific institutions of the public administration were analyzed.

There is a question how the organizations of public sector will improve their efficiency

by use of their resources aimed at Smart Administration in the frame of Cohesion Policy. From the viewpoint of NPM elements implementation in the Czech public sphere these resources create an opportunity that should be (and the question is if they really will be) efficiently used for improvement of the efficiency of the public administration.

Despite certain limitations and problems the analysis of three different organizations and their approach to the performance management (Ministry and Municipality according to the BSC method, the museum according to the MbO method) proved that performance management brings benefit for the public sector organizations. However a strong engagement of leading workers and a link between performance management and remuneration is crucial. The research identified not only benefits but also problems and negative side effects (see Table 3, lines 6 and 7).

The authors´ opinion is that further research in this area should focus on three problematic areas: (1) why the Law about Financial Control (in spite of having all the prerequisites) did not create conditions for implementation of performance management in the common practice; (2) what impact can competence management and the change in remuneration possible since year 2011 have; (3) what particular benefits will the Cohesion Policy resources bring to the Smart Administration.

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System Dynamics as Method for Evaluation of Development Activities of Municipalities

Martin Sobotka

Abstract

The paper deals with the classification of main factors of municipal development. The impacts of mentioned factors on the development of municipalities are not unified. In real the factors influence the incidence of other factors. The solution for evaluation of impacts of development activities may be the method of system dynamics. The ability to search many mutual relations and feedbacks is the main contribution of this method. This method uses for capture of these situations the Figureical display of the model in form of stock and flow Figures and causal loops Figures. It is possible to simulate the created model after substitution of mathematical equations which capture the relation among partial magnitudes. The interception of development of municipality is the solution of this method.

Keywords

Municipality, development, factors of development, system dynamics

Introduction

The municipality can use a lot of factors which enable the development of local economy. In literature we can meet a lot of views of factors and their division into various groups. The authors often distinguish between hard and soft factors of development of municipalities. If we consider that the development of municipalities is highly linked with economic activities of private firms, than it is important to search the factors which influence the process of localization of firms as well.

It is important to search the impacts of factor on development of municipalities (or on localization behavior of firms) from point of view of assessment of development. We can expect that these impacts will be various at partial factors. Than it is important to deal with methods, that are able to assess the mentioned impacts. System dynamics is one of these methods. Its usage enables to us to describe the structure and mutual dependences among partial factors and development of municipality.

Interception of the linkages and relations among particular subjects of municipality by means of dynamical models is the aim of this article. The theory of system dynamics enables to capture the reality of non-linear relations among subjects. A lot of feedbacks make difficult to set the primary cause of resulting effect (c.f. Forrester, 1969, Sterman, 2000, Coyle, 1996).

Material and Methods

Local Economic Development

We can meet the various definitions of local economic development. E.g. Swinburn et al (p. 1, 2006) define the local economic development as the process of cooperation of partners of public, entrepreneurial and nongovernmental sectors for the creation

of better conditions for economic grow and for creation of better working places. The improvement of quality of life of all is the aim of these activities. The success depends on the capability to conform to quickly changing national and international market environment.

Blakely and Leigh (p. 75, 2010) offer three essential elements of local economic development:

- economic development establishes a minimum standard of living for all and increases the standard over time,
- economic development reduces inequality,
- economic development promotes and encourages sustainable resource use and production.

We can talk about various types of definition of local economic development. Žárska et al (p. 171, 2007) mentions that all of definitions of local development are conformed to the aim to create the economic capability for better economic future and quality of life of inhabitants. Local economic development does not only depend on amount of financial resources but it depends on intensive communication a coordination of connected subjects. The determination of partners is the next sign.

The content of local economic development is not strictly formalized. The ways of saturating of idea of local economic development are diverse. The genesis of local economic development is the verification of this idea. Local economic development starts to appear in 1960s (see World Bank, p. 7, 2003). We can divide the evolution of local economic development into three evolutionary phases. We get from effort to attract exogenous investment to stabilization of entrepreneurial sector and growth of quality of life of local inhabitant.

Factors of Municipal Development

In effort to ensure the development of any area it is important to influence that factors which activate and stimulate the required development. The development is not possible without searching of these starting mechanisms (it is important to say that factors may contrary effect as well; it means that they have deterrent (limited) effects – cf. e.g. Ježek, p. 13, 2008). This is the reason why a lot of authors and searched studies concentrate to finding of these determinants. We find the same situation in the case of local economic development.

It is important to introduce the paper of C. Wong (1998, eventually 2002) among the papers which deal with factors of development of locality. Wong (p. 708, 1998) mentions that despite of importance of local sources in economic planning the unambiguous survey of essential factors of local economic development was not identified and put together. This lag in our understanding relates with principle of local economic development. We can namely characterize this principle by pluralism of approaches of local subjects to development and by dependence of used developmental politics as well. It is possible to vary the perception of the importance of various factors of local development according to various types of subjects of local economic development and according to various circumstances.

We can define the traditional factors as common factors, which we especially take from neoclassical economic theory or from economic geoFigurey. The classification

of traditional factors namely accentuates the qualitative dimension of productive factors. Therefore, according to Wong (p. 1835, 2002), the group of traditional factors should not be interpreted as the opposition to group of soft factors. Whereas the traditional factors are not able to interpret the number of variables of local development, the attention of economists is focused at searching of influence of soft factors of this development.

Šebová and Šebo (pp. 931 – 932, 2007) note that the soft localization factors (e.g. culture, living standard, attractive place etc.) are more significant. Their opinion is supported by research works made in Germany. The most significant soft factor is according these researches the public administration which is "business friendly".

The importance of influence of infrastructure on the development of the municipality is mentioned by most of economic theories which deal with growth and development of region or locality (cf. Capello, p. 176, 2007). The significance of infrastructure is usually mentioned together with those factors as geoFigureical position of the municipality, sector structure of the municipality, potential of development etc. The significance of infrastructure consists mostly in the capability to attract new firms into the locality. Investments into improvement of size of the local infrastructure are the source of competitiveness of localized firms, because they enable to decrease the costs of firms. The size of influence of infrastructure on the development of the area is indeed given by the type of infrastructure. Capello (p. 177, 2007) refers to capability of infrastructure to influence the quality of life in the locality and human capital. The influence on production of firms rather shows in the long period. Moreover the final effect is not limited by the frontier of local economy but it overreaches this frontier. We have to mention the rise of service costs of infrastructure in connection with effects of infrastructure on development. These costs generate to network operator (especially to institutions of public sector).

The localization of firms in certain area is dependent upon factors that increase the attraction of the area. We speak about the localization factors which we can divide according its nature into hard and soft factors. The division of factors is not strict because the conformity does not occur across the authors. Rumpel et al (2008) refer to this matter. These authors distinguish following factors:

- hard localization factors,
- soft entrepreneurial factors,
- soft individual factors.

According to Rumpel et al (p. 5, 2008) the clear consensus does not exist between hard and soft factors. It is not possible to exact determine the mutual proportions because the hard and soft factors co-exist in complex interactions. These authors refer to the complementarity of both of factors. This complementarity is given in part by their mutual functional dependence and in part by nature of area (of region or municipality).

The localization factors result from classical localization theories. These factors describe the main reasons which lead the firms to localization in certain area. If we also accept the thesis mentioned e.g. by Toth et al (p. 3, 2005) that the private sector is the main source of wealth of municipalities whereas public sector has complementary function, so we can use the localization factors as determinants of municipal development.

Before we start with determination of localization factors we have to mention that not all of factors are able to influence the decision of firm about its production or about the place of providing of services. Two conditions have to be realized (according to Šebová, in Hudec et al, p. 72, 2009) to influence the localization decision of firms:

- factor must have the influence on costs or returns of firms (not only in financial expression, but e.g. costs linked with time loss as well),
- disposability, quality or price of factor must be differentiate in space.

The various conditions rise for firms in different localities in case that both of presumption are fulfilled.

Now it is possible to more closely characterize the above mentioned factors. Hard localization factors have direct influence on the activities of firms and have the visible impact on the territorial (regional, local) outputs. Soft entrepreneurial localization factors have indeed immediate influence on activities of firms as well, but the measurability of their impacts is difficult. Their evaluation is subject to individual evaluation of the firms. Soft individual localization factors impinge of management of firms and staff. These factors rise from their personal preferences. Nevertheless these factors have not the immediate influence on decision making of firms but they represent that factors associated with motivation of persons in firm and influence the working efficiency (cf. Rumpel et al, p. 5, 2008).

If we want to use all of factors for localization of firms in the municipality we have to consider the fact that relates with hard factors. The hard factors become ubiquity (it means that they are generally available; e.g. A. Weber deals with problems of ubiquities early in the 20th century; he included in this category the clean water, fresh air and unskilled labour forces – cf. Maskell, p. 3, 1996). This is the reason why the hard factors are not by important localization factor for firms. Maskell (pp. 4 – 5, 1996) outlines this problem in context with competitiveness of firms. Local factors have to be rare and valuable for increasing of competitiveness of firms. If the factors will be available to all of firms, the previously localized firms will be disadvantaged.

Results and Discussion

It is possible to make an assessment of municipal development by many ways. The construction of a model of localization of firms in local area is one of the ways. In this article it will be used of approach of system dynamics which enables to create a model and make a simulation of municipal development as well.

The idea of system dynamics rises from work of J. W. Forrester from MIT in USA (see e.g. Forrester, 1961). This theoretical concept is further developed by many of authors. We can mention e.g. Sterman (2000) among the meaningful publications.

As was suggested in introduction, the real world is characterized by complicated structure. If we consider that many feedbacks take effect and moreover the activity of one factor and the attained effect are not in linear dependence, than the creation of model for description of real world is more difficult. System dynamics is set on so called system thinking. We understand by this type of thinking the ability to see the world as the complex system, in which „everything is connected to everything else. System dynamics is a method to enhance learning in complex systems (c.f. Sterman, p. 4, 2000). The most complex behaviors usually arise from the interactions feedbacks)

among the components of the system, not from the complexity of the components themselves (Sterman, p. 12, 2000).

According Coyle (p. 10, 1996) system dynamics deals with the time-dependent behavior of managed system with the aim of describing the system and understanding through qualitative and quantitative models, how information feedback governs its behavior, and designing robust information feedback structures and control policies through simulation and optimization.

This method uses the drawing of model in form of causal loops figure or figures of stock and flow. It means that we explore the influence of one variable on the other variable and then we observe the feedback of this relation. So variable *A* can affects the variable *B* and then *A* is by return affected by behavior of variable *B*. This philosophy is used for model of municipal development in this article.

The article deals with the question of model of municipal development and with evaluation of influence of localized firms on local economy in this connection. Dynamical model is displayed here in very simple form. The direct modeling of impacts is not the aim of this paper, but we try to find the priority and limitation of this approach.

Despite the model is illustrative, we have to deal with question of applicability and possibility to implement the dynamical models into practical policy. We can mention the work of J. Forrester (1969), where he created the urban dynamic model, which enables to evaluate the impacts of municipal policies.

Figure 1 The basic model of firm localization in municipality
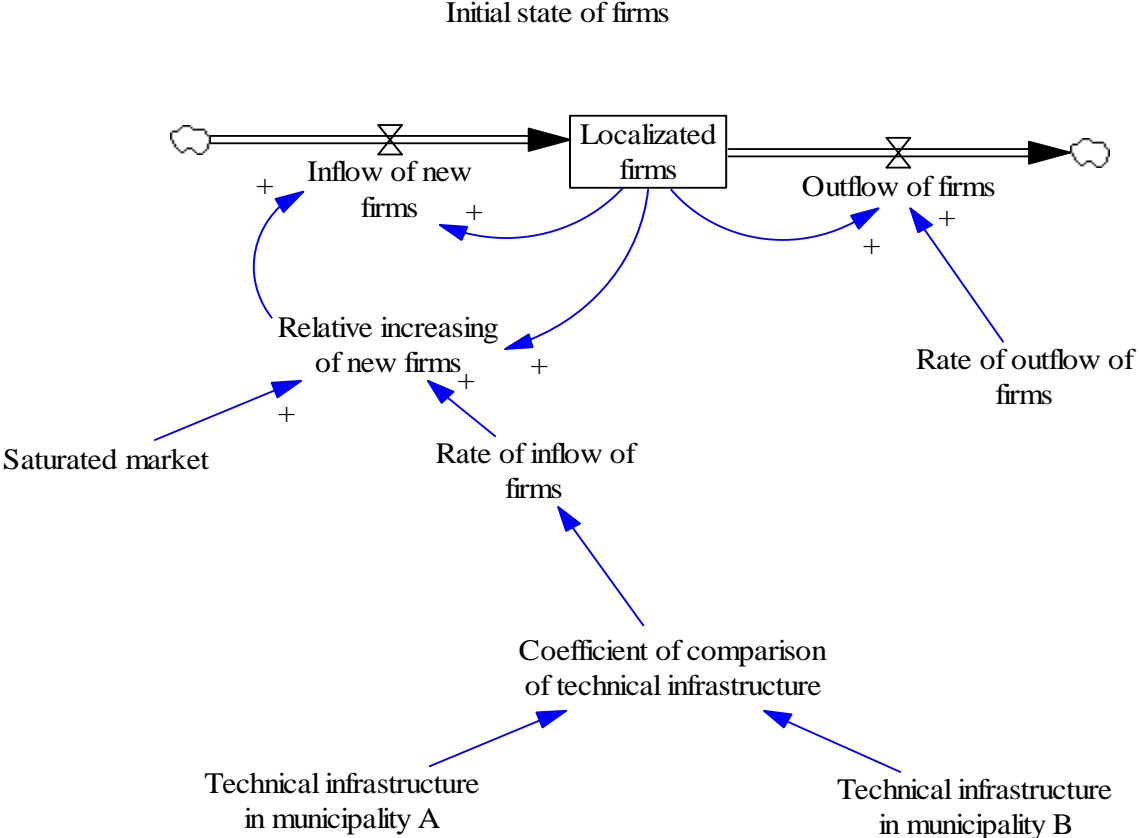
Source: Author

The model of firm localization is displayed in the figure No. 1. The basic relations among the elements of the model can be described with following formulas (the notation used in area of system dynamics was chosen in this article):

$$Localized\ firms = INTEGRAL(Inflow\ of\ new\ firms - Outflow\ of\ firm, Initial\ state\ of\ firms) \quad (1)$$

$$Inflow\ of\ new\ firms\ =\ Relative\ increasing\ of\ new\ firms\ *\ Localized\ firms \quad (2)$$

$$Relative\ increasing\ of\ new\ firms = Rate\ of\ inflow\ of\ firms*(1 - \frac{Localized\ firms}{Saturated\ market}) \quad (3)$$

In this model, the Saturated market and Rate of outflow of firms are constant.

$$Coef.\ of\ comp.\ of\ TI = \frac{(Technical\ infrastr.\ in\ municipalityA - Technical\ infrastr.\ in\ municipality\ B)}{Technical\ infrastr.\ in\ municipality\ B} \quad (4)$$

$$Rate\ of\ inflow\ of\ firms = Coefficient*(1 + Coefficient\ of\ comparison\ of\ technical\ infrastructure) \quad (5)$$

The value 0,1 is set for the Coefficient and the Rates of outflow. This value is starting point and we can change it during the simulation. For the observation of behavior of the model we made the starting simulation. The results of this simulation are displayed in Figure 2.

Figure 2 The behavior of the model by not changing coefficients

Inflow of new firms
Outflow of firms
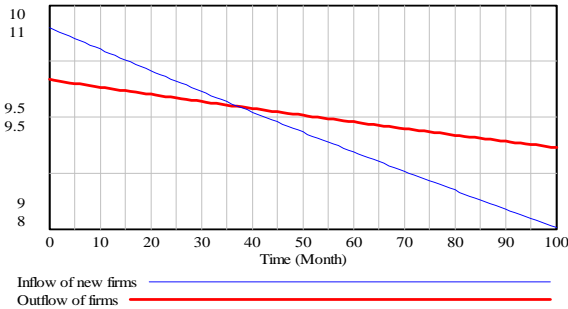
Source: Author

Now we can search the behavior of model, when we increase the investment into the technical infrastructure. These new investments evolve the inflow of new firms in the local area. And because the limits of local markets create the natural restriction, we expect limitation inflow of firms in the local area. The new situation is displayed in the Figure 3.

Figure 3 The behavior of model by increasing investments into technical infrastructure

| situation a) | situation b) |
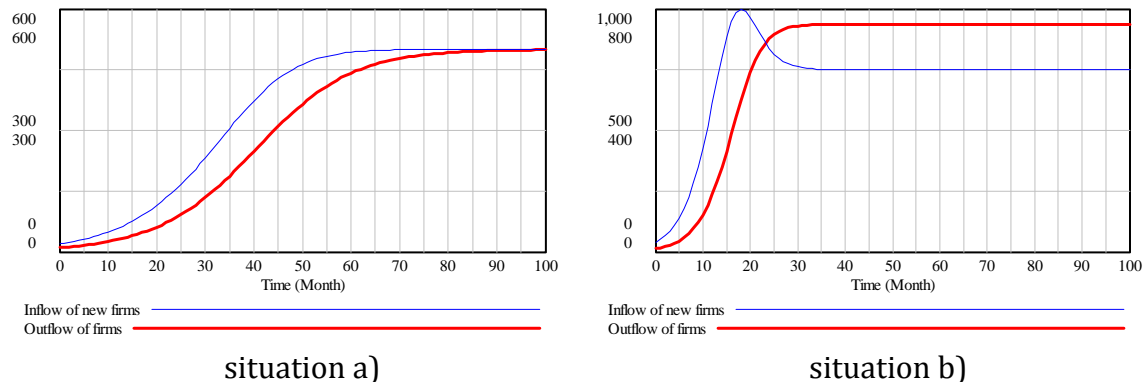
Source: Author

The change in behavior of firms on increasing of investment into technical infrastructure is displayed in Figure 3. Although we reflect that the technical infrastructure is ubiquity, we consider that firms compare the state of infrastructure among the areas. The behavior of firms can be changed only by the significant investment into technical infrastructure in comparison with investment into infrastructure in other municipalities. The situation a) in Figure 3 displays the duplication of investment compared to other localizations. The situation b) in figure 3 simulates the evaluation of localization of firms when the investments are fourfold higher than in other areas.

The fruitful implementation of model is especially linked with good observation of circumjacent world. Sterman (p. 899, 2000) points out, that the researchers have to still come to a deep understanding of the problem issue. Dynamical model actually must be able to monitor the most important relations which influence the resulting behavior of model as whole. The next problematic area influencing the usage of model in practice is linked with suitable setting of input variables.

Conclusion

The municipal development is not the activity whose impacts will by isolating in terms of area of municipality. And the factors which start the process of development can be located in the area, or they can come from environs. This article searches the capability of technical infrastructure to attract the firms.

System dynamics is used as the principal tool for analysis of above mentioned problem. The simple model of localization of firms in the municipality was created to assess location behavior of firms. System dynamics enables to search impacts of feedbacks.

Considering, the technical infrastructure is perceived as ubiquity. The absence causes the lost of competitiveness of municipality in effort to attract and stabilize the new firms. And on the other hand the rapid increase of located firms is linked with heavy investment.

Modeling is always related to creating of simplified Figure of the world. Sterman (p. 11, 1991) adverts to the fact, that any model is only as good as its assumptions. The assumptions of simulator models are based on characteristic of physical system and on

decision rules. Description of physical system is usually not a problem. On the contrary, the displaying the physical environment can be portrayed with the details. And the accuracy is needed for the model purpose. The advantage of dynamics models is especially the fact, that these models are able to catch the feedbacks, non-linearity and these models are not so determined by mathematic limitations. The soft spot of dynamics model is the description of decision rules which is linked with quantification of soft variables. A lot of data which enter the dynamics models are the soft variables. Moreover, a lot of hard data are not accessible for set models (especially the using the statistic data is not always possible to use). We cannot identify the dynamics models with models based on historical data. Dynamical models try to catch mutual interactions among elements of system.

Acknowledgements

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An Approach to the Analysis
of Current Municipal Waste Expenditures Efficiency
Based on the Determination of „Minimal Value"

Jana Soukopová, Michal Struk

Abstract

The paper presents results of research into municipal waste treatment expenditures efficiency in the Czech Republic. In this paper we construct a method for current municipal waste expenditures efficiency analysis which, based on inputted variables, calculates "minimal value" of expenditures per municipal waste ton that municipality should spend. Through these variables the method should be able to reflect the uniqueness of each analyzed municipality and take into account its size, amount of produced municipal waste, as well as distance from the waste disposal facility and waste disposal rates. Calculated expenditures/costs per waste ton are compared with the real expenditures in selected group of municipalities.

Keywords

Municipal waste, expenditures, efficiency

Introduction

The goal of the paper is to introduce the method of "minimal value" of expenditures and its usability for municipalities in the process of contracting the public services (municipal waste management). This, in our opinion, can lead to the increased efficiency in this area of public expenditures.

The first works on current waste management expenditures/costs and their optimization (in terms of efficiency) go back to the 60s and 70s. In that time was the waste management seen only through the terms waste collection and disposal (on landfills). But studies since 70s started to examine also the relation between the expenditures and relevant variables. Savas (1977) was the first to unveil a relation between the amount of current expenditures and size of population and verified the correlation between them. Clark (1970) at that time examined the efficiency of waste management expenditures too. Stevens (1977) contributed to this theory with the definitions of relation between the waste management expenditures and characteristics of waste collection company (public or private). The following studies (McDavid, 1985, Domberger et al, 1986, Szminsky, 1996, Gomez et al, 2001, Brown and Potoski, 2006) focused mainly on the characteristics of waste collection company. In the Czech Republic was this problem examined by Pavel (2007), Pavel and Sičáková-Beblavá (2008), Nemec (2002), Nemec et al (2007), Slavíková et al. (2010) or Šauer et al (2008).

Another group of studies focused on the expenditures efficiency and examined factors like the density of collecting network (Dublin and Navarro, 1988), length of transportation network including the distance to the waste disposal facility (Harvey and O´Flaherty, 1973) and the traffic congestion (Worthington and Dollery, 2001),

Chang et al. (2011) even defined all the factors of cost-effectiveness from the perspective of Cost-benefit analysis (CBA) and Cost-effectiveness analysis (CEA).

This paper builds on the research of the factors that influence the municipal waste management expenditures and the studies of Soukopová and Bakoš (2010) and Soukopová and Struk (2011). In this study we examine the waste management expenditures efficiency based on the comparative analysis of the "minimal value" of costs of the waste collection company without profit and the real municipal waste management expenditures.

Material and Methods

In this paper we evaluate the waste management expenditures that are a part of the environmental protection expenditures13 – EPE. EU statistics office divides the EPE into public sector expenditures, private expenditures and expenditures of specialized environmental producers and producers of environmental services for public
and private sector. According to this classification we focus on public sector expenditures. EPE can be further divided according to their purpose into current (non-investment) and capital (investment) expenditures. This analysis focuses only on the current expenditures. From the perspective of various environmental protection areas, we use CEPA 2000 classification (Classification of Environmental Protection Activities) constructed by Eurostat. This classification consists of 9 areas – wastewater treatment, climate protection, waste management, soil and underground water, biodiversity, reduction of physical factors influence, administration of environmental protection, other activities, and unclassified ones (Eurostat, 2000).In our paper we evaluate only the waste management expenditures (WME) – they make the largest part of the current municipal expenditures (around 50%) as we can see in the following Table.

Table 1 Shares of current EPE categories on total current EPE in the CR

Year	Waste management	Protection of biodiversity and landscape	Wastewater management	Remaining 6 CEPA 2000 categories
2005	52.5 %	36.8 %	8.8 %	1.9 %
2006	49.8 %	36.9 %	11.4 %	1.9 %
2007	52.1 %	36.6 %	9.4 %	1.9 %
2008	51.7 %	36.9 %	9.7 %	1.7 %
2009	51.3 %	38.7 %	8.3 %	1.6 %
2010	49.5 %	39.8 %	9.0 %	1.7 %

Source: Struk, Soukopová, 2011

According to the Attachment to the Decree of the budget structure, public WME in the Czech Republic are reported in the following structure based on the budget parafigures of the sector division of budget structure: § 3721 – Collection and transport of hazardous waste, § 3722 – Collection and transport of municipal waste, § 3723 – Collection and transport of other waste, § 3724 – Treatment and disposal of hazardous waste, § 3725 – Treatment and disposal of municipal waste, § 3726 – Treatment and disposal of other waste, § 3727 – Waste prevention, § 3728 – Monitoring of waste

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[13] Based on EPEA definition (Environmental Protection Expenditures Account) it is all expenditure on all activities with the goal of prevention as well as reduction and elimination of produced pollutants together with the restoration of damaged environment. (Eurostat, 2000).

treatment, § 3729 – Other waste treatment, § 2122 – Collecting and processing of secondary raw materials14. Only two of them represent municipal waste expenditures – § 3722 and § 3725. However, these two paraFigures cover majority of total current WME. Figure 1 shows the average shares of the current expenditures of these two paraFigures on the whole waste management subsection of the Czech budget structure from 2005 to 2010.

From Figure 1 we can see that current WME cover 86.1% of total current public WME in the Czech Republic. As the average share of total waste expenditures category in period from 2005 to 2010 is 51.2% of the whole Czech EPE (see Table 1) we can calculate that current municipal WME represents on average 44.1% of total current EPE. And this is the reason why in this paper we analyze only the municipal WME represented by § 3722 and § 3725.

Figure 1 Composition of current Waste management expenditure, 2005-2010 average
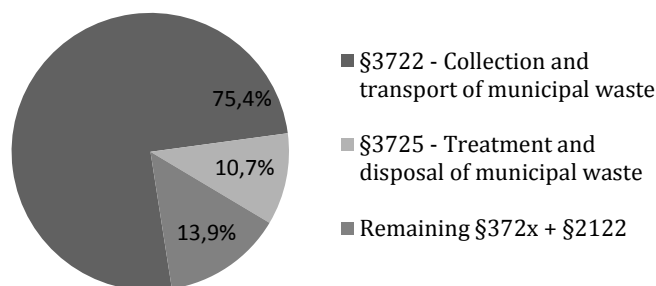
Source: MŽP, adjusted by authors

As was mentioned above, our approach consists of calculating theoretical "minimal value" of expenditures that municipality could spend on the municipal waste management services. The function of the "minimal value" represents a cost minimization approach in the context of the Cost-effectiveness analysis (CEA). Our way of calculating goes through decomposing the process of the municipal solid waste (MSW) treatment. In order to calculate the "minimal value" of expenditures/costs, we simplify the described process into these two steps:

Collection and transport of the municipal waste (C_{ct})

↓

Treatment and disposal of waste (C_{tr})

Then the costs of both of these steps – the expenditures on MSW collection15 and disposal can be calculated as:

$$C = C_{ct} + C_{tr} , \qquad (1)$$

The amount of the total costs that are related to the collection of the waste depend on: amount of waste (MSW), distance to the waste treatment facility (landfill, incinerator,

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[14] Although §2122 belongs to the different section in the budget structure, according to CEPA 2000 it falls under the waste management category with the rest of the listed paragraphs.

[15] Collection and transport of waste is defined as the collection of waste and their transport to the place of treatment or disposal. It includes the separate collection and transport of waste fractions so as to facilitate recycling and the collection and transport of hazardous waste. Street cleaning is included for the part referring to public litter and collection of garbage from the streets. Excluded are winter services (Eurostat, 2000).

MBT – mechanical biological treatment facility, recycling facility, and so on), size of the municipality (transport distances within the municipality), capacity of waste collecting vehicle, fuel price, employee's wages, vehicle repair costs, vehicle sanitation costs and so on.

We simplify the fixed costs and let them be the waste manipulation costs. The sum of the municipal waste collection and transport costs is then:

$$C_{ct} = \frac{(D_m * r_t + D_s * r_t) * Q}{C_v} + r_m * Q = r_m * Q + \frac{r_t * Q}{C_v} * (D_m + D_s),$$ (2)

C_{ct} costs of collection and transport [CZK],
Q amount of waste [t]
D_m distance that has to be covered within the municipality [km],
D_s distance from the municipality to the waste disposal site and back [km],
r_t rates per kilometer of transport [CZK/km],
r_m rates for manipulation with the waste (collecting and unloading) [CZK/t],
C_v Capacity of the waste collecting vehicle [t].

All of the variables above can be acquired without much difficulty, except the Dm – distance that has to be covered within the municipality. As the information about the area covered by municipalities is available, we decided to estimate the Dm by using adjusted formula for circle radius. If the municipality covered the area of perfect circle, the average travelled distance within it would be the circle radius. As this assumption is usually wrong, we have multiplied the calculated value of the radius by 0.5. We also have to take into the account the fact that two points within the municipality are not usually connected with the straight line (existing roads). Therefore we decided to multiply this distance by another 0.516. The updated model for calculating the costs of collection and transport of the waste is now:

$$C_{ct} = r_m * Q + \frac{r_t * Q}{C_v} * \left(D_s + \sqrt{\frac{A_m}{\pi}} * 2 \right),$$ (3)

A_m area covered by municipality [km].

Third part of the process consists of treatment and disposing of the municipal waste. The costs of treatment and disposal are then:

$$C_{tr} = r_d * Q,$$ (4)

C_{tr} costs of treatment and disposal [CZK],
r_d rate/price per one ton of waste at the waste disposal facility [CZK/t].

In order to calculate the theoretical "minimal value" of waste management costs we simply add the costs of the collection and transport and the costs of the treatment and disposal:

$$C = Q * \left[r_m + 2 * \frac{r_t}{C_v} * \left(D_s + \sqrt{\frac{A_m}{\pi}} * 2 \right) + r_d \right],$$ (5)

C costs of municipal waste management [CZK].

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[16] Based on this calculation, the distance would be, for instance in Praha 25 km, in 100 000 people municipalities around 11 km, in 10 000 people municipalities around 7 km. But this depends on the actual covered area.

This calculation of "minimal value" of costs is based on Soukopová and Bakoš (2010) and Soukopová and Struk (2011) results with the exception of the distance. The quoted papers use one aggregated distance from municipality to the waste treatment facility while we calculate it as a sum of the distances (Ds and Dm). In our opinion this method leads to the more accurate results. Method of "minimal value" is based on comparison of actual expenditures and minimal value of costs:

$$E - C \rightarrow min,$$

(6)

E   municipal waste management expenditures [CZK].

We have used average costs per 1 ton of MSW for better comparison of municipalities and we have compared the amount of "minimum value" of average costs (AC) with the average municipal expenditure per 1 ton of MSW (AE) in order to analyze the efficiency:

$$AE - AC \rightarrow min.$$

(7)

For the analysis we need following data about each municipality: municipal waste expenditures, amount of municipal waste, distance from the municipality to the waste disposal site, area covered by municipality, rate/price per one ton of waste at the waste disposal facility, rates per kilometer of transport [CZK/km], rates for manipulation with the waste (collecting and unloading of 1 ton of waste) and capacity of the waste collecting vehicle.

Data on municipal waste expenditures are available from public database ARIS. Data on municipal waste amount come from database ISOH. We analyze expenditures from year 2008, as we have obtained data from database ISOH from CENIA only from this year. Data of distance from the municipality to the waste disposal site are available from geoFigureical information system on website maps.cz. Data of the area covered by municipality are available from the Czech Statistical Office database. We have acquired the data about the waste disposal facility prices from the facilities themselves. Data of rates per kilometer of transport and rates for manipulation with the waste are from the study of Soukopová and Bakoš (2010). And finally, we have come to conclusion that the capacity of average garbage truck is 12 tons of municipal waste (quick research done on the local second hand garbage truck site).

Results and Discussion

We have so far obtained data on landfill rates for only 30 landfills, and therefore the case study is limited to the municipalities close to these landfills. Moreover, we focus only on the larger municipalities (population of 10 thousand citizens and more). Table 2 shows the results of the analysis.

Table 2 Case study of efficiency of selected Czech municipalities in MSW treatment area

Municipality	Area	Landfill dist. (km)	Landfill rate	AC=C/t	AE=E/t	AE– AC	Rank
Čáslav	26.5	0.0	1 470	1 663.50	3 170.90	1507.3	16
Frenštát p. Radhoštěm	11.4	11.6	995	1 260.60	2 065.00	804.4	7
Uničov	48.3	0.0	1 030	1 238.80	1 198.60	-40.1	1
Český Krumlov	22.2	0.0	1 500	1 689.80	3 901.10	2211.3	20
Poděbrady	33.7	12.9	970	1 265.80	2 991.50	1725.7	18
Slaný	35.1	15.7	1 120	1 437.90	3 119.90	1682.1	17
Benešov	46.9	7.3	1 250	1 512.50	2 021.90	509.5	4
Kralupy nad Vltavou	21.9	9.2	1 120	1 378.50	1 658.40	279.9	2
Otrokovice	19.6	0.0	1 070	1 257.50	2 447.90	1190.5	10
Kutná Hora	33.1	10.9	1 470	1 750.10	2 983.40	1233.2	13
Kopřivnice	27.5	8.1	1 350	1 604.80	2 818.40	1213.6	12
Litoměřice	18.0	14.4	979	1 273.10	2 399.70	1126.6	9
Nový Jičín	44.7	5.7	995	1 244.20	7 169.60	5925.4	22
Litvínov	40.7	0.0	990	1 194.00	1 726.00	532.1	5
Kroměříž	51.0	10.3	1 210	1 497.70	3 699.30	2201.6	19
Kolín	35.0	15.8	970	1 288.80	2 482.00	1193.2	11
Přerov	58.5	0.0	1 050	1 264.70	1 731.70	467.0	3
Opava	90.6	9.6	1 185	1 487.80	2 851.90	1364.1	15
Zlín	102.8	0.0	1 105	1 340.80	2 382.80	1042.0	8
Havířov	32.1	4.5	970	1 201.60	2 457.40	1255.7	14
Olomouc	103.3	11.2	1 190	1 510.00	5 857.90	4347.9	21
Praha	496.1	8.4	2 000	2 401.70	2 958.10	556.5	6

Source: Authors

The Table shows that almost all of the municipalities have higher expenditures than our calculated "minimal value". This is, in our opinion, caused by fact that formula of "minimal value" does not include profit of waste collection company and possibly some other relevant expenses.

The economic indicators of municipal waste management in the Czech Republic are not watched systematically from the efficiency perspective. We can find some comparative studies that take into the account LCA and minimal costs for the Czech Republic (Kočí Krečmerová, 2011) but in these studies are not included data about municipalities. In the Czech Republic the only source of the information which included data about municipalities is data from AOS EKO-KOM, a.s., that evaluates economical data of municipalities since 2001. However, it evaluates the height of the municipal WME only on the expenditures per capita basis. Nevertheless, an approach from the perspective of waste collection company's costs with zero profit "minimal value" of costs is a newly designed way of efficiency evaluation.

Table 3 shows the differences between results of methodology for measuring the efficiency based on "minimal value" of costs and CEA method, which measures the efficiency based on expenditure per capita.

Table 3 Differences between results of "minimal value" method and expenditures per capita

Municipality	Citizens (P)	AE– AC	Rank	E/P	Rank
Čáslav	10093	1507.3	16	843.8	18
Frenštát p. Radhoštěm	11163	804.4	7	577.7	6
Uničov	12098	-40.1	1	377.5	1
Český Krumlov	13650	2211.3	20	722.5	14
Poděbrady	13788	1725.7	18	1208.5	22
Slaný	15137	1682.1	17	829.4	17
Benešov	16395	509.5	4	559	4
Kralupy nad Vltavou	17435	279.9	2	522.8	3
Otrokovice	18538	1190.5	10	608.7	10
Kutná Hora	21646	1233.2	13	816.9	16
Kopřivnice	23172	1213.6	12	643.2	12
Litoměřice	23823	1126.6	9	591.1	8
Nový Jičín	25939	5925.4	22	622.0	11
Litvínov	27502	532.1	5	481.3	2
Kroměříž	29046	2201.6	19	924.8	20
Kolín	31014	1193.2	11	767.5	15
Přerov	46503	467.0	3	555.5	5
Opava	58807	1364.1	15	865.1	19
Zlín	77803	1042.0	8	585.6	7
Havířov	83558	1255.7	14	601.4	9
Olomouc	100373	4347.9	21	1110.7	21
Praha	1233211	556.5	6	694.2	13

Source: Authors

This Table shows that the methods based on "minimal value" and expenditure per capita give similar relatively close results. Therefore, in our opinion, we can say that our method is usable for evaluating the efficiency of municipal waste management expenditure. Only four municipalities (Český Krumlov, Nový Jíčín, Havířov and Praha) give notably different results (difference between ranks is higher than 5). In case of municipalities with notably different results it would be necessary to analyze the factors that could cause this variability, so we can identify whether this is caused by higher profits set by waste collection companies or by some other factors.

In this paper we come to same conclusion as the foreign studies (Brown and Potoski, 2006), that expenditures per capita do not give such comprehensive information about the efficiency evaluation as the municipalities need. Our approach of "minimal value" can therefore provide the municipalities with the better negotiating position when contracting the prices for municipal waste collection, and it can also serve the public administration institutions as a tool of better comparison between municipalities.

As an example we can show the average costs per capita of municipalities from AOS EKO-KOM (2009) research (Table 4), where the expenditures of municipalities are compared with the average expenditure in the Czech Republic. Based on this comparison we can say that the higher expenditures were only in municipalities: Kroměříž (+9.5), Olomouc (+262.3) and Poděbrady (296.3).

Table 4 Average municipal waste expenditures (in CZK/capita/year)

Municipality (number of citizens)	Expenditure per capita
10 001 – 20 000	912.2
20 001 – 50 000	846.4
50 001 – 100 000	915.3
100 001 – 1 mil.	848.4
> 1 mil.	983.4

Source: Vrbová (2009)

It is obvious that the comparing of reported expenditure with the "minimal value" expenditure provides the municipalities with the better information. And if we consider the current trend of decreasing the public expenditures and increasing efficiency of municipal spending, this approach can lead to the efficiency increasing in municipal waste expenditures. But we have so far omitted the question of what amount of profit on one ton of MSW can be considered as "moral" in the public service. This can become our next research question. This becomes quite significant if we consider that the private companies in the field of waste management occupy more than 80% of the waste management market when compared to the public companies. For further research it would be appropriate to examine the influence of waste collection company (public and private character) and its size, or even how large share of the market in the region it occupies.

Conclusion

The research of waste expenditures efficiency (from the perspective of municipalities or complex integrated system of waste management) is current topic in academic discussion since 70s. This is partially due to the fact that the waste management expenditure account in case of smaller municipalities often for more than 10% of total budget and, moreover, waste management is not strictly a public service, as in most cases it is provided by private companies. In this paper we describe a methodology for evaluating efficiency of current municipal waste expenditures based on "minimal value" evaluating method. It is focused on calculating and comparing the efficiency ratios and subsequently efficiency ratings of municipalities by using average expenditures and "minimal value" of waste collection company costs. This method could help municipalities with negotiation of the better prices with the waste collection companies and therefore lead to the increased efficiency of municipal expenditures. The methodology was demonstrated on a sample of 22 municipalities.

However, this method has its limitation. In order to acquire reasonable results, we need sufficient dataset of information that are comparable. In the area of waste management it is possible with the current expenditures that cover the regular activities that occur repeatedly (regular waste collection and disposal) and therefore create a usable sample. But this typically is not possible with other kinds of expenditures that involve irregular

activities or even one-time actions. To evaluate this kind of expenditures, other appropriate methods should be used.

Finally, as we can see in this paper, efficiency evaluation of the municipal waste management expenditure (as well as other public expenditure) is a very complex matter that offers many options for making evaluations. These evaluations produce many results that can give us a lot of information and they can help us to make right future decision, if it is used correctly.

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Approaches to E-Government Evaluation: Potential and Limitations

David Špaček

Abstract

E-government has been considered as important instrument for innovations in public administration. As such it represents a specific object of research of which evaluation has become a separated part that has brought discussions about rationality, efficiency and quality of electronic public services. The paper discusses potential and limitations of up-to-now approaches to e-government evaluation (methodologies of economic analyses approaches to e-service quality, international statistic measurement framework and frameworks of international e-government benchmarking) and outlines how they can be combined in order to improve e-government evaluation.

Keywords

E-government evaluation, e-government management, public management

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Introduction

Existing trends in e-government demonstrate its great variety in theory and practice in all the categories of e-government services (G2C, G2B and G2G), which are to improve efficiency, comfort and last but not least also legitimacy of public administration and trust of citizens in its functioning. So far, the criticism of e-government practice argues that new technologies are insufficiently managed as well as used in reorganizing the public administration or that they do not involve the general public in decision-making regarding public affairs. With respect to the requirements of current EU information policy, future attention will probably be turned to e-services for citizens (whose offer and use rather lag behind e-services for businesses), among which e-participation, and pan-European services (like electronic public procurement and eID) and their interoperability attract a special attention. The heterogeneity will continue to characterize e-government, even if, due to the economic development, the governments will probably seek to make savings through e.g. a higher integration of mechanisms used for electronic service delivery.

Both on theoretical and practical level the e-government heterogeneity causes difficulties that need not always be evident at first glance, but may considerably frustrate e-government managers or researchers. The theory poses a problem how to develop a definition of e-government for the research purposes so that it would: a) make provision for its complexity, b) not neglect e-government links to other areas (public policies) (hence its open, inter-disciplinary and multi-disciplinary character), c) take into account existing, but fragmented knowledge, d) consider trends in adopting new technologies and at the same time it is not too technically oriented, due to the multi-channel delivery of public services and barriers in the form of the digital divide and since e-government projects belong to 'soft systems' that are characterized by frequent discrepancy in understanding of their supply and demand side (Gupta and Jana, 2003), and e) assist in evaluating e-government in practice.

E-government (and apparently already its planning stage) brings about complexity of its management and evaluation. According to the Parkinson's third law (Parkinson, 1995) complexity means decay and decline, in the case of e-government not of the administration system but of management rationality and hence the rationality and efficiency of e-government as such. E-government reflects both macro and micro aspects of public administration. In practice one seeks to find an answer to the question arises – how to manage the given area and ensure an optimal degree of centralization for practical, rather decentralized projects, in order to guarantee a balanced degree of sustainability, democracy, controllability, efficiency and effectiveness of e-government implementation (as well as the practice of other criteria that are associated with e-government and can be in contradiction).

Regardless existing national organizational structures for e-government management, the criticism appearing still in the last OECD studies (see e.g. OECD, 2008 and 2009) outlines and current European e-government policy and action plan (European Commission, 2010a and 2010b) indicates problems of e-government management and evaluation in many developed countries and suggests that it is not always true that the countries having a higher GDP per capita have a better quality of e-government management. The problem associated with more meaningful e-government management and evaluation is that responsible institutions often do not have any real knowledge of the evaluation framework at the stage of implementing the project, not to mention ex ante situation. Considerable public funds are allocated for e-government and therefore greater rationality in connection with allocation decisions and more effective implementation would require clarity of evaluation criteria both on the part of the purchase and on the part of the provider. The aim of this paper is to introduce (and to certain extent also summarize) and discuss visible trends and challenges of approaches to e-government evaluation that are dispersed in available literature.

Material and Methods

This paper stems from previous work of the author (as also cited below) which have attempted to summarize characteristics of approaches to e-government evaluation. It builds on existing international and Czech literature. It also summarizes main findings that will be further presented and discussed in the author's book "E-government - aims, trends and approaches to evaluation" of which the manuscript has been finished recently.

Results and Discussion

Even though irreplaceable function of evaluation is generally recognized in each management process, more systematic theoretical and practical approaches to e-government evaluation began to appear more frequently as late as in the last decade. They try to incorporate requirements of a more rational (evidence-based) management and a more rigorous consideration of investments (also under the influence of NPM). They are also based on the lack of transparency in e-government evaluation prior to the decision about implementation of concrete projects, during their implementation and ex post.

Up to now various aspects of internal as well as external quality, which should not be omitted in e-government assessment, have been discussed together with their weights

across evaluation criteria and with methods through which the given aspects (at least to a certain degree) can be measured and subsequently managed and evaluated. These requirements have already found expression in requirements of various quality management models and tools (see e.g. Špaček a Nunvářová, 2009), some of which have been already "adapted" to e-government management and its specific aspects (like security etc.). Although the current theory of e-government evaluation or theoretical bases of constructed and designed frameworks as well as measurement and evaluation models emphasize that e-government evaluation should take into consideration the elements of internal and external quality (as defined generally for example by ISO 9126 standard), application of existing tools in practice, however, can be focused only or significantly on selected aspects (either on external or internal) and other aspects can be tackled only formally and superficially in evaluation practices. Consequently, produced evaluation cannot facilitate argumentation of real effects and support their comparison with which were anticipated. Therefore it is good to discuss how individual types of existing approaches to e-government measurement and evaluation can be complemented and influence each other.

1. Methodologies of Economic Analyses of E-government

Economic analyses of e-government should answer the question, whether anticipated (or real) benefits outweight anticipated (or real) costs, whether the costs of service delivery will not increase after electronization, or which criteria substantiate a potential cost rise (e.g. by assessing net present value of investment). Available methodologies of e-government economic analyses which are spread in the name of good practice (e.g. OECD, 2006; Office of Government Commerce, 2003; HM Treasury, 2011) by OECD try to support more evidence-based evaluation and comparison of costs and benefits. They have been published with the aim to set up or strengthen (and frequently unify) the practice of "business cases" of e-government projects and so to improve chiefly the ex ante practice of evaluating the planned projects (which should enhance efficiency of the projects, which afterwards should be implemented). They obviously attempt to cope with the characteristic, described by Irani et al. (2005, pp. 64 - 69) as "managerial myopia" - managers tend to be short-sighted when appraising the investment in ICT, primarily because they do not have a sufficiently robust evaluation framework. Besides they tend to find merely marginal solutions to hidden or indirect costs, which can be as much as four times higher than direct cost components. In their opinion this myopia can lead to a failure of the project in the long term and characterizes most decisions concerning investment in concrete projects as rather intuitive. Others consider e-government as a significant source of fiscal illusion (e.g. Malý, 2007).

Indicators proposed by the "business cases" methodologies published by OECD or in the UK mainly refer to financial and qualitative aspects of e-government projects. Types of costs and benefits in the methodologies exhibit a varying degree of concreteness and sometimes it may be difficult to transform them into measurable indicators. This is clearly reflected in practice, where higher concreteness of impacts in processed business cases and CBA analyses (according to the OECD evaluation or critical self-evaluation of some countries – e.g. e-Government Unit, 2006) can be seen in the area of costs rather than benefits, both in the case of impacts evaluated for the government/public administration side (which are frequently more concrete), and for citizens (for the demand side). Available methodologies can paradoxically rely

particularly on statements of proposers' of projects, in which the central level tries to improve the approach to evaluation, because the quality of argumentation in justification of proposed e-government projects is thought low (Špaček, 2007).They draw the attention to the fact that a prerequisite for more meaningful identification of costs and benefits is the analysis of conditions under which the projects will be realized (e.g. under what conditions you can make savings, improve management etc. or users interact more comfortably with public administration). Such analysis can separate prerequisites and benefits of e-government projects, which are sometimes mixed in the proposed methodologies of impact assessment. Requirements for business cases also suggest that the persons evaluating the impacts should be familiar with national e-government and so they should be able to evaluate macro-aspects of a concrete project (so that they could assess impacts on other related authorities and agencies, existing projects, infrastructure etc.). Methodologies also emphasize the role of forecasting customer take-up and thus require evaluators to include potential users in the economic evaluation. They also point out the importance of technological risk analysis (e.g. OECD, 2006). In spite of their commenting of low quality of e-government efficiency, latest OECD and also Australian (AGIMO's) methodological and summary documents do not put so much stress on ex ante cost-benefit evaluation. Rather they emphasize particularly the role of instruments of ex post effectiveness evaluation and point out approaches of user satisfaction evaluation.

2. E-service Quality Approach

Methodologies of economic analyses can be supplemented by approaches and models of e-service quality, mainly to deal with the criticism that they hardly address the demand side (e-services users). Various quality models of websites and e-services have been explored together with their emphasis on the content and form combining internal and external quality factors, which cannot always be evaluated automatically (see e.g. Špaček, 2007, 2009, 2010 and 2011). The literature indicates that concepts of e-government services quality (e.g.) still heavily builds on research based on E-S-QUAL/ E-SERVQUAL and E-RecS-QUAL of Parasuraman et al. (see e.g. Garcia et al. 2005; Wauters, Kerschot et al., 2009; Papadomichelaki et al., 2006; Magoutase and Mentzas, 2009; Freed, 2011). Ideas of individual non-technical criteria can vary in different approaches. Even if they feature varying anticipations, the presented approaches always presume that e-services quality management is based on a certain intersection in understanding quality of service users and their providers. It must be observed that the aspects evaluated abroad should not be mechanically and fully copied (transferred) to national context. Quality evaluation should consider specific features of local society and users (technology acceptance models point out that compatibility of e-services represents the most relevant one of constructs to their adoption - see e.g. Carter and Belanger, 2003), which can be reflected in the characteristics of existing services and their marketing to a certain level. If foreign indicators are completely and thoughtlessly taken over then the gap may be widened between perceptions of quality by the supply side versus the demand side of e-services. Because marketing research is a key vehicle for understanding consumer expectations and perceptions of services, the size of gap depends greatly on its practical approach (see e.g. Zeithaml and Parasuraman, 2004).

Interconnection of e-services quality concepts and their criteria with economic analyses

is also often appropriate because quality concepts of web and e-services may not consider development and maintenance costs of platforms used for delivery of e-services. If their authors operate with the term efficiency, they have in mind a different thing than economists – primarily the simplicity of web use, its suitable structure, minimum of information entered by the user, which influences ease and speed of acquiring e-service, rather than economically conceived efficiency (allocational and technical) on the public administration side. Economic analyses also stress the necessity to perform an analysis of cost shifts between supply and demand (in comparison with the previous, traditional way of providing public services), (including the customer and provider switching costs).

3. International Statistic Measurement Framework

Both more systematic e-government economic analyses and more complex attitudes toward e-services quality evaluation require certain statistically gathered data on various e-government aspects. Current frameworks of OECD or Eurostat suggest that high-quality economic analyses and quality management of e-government projects cannot rely more on the e-government statistics produced by international institutions. What is more, international methodologies may significantly shape national statistical framework that can consider only internationally stipulated requirements and (contradictory to their recommendations) do not take into account other aspects (this can be seen also in the practice of the Czech Statistical Office – see e.g. Špaček and Malý, 2010).

The attempts to statistically measure and so gain relevant data for evaluation of success rate in e-government implementation do not have a long history. The principal drawback of statistical data collection about e-government in practice – if any - is that the official e-government measurement is made as a specific part of statistical measurement of the "information society" as a whole and as such it often represents only marginal and often superficial process rather than systematic and independent area of deeper (inter-)national measurement and evaluation. The current international / national statistical measurement of e-government tends to focus mainly on quantifiable aspects of e-services and outputs (such as the number of existing services or the number of visits), rather than on outcomes. In order to address the issues it would be beneficial if statistical evaluation frameworks get rid of the S-curve concept that is often (either explicitly or implicitly) used as a basis and instead of it incorporate a greater amount of knowledge particularly from the area of e-service quality. For example the statistics of Eurostat and the Czech Statistical Office absorb the qualitative aspects and citizens view only gradually and very slowly. Their indicators contain mostly general prerequisites for using ICT, namely those related to the side of potential clients/customers of public administration outside the administration system – citizens and businesses. Analyses of e-readiness of comparable concrete public administration authorities and utilization of e-government tools by officials themselves appear least frequently both within concrete authorities or between them, even if the indicators for evaluation of information society in model questionnaires (e.g. for businesses and their parts focusing on e-business aspects) can be modified for this purpose. Monitoring of indicators showing ICT utilization in public administration is important in the countries with a large number of small municipalities. Official statistics in the Czech Republic have often neglected smaller municipalities (having less than 500

inhabitants) in some aspects, although they represent a majority in the Czech municipal self-government.

Existing international/national e-government statistical measurement frameworks may also raise questions about the relationship between science and politics – namely about the degree of adapting the science to politicians' requirements. Similar doubts can be stimulated by things like the length of the list with indicators, which was originally constructed for the evaluation, and the scope of indicators, which were afterwards approved as the final proposal for practical evaluation (in this respect one can compare the final version and the original list of eGEP indicators - see eGEP, 2006). So far, model questionnaires of Eurostat/OECD also have not been sufficiently interconnected with the list of basic e-services adopted ten years ago. What is more it still does not include sufficiently providers of e-services across local government and does not devote more attention to monitoring electronization effects perceived by users. Czech national statistics do not deal with the drawback either and also insufficiently include national projects which have been implemented in last three years (see e.g. Špaček, 2011). Although the Czech Statistical Office in comparison with requirements of Eurostat model questionnaires focuses more on selected aspects of local e-government, its web analyses captures mainly output indicators (like number of accessible types of e-services and their sophistication), focuses particularly on their supply aspects and does not measure more outcome or demand aspects (like user satisfaction among citizens as well as officials).

4. Approach of International Benchmarking

In practical approaches to e-government evaluation a great potential is attributed to benchmarking. Some countries (the Czech Republic is among them) can rely only on the evaluations, which, together with their e-government practices, appear among the results of international benchmarking studies (elaborated for the European Commission, within the United nations etc.). Since high-quality benchmarking requires high-quality input data, its implementation has up to now been limited by existing practices of economic analyses, quality management and related e-government statistics. Comparing different types of analogous e- services can be lengthy if it doesn't consist in a mere analysis of website structure and automated evaluation of their content and does not deal only with the e-services supply side. Nevertheless it is feasible and can yield the results necessary for more evidence-based e-government management. Comparing the running costs of e-services in concrete agencies may be questionable (not to mention their summarization at regional or national level) because the level of openness and transparency of necessary information is generally quite low. This can also be caused by insufficient obligation in accounting records as well as by requirements for drawing up the budgets.

Up to the present international benchmarking has not paid much attention to back-office (re-)organization which is captured indirectly by using e-service sophistication/ maturity models. Up-to-now international benchmarking studies have been examining primarily the supply side rather than the demand side, although they speak a lot about citizen-centricity. They follow mainly the output aspects rather than outcomes (output quality / performance improvement etc.). Accenture studies are an exception to this rule (particularly those published since 2004). The benchmarking method is also often not transparent and can assume a very subjective character (as their authors

themselves point out when briefly commenting on the method). It still holds true what Vintar and Kunstelj reported in 2004 – current attitudes to e-government benchmarking do not sufficiently address e-government's complexity and must be improved to mediate the information needed by policy-makers for their decision-making. A frequent application of these methods is probably linked to the satisfaction that such evaluation will confirm a growing trend of existing e-services, even if the results do not provide more detailed information about the quality of service delivered and the demand for them.

The benchmarking problems are also caused by a growing number of websites. Only some European countries have integrated more their portals (mainly formerly autonomous national portals targeting citizens and businesses) and portals for specific areas and individual levels of government have been launched separately. The same problem is brought about by frequent changes in the web design and structure, which can be triggered by a number of factors (like change in legislation, fashion, results of previous benchmarking and the effort to modify the sites according to the users' requirements etc.). This leads to discussions about the informative value and relevance of published studies. The shortcomings of international benchmarking studies grow in importance because the methods used in the studies can be applied to evaluation practice within the national context, without knowing about / taking into account the previous critical view of their procedure in collecting the data and without complementing the evaluation by other methods. Benchmarking can also be reflected in the way of thinking of political representatives. As a result some countries can develop e-government systems, which are adapted to the method of influential international benchmarking studies rather than to the needs of users in their own country and benchmarking need not discover these contingent inefficiencies (Bannister, 2007).

Conclusion

Current literature indicates that perfect list of indicators for measurement and e-government evaluation are not yet available. As in quality management, e-government evaluation is and will always be experimental to a certain degree. Presented approaches to e-government evaluation are characterized by a varying level of openness and transparency, systematic nature, theoretical and empirical anchoring, scope and depth of measurement and costs of their implementation. What one may lack is a greater integration of existing attitudes, which is obvious even in those measurement frameworks that have a more complex character (as is for example the case of the eGEP framework). The optimum level of sophistication of evaluation tools is also discussed so that it could be easily implemented in practice.

The starting point for constructing a more systematic measurement framework is the question how to ensure that newly considered as well as realized e-government projects are evaluated by using demand-oriented approach rather than still prevalent supply-oriented point of view. Regardless of imperfections in presented approaches to e-government evaluation, presented approaches to e-government evaluation can inspire academics and authorities responsible for e-government management. Existing tools can be combined and adapted particularly to the character of a concrete e-government project. Since there exists no tool which would be tailored to the needs

of a single organization, it is not possible to be waiting for the completion of a complex set of indicators and rely on so far limited international benchmarking and to evaluate the e-government practice only superficially. E-government aspects and indicators, which are proposed in the presented attitudes, can generally be categorized according to their relation to: a) readiness for electronization (technical, know-how, legislative, psychological and political readiness – see Špaček, 2007, pp. 168 - 171), or b) aims (planned cost and benefit impacts) of electronization, which are vital for subsequent evaluation of project effectiveness. Evaluation must embrace and interconnect both areas. The presented attitudes to evaluation take into account this requirement; however they attach greater importance to some areas. Only the first area – the readiness – has a more sTable evaluation measurement, but sometimes it can neglect the e-readiness aspects on the public administration side.

Acknowledgements

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SESSION II:
PUBLIC FINANCE

What We Know about the Child Tax Bonus in the Czech Republic and What We Would Like to Know

Robert Jahoda, Jana Godarová

Abstract

Families with children are traditionally the target group of the social system in developed countries. This paper deals with regular financial support, which may be the household entitled to in the Czech Republic, specifically the child tax bonus (hereinafter "CTB").Changing the Act on income taxes, since 2007 the child tax allowance has been replaced by the refundable child tax credit in the Czech Republic. This may take the form of the non-refundable part of the tax credit, followed by the child tax bonus. While other elements of the welfare system for families have been already analysed, "CTB" is still unexplored.

The main aim of this paper is to discuss the effects of CTB on Czech households and to analyse problems which occur in the process of CTB modelling. At the same time we discuss problematic legal aspects of CTB. The paper is divided into descriptive and methodological-analytical part. Descriptive section gives us basic information about the beneficiaries "CTB" in the Czech society. In the latter section we formulate research questions about the impacts and effects "CTB". In conclusion, we discuss the possibility of alternative settings of CTB and their potential impact.

Keywords

Social Policy, benefits for families with children, tax credit, child tax bonus, incentives

Introduction

The redistribution of income and wealth among individual members of society is a traditional goal of public sector policies. On the expenditure side, instruments for achieving this policy goal include the social security system and, on the income side, the tax system. These policies aim to moderate market differences in the incomes of individual members of society. Actual policies, however, may see aid to particular social groups, as well. Such groups would include persons of post-productive age, people with disabilities or migrants. A traditional group, and one to which we will devote attention in this article, is households with dependent children.

In addition to general income support, this may aim at individual subgoals relating to the socioeconomic environment. An example would be the issue of eligibility in which social benefit instruments may be but need not be conditioned upon an income test. Another issue involves the type of support to select with an eye to influencing household economic activity. These issues are interesting to observe when they arise with the use of tax credits from standard taxation, labelled tax expenditures. The impact of these instruments comes under less detailed examination than does the impact of benefit policy tools.

These issues are a research topic in developed economies. The main research direction examines how different "family packages" influence the income situation of families

and how effectively they reduce poverty. A discussion of the topic using empirical data may be found, for example, in Whiteford and Adema (2007). Czech authors analysing the amount of support for various households include Mitchell (2011). She compares family packages in post-communist countries versus selected Western economies. The influence of governmental family packages in Central Europe is also the subject of an article by Svarcova and Svarc (2009) which examines the social situation of families and decisions about "having a child" in the context of family financial support. Mitchell (2011) looks at the issue of generosity using model households. Figari, Paulus and Sutherland (2011), by contrast, employ microsimulation techniques using the EUROMOD model. They construct a novel support indicator based on both benefit information and taxation instruments.

This article is aimed at taxation support of families with children. This may take the form of the child allowance from income tax base, as well as tax credits. In the Czech Republic in 2008, the child tax allowance was replaced by refundable tax credits, with the credit for each child in 2008 and 2009 set at CZK 10,680 per year. In keeping with OECD (2011) methodology, the refundable tax credit may take the form of a non-refundable tax credit supplemented by a tax bonus (hereinafter "CTB")., A particular feature of the Czech system is that CTB is not counted as part of the income used for determining social benefits. In addition, households may only claim CTB if the total annual income of the person making the claim is at least six times the monthly minimum wage. This measure was adopted to encourage greater motivation to enter the labour market among low-income households.

The goal of this paper is to discuss the effects of CTB on Czech households and to analyse problems which occur in the process of CTB modelling. At the same time we discuss problematic legal aspects of CTB.

Material and Methods

The authors make use of data from the EU-SILC stands for "European Union Statistics on Income and Living Conditions" sample survey for the CR for 2009 and 2010. The EU-SILC database provides comparable, cross-sectional data on income, poverty, social exclusion and living conditions in the European Union. The sample of Czech households used in SILC contains approximately 10,000 households (for more on the EU-SILC survey methodology, see CSO 2011).

The model is based upon a simplified form of the CR tax system. The procedure for calculating the tax bonus is done on the basis of Act No. 586/1992 Coll., on Income Taxes. We know from the results of a study carried out by the Ministry of Finance of the CR (Jares, pp. 77-103, 2010) that the value of some deductible items and tax credits is negligible compared to total tax revenue. The model therefore only uses deductible items for interest on housing loans and the following tax credits: the basic credit (for individual), tax credit for low-income spouse and child tax credit.

In view of this, our research is based upon a similar methodology employed in Figari, Paulus and Sutherland (2011). While these authors analysed a broader spectrum of instruments for various countries, with the goal of judging the impact of the instruments on family incomes and household income poverty, our own contribution focuses on a broader methodological framework for evaluating a single instrument, the Czech tax credit for children. Like the research of Figari, Paulus and Sutherland,

our exploration is based upon EU-SILC data. Using a basic statistical methodology, we show who the beneficiary of CTB is. We do not analyse non-refundable child tax credit since it is not recorded in the EU-SILC dataset. Further in the article, we use microsimulation technology to evaluate how the SILC data reported for CTB differs from the claims we have calculated, and discuss which factors underlie these differences. We think that proposed sequence for complex family support analysis is the only way we can follow in our current and future research. Our conclusions rely on similar research into tax credits done in Great Britain by Clark and McCrae (2001), which discusses techniques allowing for the fact that data input into the model underestimates actual credit recipient numbers. In the conclusion, the answers we have received to these questions are used to evaluate the impact of CTB on Czech households. The suitability of microsimulation techniques for this evaluation is also assessed.

Results and Discussion

This chapter is divided into descriptive and methodological-analytical sections which are concluded by the section discussing main results. The descriptive section provides basic information about CTB beneficiaries in the Czech Republic. In the methodological-analytical section, research questions to do with CTB impacts are formulated.

Descriptive Section

This part of the article explores the distribution of CTB among households using several indicators: the number of children in the household, disposable household income, type of household and recipient of selected social benefits. Households receiving CTB were also tested for income poverty levels.

For purposes of comparison, let us here introduce the basic characteristics of the CR in relation to the CTB as given in the data recorded in the EU-SILC survey. Personal income tax revenue was CZK 129.4 billion in 2009 and, in 2010, CZK 130.3 billion. The total number of households in the CR (weight recalculation of the study sample) is 4.1 million. The total sum paid out in CTB in 2009 was CZK 3.4 billion. In 2010, this was reduced to CZK 3.0 billion, a reduction of 12%. The total number of children remained the same year-on-year (2.3 million children). In the Tables bellow, the main findings of the descriptive section of the paper are presented.

Table 1 Household CTB as a function of number of children

		CTB 2009					CTB 2010				
		Count	Row N%*	Mean per household	Sum (mil. CZK)	Mean per child	Count	Row N%*	Mean per household	Sum (mil. CZK)	Mean per child
number of children	0	3 865	0,1%	8 884	34,3	N.A.	4 796	0,2%	5 242	25,1	N.A.
	1	110 258	15,5%	7 320	807,1	7 320	103 814	14,8%	7 315	759,4	7 315
	2	174 788	28,4%	10 171	1 777,8	5 086	160 356	25,2%	9 520	1 526,7	4 760
	3	41 528	40,1%	13 524	561,6	4 508	34 996	37,1%	15 057	526,9	5 019
	4+	9 723	58,5%	23 861	232,0	5 414	7 236	41,5%	24 409	176,6	5 963
	Total	340 163	8,3%	10 033	3 412,8	5 756	311 199	7,5%	9 688	3 014,8	5 684

Source: EU-SILC 2009, 2010
* Row N indicates the relative frequency of households receiving CTB for the given type of household (e.g., in 2009, 58.5% of households with four or more children received CTB)

Even though the number of children remained the same, it can be seen that the number of households receiving CTB dropped by 8.5%. Also visible is the fact that 75% of all paid-out tax bonuses were to families with 1 or 2 children (in both 2009 and 2010).

Table 2 Household CTB as a function of household disposable income

		CTB 2009			CTB 2010		
		Mean per household	Share on DI*	Sum (mil. CZK)	Mean per household	Share on DI*	Sum (mil. CZK)
decile groups according to equalised disposable income	1	11 537	5,7%	667,0	10 875	5,4%	778,6
	2	9 672	3,7%	547,7	10 735	3,9%	569,9
	3	11 054	3,5%	521,4	8 937	2,9%	430,2
	4	9 835	2,9%	437,9	10 043	2,9%	352,3
	5	11 166	3,2%	523,7	10 208	2,7%	429,4
	6	9 540	2,3%	388,3	8 742	2,1%	237,5
	7	8 650	1,9%	174,8	7 115	1,5%	141,7
	8	5 168	1,0%	72,0	3 936	0,7%	28,6
	9	7 085	1,2%	61,8	6 358	1,1%	24,5
	10	5 136	0,5%	18,4	7 288	0,6%	22,0
	Total	10 033	3,3%	3 412,8	9 688	3,4%	3 014,8

Source: own calculations based on EU-SILC 2009 and 2010 data
* Share of DI indicates the ratio of CTB to disposable household income

A declining tendency is evident in the relationship between the amount of CTB and household disposable income. A year-on-year decline is also evident in CTB paid out in virtually all decile groups.

Table 3 Distribution of households with CTB using the at-risk-of-poverty indicator (EU)

Is household endangered by the poverty?	CTB 2009							
	CTB = 0			CTB>0				
	Count	Column N % **	Row N %*	Count	Column N % **	Row N %*	Sum (mil. CZK)	Mean per household
NO	1 014 150	91,5%	78,2%	282 760	83,1%	21,8%	2 750	9 726
YES	94 768	8,5%	62,3%	57 403	16,9%	37,7%	663	11 546
Total	1 108 918	100,0%	76,5%	340 163	100,0%	23,5%	3 413	10 033

Is household endangered by the poverty?	CTB 2010							
	CTB = 0			CTB>0				
	Count	Column N % **	Row N %*	Count	Column N % **	Row N %*	Sum (mil. CZK)	Mean per household
NO	1 051 703	91,7%	81,4%	240 350	77,2%	18,6%	2 244	9 337
YES	94 840	8,3%	57,2%	70 848	22,8%	42,8%	771	10 877
Total	1 146 543	100,0%	78,7%	311 199	100,0%	21,3%	3 015	9 688

Source: own calculations based on EU-SILC 2009 and 2010 data
* Row N % indicates the row-wise relative frequency of households with children in the given type of household (e.g., in 2009, 37.7% of households threatened by poverty received CTB)
** Column N % indicates the column-wise relative frequency of households with children in the given type of household (e.g., in 2009, 16.9% of households receiving CTB were threatened by poverty)

In 2009, almost 17% of households with children receiving CTB were threatened

by poverty. In 2010, the figure was almost 23%. These households represent 20% of the total CTB paid (25% in 2010).

Table 4 Comparison of households receiving CTB and selected social benefits

	Child allowance		Social supplement		Social assistance benefits	
	CTB 2009	CTB 2010	CTB 2009	CTB 2010	CTB 2009	CTB 2010
Count	183 203	135 498	41 602	37 121	3 949	5 648
Row N %*	37,2%	34,5%	35,7%	38,8%	6,6%	9,3%
Column N %**	53,9%	43,5%	12,2%	11,9%	1,2%	1,8%

Source: EU-SILC 2009, 2010
* Row N % indicates the row-wise relative frequency of households receiving the selected social benefit and CTB (e.g., in 2009, 37.2% of households receiving the child allowance also received CTB)
** Column N % indicates the column-wise relative frequency of households receiving CTB and the selected social benefit (e.g., in 2009, 53.9% of households receiving CTB also received the child allowance)

Table 4 shows the absolute and relative frequency of households receiving CTB and selected social benefits: the child allowance, social supplement and social assistance benefits. There was CZK 6 billion paid out at child allowance in 2009 (CZK 4.9 billion in 2010). Approximately 40% of all expenses incurred were spent on households receiving CTB, as well (in both 2009 and 2010). Social supplement was made in the amount of CZK 1.8 billion in both 2009 and 2010. Households receiving CTB spent 35% of the total expenditures incurred in 2009 (39% in 2010). Social assistance benefits added up to CZK 2.4 billion in 2009 and, in 2010, CZK 2.2 billion. Of this amount, households receiving CTB spent 3% in 2009 and 10% in 2010.

Methodological-Analytical Section

As has been noted, the model is based upon EU-SILC data and Act No. 586/1992 Coll., on Income Tax. Under our model and the survey data, households may be divided into 8 groups using the CTB claim calculation indicator (under the model), the number of children (families with/without children) and the CTB recorded in EU-SILC. Mutual relationships between calculated and recorded claims for CTB and the existence of children may be found in Table 5. Groups C and D cannot be created under the definition of CTB claims. They have been left in the Table only for purposes of providing a complete count of potential combinations.

This is followed by a description of individual household groups and the quantification of indicators for these groups.

Group A: households, consisting of approximately 6% of total households, which collect more than 80% of CTB. Based upon the amount of tax paid (approximately 1.5% of total tax revenues) it may be stated that these households are low income, with CTB functioning as additional income.

Group B: makes up 7% (7.5% in 2010) of households. These households do not receive CTB but only tax credits for children. Some households in this group may have been so classified because of problems to do with records of children, as discussed in the next part of this chapter.

Group E: makes up approximately 2% of households. Problems with the model are most evident here, as discussed in the next part of this chapter, as are irrational

behaviour by households. The parent with the higher income may not, as presumed under our model, claim the tax credit and no tax bonus would accrue. It would, instead, be claimed by someone with a lower income eligible for the tax bonus. These households spent 18% of the total CTB amount (14% in 2010).

Group F: 20% of households. These households do not receive CTB but only tax credits for children. These households tend to be higher income, as testified to by the relative share of tax paid (40%).

Group G: less than 1% of households. This group comes into being as a result of the fact that, during the survey period, children for which CTB was spent were adult, causing the model to show that the household should not have any claim to CTB. Because of the amount paid, the importance of this group is nevertheless negligible.

Group H: the largest group of households, comprising 65%. This group consists of households without children, thus having no claim to CTB.

Table 5 Results of modelling eligibility to CTB (model eligibility to CTB vs. recorded CTB)

2009				Note	households		CTB		tax	
					Count	N %	Sum (mil. CZK)	Sum %	Sum (bil. CZK)	Sum %
eligible to CTB (according to the model)	is not eligible to	families without children	CTB = 0	H	2 667 283	64,8%	0,0	0,0%	68,3	52,8%
			CTB > 0	G	3 865	0,1%	34,3	1,0%	0,04	0,03%
		families with children	CTB = 0	F	831 491	20,2%	0,0	0,0%	51,6	39,9%
			CTB > 0	E	82 523	2,0%	591,0	17,3%	1,8	1,4%
	is eligible to	families without children	CTB = 0	D	0	.	.	.	.	.
			CTB > 0	C	0	.	.	.	.	.
		families with children	CTB = 0	B	277 427	6,7%	0,0	0,0%	6,2	4,8%
			CTB > 0	A	253 775	6,2%	2 787,4	81,7%	1,4	1,1%
Total					4 116 364	100%	3 412,8	100%	129,4	100%

2010				Note	households		CTB		tax	
					Count	N %	Sum (mil. CZK)	Sum %	Sum (bil. CZK)	Sum %
eligible to CTB (according to the model)	is not eligible to	families without children	CTB = 0	H	2 691 924	64,9%	0,0	0,0%	69,0	52,9%
			CTB > 0	G	4 796	0,1%	25,1	0,8%	0,2	0,1%
		families with children	CTB = 0	F	831 616	20,0%	0,0	0,0%	51,6	39,6%
			CTB > 0	E	62 711	1,5%	401,2	13,3%	1,5	1,2%
	is eligible to	families without children	CTB = 0	D	0	.	.	.	.	.
			CTB > 0	C	0	.	.	.	.	.
		families with children	CTB = 0	B	314 927	7,6%	0,0	0,0%	6,7	5,2%
			CTB > 0	A	243 691	5,9%	2 588,4	85,9%	1,2	0,9%
Total					4 149 665	100%	3 014,8	100%	130,3	100%

Source: own calculations based on EU-SILC 2009, 2010 data

Discussion Based on Previous Sections

In this part of the paper we discus main findings which arose from previous sections and examine problems of current set-up of CTB. If possible we would like to come up with recommendation for law amendment and for future work.

Analysis has shown that over 20% of all households with children are eligible for CTB, with the greatest amount distributed to households with one or two children. The fact that the maximum CTB amount per family is currently restricted by law (to a maximum of approximately 4.8 times the maximum CTB per child) seems to be an excessive restriction. As our analysis has indicated, doing away with this portion of the law would currently affect approximately 2-3% of CTB recipients and yearly budget costs may be estimated at less than CZK 50 million.

If the tax benefit for children is intended to pull this type of household into the labour market, we are of the opinion that it will be of minimal help, since the household groups receiving CTB and social assistance benefits or other income-tested benefits do not intersect to any significant degree. The relevant passage in the law which excludes CTB income from the income test for these benefits is therefore redundant, and rescinding it would have only minimal effect on household incomes. At the same time, the system would be simplified, with claims and amounts distributed becoming more transparent.

Problems arose with the EU-SILC data in the modelling process, causing problems for the interpretation of results and for the model itself. Our goal was to demonstrate the impact of changes to the law which exchanged the child tax allowance for tax credits for children in the form of non-refundable tax credit, supplemented by a tax bonus for child. Other problem arises from classifying income monitored only as household totals, and not for individuals. Some incomes (taxed by withholding) are not recorded in EU-SILC.

By now, we have identified four chief factors. The first is that CTB income is recorded in the survey one year back as any other income recorded. In such a case, the household may have a different composition than it did in the year of the survey. The second issue is that households of employees may spend the tax bonus on a monthly basis, amounting to one-twelfth of the yearly amount. Irregular income during the year may show up in the microsimulation model when the household has no claim to CTB, even if CTB was spent in the year in question. The third issue is that on the basis of the SILC survey data, we cannot properly evaluate a situation in which households had a claim to CTB based on income from the year preceding the survey and which was received only during the year of the survey, during which there was no claim to CTB. Finally, a real-world situation may arise in which a person in the household with a lower income spends CTB, but in the microsimulation model, the tax benefit is accrued to a person with higher income. This particular situation has no influence on the total household income, only on the division of income between individual household members. In all the above indicated cases, we cannot precisely explain the fact that the household receives CTB but, under the microsimulation model, should have no claim to it.

Conclusion

The tax bonus for children in the CR is one possible way in which the state can support families with children. While income tests for benefits primarily target poorer families

and have played an increasingly less significant role since 1996, starting in 2008, the influence of tax instruments has grown – in particular, tax credits and tax bonuses for children.

In general, evaluating the impact of tax instruments for the support of families with children does not receive the amount of attention devoted to benefit instruments. The goal of this paper has been to discuss the influence of the tax bonus for children which, as we have indicated, exceeded CZK 3 billion in 2008 and 2009. The conclusions of our analysis have been made by using microdata from EU-SILC surveys. These demonstrate that somewhat over 20% of all households with children are eligible to claim CTB, with the greatest amount spent by households with one or two children.

In spite of the fact that in contrast to the child allowance, the CTB claim is not limited to the lowest deciles, households in the first five deciles share in it. That the CTB does not target the most impoverished group is evident in the fact that approximately 80% of beneficiaries may not be considered impoverished households under the EU definition. At the same time, only 12% of beneficiaries also received social benefits during the years under analysis, and only 1.2-1.8% of CTB beneficiaries also collected social assistance benefits.

The more comprehensive impact of introducing the CTB was assessed using a microsimulation model. Under this model, the group of households eligible for CTB is slightly different from households which should have eligibility according to our calculations. Clark and McCrae (2001) pointed to similar problems in their research. Our paper analyses the main differences and discusses what influence they might have on future policy models. On the other hand, we would like to note the fact that the MSM properly accounts for 81.7% (or 85.9%) of households in the 2009 or 2010 EU-SILC. The problems noted above are therefore not significant in constructing the MSM and further analysis of policy variants.

We would like to continue to evaluate CTB in relation to complex system of tax and benefit instruments which support families with children in our further work. We would like to use the analysis of model households to show that the amount of legislative simplification discussed above for CTB will have no negative impact on its functioning. We would also like to analyse the development of Czech support for families with children.

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Act No. 586/1992 Coll. on Income Taxes [Zákon č. 586/1992 Sb., o daních z příjmů]

Administrative Costs of Taxation in the Slovak Republic

Ladislav Pompura

Abstract

Administrative costs of taxation are for many years investigated by the economic theory and practice. They are connected with the principle of effectiveness of taxation and the goal for any state is to collect taxes relatively as cheap as possible. The goal of this paper is to present our data about the administrative costs of taxation in Slovakia and to compare results with the situation in other developed countries. We decided to use the already existing and tested Czech methodology to calculate results, to be able to obtain comparable data. Our results suggest that the administrative costs of taxation in Slovakia, expressed by the percentage of costs to tax revenues, are higher than in almost all comparable countries – some actions to improve this situation would be necessary.

Keywords

Tax, taxation, administrative costs, Slovakian tax system

Introduction

Tax system in a mature market economy is based on the existence of several types of taxes. Although the tax systems in different countries are constructed differently, they have a common character, including their high tax collection costs for the state, as well as taxpayers.

In this paper we calculate administrative costs of the Slovak state in tax collection, which is one of the dimensions of evaluation of performance of the tax administration. Knowing the comparative level and structure of these costs is a base for exploring the possibilities of their reduction.

Material and Methods

Majority of data has been collected from web pages of tax directory, tax authorities and from web pages of other relevant institutes (Social Insurance Company). We also interviewed representatives of tax offices. From the point of view of the methodology we decided to use already existing and tested Czech methodology. We do not describe it in details because of paper size restrictions; it is available in existing literature (for example Vitek, 2008). The use of this methodology allowed us to calculate comparable data about the administrative costs of taxation in Slovakia (our main the goal), to prove that the Czech methodology is applicable in the Slovak conditions and to synthesize results of this study.

Administrative Costs of Taxation

Administrative costs of taxation are associated with the principle of efficiency of the tax system, in our case are implicitly expressed in the principle of minimum cost - the goal

is to minimize the costs associated with charging, collection and administration of taxes on the part of state (government).

Tax collection system in public budgets requires incurring certain costs, which amount is directly proportional to the complexity of the tax structure. These are described in the classical international and domestic literature that addresses issues of public finance and fiscal policy (e.g. Musgrave and Musgrave, 1994; Stiglitz, 1997; Nemec and Wright, 1997; Hamerníková and Kubátová, 2000; Kubátova, 2003; Schultzová, 2007; Medveď et al., 2009; Medveď, Nemec et al., 2011). The types of costs of taxation defined Peková (pp. 346, 2006) as follows:

1. Direct Administrative Costs (Administrative)

These are directly connected with collection and administration of taxes. Their amount depends on the number of types of taxes, exemptions and credits in the tax system. These costs include additional costs connected with taxes, e.g. costs associated with the courts deal with crimes in tax evasion; costs of the statistical office, the government and parliament for approval of the tax laws. The higher direct administrative costs, the less money remains to fund other needs of the public sector. Direct administrative costs can be quite accurately quantified because it is the duty of state institutions to register these costs. This type of cost increases proportionally with the increase in complexity of the tax system. The amount of the percentage of administrative costs for individual types of taxes varies. The highest percentage is usually in the value added tax, the personal tax and for compulsory social insurance.

2. Indirect Administrative Costs (induced)

These costs incurred by the private sector costs related to the calculation of tax liabilities and payment of taxes. It includes the cost of tax advisers, lawyers, as well as costs associated with time (which is difficult to recognize) that the taxpayer must pay to complete tax forms, etc. These costs are difficult to quantify and it is estimated that they are several times higher than the direct administrative costs. Estimation is based on surveys (usually anonymous).

Administrative costs of the tax system can be defined as total public sector costs associated with tax collection at all governmental levels and in all moments of the tax process, including the opportunity cost. It is necessary to take into account not only the direct expenditures of public budgets, but also costs associated with obtaining funds, which are subsequently used as public costs. These costs can be simply described as the cost of the tax system. Pudil et all (pp. 3, 2004) recommends using the term administrative costs of taxation, which includes the cash flow cost of the public sector.

The administrative costs of taxation can be classified according to different aspects as shown in Table 1.

Table 1 Administrative costs of taxation

Aspects of the examination of the administrative costs of taxation
A Time aspect
*   normal recurring administrative costs related to tax collection *   special administrative costs associated with the introduction of new taxes or a fundamental change in duty / taxation *   fluctuations in terms of administration costs per taxpayer (registration, beginning or end of the taxable activity, etc.)
B   Aspect of impact on the relevant economic sector
*   Administrative costs incurred only by the public sector *   Administrative costs, which affect private sector
C Aspect of impact on the appropriate level of government
*   administrative costs incurred by the central government *   administrative costs incurred by sub-central governments
D Aspect of type of public administration in which the costs rise at tax authorities of different levels
*   Preparation of legislation to executive level (ministries) *   Preparation and approval of legislation to parliamentary level *   Enforcement of tax law - especially the courts, police, government representatives, investigators, prisons, lawyers ex officio, etc.
E Chronology of tax charge (linked to the articles of state budget process)
*   laws proposals   *   implementation of tax legislation *   approval   *   inspection and enforcement of law
F Aspect of structure of administrative costs
*   wages including insurance costs *   costs of professional level of employees (investment into a human capital) *   providing of premises and equipment *   investment in tangible assets *   time *   other

Source: Pudil et al., pp. 4, 2004

Administrative costs are quite well measured assuming the availability of relevant data. More complicated it seems to assign concrete administrative costs to concrete taxes. Peková (2005) in this regard notes that the relatively simpler and cheaper it appears to be administration of import and excise taxes than it is in the administration of income or revenue taxes. It is similar to property taxes, which appear to be more efficient in terms of lower risk of tax evasion as it is at the taxes where the taxpayer calculates/provides the tax base itself.

Measuring of Tax Administration Costs in the Slovak Republic

In the Slovak Republic (from a closer point of view – we do not investigate the collection of taxes by municipalities, customs and insurance companies) tax administration consists of the following institutions:

- Tax Directorate of the SR, which includes eight offices located in regional cities,
- The tax authorities - 101 offices
- Tax Office on selected taxpayers (in the scope of the Tax Office Bratislava I to VI, Malacky Tax Office, Tax Office and Tax Office Pezinok Seneca and is incorporated under the SR).

Tax Administration of the Slovak Republic (SR) does not have a classification in such

scope as territorial financial authorities in Czech Republic (CR) and therefore it was necessary to modify a Czech method of measuring the tax administration costs (Pudil, 2004 and Vitek, 2008): we derived the distribution of employees from the registries of Tax Directorate and the Slovak functional classification structure of employees. The first step was to determine the total number of employees of the Tax Administration of the SR by functional classification for the years 2004-2010 (Table 2).

Table 2 Structure of of employees of Tax Administration of the SR in years 2004-2010

Function/role	Number of employees						
	2004	2005	2006	2007	2008	2009	2010
Leader	359,0	318,0	310,0	310,0	314,0	305,0	302,0
Controller	1746,0	1752,0	1785,0	1647,5	1616,5	1570,0	1563,3
Tax authority	1910,0	1863,0	1846,0	1765,8	1750,2	1749,7	1741,4
Executor	276,0	290,0	200,0	282,7	277,5	274,5	275,5
State supervision	239,0	219,0	173,0	160,0	157,0	151,0	144,0
Registrars	216,0	231,0	236,0	232,7	234,5	230,1	234,8
Administrator	59,0	60,0	61,0	65,1	65,9	64,1	60,4
Other	1292,0	1335,0	1313,0	1307,2	1309,4	1341,6	1305,6
TOTAL	6097,0	6068,0	5924,0	5771,0	5725,0	5686,0	5627,0

Source: Data of Tax Directorate and own ellaboration.

In the next step, from the total headcount of Tax Administration of the SR were excluded employees whose duties are directly related to the inclusion of tax collection and they are: the tax authorities, employees performing state supervision, registrars of taxes, tax administrators, auditors, executors and burden personnel involved in tax activities such as head of department of concrete tax authorities (Table 3).

Table 3 Structure of the functional classification of direct and burden employees of Tax Administration of the SR involved in collecting taxes in years 2004-2010

Function/role	Number of employees						
	2004	2005	2006	2007	2008	2009	2010
Leader	184,0	181,0	183,0	180,0	181,0	180,0	178,0
Controller	1746,0	1752,0	1785,0	1647,5	1616,5	1570,0	1563,3
Tax authority	1910,0	1863,0	1846,0	1765,8	1750,2	1749,7	1741,4
Executor	276,0	290,0	200,0	282,7	277,5	274,5	275,5
State supervision	239,0	219,0	173,0	160,0	157,0	151,0	144,0
Registrars	216,0	231,0	236,0	232,7	234,5	230,1	234,8
Administrator	59,0	60,0	61,0	65,1	65,9	64,1	60,4
TOTAL	4630,0	4596,0	4484,0	4333,8	4282,6	4219,4	4197,4

Source: Data of Tax Directorate and own ellaboration.

In doing so, in accordance with a methodology, we eliminated the category of other employees, among which are included managers, operating staff and overheads such as HR, accounting, drivers, cleaners etc. and so called support staff (employees involved in support activities for tax collection - payroll, employees in charge of information systems, maintenance, etc.) as shown in Table 4.

Table 4 Structure of the functional classification of employees of Tax Administration of the SR directly involved in collecting taxes in years 2004-2010

Function/role	Number of employees						
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Leader	1746,0	1752,0	1785,0	1647,5	1616,5	1570,0	1563,3
Controller	1910,0	1863,0	1846,0	1765,8	1750,2	1749,7	1741,4
Tax authority	276,0	290,0	200,0	282,7	277,5	274,5	275,5
Executor	239,0	219,0	173,0	160,0	157,0	151,0	144,0
State supervision	216,0	231,0	236,0	232,7	234,5	230,1	234,8
Registrars	59,0	60,0	61,0	65,1	65,9	64,1	60,4
Administrator	**4446,0**	**4415,0**	**4301,0**	**4153,8**	**4101,6**	**4039,4**	**4019,4**

Source: Data of Tax Directorate and own ellaboration.

Based on the finding of number of direct staff involved in collection of taxes and the total number of employees of tax administration, we can calculate the coefficient of direct employees involved in the tax collection for the Tax Administration of the SR. Values of the coefficient of direct employees are listed in Table 5.

Table 5 Calculation of the ratio of direct employees involved in the selection of the tax collection for the Tax Administration of the SR in years 2004-2010

Years	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Direct employees	4446,0	4415,0	4301,0	4153,8	4101,6	4039,4	4019,4
Total employees	6097,0	6068,0	5924,0	5771,0	5725,0	5686,0	5627,0
Coefficient C1	**0,729**	**0,728**	**0,726**	**0,720**	**0,716**	**0,710**	**0,714**

Source: Data of Tax Directorate and own ellaboration.

Thanks to obtained values of coefficients of direct employees involved in tax collection in the SR, we could in the next step quantify the number of direct and burden employees which lead to coefficient C2. Using the values of the coefficient C2 of direct and closer burden employees involved in tax collection, we can then calculate the total number of employees accounted for the tax collection, including calculation of other employees (Table 6).

Table 6 Calculation of total number of employees of the Tax Administration of the SR accounted for tax collection in years 2004-2010

Years	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Number of direct and burden closer employees	4580,14	4546,77	4433,86	4283,40	4231,20	4167,2	4146,49
Coefficient C2	0,751	0,749	0,748	0,742	0,739	0,733	0,737
Other employees	1467,00	1430,00	1421,00	1425,00	1429,00	1422,00	1422,00
Total number of employees accounted for tax collection	**5681,86**	**5617,84**	**5496,77**	**5340,75**	**5287,23**	**5209,53**	**5194,50**

Source: Data of Tax Directorate and own ellaboration.

Then we calculated the coefficient for conversion costs (Table 7), which allows quantifying the absolute value of the total administrative costs of tax collection.

Table 7 Calculation of the coefficient for conversion of costs of the Tax Administration of the SR in 2004-2010

Years	2004	2005	2006	2007	2008	2009	2010
Total number of employees accounted for tax collection	5681,86	5617,84	5496,77	5340,75	5287,23	5209,53	5194,8
Total number of employees	6097,0	6068,0	5924,0	5771,0	5725,0	5686,0	5627,0
Coefficient C3	**0,932**	**0,926**	**0,928**	**0,925**	**0,924**	**0,916**	**0,923**

Source: Data of Tax Directorate and own ellaboration.

To calculate the absolute values of administrative costs, we used data of current and capital expenses of the Tax Administration of the SR for the years 2004-2008 and used a formula according to Czech methods as shows Table 8.

Table 8 Calculation of the absolute values of the administrative costs (AC) of tax collection of the Tax Administration of the SR in 2004-2010

Years	in thousands of Slovak crowns					in thousands of €	
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Coefficient C3	0,932	0,926	0,928	0,925	0,924	0,916	0,923
Current costs	2 790 032	2 556 266	2 829 310	2 919 818	2 981 584	99 426	109 595
Capital costs	322 206	601 497	362 438	265 056	382 338	12 211	6 711
Absolute AC of tax collection	**2 900 606**	**2 924 089**	**2 961 942**	**2 946 008**	**3 108 264**	**102 259**	**107 350**

Source: Annual reports of Tax Directorate and own ellaboration.

When making these calculations we have not taken into account the administrative costs at the level of the Ministry of Finance as it was not taken into account when measuring administrative costs in the CR. The software cost of tax administration and its upgrades are included in the expenditures of tax administration. To calculate the percentage of administrative costs, we used the data for years 2004-2010 for each direct debit tax (Table 9).

Table 9 Collection of individual types of taxes of the Tax Administration of the SR in 2004-2010

Type of tax	in thousands of Slovak crowns					in thousands of €	
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
PIT A*	0	33 743 000	35 763 000	41 729 000	49 400 000	1 468 100	1 433 700
PIT B	26 093 000	6 686 000	5 621 000	5 248 000	6 096 000	188 600	49 200
Corporate Tax	29 653 000	42 687 000	48 031 000	53 299 000	64 951 000	2 167 000	1 286 100
Withholding Tax	5 675 000	3 855 000	4 859 000	5 695 000	6 205 000	155 800	152 300
Property Tax	2 735 000	966 000	327 000	61 000	42 000	700	800
VAT	27 328 000	80 563 000	73 367 000	70 608 000	68 337 000	2 236 000	2 244 700
Road Tax	1 272 000	2 822 000	2 927 000	3 556 000	2 664 000	123 000	119 400
Excise Tax	3 550 000	11 000	43 000	42 000	4 000	500	100
Fines and charges	0	0	0	40 000	41 000	1 000	900
TOTAL	**96 306 000**	**171 333 000**	**170 938 000**	**180 278 000**	**197 740 000**	**6 340 700**	**5 286 300**

Source: Annual reports of Tax Directorate and own ellaboration.
*PIT A: Personal Income Tax – dependent activity, PIT B: Personal Income Tax - entrepreneurs

The ratio between administrative costs and income from taxes shows the percentage of administrative costs of the Tax Administration of the SR (Table 10).

Table 10 Calculation of percentage of administrative costs on tax collection at Tax Administration of the SR in 2004-2010 (the years 2004-2008 in millions of SKK, years 2009-2010 in thousand of EUR)

Years	2004	2005	2006	2007	2008	2009	2010
Absolute value of AC	2 900, 6	2 924, 1	2 961, 9	2 946, 0	3 108, 3	102 259	107 351
Tax revenues	96 306	171 333	170 938	343 331	180 278	6 340,7	5 286, 3
% of AC	3,01	1,71	1,73	0,86	1,72	1,61	2,03

Source: Annual reports of Tax Directorate and own ellaboration.

Based on the data of tax collection of individual types of taxes, we calculated the relative amount of the administrative costs of taxation for individual types of taxes (Table 11).

Table 11 Percentage share of administrative costs on tax collection of individual types of taxes for the years 2004-2010

Type of tax	%					%	
	2004	2005	2006	2007	2008	2009	2010
PIT A	0,00	1,77	1,96	1,64	1,48	1,62	1,81
PIT B	1,98	5,86	7,64	7,92	7,04	7,92	30,76
Corporate Tax	2,99	1,62	1,52	1,37	1,23	1,18	2,11
Withholding Tax	1,33	2,43	2,01	1,19	1,45	1,61	2,04
Property Tax	0,53	1,82	1,81	19,32	14,80	14,61	13,42
VAT	3,63	1,32	1,28	1,41	1,47	1,52	1,52
Road Tax	4,10	1,97	1,72	1,16	1,52	1,00	1,26
Excise Tax	0,16	26,58	6,89	7,01	77,71	20,45	107,35
Fines and charges	0,00	0,00	0,00	7,40	7,19	310,83	11,36

Source: Author

The presented results contain some extremes, but in fact they quite reliably indicate trends. Disproportionately high value of administrative costs for the personal income tax for entrepreneurs in 2010 is probably due to methodological error and the real value will be around 8%. An interesting development is in the field of property taxes, where as the reason for the sharp jump in 2007 we see a change in methodology. The excise taxes are the results affected by low volumes of tax collection.

Results and Their Discussion

All these calculations should be viewed in the light of the methodological guidelines of OECD (2009), which clearly points to the importance and challenges of measuring the administrative costs of tax administration. In addition to the problems associated with the measurement methodology itself, we should note that changes in the relative amount of administrative costs over the time may not be evidence of changes in relative performance and efficiency. In practice, a number of factors enters into the process and affects the relations between income and expenses, but these factors have nothing in common with the relative efficiency or effectiveness.

Any analysis of changes in the ratio between revenues and costs should pay attention to all factors. For example decreasing trend in the ratio of costs on collection may be

evidence of a reduction in the relative costs (e.g. increase of efficiency) or increasing the tax liability (e.g. improve the efficiency after increasing tax rates). Among the key factors that may affect the relative amount of the administrative costs of taxation and its development include:

- Changes in tax rates: legislated tax rates are an important factor in determining the cost-benefit relationship. Purely theoretical and bearing in mind a condition "ceteris paribus", political decision to increase the overall tax burden should improve the ratio of the corresponding amount, but this fact has nothing to do with improved operational efficiency and effectiveness.

- Macroeconomic change: the extraordinary changes in the pace of economic growth or inflation over time are likely to have an impact on total revenue of the tax and cost-benefit relationship.

- Exceptional costs of financial institutions: Financial administration can sometimes make extraordinary investments (e.g. building new infrastructure of information technology). Such investments may lead to an improvement in overall operating costs in the medium term, which will affect the cost-benefit relationship. The introduction of new taxes may create additional administrative costs which have an impact on cost-benefit ratio at the beginning. It is for consideration whether in such cases to apply accrual split of costs for a longer period of time.

- Changes in the scope of taxes collected by financial administration: governments sometimes decide to move responsibility for the collection of individual taxes from one institution to another (e.g. decentralization of tax collection for motor vehicles was transferred to higher territorial units in SR).

What concerns our case, the presented calculations indicate that after excluding extreme values, which inevitably arise from the lack of evidence of revenues and costs of the tax administration bodies, it is possible to use of Czech methodology to obtain relevant data on the amount of administrative costs of taxation in the SR, even though in Slovakia here is no detailed catalog or classification of activities. Problems arise only in the income taxes of small amounts, changing over time, which results fluctuate excessively (therefore we do not compare these taxes in our analysis).

From individual types of taxes, it is clear that high administrative costs are associated with the collection of tax on personal income of entrepreneurs, in other types the figure is fairly balanced between 1-2%, and it is not possible to determine any trend over time, which would clearly show that the situation is improving or deteriorating.

Conclusions from the measurements of administrative costs of tax collection in the CR indicates that the tax administration in the CR is cheaper than in Slovakia (methodical procedure is analogous), and similar data were also found in OECD research (2008). It is therefore clear that despite the simplified tax system is the SR, the effectiveness of tax administration has a large space to improve.

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Budget Transparency and Fiscal Performance: Does Transparency Matter?

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Abstract

Existing published research of the relationship between budget transparency and fiscal performance confirms the expectations that higher budget transparency is associated with smaller budget deficits and lower public debt. However, our previous research did not bring such clear results and raised a fundamental question: Why should greater transparency improve fiscal performance?

The objective of the proposed paper is to evaluate the relationship between budget transparency and fiscal performance.

Based on the literature review we have identified three channels through which increased transparency may limit excessive public expenditures resulting in budget deficit and public debt: (1) reduce fiscal illusion, (2) decrease information asymmetry between politicians and voters which may improve accountability and increase political competition, and (3) strengthen the enforcement of fiscal rules.

The results of statistical analysis (conditional means analysis for 2008 and correlation and regression analysis for 2003 to 2009) did not prove any significant negative relationship between budget transparency, measured by the Open Budget Index, and budget deficit or public debt.

Keywords

Budget transparency, fiscal performance, Open Budget Index

Introduction

Existing published research of the relationship between budget transparency and fiscal performance confirms the expectations that budget transparency is associated with smaller budget deficits and lower public debt. However, our previous research (see Sedmihradská, Haas and Štefek, 2011) did not bring such clear results and raised a fundamental question: Why should greater budget transparency improve fiscal performance?

The objective of the paper is to evaluate the relationship between budget transparency and fiscal performance. In order to fulfill this objective there are answered three research questions:

1. What are the main reasons for excessive public expenditures resulting in budget deficit and public debt and how can these be limited by improved budget transparency?
2. What kinds of relationships were proved in the published research so far?
3. Do countries with higher ranking in the Open Budget Survey show better fiscal performance?

In order to answer the first two questions we underwent a detailed literature review.

The answer of the third question is based on statistical analysis (conditional means analysis for 2008 and correlation and regression analysis for 2003 to 2009). Budget transparency is measured by the Open Budget Index and fiscal performance data come from the International Monetary Fund (2011).

The first section of the paper deals with the relationship of fiscal institutions, budget transparency and fiscal performance and shows three channels through which increased transparency may limit excessive public expenditures resulting in budget deficit and public debt. It also summarizes the results of the existing research of budget transparency impact on fiscal performance. The second section describes the data and methods used and the third section presents the results of the provided analysis. Last section concludes.

Fiscal institutions, Budget Transparency and Fiscal Performance

Extensive research of the effects of political and institutional factors on fiscal outcomes, such as budget deficit and public debt, took place in the last three decades. The obtained results without any doubts confirm that institutions matter.

The term "institutions" is very broad and encompasses any rule or procedure which may influence the decision-making regarding public budgets. Among the constitutional institutions belong the rules of elections or the form of government (see Persson and Tabellini, 2003). Budget institutions are rules and regulations according to which budgets are prepared, approved and carried out (see Alesina and Perotti, 1999, p. 14), e.g., relationship between executive and legislature or existence of numerical targets or multiyear budgeting. A recent detailed review of the existing research about the relationship of institutions and fiscal performance and fiscal sustainability offers for example Rose (2010).

Budget transparency is usually defined as a full disclosure of all relevant fiscal information in a timely and systematic manner (see OECD, 2002). Kopits and Craig (1998, p.1) define fiscal transparency as „openness toward the public at large about government structure and functions, fiscal policy intentions, public sector accounts, and projections. It involves ready access to reliable, comprehensive, timely, understandable, and internationally comparable information on government activities (…)". Budget transparency is one of the features of the institutions shaping the environment of the budgetary process (see von Hagen, 2007, pp. 29 and 31).

There are three main reasons for inefficiency of resource allocation which originates in the framework of the budgetary process: fiscal illusion, deficit bias and misuse of public funds (see von Hagen and Harden, 1994). The first two reasons are quite similar to each other: In both cases citizens underestimate the true price of public good which leads to oversupply of that good, i.e., to excessive public expenditures and consequent debt financing. In case of fiscal illusion citizens fail to recognize the total tax burden. In case of the deficit bias the future obligations are discounted at too high discount rate. Improved budget transparency could limit the difference between real and perceived tax price which would lead to smaller excessive budget.

The third reason is a consequence of the principal-agent relationship between citizens and politicians which exists in the decision making process about public finances. This creates a space for politicians to behave differently from voters desires. Improved

transparency can limit this behavior through improved accountability and increased political competition (von Hagen, 2007, p. 37).

Nowadays, many countries use fiscal rules, such as expenditure ceilings, deficit and debt targets or tax ceilings, as a tool to safeguard fiscal sustainability (see Joumard et al., 2003, p. 120). These fiscal rules can only lead to fiscal discipline if they are backed by transparent reporting. Otherwise they create various "perverse" incentives. Fiscal transparency is essential for enforcement of fiscal rules.

The above presented arguments show that expectations that improved budget transparency is associated with better fiscal performance are justified.

Table 1 lists four recent studies of the relationship between budget transparency and fiscal performance together with the summary of the applied methods and main findings. All of the studies were cross-sectional and took place between 1999 and 2005. All of the authors constructed their own budget transparency indicator using internationally comparable data sources (OECD questionnaire or database and IMF Reports on the Observance of Standards and Codes - ROSCs). Results of comparison of different budget transparency indicators provided by De Simone (2009, Table 2) show, however, substantial differences among them. For example the correlation coefficient between index of Alt and Lassen (2003) and Benito and Bastida (2009) amounts to only 0,316 and is statistically insignificant.

Table 1 Existing research on the relationship between budget transparency and fiscal performance

Authors	Fiscal performance indicator	Transparency indicator	Countries	Method	Results
Alt and Lassen (2003)	General government debt per GDP (1999)	Own indicator based on OECD questionnaire (1999)	19 advanced	Multiple regression	Significant (0,05), negative, transparency and debt
Benito and Bastida (2009)	Government debt per GDP Budget balance per GDP (2003)	Own indicator based on the OECD/World Bank Budgeting Database (2003)	41 advanced and developing	Correlation	Significant (0,05), positive, transparency and budget balance
Hameed (2005)	Average primary balance over 5 years (2000-2004)	Own indicator based on IMF ROSCs (2005)	57 advanced and developing	Multiple regression	Significant and positive, transparency and average primary balance
Jarmuzek (2006)	General government debt per GDP (2005)	Own indicator IMF ROSCs (2005)	27 CEE countries	Multiple regression	Weak, negative, transparency and debt

Source: Authors

With only one exception (Jarmuzek, 2006) the studies have proved the expected relationship: better transparency is associated with higher budget balance (= lower budget deficit) and lower public debt. Jarmuzek (2006, p. 11) concludes that there is "no strong statistical evidence for importance of fiscal transparency" in the transition economies.

Data and Methods

The data used in our analysis come from two sources: Data on fiscal transparency come from the results of the Open Budget Survey which are available electronically at the web page of the Open Budget Partnership (2010a). For the purpose of evaluation of budget transparency we have used the Open Budget Index for the years 2006, 2008 and 2010. The Open Budget Index (OBI) is computed using the data from the Open Budget Survey which is compiled from a questionnaire completed for each country by independent budget experts who are not associated with the national government. The Survey in over 120 questions examines the availability of eight key budget documents and their comprehensiveness, the extent of oversight provided by legislatures and supreme audit institutions and opportunities available to the public to participate in national budget decision-making processes (see Open budget partnership, 2010).

Descriptive statistics are shown in Table 2. During the analyzed years the number of the surveyed countries grew from 60 to 94 (93 analyzed, due to unavailability of fiscal data we have excluded East Timor from the analysis.). The ranking of many countries has changed, sometimes substantially. This explains why the correlation coefficient is only between 0,747 and 0,827 for the OBI in different years.

Table 2 Descriptive statistics of OBI

| | N | Mean | Min | Max | Std.Dev. | Number of countries[1] | | | | | Correlation | |
						scant or no	minimal	some	significant	extensive	obi 2008	obi 2010
obi2006	60	45,500	3	89	21,781	8	15	23	8	6	0,747***	0,827***
obi2008	83	40,434	0	88	24,684	23	15	26	15	4		0,802***
obi2010	93	42,301	0	92	24,644	22	18	33	13	7	0,802***	

Source: Authors
Note: *** correlation is significant at 0.01 %
1) Based on the OBI countires are divided into 5 groups: scant or no (0-20), minimal (21-40), some (41-60), significant (61-80) and extensive (81-100) (see Open budget partnership, 2010).

Data on fiscal performance come from the International Monetary Fund (2011) World Economic Outlook Database from April 2011. The following variables were used: general government gross debt (percent of GDP), general government net lending/borrowing (percent of GDP), general government primary net lending/borrowing (percent of GDP), gross domestic product in constant prices (percent change), unemployment rate (percent of total labor force). Missing data were supplied from Eurostat in case of unemployment rate for Bulgaria and Sweden and in case of general government primary net lending/borrowing for Poland and Romania. Data of unemployment rate for Turkey come from OECD.

The year of the OBI indicator is the year of its publishing, however, the evaluation reflects the transparency of the budget document for one or two years before publishing, thus the OBI 2006 reflects the situation in 2004 and 2005 for most of the countries. As the OBI is published biannually we use the same OBI for two years.

We have used multiple methods in order to find out whether there is a relationship between budget transparency and budget balance and public debt.

First we have focused on the cross-sectional research: We have undertaken analysis

of conditional means for the year 2008 and correlation analysis for the years 2004-2009 in the software STATISTICA 7.1.

For the longitudinal research we have decided to estimate, similarly to our previous research (see Nitschová, 2001) the model of Roubini and Sachs (1989), which allows evaluation of the factors influencing anual budget deficit (i.e., the change of the debt to GDP ratio):

$$d(b_{it}) = a_0 + a_1.d(b_{i.t-1}) + a_2.d(r_{it}) + a_3.d(q_{it}) + a_4.d(u_{it}) + a_5.OBI_{it} + v_{it} \,, \tag{1}$$

where

- d(bit) is the difference between general government gross debt as a % of GDP in the years t a t-1,
- d(bi,t-1) is the difference between general government gross debt as a % of GDP in the years t-1 and t-2,
- d(rit) is difference between the real interest rate in the years t and t-1, (First, we have calculated the interests paid (as a % of GDP) as the difference between general government net lending/borrowing and general government primary net lending/borrowing (both as a % of GDP). Second, we have calculated the nominal interest rate as a share of the interests paid in public debt (both as a % of GDP). Third we have adjusted the nominal interest rate for inflation.),
- d(qit) is the difference in the percent change of the gross domestic product in constant prices in the years t and t-1,
- d(uit) is the difference in the unemployment rate in the years t and t-1,
- OBIit is the Open Budget Index.

For estimation of the model we have used fixed-effects models analysis in the software Gretl 1.9.2.

Results

Analysis of variance proved that there are significant differences in the budget balance among the five groups of countries based on their transparency and the LSD (least significant difference) test proved that differences between the scant or no information group and all the remaining groups but the extensive information group (i.e., significant, some and minimal information, are significant at 5 % level. The analysis of the conditional means showed that the budget balance is decreasing (i.e., budget surplus turns into budget deficit between the countries with extensive (1) and significant (2) budget transparency) with the exception of the group of countries with scant or no transparency, which shows the highest budget balance. The analysis of the conditional means of the public debt did not prove any significant differences between the groups of countries based on their transparency level.

Table 3 shows the results of the correlations between OBI and budget balance (general government net lending/borrowing) and OBI and public debt (general government gross debt) for the years 2004 and 2009. In bold there are marked the years when the relationship had the expected signed (+ for budget balance and – for public debt).

The results are not statistically significant at the 5% level with only two exceptions – budget balance in 2006 and 2008. However, in these cases the sign is wrong.

Table 3 Correlation results: Budget balance and government debt (% GDP) and OBI (2004-2009)

Y	X	r(X,Y)	r2	t	p	N	
balance2004	obi2006	0,0548	0,0030	0,4178	0,6777	60	Y=-1,7635+0,0091*X
balance2005	obi2006	-0,0041	0,0000	-0,0314	0,9750	60	Y=-0,2299-0,0009*X
balance2006	**obi2008**	**-0,302***	**0,0912**	**-2,8502**	**0,0055**	**83**	**Y=6,4878-0,1074*X**
balance2007	obi2008	0,0253	0,0006	0,2280	0,8202	83	Y=1,0954+0,0146*X
balance2008	**obi2010**	**-0,242***	**0,0585**	**-2,3789**	**0,0195**	**93**	**Y=2,4029-0,0637*X**
balance2009	obi2010	0,1204	0,0145	1,1569	0,2503	93	Y=-6,1568+0,0208*X
debt2004	obi2006	-0,1846	0,0341	-1,3415	0,1857	53	Y=66,1715-0,2524*X
debt2005	obi2006	-0,1901	0,0361	-1,3964	0,1685	54	Y=62,0766-0,2468*X
debt2006	obi2008	0,1129	0,0127	0,9774	0,3315	76	Y=38,1844+0,1877*X
debt2007	obi2008	0,1211	0,0147	1,0494	0,2974	76	Y=33,8007+0,1361*X
debt2008	obi2010	0,0241	0,0006	0,2209	0,8257	86	Y=38,341+0,0262*X
debt2009	obi2010	0,0508	0,0026	0,4659	0,6425	86	Y=41,2135+0,0571*X

Source: Authors
Note: *** correlation is significant at 0.01 %

The results of the estimation of equation (1) in

Table 4 show that the model predicts quite well the budget deficit and that all the independent variables have the right sign, i.e., the budget deficit is higher in case economy slows down, unemployment and interest rate increases and budget deficit was high in the previous year. All three models show, that the strongest factor influencing budget deficit is the change in the unemployment rate: in case the unemployment grows by 1 percentage point budget deficit grows by more than 2 percentage points of GDP being a result of two interdependent phenomena increase in unemployment benefits and decrease in personal income taxes.

The impact of budget transparency is negative, i.e., higher transparency is associated with lower budget deficit. Increase in the OBI by 10 points should result in decrease of budget deficit by 1.1 or 1.2 percent of GDP. However, our results do not allow us to reject the null hypothesis that budget transparency does not influence budget deficit.

In the contrary to most of the previous research we did not confirm a clear relationship between budget transparency and budget deficit or public debt. The main contribution of our paper is the longitudinal design of the research and the application of an independent, internationally recognized measure of budget transparency.

The weakest point of the research is the selection of the countries in the longitudinal research. While the cross-sectional research (correlation analysis) included 53 to 93 countries, i.e. 6 or 7 countries were missing, there were included only 18 countries in the longitudinal research (panel regression analysis) and this selection was purely dependent on the availability of the whole set of fiscal data.

Table 4 Fixed-effects estimates of budget deficit - d(b_{it}) (18 cross-sectional units[1], 6 time periods, 108 observations)

	Model 1		Model 2		Model 3	
const	6,2694		6,6811		6,3652	
	(4,5737)		(4,2897)		(4,2995)	
q(t)	-0,3169	***	-0,3146	***	-0,3039	***
	(0,0850)		(0,0842)		(0,0841)	
u(t)	2,0052	***	2,0271	***	2,0914	***
	(0,3420)		(0,3305)		(0,3280)	
r(t)	0,1038		0,1046			
	(0,0811)		(0,0806)			
OBI	-0,1151		-0,1225	*	-0,1174	
	(0,0763)		(0,0708)		(0,0710)	
b(t-1)	0,0268					
	(0,0989)					
Adjusted R-squared	0,5809		0,5854		0,5821	
Durbin-Watson statistic	2,1197		2,0829		2,0962	

Source: Authors

Note: std. error reported in parenthesis, *** significant at 0.01 %, * significant at 0,1 %

[1] Brazil, Bulgaria, Costa Rica, Croatia, Czech Republic, Egypt, France, Chad, Jordan, Nepal, Norway, Poland, Romania, Slovenia, Sweden, Turkey, United Kingdom, United States,

Conclusions

There are at least three channels through which increased transparency may limit excessive public expenditures resulting in budget deficit and public debt: (1) reduction of fiscal illusion, (2) decrease of information asymmetry between politicians and voters which may improve accountability and increase political competition, and (3) stronger enforcement of fiscal rules. However, the results of statistical analysis which combined conditional means analysis for 2008 and correlation and regression analysis for 2003 to 2009 did not prove any significant negative relationship between budget transparency, measured by the Open Budget Index, and budget deficit or public debt.

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Variability of VAT Rates
Presumptions and Evidence

Tereza Šinkyříková

Abstract

Value added tax is harmonized; tax collection mechanism, tax base, the functioning principle, tax rates issues, everything is regulated by Directives, issued by the European Commission, where the most relevant is the Directive 2006/112/ES which regulates minimum rates, not rate brackets, so the differences in tax rates between Member States still persist.

This paper focuses on the differences in standard and reduced VAT rates applied in Member States and the paper will examine variability in VAT rates since the late 70´s until present for Member States EU 6, EU 15 and EU 27. Because of tax harmonization and international trade a decrease in variability can be expected. Nevertheless, EU 27 still includes countries with historical differences in consumption taxes concerning tax rates; this implies, despite the decrease in variation, the coefficient will not approach a zero value and will be higher for EU 27 than for EU 6.

Keywords

Variability, standard rate, reduced rate, value added tax, tax harmonization

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Introduction

 "..The European Union could not totally harmonize the VAT because the systems of all the different countries were significantly different based on cultural and economic specificities as well as the historical fiscal peculiarities." (Asta, 2007, p. 1)

Despite the high level of VAT harmonization, the higher convergence of the applying rates has not been shown. (See Široký, 2010, p. 148) Further and more precise comment requires studying of the variability in VAT rates not only by the type of VAT rates but also for the applying rates to the different commodities. The Origin principle would not necessarily require the only one or two applied VAT rates among member states, but it would require further unification of rates for every type of goods and services among the member states. In the near future, this seems not to be the case.

The aim of this paper is to postulate the presumptions in a field of the variability in different types of VAT rates; then observe the evidence and compare the results obtained to previous presumptions. The concrete presumptions, titled (A), (B), and (C), will be presented at the end of introducing chapter.

Despite (limited) discretion in a field or the VAT rates, that is compatible with current Destination principle, it is useful to raise the question, if the further (even spontaneous) coordination in VAT rates is shown in the last few decades. This paper focuses on the field of VAT Rates as in global, but the more detailed view, describing the applying VAT rates for selected goods and services in member states would bring the more complex view.

Despite the high degree of VAT harmonization among European Union, the different (standard, reduced, super-reduced) rates applied are far from unification. The different traditions among the states can still be seen until nowadays. Not only the applied rates, but also Effective rates of VAT are a good example; (see Vat Indicators, EC 2004). Concerning Tax base, the reduce rate represents (year 2000) 23 % of taxable base on average, with 44% taxable base In Spain, 30-40 % in Portugal, Greece and Ireland. As a result, the implicit (tax) rate (ITR) of VAT is on average 4.5 percentage points below the standard rate average. Furthermore, the variation between member states is higher; 15-25 % to standard rate compared to 10.9-25% to IR.

The current VAT system with variation among member states could be described as: (Study of reduced VAT applied to goods and services in the Member States of the European Union, 2007, p. 8); "..the real, actually existing VAT system within the European Community is far from uniform...member states apply widely differing VAT rates creating a highly diversified and overwhelmingly complex VAT system."

Introduction of reduced rates (or the super reduced rates) has been brought because of several different goals. (Study of reduced VAT.., 2007, p. 7-8) discusses four main ideas. Two of them concern the efficiency, the other two concern equity issues. As an example recommendations concerning Tax efficiency could be used: in what case are certain goods or services likely to be taxed by the reduced rate? This is the case of goods and services with high price elasticity, so that lowering the tax burden can reduce ineffectiveness. However, the problem persists in the need of regular estimating of price elasticity, as it varies with time and at the same time, the price elasticity is not the same among member states.

The effectiveness issue is the problem mentioned i.e. by Kubátová (See Kubátová, p. 234, 2006): the reduced, low rates are more "tolerated," whereas the higher tax rates are more likely to be an object of tax evasions. In a field of the tax evasion, VAT is by far more resistant than its predecessor, turnover taxes. That is one of the reasons, why the VAT, despite its administrative exigency, measured up and "spread" over the EU boundaries (See Kubátová, p. 230, 2006).

Concerning the RR or SRR, Jourmand, (Jourmard, 2001, p. 19) emphasizes the distortion in competition caused or supported by the introduction of different VAT rates which could have implications to both of the issues; inefficiency or inequality (producers).

Lower VAT rates are also being discussed in different context. (Taxation trends in European Union, 2010, p. 14-15) Economic crisis could cause differences in consumer´s preferences. Typically preferring goods or services with lower (RR, SRR) tax rates. It could be seen from observing the implicit tax rate on consumption, since VAT is the main component.

However, the implicit rate on VAT, not on consumption as a whole, would be in this case, more recommendable and more precise and could reveal the real importance of RR or SRR in different EU members.

Since the implicit rate of VAT is known, the study of variability in time, among the member states could present a clearer, more complex point of view to the differences in ITR among member states together with the differences in applying rates, RR, SR and SRR. This paper´s aim focuses only on one part of these.

The paper´s objective is to present the variability in different applying VAT rates among member states and to formulate the main presumptions on the ground of data concerning the different VAT rates; (1). compute the coefficient of variation among EU 27, EU 15 and EU 6. (2) compare results with the presumption and discuss the differences, if any, between the assumption and evidence taken from the results obtained.

VAT rates have been divided into several groups, according to the type of VAT rate: Standard rate (SR), Reduced Rate (RR) and Super-Reduced Rate (SRR). As the VAT system cannot be seen as uniform, an important degree of variability is assumed.

The main assumptions are:

(A). Variability is less important (values of the coef. of variation) for the group of countries with more similar tax customs – in this case, EU 6, compared to EU 27 or EU 15. It is not necessarily the case of super reduced rates, especially comparing EU 15 and EU 27, as between states from Central and Eastern Europe, the super reduced rate has not been used so often.

As the number of countries is lower in case of EU 6, the result value of variability would be more impacted by the changes in VAT rates in every member state or in other words, in case of changes in one member state, the impact would be higher for EU 6, than for EU 15, or 27.

(B). Every Member State has applied only one SR (with exception of Ireland in the first mid. of 80´s); with SR (Except Cyprus, to 2003) there are no exceptions. Therefore, the variability would be less important for SR, than for RR or the SRR.

(C). EU 27 is also expected to have less continuous variability, as there is an influence of introducing VAT in member states. (See Šinkyříková, 2011); with reactions of tax policies to the Economic situation of the last few years and changes in applied rates, the values will be divided, but not significantly.

Material and Methods

Concerning changes in the statutory rates applied, those would answer to different goals concerning the tax revenues, changement in the tax mix (the relative importance of direct and indirect taxes – PIT vs VAT), (see Owens, J., Battiau, P. 2011), or it could impact the consumption. Several studies focused on this ground, in a field of temporary reducing the VAT rates. (see Barrell, R., Weale, M: 2009 or Crossley T.F., Low H., Wakefield M, 2009). One of the results could be describe as a temporary effect or impact to the consumption level. However, as Blundell (see Blundell R, 2009, p. 36-37)., concluded, the VAT has the potential to be a very successful short-run stimulus.

Barrell and Weale (see Barrell, R., Weale, M: 2009, p. 18-20) studied three effects that arises, when changing the VAT rate (temporary VAT cut): The Income effect, the arbitrage effect and the substitution effect. Theese effects tend to have an impact to the level of consumption, but one can offsed the other. As the conclusion, the effects are temporarly, oriented to short-run. Crossley, Low and Wakefield (see Crossley T.F., Low H., Wakefield M, 2009, p. 4) studied the substitution and income effect. Beside the relative level of income, the elasticity of intertemporal substitution was the relevant parameter. Theese effects and the impact on consumption as whole would depend on

several things; if the retail prices will fall when cutting the VAT temporarely, the price elasticity of the durables and the influence of uncertainty.

The changments of VAT rates influence also the differentiation in the rates across the Member states; as noted Široký and Kovářová (see Široký J., Kovářová A., 2010, p. 130) the differences between the highest and the lowest rate tends to reduce. Since the average of the reduced rate has growing tendences, when studying the standard, not increased rates, theese rates also tends to grow. (see Šinkyříková, 2011).

The variability of VAT rates by the types of cathegories will be study, on the grounds of European Member states, for several groups.

The coefficient of variability was calculed by an easy formula, where standard deviation was divided by means, $v = \sigma/\mu$, where:

$$\sigma = \sqrt{1/N * \Sigma Ni=1 * (xi-\mu)2}, \mu = 1/N* \Sigma Ni=1* xi \tag{1}$$

The data was calculated for: Member states of EU 6, EU 15 and EU 27. The VAT rates were divided at: Standard Rate (minimum 15 %, given by 2006/112 ES), Reduced Rate (from 5 to 14 %) and Co called-Super Reduced Rates (lower than 5 %). Data was obtained from: European Commission: Taxation and Customs Union/VAT/VAT Rates: http://ec.europa.eu/taxation_customs/resources/documents/t axation/vat/how_vat_works/rates/vat_rates_en.pdf.

Variation was calculated by 1 year, from 1979 to 2011. As the changes in VAT rates took place in some cases (ex. France, Ireland, Italy) more than once a year, only the rate applied during most of the days within a year, was taken into account. Some member state of today EU 15/27 (Finland, Portugal, Spain, etc) didn´t introduce the VAT system before 1979; since the paper examines today's member states, the values were calculated since the introduction of VAT and not since entering EU Union.

The paper extends the previous work (Šinkyříková, 2011), where the variability was examined only for EU 27. The paper presented the variability with the number of countries involved, the mean of the rates and the standard deviation. The VAT rates were divided into Standard and Reduced Rate. Studying the RR shows that the values increased greatly: during 80´s and 90´s, variability varied between 50 – 70 % (!), nevertheless, since the second half of 90´s, (after the introduction of VAT in several countries from eastern and central Europe) a slumping trend is evident. (In 2011, the variation coefficient is 42.9 %).

The elevated variability reflects the following facts: 1. several member states have introduced more than one reduced rate, (Directive 2006/112/ES allows 2 reduced rates.) 2. Number of exemptions and SRR. 3. While, during the last five years, the SR varies from 15 (Luxembourg) to 25.0 % (Denmark), the RR varies from 2.1 (France) to 18.0 % (Hungary).

Results and Discussion

Standard Rates Variability

As it has been shown in previous work (Šinkyříková, 2011), variability of SR, as a whole, has the most continuous declining trend, with lesser fluctuations. (B)

The lowest variability is the case of EU 6 (see Figure. 1) according to presumption (A), although the EU 6 is not impacted by entering of new member states, in the first half of 90´s, the variability has fallen by more than 5 pp., from 1991 to 1993. However, the only change in rates by more than 1pp is Luxembourg – from 12 % in 1991 to 15 % 1992. The last period could be characterized as quite sTable, without bigger changes, diminishing trend, without reflecting the reaction to economic recession, which is not in accordance with assumption (C).

EU 15 has higher values for the whole period (with exception of 1979), higher taxes in Northern Countries, contrast with some states from EU 6; comparing for instance Luxembourg and Denmark or Sweden. In 1990´s, as only one of followed groups, the values remain sTable. Between 1987 and 2003, (A), (B) and (C) are fulfilled. The 80 ´s were characterized by introducing new member states to VAT; that explains the raise of variability in that period. However, since 2003, the variability is more important than EU 27. The most probable explanation is that the new 12 entering countries represented a bigger "base" (i.e. countries "measured"), so the changes in one or few member states lead to unimportant changes in values of the coefficient. At the same time, SR of 8 (out of 12) new members varies only from 18 to 22 % level (Bg, Cz, Est, La, Li, Pl, Slo, Svk).

EU 27 follows (A) only up to 2003. The reasons are mentioned above. (B) is fulfilled, as mentioned in case or SR as a whole. The deviations are the most important – notably in the first half of 1990´s, where 10 countries had introduced the VAT.

A slight deviation in the last few years, as in context of economic recession (C) can be seen in case of EU 15 and EU 27.

Figure 1 The Variability of applied standard VAT rates in member countries, from 1979 to 2011
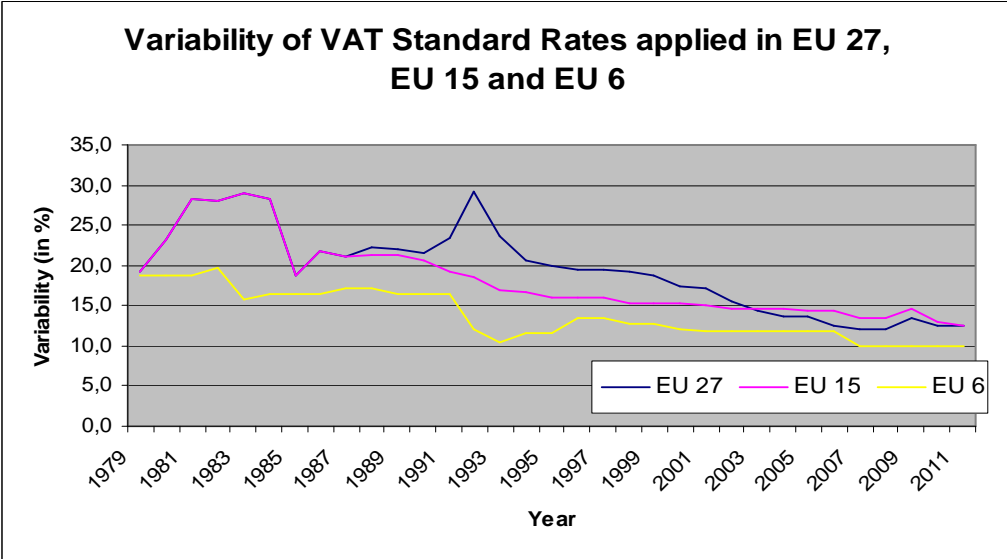
Source: Calculation based on European Commission data: VAT Rates Applied in the Member States of the European Union, 2011
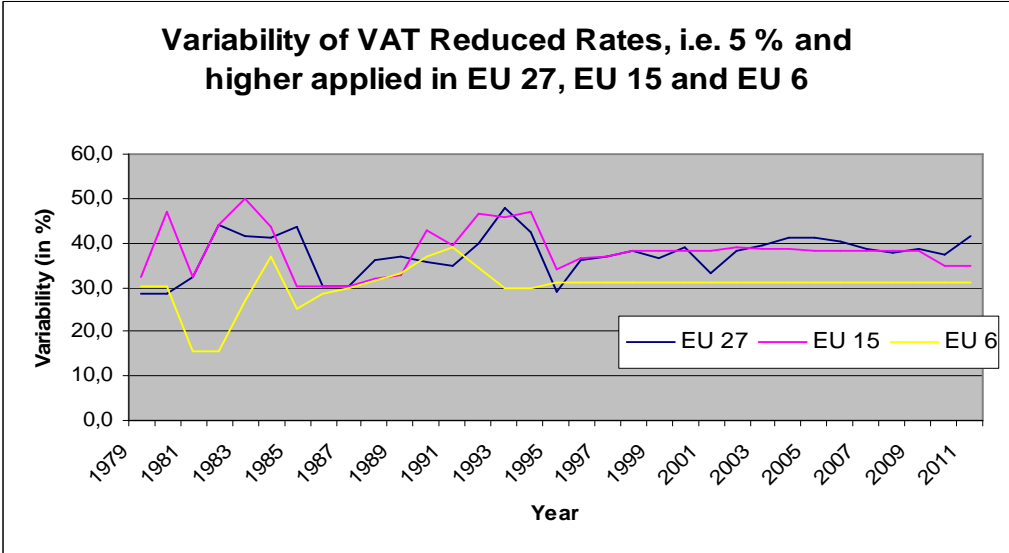
Reduced Rates Variability

The variability of Reduced rate, even without considering the supper-reduced rates, is very important, from 2003 30-42 %, compared to 10-15 % in case of SR. (A), see Figure.

2. Deviations and changes in values are remarkable and the whole trend would be described as "getting to constant (but not zero) value, without further fluctuation."

EU 6 was subject to bigger fluctuations until mid 90´s. The biggest of them, from 1981 to 1982, was caused only by changes in number of Rates in Italy, from 3 (6, 9, 12 %) to 1 (8 %). From mid 1990, presumption (A) is fulfilled, (B) was discussed above and remains definitely true. 2011, the variability of EU 6 – 30.9 %, EU15 – 35.0 %, EU 27 41.6 % (!). (C) regards EU 27, respectively there are no fluctuations in variability in the last few years, so the second part of presumption (C) is not valuable for case of RR, EU 6.

EU 15 and EU 27 – As in the previous case, (A) is not true for the whole period. This is caused by similar reasons mentioned above. Both, EU 15 and EU 27 had important fluctuations, notably in 80's and the first half of 90´s. As a whole, after those periods, EU 15 has lesser fluctuations than EU 27. (C). It is also true for the period since 2009. While the variation for EU 27 rises, it´s the contrary for EU 15. It´s the only case, where the immediate impact of changes in VAT during the economic recession to variability could be described as consolidated, i.e. reducing variability, instead of causing bigger variability.

Figure 2 The Variability of applied reduced VAT rates in member countries, from 1979 to 2011

Source: Calculation based on European Commission data: VAT Rates Applied in the Member States of the European Union, 2011

Super-reduced Rates variability

SRR cannot have such important variability (i.e. the coefficient of variation) as in precedent cases; the VAT rate can vary only from 0 to 5, as VAT cannot be negative. The values remain sTable, for EU 6, EU 15 and EU 27, around 25 %. (Compared to SR, (B) is still valuable), see Figure. 3.

One important evidence came up in this case; the number of member states calculated could be a stabilizing and destabilizing factor at the same time: the EU 15 have lesser variability than EU 6, but it is not the case or EU 15 compared to EU 27.

The EU 6 remain the most sTable (Exception is the first half of 80´s), the trend is similar to EU 15, but the values were elevated compared to EU 15, as mentioned above.

After the year 2000, there are only 7 SRR left among EU 27, their number diminished in a period, as the number of exceptions allowed by the European Commission became less important. There is no state with SRR, member of EU 27, but not member of EU 15 at the same time, so the result value should be the same, 26.1 %. The year 2011 means lower variability for EU 6 (25.6 %), which is the opposite case from the previous period.

As the introduction or today rather persistence of SRR is connected to exceptions and to social policy, the role of the economic recession remains marginal. (C) is not applicable to this case, but it (C) remains true in the case of fluctuation; the higher number of countries involved, the more deviations.

Remark to the last value of variability. The coefficient for EU 15 of EU 27 is 26.1%. Variability of EU 6 is 25.6 %. If we exclude the countries from EU 6, the variability drops to 13.1%! However, as the mean of applied VAT SRR is quite different for EU 6 and non EU 6 countries, the other (not EU 6 member) states, although "more synchronized", have an impact of destabilization, and cause a bigger variation.

Figure 3 The Variability of applied super reduced VAT rates in member countries, from 1979 to 2011
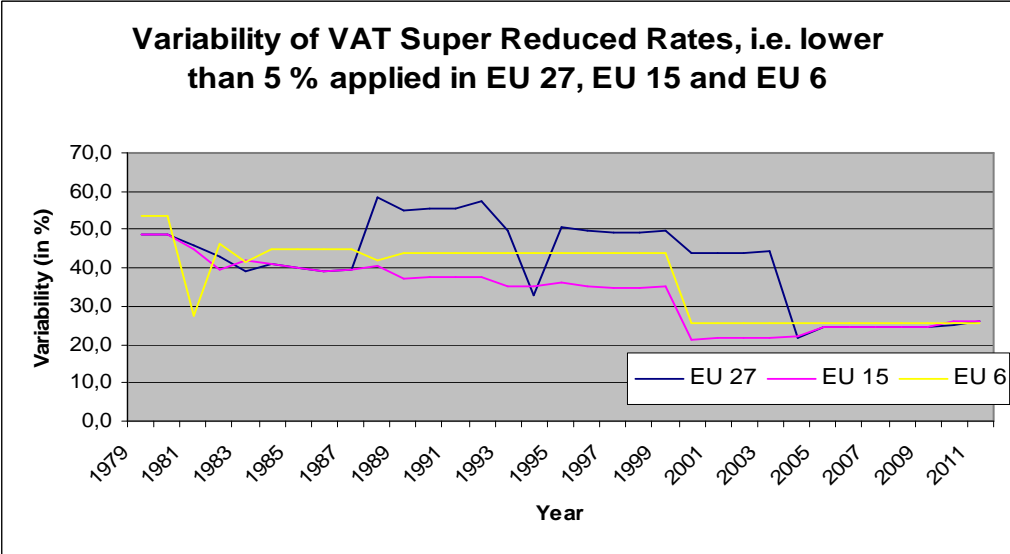
Source: Calculation based on European Commission data: VAT Rates Applied in the Member States of the European Union, 2011

Conclusion

(A) turns out to be valuable for the case of SR and RR, but it is not true for SRR, and further, for a small group of countries, even one bigger change in only one country implies the two other groups were more evident. However, as for value itself, not the fluctuation, the elevated number of countries involved could be stabilizing and destabilizing - at the same time.

Last, but not least, the result shows the spontaneous harmonization effect in fields of VAT SR, for all concerning groups of member states. In 80's and 90´s, the contrary was the case: (Guichard and Lebevre 1997, p. 18-21): *"..les écarts de taux entre les pays ne*

montrent aucune tendence a se reduire.." Spontaneous effect appear since the second half of 90´s, in a field of SR.

The tax policy, concerning the VAT RR or SRR, very often follows different goals, than the efficiency deviation of a value for all members.

(B) turns out to be correct; the variability of SR applied was less important, even if the SRR has a range only from 0 to 5 % VAT, which represents a smaller range than for SR.

(C) could have beeen seen as verified too, the EU 27 has known bigger fluctuations and the trend of issues. (Study of reduced VAT, 2007), (Jourmard, 2001). From the other part, the goods and services submitted to SR are not part of this politics, so the practical side, the effectivity could be followed. That could be the reason for a spontaneous effect in a field of SR, rather than for RR or SRR.

Implications and the ideas for further research:
- A more complex view would bring a comparison of the variability not only for the VAT rates applied, but also for VAT Implicit rates. That is why this field would be the first recommendation for further research.
- Comparison of the variability in VAT rates for more similar group of countries (Northern Europe, Eastern Europe etc.) could broaden and specify the results mentioned above
- A more detailed view of taxing elected commodities and to study the variability on this ground

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New Conditions of Municipal Financial Management

Petr Tománek

Abstract

Within the frame of municipal financial management in the Czech Republic, there has been perceived an issue of sharing taxes by municipalities for a long time. There are significant differences in tax revenues between small and large municipalities. These differences should be reduced by the oncoming change of the Act on Budgetary Allocation of Taxes. The prepared change of rules and criteria of tax assignment creates new conditions of municipal financial management. These are not only expressed by the new rules but it is also necessary to monitor the wider context of proposed changes which can be presented, for example, by the change of structure of municipal revenues etc.

The aim of the paper is to predict impacts of prepared changes in tax assignment on municipalities and to draw recommendations for municipal financial management. As a method is used impact analysis of changes of tax assignment on municipalities. Of this knowledge are deduced additional impacts on financial management of municipalities.

The main contribution of this article is to evaluate the impact of a new budget allocation of taxes on municipalities and formulate appropriate recommendations for municipalities, in a sense, how to change their practices under the new conditions to ensure the sustainability of financial management.

Keywords

Municipality, tax assignment, criterion, population

Introduction

Paper is focused on the practical solutions of fiscal decentralization in conditions of the Czech Republic. Except the central level of public budgets (state budget and state funds), public budgets are decentralized on two levels. There exist regional budgets and municipal budgets. In order to provide financial resources to municipalities, the issue of the size of these sources has been discussed for a long time. The most important part of these discusses is the way of providing funds to municipalities which is determined by the budgetary assignment of taxes. In 2009 was completed an extensive analysis of this issue (Halouzka, P. et al., 2009) for the Ministry of Finance. There has been prepared a change of budgetary assignment of taxes which changes some principles of tax assignment to municipalities.

Change of rules and criteria of budgetary tax assignment to municipalities creates new conditions for financial management of municipalities that affect also broader context of municipal financial management than just the municipal tax revenues. These conditions are not only apparent of the changes of the rules. The aim of the paper is to predict the impacts of the change in budgetary assignment of taxes on municipalities and also to draw recommendations for municipal financial management.

As a method is used analysis of expected impacts of planned changes in tax budgetary assignment and its contribution can be seen in affecting relationships and circumstances that are not apparent from the legislative changes but should be perceived by municipalities.

Material and Methods

Some of the key issues in fiscal federalism are connected with the resources of decentralized budget, their amount and the way of their providing to decentralized budgets. Since 1990, the method of providing of these resources to municipal financial management has gone through the following stages (Široký et al, pp. 261, 2008):

- 1993 – tax assignment to municipalities according to new tax system,
- 1996 – change of the way of tax assignment to municipalities,
- 2001 – introduction of 14 size categories of municipalities and tax sharing,
- 2008 – change of the number of municipalities to the 6 ones, partial change of tax sharing.

The model of fiscal federalism applied in the Czech Republic can be described as a combined one (Peková, pp. 401, 2011). The main part of the financial resources is formed by the tax revenues and the second most important part is made up by subsidies (Kameníčková, pp. 14, 2011). The rules of providing taxes to municipalities are clearly defined by the law and they have a longer effect, but the providing of subsidies represents a wide range of donations which may change annually.

Table 1 Structure of municipal revenues in the Czech Republic in 2010

Type of revenue	2010 (in billion of CZK)	Share in %
Tax revenues	142.9	50.4
of which: shared taxes	112.0	39.5
assigned taxes	15.9	5.6
Non-tax revenues	27.2	9.6
Capital revenues	12.8	4.5
Received transfers	100.8	35.5
in which: non-investment transfers	71.4	25.2
investment transfers	29.4	10.4
in which: of central resources*	14.3	5.0
Total	283.7	100

Source: Own calculation based on data provided by the Presentation system of financial information of the state (Ministry of Finance) – ÚFIS (http://wwwinfo.mfcr.cz/cgi-bin/ufis/iufisusc/index.pl).
Note: Central resources are represented by the state budget and state funds.

Characteristics of the Current System of Tax Assignment to Municipalities

Existing concept of budgetary assignment of taxes to municipalities is based on the two circuits of tax revenues.

The first group consists of the stimulating taxes:

- real estate tax (100%),
- tax on personal income from business (30%),
- tax on personal income from employment (1,5%),
- tax on corporate income, where the legal entity is represented by the municipality itself (100%).

Second circuit consists of the shared taxes:

- tax on personal income from employment,
- tax on personal income from business (60%),
- withholding personal income tax,
- corporate income tax,
- value added tax.

Shared taxes are made up of 21.4% of national tax revenues. Each municipality receives 3% of these taxes according to population of the municipality, 3% depending on the size of territory. The remaining 94% is distributed to municipalities according to the size of municipality by its population. For these purposes, municipalities are divided into the six size categories and the tax sharing is derived from the number of population and the coefficient relevant to the size of the municipality. The smallest municipalities are subjected to coefficient of 1, the largest municipalities (Prague) apply coefficient of 4.2.

The main issue of current way of providing taxes to municipalities is the difference among the coefficients applied by the smallest and the largest municipalities (4.2 per capita) that may appear to be unjustified.

Characteristics of the Change of Tax Assignment to Municipalities

In the conditions of the Czech Republic, there has been prepared a change of budgetary assignment of taxes. This partial reform of tax assignment will affect all of the 6245 municipalities in the Czech Republic. In most municipalities, it will be reflected in the higher proportion of shared tax revenues but tax revenues of the four largest cities will decrease. Buchanan (pp. 308, 1998) states that any reform should seek for the improvement of existing fiscal system to eliminate those elements that lead to inefficient results and should be replaced by the more efficient mechanisms.

New budgetary assignment of taxes to municipalities changes some parameters of tax sharing (Eliáš, pp. 20, 2011). There is no change in stimulating taxes. The change has been made only within the shared taxes. Compared to the original state, new form of shared taxes includes the change of the proportion of shared taxes from 21.4% to 22.96%. This is reflected in an increase of total amount of tax revenues distributed to municipalities. Weight of criteria according to population has been changed from 3% to 10%; criterion of territory size has not been changed and remains at the value of 3%. There is newly applied the criterion of the number of pupils according which the 7% of shared taxes are distributed. Into the size categories, there are allocated 80% of shared taxes (originally 94%) and there is also reflected the change of coefficients relevant to size of municipality which reduces the highest coefficient from 4.2 to 3.5.

Although the tax revenues are increased in volume as a whole, total amount of financial

resources for the municipal budgets does not change because subsidies provided to municipalities will be reduced in the amount of the increased tax revenues. Therefore, there is no change in the amount of the decentralized funds provided to municipalities.

Methods

Regarding the prepared change of budgetary assignment of taxes in the Czech Republic, it is necessary to monitor how its implementation will influence the efficiency in the area of municipal budgets. A comprehensive assessment of impacts and consequences of the described change of tax assignment can be done only after few years of its existence. However, prior to its introduction, there can be made ex-ante analyses of the major impacts discussed in this paper.

The method used at this paper is the impact analysis of changes in tax assignment by comparison of existing and new system. The analysis uses calculations of the Ministry of Finance of the Czech Republic, carried out for individual municipalities, and compares the existing and new state using the percentage changes of volume of shared taxes by municipalities. To assess the planned changes, the municipalities were divided according to what extent of changes in shared taxes will be achieved. Seven groups of municipalities were created; each group shows the interval of 10% of change. The classification of municipalities was carried out by these groups. The analysis was performed on all municipalities in the Czech Republic – total of 6245 municipalities.

Analysis of impacts of changes in shared taxes shows that except of the four largest cities (Prague, Brno, Ostrava, Plzen), the municipal revenues of shared taxes increase by 21%, but the impact of the increase is reflected differently according to the size of the municipality. There is a decrease of the tax revenue of the mentioned four largest cities; in other municipalities, tax revenues rise but differently. As a result of new criteria, the tax revenues of especially middle-sized municipalities are rising (approximately from 2 to 5 thousand of inhabitants). Tax revenues of big towns grow less (e.g. Pardubice, Liberec, Hradec Kralove, Olomouc, Havirov and other towns) and their increments are the lowest – even less than 5%. The highest number of municipalities has the increment of shared taxes between 20% and 30% (see Table 2).

Table 2 Increment of shared taxes to municipalities

Increment of shared taxes in per cents	Percentage of municipalities achieving the change
decrease	0,1 % (4 cities: Prague, Brno, Ostrava, Plzen)
to 10%	0.5%
11 – 20%	30.0%
21 – 30%	44.5%
31 – 40%	19.2%
41 – 50%	4.2%
over 50%	1.5%

Source: Own calculation based on an estimation of impact on municipalities by Ministry of Finance (http://www.mfcr.cz/cps/rde/xchg/ mfcr/xsl/vf_model_ sdil_dani_obci.html).

Results and Discussion

Effect of changes in budgetary assignment of taxes to municipalities will be clear after certain time of the operation of new system. However, on the basis of ex-ante analysis there can be drawn conclusions and recommendations for the new conditions of municipal financial management or there can be point out for some unsolved issues. Impacts of changes will be related mainly to the role of subsidies in the municipal budgets, the changes will manifest themselves differently in various size categories of municipalities. They will also cause the increase of the influence of some criteria in tax sharing.

Change of the Structure of Municipal Financial Resources Will Be Reflected Because of the Decrease of Program Subsidies and the Increase of the Amount of Taxes:

- reduction in program funding will lead to cost savings resulting from the preparation of project plans when applying for subsidies; preparation of unsupported projects meant inefficiently spent funds,

- financing of development of municipalities with higher share of own revenues and lower share of subsidies will be associated with the reduction of administration in implementation of the projects and with the possibility to focus the development of the municipality more closer to the needs of municipalities,

- providing subsidies for municipal development projects strongly depends on the activities of municipalities in preparation of projects which is less advantageous especially for smaller municipalities without appropriate professional personnel system at the municipal authority. This causes the different conditions in municipalities, the time irregularity of providing donation resources and therefore it causes impossibility of longer-term planning of municipal investment development,

- by reducing of the role of subsidies in municipal revenues, the role of the state in influencing of municipal development will be limited,

- municipal development will be discussed more according to the needs of users of public services, i.e. municipalities. The need of establishment of criteria for project selection will be eliminated, including limitation of potential possibilities of corruption when providing subsidies from the state budget,

- by the increase of municipal tax revenues, there will be on the one hand increased the municipal share on regularly provided own resources, on the other hand the possibility of obtaining some additional donation sources will drop and thus also the solution of specifics of some municipalities and the possibility of compensation of extreme conditions at some municipalities manifested for example in the costs on infrastructure. Existence of donation programs enables to respond to differences in municipal facilities or to their specific conditions. By reducing donation resources to municipalities, possibilities of creating equal conditions in municipalities decline and therefore, especially in longer term, there may be deepened the differences in municipal facilities.

- the amount of decentralized financial resources provided to municipal budgets

will not be affected by the change of budgetary assignment of taxes; there has been changes in the types of resources for municipal budgets – the volume (or share) of municipal tax revenues grows and the share of subsidies declines. In terms of municipal financing and the total balance of revenues and expenditures, the change in the volume of subsidies (fall by CZK 7 billion) does not seem to be significant at first glance (see Table 1). In 2010, subsidies to municipal budgets amounted circa CZK 100 billion. However, substantial part of subsidies has the characteristics of common donations related to the devolved performance of state administration and to distribution of social benefits and contributions with no effect on municipal budgets (they are provided to municipalities on the base of the paid amount of these benefits) (Tománek, pp. 4, 2011). Another part of subsidies provided to municipalities if formed by the non-investment and investment resources from EU funds. Municipalities were given about CZK 14.3 billion from the state budget and state funds in 2010. The amount of CZK 7 billion will mean a significant change.

The Impact of the Change in Budgetary Assignment of Taxes to Municipalities Varies in Terms of Different-Sized Municipalities, Resulting in:

- generally, the impact of the change in budgetary tax assignment is more favourable for smaller municipalities,

- in the largest cities (Prague, Brno, Ostrava, Plzen), the tax revenues will be reduced by 6% in Prague and up to by 30% in Plzen. Although there is considered a time-limited compensation of such a decrease of tax revenues in the mentioned cities, this step represents a significant intervention into their financial management,

- the real impact of the change in budgetary tax assignment for the four of the largest cities may also deepen the reduction of possibility to obtain subsidies from central resources because of their total limitation, so the impact on the total resources of these four cities will be even higher,

- although the real impact of the change in budgetary tax assignment is negatively reflected only in tax revenues of the four largest cities, it can be assumed that in other big towns, which tax revenues will newly rise only about a few per cent, the change will be reflected in potential decrease of their total revenues due to their limited possibility to obtain subsidies which are often used in these towns,

- increased tax revenues (regular annual income) will be reflected mainly in small municipalities; on the other hand, possibilities of obtaining more significant subsidies will be reduced. These increased resources will not be sufficient for larger investment projects in the following years. These projects could be implemented from the resources obtained in more years and often in the time period longer than the electoral period (4 years). The way how to solve this situation can lead through the long-term savings of municipalities regarding the investments exceeding electoral period or through the use of loans which will result in the growth of municipal indebtedness,

- limitation of obtaining subsidies will increase the need of municipalities to rely only on own resources (not on subsidies). The advantage can be seen in

increasing of stability of municipal financial management but there also will be a need of deepening long-term planning and financing of municipal development,

- structure of resources of municipal budgets until 2013 could be supplemented by the donation funds from EU budget. For this planning period, the EU resources for smaller municipalities have been already almost exhausted. Donations could be used particularly by big towns. This may temporary compensate potential failures of their total resources.

The Form of Criteria for Tax Sharing will be Reflected in Impacts on Municipalities:

- one reason for changes is the aim to change the average values of shared tax revenues per capita. Current system increased the size of tax revenues per capita with the size of municipality, but another aspect of tax sharing – territorial aspect – increased these tax revenues per capita in the municipalities with lower density of population, namely in small municipalities. That means, the lowest shared taxes per capita were not received by the smallest municipalities in average but by the municipalities of medium size (about 5 thousand of inhabitants). Newly introduced coefficients reduce these differences. This creates a paradox. Smaller municipalities that obtain comparatively higher proportion of shared taxes due to their larger territory and lower population density (which influence higher comparative costs on operation of these municipalities) have lower coefficients of size categories in tax sharing. Thus, this eliminates the criterion of the size of municipal territory,

- there was newly introduced the criterion of the number of pupils for the purposes of sharing taxes to municipalities. This criterion responds to the municipal need in the area of education (nursery and primary schools) and it should objectify financing of education in municipalities because some small municipalities do not provide these activities and address them by other municipalities. From their budgets, municipalities only provide part of costs on education, namely costs on operation of the school (energy, maintenance, etc.). Main part of the costs on schools is levied on the state which funds the salaries of teachers and teaching aids. Costs borne by municipality are determined by the school building (its size etc.). For the costs paid by municipality, it is more important the size of the school given by the number of classes than the number of pupils,

- newly introduced criterion of the number of pupils is disadvantageous especially for the municipalities which number of students in the class is just above the limit for one class. Such a disadvantage will be apparent particularly in small municipalities with the only one school where is no space for optimization of the number of pupils in the classes in comparison to towns,

- things that should be materially provided by municipalities, are commonly known. One issue in the new system of budgetary tax assignment remains unsolved – the determination of coefficients for the size categories of municipalities. Growth of the size coefficient for tax sharing is justified by the greater range of services provided by larger municipalities not only for own

inhabitants but also for the inhabitants of surrounding municipalities. This starting point, which can be accepted, however, was not exactly evaluated on the

base of analyses. Therefore, coefficients are not supported by the objective facts and are calculated by expert estimation,

- in 2008 there were carried out extensive analysis of municipal expenditure needs by the size categories of municipalities (analysis was performed by the following universities: University of Economics in Prague, VSB-Technical University of Ostrava and University of Pardubice). However, the new system of budgetary tax assignment uses its results only in a minimal way,

- the number of criteria used in tax sharing is rather small (population, size of territory, number of pupils) and cannot express specifics of municipalities, such as length of roads, population age structure, needs of transport services etc.

Conclusion

Prepared change in budgetary tax assignment to municipalities in the Czech Republic responds to one of the main requirements – to the change of the portion of shared taxes between the small and large municipalities. No new resources enter to the system of shared taxes but the current resources are reallocated and supplemented by the originally provided subsidies. Tax revenues of some municipalities will decrease in absolute numbers but tax revenues of the most of municipalities will rise. There has been introduced a new criterion of the number of pupils into the current system of tax sharing; the weight of criteria has been changed.

New system of budgetary tax assignment to municipalities changes in some ways system of municipal financial management and creates conditions to its greater efficiency but this system do not reflect all of the specifics of municipal operations and represents a compromise whether in terms of number of criteria or their definition.

Municipal budgets reflect fiscal decentralization in providing public goods. Fiscal decentralization follows the higher efficiency of public funds. The way of fiscal decentralization of resources can take various forms but it is necessary to evaluate and improve this system according to changes in structure and volume of provided public goods in order to increase efficiency of public expenditures. In this sense, it is possible to perceive the new system of sharing taxes by municipalities in the Czech Republic as step forward in that direction.

Generally it is apparent that due to the large extent of municipal financial management, its complexity and relations to public finance as a whole, the issue of budgetary tax assignment to municipalities should be in the centre of more detailed researches.

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Effect of Changes in Taxes and Benefits on Redistribution in the Czech Republic

Leoš Vítek, Jan Pavel

Abstract

The Czech Republic has over the past decade carried out two waves of tax and benefit reforms. The first one took place in 2005–2006 during the left-wing government and the second one has been carried out in 2008 by the right-wing government. Using EU-SILC data for selected types of households, the paper assesses changes in the distribution of gross incomes and effects of the changes in taxes and benefits on the distribution of incomes after taxes and a provision of social benefits. The analysis is performed using Lorenz curves and Gini coefficients. The results show that the tax system changes the distribution of incomes significantly less than benefit systems. It also appears that the 2006 reform from the perspective of social benefits increased the Gini coefficients for households with economically active parents and strongly reduced the differential between the Gini coefficient for the gross income and the Gini coefficient after taxes and benefits for households with active parents and one child. Reforms in 2008 from the perspective of social benefits brought a reduction in the Gini coefficient for families with children (groups 112 and 201) and an increase (or a reduction in the differential between the gross income and income after taxes and benefits, respectively) for families with or without children (groups 111, 210 and 219).

Keywords

Introduction

With respect to this domain, the Czech research was published mainly at the beginning of the last decade. Večerník (2002 and 2006) analysed redistribution of incomes through taxes and benefits in the Czech Republic from 1988 to 1996 and 2006, respectively, including the international context and pointed out methodological problems and the political "lack of transparency" of redistributive instruments, while focusing also on comparing impacts of the election programmes of various parties. Sojka (2000) discusses also earnings distribution and its development during the 1990s and shows an important role of the factors that lead to the creation of suitable conditions for predatory and speculative patterns of behaviour.

Schneider and Jelínek (2005 and 2001) analysed distributive impacts of the Czech security and tax system in the 2000s and quantified impacts of taxes and benefits on individual deciles of households, as well as the overall costs and effectiveness of benefit systems. Sirovátka and Valentová (2002) examined attitudes of voters in the Czech Republic and abroad in terms of the legitimacy of a redistribution and pointed out that attitudes of the Czech public to the social justice and redistribution are not entirely unambiguous.

From the recent research of redistribution impacts of taxes and benefits in developed countries, e.g. Bhattarai and Whalley (2009) deal with redistributive effects of transfer

programmes in the United Kingdom, Moriguchi and Saez (2008) show the development of income concentration in Japan during 1886–2005, using for analytical purposes mainly tax statistics.

Ziliak (2007) analyses the process of liberalisation of statutory rules regarding the tax treatment of earned and unearned income for welfare program eligibility and benefit levels in the USA. He finds out that following the welfare reform, effective tax rates fell by 50 percent on earned income and by at least 70 percent on unearned income. Piketty and Saez (2007) discussed the progressivity of the U.S. federal tax system and its evolution since 1960 and compared the USA with other countries. They found that the progressivity of the U.S. federal tax system at the top of the income distribution has declined dramatically since the 1960s.

Iversen and Soskice (2009) discuss an alternative to the power resource theory as an approach to the study of distribution and redistribution and analyse the role of a partisanship, union power, etc. Chodorow (2008) in his specifically targeted paper points at the link between progressive taxation and Biblical tax systems. Garfinkel et al. (2006) verify the hypothesis whether large cross-national differences in inequality amongst rich Western nations are affected by differences in the generosity of welfare state transfers. They use only effects of cash and near-cash transfers and direct taxes on incomes (while on average half of welfare state transfers in rich nations are in-kind benefits – health insurance, education, and other services). Hungerbühler et al. (2006) suggest an optimal redistributive non-linear income taxation model.

The main objective of this paper is through the use of available data (for 2005–2009) to analyse the impact of taxes and benefits on redistribution in the Czech Republic. Processed will be Europe-wide standardised EU-SILC data for the Czech Republic and using standard Lorenz curves and Gini coefficients will be quantified impacts of these fiscal instruments.

Methodology

Europe-wide standardised survey European Union – Statistics on Income and Living Conditions (EU-SILC) is since 2005 performed also in the Czech Republic (name: Living Conditions). Data from this survey allow comparing not only households in the Czech Republic, but thanks to the standardisation also across the EU. This option also applies to an inquiry of representative data on income distribution of individual types of households, their gross income, taxes and transfers provided to the households. Data in the corresponding EU-SILC statistics reflect the status of the previous year. The taxonomy of household types covers in the EU-SILC for our purposes the following households:

Table 1 Taxonomy of household types

Code of the household type	Household description
109	First adult econom. active, second adult not present, 3 and more children
100	First adult econom. active, second adult not present, no children
101	First adult econom. active, second adult not present, 1 child
110	First adult econom. active, second adult econom. inactive, no children
111	First adult econom. active, second adult econom. inactive, 1 child

119	First adult econom. active, second adult econom. inactive, 3 and more children
112	First adult econom. active, second adult econom. inactive, 2 children
200	Two econom. active adults, no children
201	Two econom. active adults, one child
211	Two econom. active adults, one adult econom. inactive, 1 child
209	Two econom. active adults, 3 and more children
210	Two econom. active adults, one adult econom. inactive, no children
202	Two econom. active adults, 2 children
219	Two econom. active adults, one adult econom. inactive, 3 and more children

Source: EU-SILC (2006-2010).

In general, the first number in the three-digit code thus indicates the number of economically active adults in the household, the second number represents the number of economically inactive adult family members and the third figure is the number of children. In case there are more than 2 children in the household, the third number takes the value of 9. Highlighted in bold are households with three or more children. In order to analyse the impact of taxes and benefits on the income distribution, we will cover the following types of income:

Table 2 Typology of analysed incomes, taxes and benefits

Abbrevia tion	Identifier	Income description and its adjustments
P0	Income_0	earned income
P1	Income_1	earned income – insurance premia – taxes + tax credit
P9	Income_9	Earned income – insurance premia – taxes + tax credit + pensions + healthcare benefits +unemployment support + family allowances + child allowances + social premia + housing allowances + foster care benefits + other benefits + all social need benefits

Source: EU-SILC (2006-2010).

For purposes of the above described analysis, it was necessary to decide what households, incomes and periods should be addressed. For a more detailed analysis were selected households with children: households 109 (one economically active adult with more than two children), 119 (one economically active adult and one economically inactive adult, with more than two children), 209 (two economically active adults with more than two children) and 219 (two economically active adults and one economically inactive adult, a family with more than two children).

Results

Impact of Benefits on the Redistribution of Incomes – Lorenz Curves

A general view on the impact of taxes, compulsory insurance premia and benefits on the (re)distribution of income allow Lorenz curves Hindls et al. (2008). The x-axis of Lorenz curves indicates households arranged from the poorest to the richest and the y-axis shows their cumulative share on the total income (wealth) of the file. Axes x and y are labelled in percentages or in hundredths up to one and Lorenz curves always start at zero and end at one. The line of equality (LC) shows that under completely equiTable income distribution, each person / household would receive an equal share of income (wealth) and the value of the x-axis coordinate is in this case is always equal to the value

of the y-axis coordinate (x is always equal to y). For the opposite extreme position to the flat distribution (Lorenz curve of total inequality) would apply that except for the last richest individual nobody acquires any income at all (for all x < 100% it holds that y = 0, for x = 100% is y = 100%). From Lorenz curves are derived Gini coefficients.

Now, what impacts have changes in the gross income and taxes on families with more children? Changes in Lorenz curves and the effect of taxes and insurance premia on their development show for the years 2005 and 2009 and households 109, 119, 209 and 219 the following Figures.

Figure 1-4 Lorenz curves for households with three and more children (gross income and income after taxes)
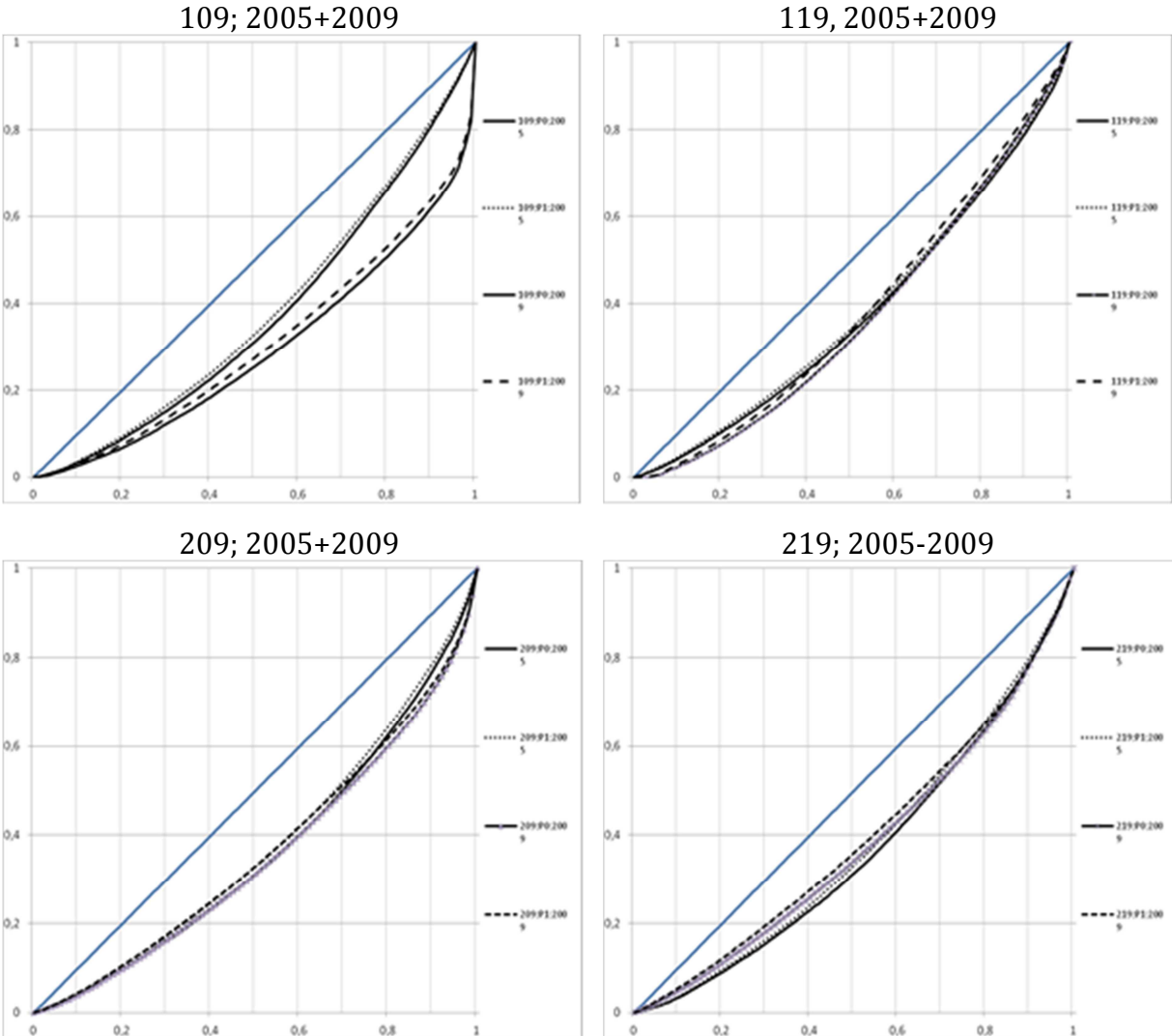
Source: own processing of EU-SILC data (2006–2010).

Analysis of data from the EU-SILC sources shows that significant changes occurred only for the household type 109, i.e. for families with one economically active adult with more than two children. For these families, however, the primary cause of the change in gross incomes was not the change in incomes after taxes. Also in this case, taxes and insurance premia have not substantially intervened in the distribution, not even

in the following years 2006–2008. From the other results it can be highlighted that:

- for household 109 and 119 is the importance of taxes most strongly apparent in 2008,
- for the household 219 have taxes the least significant role on the (re)distribution,
- in all cases (households and years), taxes and insurance premia shift Lorenz curves towards the line of equality (line of straight distribution), although for low-income groups and the last decile insignificantly so.

Impact of Benefits on Income Redistribution – Lorenz Curves

Benefits that are taken into account within the further analysis encompass a very broad spectrum. Even if decomposition into the individual benefits and their impacts on redistribution (but not within individual groups) was possible, the clarity and scope of the analysis would still suffer as well as the ability to formulate general conclusions. Therefore, chosen was a total aggregate of benefits (P9) that shows the aggregate impact of all benefit systems.

Let us now look at the situation of families with more children not only in terms of the taxes and insurance premia, but also benefits. Again, for the years 2005–2009 we will be interested in household types 109, 119, 209 and 219. Generally, we could (or rather should – if the benefit system is set "reasonably") assume that the benefit system will push the distribution of incomes towards the first quintile, or at least decile. If this does not happen, the benefit system does not meet the expected redistribution function.

Figures 5-8 Lorenz curves for families with three and more children (gross income, income after taxes and income after taxes and all benefits)

209; 2005+2009	219; 2005-2009
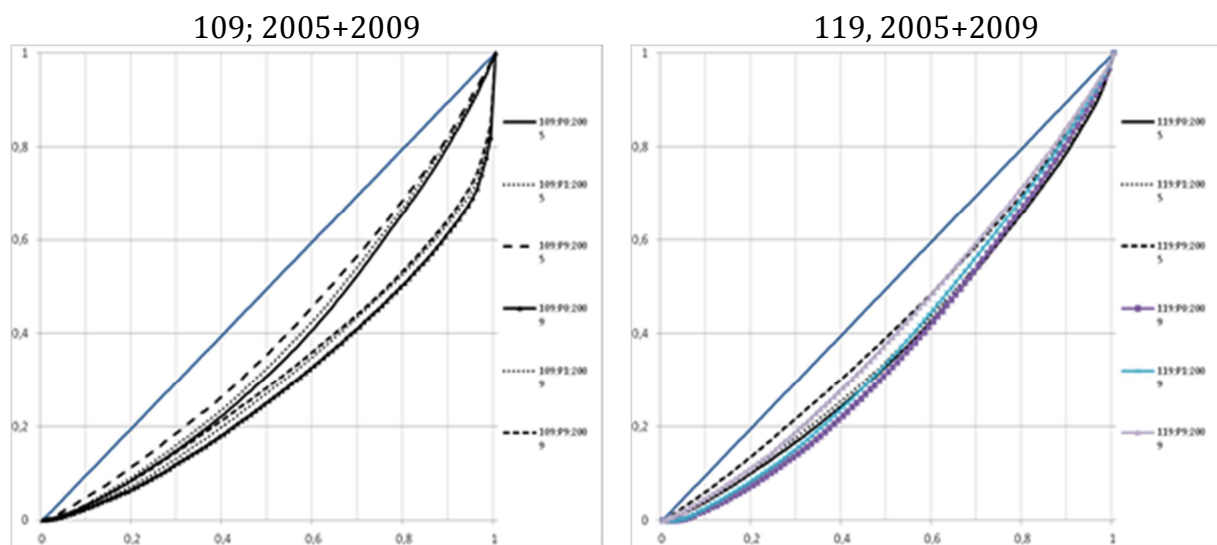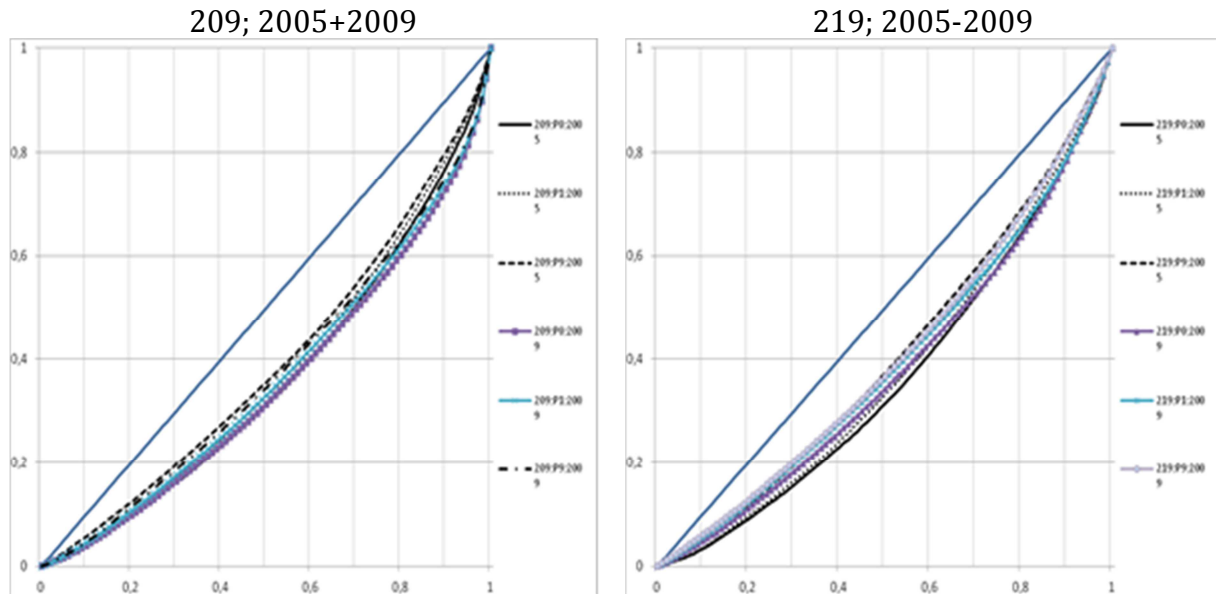
Source: own processing of EU-SILC data (2006–2010).

Data for the years 2005–2009 show that:

- benefit systems have generally greater impacts on the total net income than systems of personal income taxation and insurance premia,

- their importance is greater in the first two to three quintiles, for high-income households (the last quintile or decile), they do not have a direct redistribution impact (but they have an indirect one – due to the fact that they are not provided to more wealthy households),

- benefits most strongly affect households of one parent with more children ("single mothers"); for these households they influence also higher income groups,

- benefit systems (as well as tax systems) do not overly significantly dampen the increasing steepness of Lorenz curves (in terms of the social policy this may be for families with more children perceived as a problem; for an economic stimulation of individuals, however, this may be perceived positively),

- importance of benefits for redistributions in the years 2007 and 2008 decreases,

- the least significance have benefit systems for the household type 209 (two economically active parents, more than two children).

Impact of Taxes and Benefits on Income Redistribution – Gini Coefficients

Let us now take a look at the impact of taxes and insurance premia on Gini coefficients (GC) for the selected households in 2005–2009. To analyse the impact of taxes and benefits, of a particular interest is the year 2006, when came into effect the so-called Sobotka tax reform, and the year 2008, when the tax system was reformed once again (reforms of the government of M. Topolánek). As in the previous section, into account we only take the gross income before taxes and benefits (P0) and an effect of the income tax (including tax bonuses) and premia paid by an employee or a self-employed person (P1). After adjusting for benefits, we denote the income as P9. Gini coefficient is the ratio

between the actual surface of the Lorenz curve and the straight line of distribution, and the area under the actual Lorenz curve. To calculate the Gini coefficient (G), adopted is usually the following procedure:

$$G = 1 - 2\int_0^1 L(X)dX \; ,$$ (1)

where $Y = L(X)$ is the function describing the Lorenz curve.

Decreasing Gini coefficient means that taxes and insurance premia reduced the inequality in distribution of the gross income and brought the Lorenz curve closer to the true straight line distribution. It may therefore be summarised that, in theory, taxes and insurance premia should rather reduce the Gini coefficient since they possess a built-in open (progressive rates of personal income taxes) or implicit (e.g. ceilings for deductions, tax bonuses) elements that support the redistribution. However, cancellation of progressive rates of personal income taxes since 2008 and the introduction of ceilings on insurance premia in the same year should reduce the progressivity of the overall tax system.

Benefit systems should also reduce the value of Gini coefficients, especially if benefits are provided mainly or exclusively to low-income groups. In this case, although the benefits do not reduce the nominal income of the richer (the same way taxes do), they still reduce their share on the total income of the followed group. The aggregate impact of the tax and benefit policy on (re)distribution of incomes demonstrate the following Figures of Gini coefficients. Each Figure contains for the given year all monitored households and for each of them are in each year plotted three points: for the gross income before taxes and benefits, the point P0 (plain line), for the income after taxation, the point P1 (dotted line) and for the income after taxes and benefits, the point P2 (dashed line).

The key redistribution factor is distribution of gross incomes among households. The tax and benefit system corrects this distribution only slightly (as shown above). The problem of the GC is that in case there are simultaneously such changes in the distribution that cancel each other, the Gini coefficient does not capture these changes.

Figure 9-10 Gini coefficients for the years 2005 and 2009 after taxes and benefits
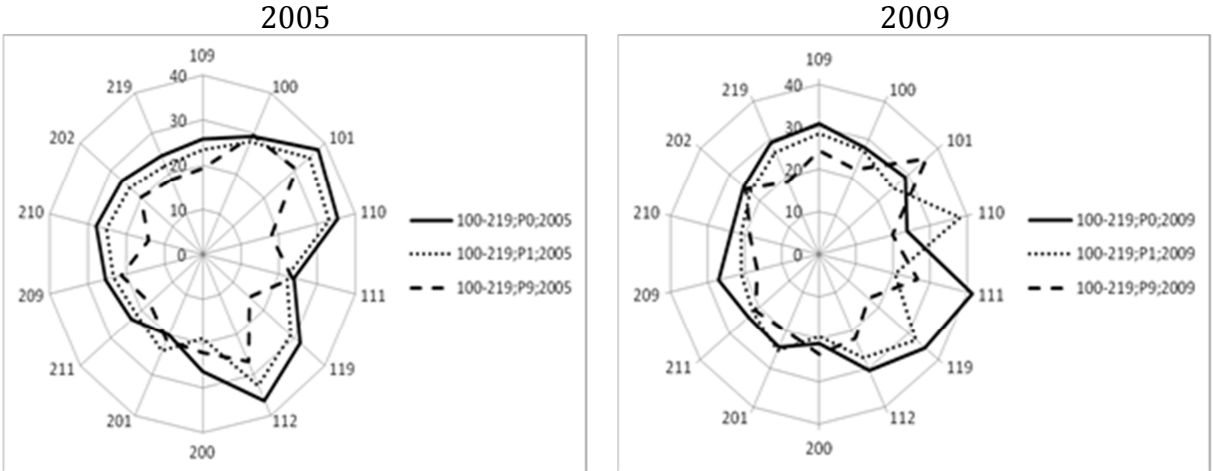
Source: own processing of EU-SILC data (2006–2010).

Discussion and Conclusions

The analysis was not overly successful in demonstrating the impact of the Czech tax and insurance systems on (re)distribution of incomes. Generally we would expect that the share of an income after taxes on total revenues would for the poor people (up to the first or second quintile) fail to decrease (this mostly happens in the case of the poorest) or better, increase (this usually happens among the poorest in a very limited extent). Conversely, the share of the wealthy should due to the progressivity of the personal income taxation (at least until 2008) after the tax decrease (it has never happened). From the social perspective criticised 2008 tax reform did not fundamentally change the inter-annual income after taxes and rather, very weakly negatively, affected the rich than the poor.

After adjusting for the benefits, the Gini coefficients for gross incomes in all years range around 25 to 30% and gradually increase. It also applies that the Gini coefficients vary significantly less than the benefit systems. In the years 2008 and 2009, the taxation system significantly increased Gini coefficients for households with one economically inactive parent and no child (111, 110 – likely an impact of the cancelled joint taxation of spouses). The benefit system reduces Gini coefficients the most for households with one economically inactive parent and one or more than two children (110, 112, 119, 201, 210, 211, 219); since 2009, especially for the households with an economically inactive parent and more children (119, 209, 219); for households without children and with an economically inactive partner (110), the benefit system Gini coefficients increases. The 2006 reform from the benefits' perspective increased the Gini coefficients for households with economically active parents (202 and 210) and strongly reduced the differential between the Gini coefficient for the gross income and the Gini coefficient after taxes and benefits for households with active parents and one child (211). Reforms in 2008 brought from the perspective of benefits a reduction in the Gini coefficient for the family types 112 or 201 and an increase (or a reduction in the differential between the gross income and income after taxes and benefits, respectively) for the family types 111, 210 and 219.

It was not conducted similar research in the Czech Republic for this period and therefore we cannot compare the results with other studies. However, we come to the same conclusion as the Večerník (2006, p. 16) - personal income tax reforms affect overall redistribution only to a very limited degree.

Acknowledgements

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Public and Private Pensions:
A Competitive Approach

Jaroslav Vostatek

Abstract

The paper concentrates on the first, second and third pension pillars according to the World Bank classification – in these pillars there are products which may compete in the effectiveness. No attention is paid to the zero, solidarity pillar. The neoliberal approaches justified in the first period the full privatization of public pensions beyond the solidarity pillar and later the transition to a half privatization under the catchword of diversification. The neoliberal theory has lead to a development of the NDC and FDC social insurance products, which are, as for the effects for clients, directly comparable to the private FDC products. Under comparable conditions the basic and supplementary social insurances are more favourable than mandatory private insurance and subsidized voluntary private insurance.

Keywords

Introduction

The policy is crucial not only for the specific form of the pension system in the given country but it also generally holds that the historically original "pure" concepts of pensions (pension models) were a significant element or part of the generally conceived social models.

Historically, the first pension model was a liberal model, whose basic idea is that the optimal protection requires fully private security. The classical liberal model was modified in practice by creating one of the following three products or pillars: a) a special pension pillar of social assistance, b) universal pension, c) universal pension combined with universal national insurance contributions (Beveridge system).

In other pension models there exist products or pillars providing earnings-related pensions. Generally, these are models of public, occupational and personal pensions. In the public sector, we meet frequent combinations of model products or products, where the basic concept is modified by various other elements. These public pension pillars include, among others, the Czech "pension insurance" and the U.S. OASDI system. Comparing these "insurance" systems with private insurance products is difficult because they mix the concept of solidarity pillar with the concept of insurance (earnings-related) pillar. Part of this mixture is the existing Czech insurance premium and U.S. payroll tax (officially: insurance contribution), in both cases the earnings ceiling is above the upper limit recommended by social insurance experts (200 % of national average earnings). Even this route of redistribution happens beyond the usual framework of the social insurance.

Pension theory today recommends a clear separation of insurance and redistributive elements - into two different pension pillars. The pillar focused exclusively

on the redistribution of income is called solidarity pillar; it is financed from the state budget, not through some special tax. There are three possible basic constructions of the solidarity pillar: a) special social assistance pension pillar, b) universal pension, c) pension increasing lower pensions (in relation to earnings), increasingly, using the construction of a negative income tax.

It is no coincidence that the first two constructions of the solidarity pillar are modified liberal conceptions of the public old-age pension. In both cases it is or may be an entirely separate pension pillar. The third design is an extension of insurance pension pillar, which can be realized as a private mandatory pillar (Chile) or a public pillar (Sweden, Norway).

A typical phenomenon of the past decades was a trend toward privatization of the public sector, which is reflected in the pension sector, especially in Latin American and post-communist countries. The experience shows that the results of privatization are highly dependent on specific state regulation and the extent and quality of functioning of the market in the sectors and branches of national economy. The intensity of the influence of lobbyists on the entire layout of new markets is a part of these specific conditions.

Privatization trends and new private pension products also affected public pensions. These may also include the very tendency to breakdown of public pensions in the solidarity and insurance pillars. An essential fact is the shift from the defined benefit products to the defined contribution (DC) products: first in the private sector and then in the public sector. This includes the issue of pay-as-you-go and fully funded systems of financing public and private pensions. The extensive literature on this subject is substantially influenced by both ideological positions as well as the interests of financial groups.

The key role of politicians in deciding on the pension system is commonplace. The theoreticians are to supply qualified materials, if possible, unaffected by lobbyists. In this paper we will focus on insurance products and pillars, which can be compared as for the economic efficiency of public and private sectors. The solidarity pillar is anyway reserved for the public sector and it does not influence the choice between public and private sectors.

Today there is no OECD country where the pension system fits (albeit modified) liberal model consisting of a solidarity pillar and a completely voluntary and non-subsidized private pension protection. In the years 1988-2006 New Zealand here could be classified. However, in our country there was and is tendency to transform the public pension pillar to a flat-rate pension (demogrant), say at 20 % of the average national wage. In this form the Civic Democratic Party proposed the flat-rate pension in 2004-2005, and similar routing has now the Czech President Vaclav Klaus, who refused to sign the law on "small" pension reform and expressed his position among other things by the words "the state is no insurance institution". (Klaus, p. 10, 2011) Thus he adopted an attitude towards the Constitutional Court of the Czech Republic, who considered it necessary to strengthen the adequacy of pensions to prior earnings and forced to amend the Act with effect from October 2011. Spicy is that representatives of two governmental parties expressed consent - directly or indirectly - with the president's attitude. This can be interpreted so that they themselves would prefer to reduce

radically today's Czech public pension pillar – to the universal pension. It's a legitimate policy but it should be publicly awarded. Parties should not tell before the elections that they will make responsible reforms and then implement the concept of universal pension.

In the clear majority of OECD countries the state is a kind of an insurance institution. Strictly speaking, in most OECD countries there are social insurance systems, which are at least organizationally separated from the state budget and mostly administered by autonomous institutions. Social pension (old-age) insurance works in principle (as a model) with either insurance reserves, or without them. Strictly speaking, the social pension insurance originally worked with full insurance reserves, now mostly with short-term or near zero reserves.

The objective of this paper is to compare the basic principles of the coming Czech pension reform with the findings of the contemporary international pension theory. To reach this objective we analyse the intensions and results of the privatization of the public pensions as well. The basic method is a comparison of representative products and its effects, separating one-sided sales arguments of the lobbyists from the scientific evaluation.

Material and Methods

In our analysis we assume that the majority of politicians are interested in the existence of an earnings-related pension pillar. Three methods of implementation of this interest are:

- Social old-age insurance,
- Mandatory private savings/insurance,
- Voluntary private savings/insurance with significant government subsidies.

All three of these products enter the aggregate of social expenditure according to the OECD methodology and from this point of view they perform or may perform the same or comparable purpose. In the following we will focus on the costs associated with these products and relevant pension reforms, and this way we will try to find an optimal solution to the further progress of pension reform.

The subject of privatization interests are essentially only the old-age pensions and especially savings (investment) phase of this long process. The prolongation of human life involves a substantial longevity risk for the pension providers. The private sector is yet at a disadvantage due to it because it has to respond with a significant risk surcharge at least.

A key argument for the existence of public pensions in the public economics textbooks is the failure of annuity markets. It is interpreted mainly as an adverse risk selection which takes a significant place in the voluntary private insurance - due to the fact that clients with poorer health may not have an objective interest in the annuity. But healthy people have no big interest in the pension insurance as well. The failure of annuity markets is mentioned also due to the existence of the aforementioned longevity risk. We may assign here significantly higher administrative costs of providing private insurance as well. (Tresch, p. 233, 2008)

Arguments in favour of privatization of public pensions in the literature are derived

from the high investment returns, which were reached in the financial markets - on average - in recent decades. The second major argument used was the expectation that the monetary savings, which arise in systems of private savings (investment) and insurance, will provide additional savings in the national economy; the national economy transforms it in an additional investment, which causes additional economic growth. The original concept of privatization of public pensions ignored the transition costs, consisting in the fact that while pulling out contributions from public "pay-as-you-go" pillar into private pension funds these contributions lack in the state budget. The original concept of privatization was based on the assumption that thus resulting explicit public debt is a converted form of the so called implicit public pension debt only. (World Bank, 1994) Implicit public pension debt refers to already existing future pension entitlements, which are not backed by the accumulated funds or insurance reserves.

The existence of implicit public pension debt is associated with the existence of the pay-as-you-go public pension system. The theoretical concept of implicit public pension debt was devised and used only for the purposes of privatization of public pensions. In any case it has not materialized and the only case, when temporary budget deficits beyond the Maastricht criterion were tolerated, was the evaluation of the fulfilment of this criterion by the post-communist countries. Extension of this exemption was rejected in 2010.

Purchase of units in the equity and bond mutual funds is a risky operation which is nevertheless a subject of business of public pension institutions in developed Western countries. I mean only investing in private assets, according to a typical model of the functioning of private investment companies. It is not an investment of funds into government bonds. Mentioned market approach applies to the default fund in the Swedish premium pension system. Management of state pension funds' assets may be passed - on a competitive basis – to private investment companies, such as for example in the case of the U.K., governmental NEST Corporation, which now begins to function as a low-cost provider of corporate pensions (occupational schemes). Similarly, it is in the U.S. system of occupational pensions of federal employees (Thrift Savings Plan - TSP).

The establishment of public-private investment in the Czech Republic requires, of course, a political decision with a wide support across the political spectrum. Revenues from this system can serve to sole participants in the retirement subsystem or to all insureds under the social old-age insurance and possibly also to all citizens in case of connection to the state budget. Revenues could ultimately serve well as amortization of transition costs of paradigmatic pension reform. Implementation of these variants of investment activity depends not only on the specific investment returns in the long and short term, but also on the administrative costs involved.

The original idea of privatization, under which the privatization of public pensions alone causes an additional economic growth, which shall lead to increased tax revenues from which the massive losses in state revenues as a result of this privatization should be covered, relatively quickly proved to be totally unrealistic. Soon there appeared a theory of diversification of the pension system, which requires only a partial privatization of public pensions. Thus, public earnings-related pensions may remain

in a retrenched form. Under public pensions here we understand in principle no concept of solidarity pillar, but public earnings-related pillar or social insurance.

The theory of diversification of the insurance pillar to a private pillar and a public pillar has been developed mainly by Polish authors, the theory led to the proposal to create two equal insurance pillars, which specifically refers to the same contribution rate (from the wage) in a private system (FDC) and the public one (e.g. NDC). (Chlon - Gora - Rutkowski, p. 6, 1999) Politicians finally decided, with regard to the anticipated fiscal impacts, that the contribution to the private FDC system has a lower rate, "only" 7.3 % of payroll. The theoretical concept of "halving" contribution between private and public sectors does not and can not have any theoretical justification - it is similar to the historical tendency to "share" the social insurance premiums between employees and employers in the ratio 50:50. In fact it was the result of political negotiation. The "pure" form of the "diversification" of contributions into public and private insurance pillars was done in Slovakia - each of these pillars receives 9 % of salary.

The "diversified" rate of mandatory contributions to private insurance or savings pillar at 7-9 % of wages also substantially influenced the public finances, Poland and Slovakia used financial reserves from the privatization of other sectors of the economy to cover the budget deficit. As for products used in the public pension pillar Poland introduced a NDC system and Slovakia introduced a point system of social insurance, which is close to the NDC. None of these countries considered it necessary to introduce a solidarity pillar. Progressivity index of mandatory pension pillars in the two countries is very close to 0. (OECD, p. 137, 2011)

Experience clearly shows that the partial privatization of the public pension pillar is associated with very high and virtually prohibitive costs of transformation. Even if there are very good average investment returns of the privatized pension pillar, as happened in Poland (over 7 % annually in real terms), also in combination with a positive economic development (also in Poland), notwithstanding the Polish government decided to modify substantially the parameters of the pension reform. The complete abolition of compulsory private savings pillar was also under consideration; in the end "only" the contribution rate was reduced from 7.3 % to 2.3 % of payroll.

The issue of investment returns in pension systems has been intensively analyzed by the OECD. OECD studies are based on historical data (25 years prior to 2007) of equity and bond returns in 8 OECD countries (G7 + Sweden) and arrive at a median real return by 7.3 % p.a. from the portfolio consisting of equities and bonds in the ratio 1:1. (D'Addio - Seisdedos - Whitehouse, p. 28, 2009) This high yield according to calculations by the OECD provides a life pension equal to 87 % of earnings, assuming 10 % contribution rate per year for the period of 40 years. Investment returns (7.3 %) have a significant variance, which the study estimates from 5.5 % (1st decile) to 9 % (9th decile). Adequate pension replacement rates are between 55 % (1st decile) to 139 % (9th decile). These are great results and it is necessary to consider their utilization in the insurance and savings systems.

The given historic investment returns are not achievable in reality for individual clients; they represent the model yields of pension funds, not revenues for their clients. They need to be reduced by administrative and similar costs of pension funds - not only by the asset management fees. In modelling the privatization of public pension pillar it is

necessary to take into account the future costs of pension payments, too. OECD estimates thus conceived administrative costs 1.25-2 % per year, in terms of sample used in developed countries. In addition, there are also other factors that reduce or may reduce the investment returns of pension funds: for example the impact of problems connected with structured interests of "agents" (agency theory) and with governance is estimated to reduce annual revenues by about 1 % or more. Future investment returns may be reduced also due to population aging. For these reasons, the OECD paper reduces median investment returns for clients from 7.3 % to 5 % annually in real terms. Such a return corresponds to 49 % replacement rate, assuming a contribution of 10 % of wages paid for 40 years (Whitehouse - D'Addio - Reilly, p. 38, 2009).

Results and Discussion

The first phase of preparation of pension reform has been entrusted in our country to the Expert Advisory Forum, in which the persons interested in the privatization of the pension system prevailed. The proposals of this Commission are based on the diversification theory; however they take into account some experience from other countries:

- High transformation costs are the reason for reducing the required rate of contribution into the private insurance pillar to 3 %,

- High administrative costs are the reason for the involvement of the Czech Social Security Administration in the collection of contributions and in the operation of pension savings system and the reason for the rejection of the opt-out procedure, respectively for the proposal to introduce a mandatory participation of the insureds younger than 40 years in the period of the start of reform.

In preceding public discussions the prominent lobbyists picked up some elements of the Swedish premium pension, in particular its mandatory feature and the existence of state pension institution, in order to reduce the high administrative costs. It is necessary on the one hand to appreciate this effort - in terms of support of the existence of the state pension institution - because it is actually against the interests of private pension funds. It could be influenced, inter alia, by the results of privatization of public pensions in other post-communist countries, by the persistence of difficult economic situation, which definitely did not facilitate a privatization which should significantly deplete the ground.

On the other hand, the support for Swedish low-cost system was only partial: Expert Advisory Forum did not support - without giving any reason - the provision of pensions by the state pension institution, but it "assigned" this business to private insurers, although their products are already ex definitione considerably more expensive. The same Commission, with the dominance of lobbyists, even did not suggest that it might be helpful to use the concept of default fund (Bezděk et al., 2010).

While lobbyists did support the creation of the state mutual fund, they did exclude its functioning as a default fund and additionally they did limit its investment to the purchase of government bonds. Government bond fund should thus be designated only to those clients who explicitly reject to invest in private investment funds. At the same time the lobbyists recommended that providers of investment funds to the state pension institution were the present (albeit reformed) pension funds. With certain

limitations thus the Expert Advisory Forum recommended to entrust new business to existing financial institutions, functioning in a highly oligopolistic market

of the supplementary pension scheme. The Commission did not even attempt to quantify the expected administrative and other costs of the new pension pillar.

The proposals of the Advisory Expert Forum were approved by the government's National Economic Council, where lobbyists of all kinds dominate, and the Czech government accepted these recommendations in principle. After criticism from the President of the Republic, pointing out liberal positions against the principle of mandatory participation in the new pension pillar, the third coalition party abolished his consent to the government's reform concept and raised the request that the participation in the new pillar be voluntary.

Czech pension reform is thus rooted in:

- Transformation of the existing private pension funds into private pension companies providing mutual ("participants´") funds with different risk profiles,

- Introduction of new, so-called second pension pillar which may be entered - with no return available ("opt-out") - by the insureds of the public pension system, diverting 3 % of their salary to the selected private pension company, subject to increasing their contribution by further 2 % of the salary; active state pension institution is no longer part of the system but private companies must have a fund of government bonds as one of four mutual ("retirement") funds.

Administrative and other costs in the new pension pillar will be significantly higher than in the original draft of the Expert Advisory Forum and of the government. The amount is difficult to estimate. While the law regulates the asset management fees in individual types of the retirement funds (limits 0.3-0.6 % of assets) and allows a success fee in case of appreciation of assets in these funds up to 10 % of the appreciation amount, there is no regulation of insurance premiums for the purchase of annuities from the life insurance companies, notwithstanding the additional costs and losses caused by the functioning of the whole system of institutions and markets. Another question is how many individuals are willing to switch to the new FDC pillar. Jahoda and Špalek (2009) showed that under the assumption of rationality only a small fraction of population would choose the multi-pillar scheme. Once this assumption is relaxed, a wide range of switching strategies becomes viable.

For illustration, let us mention the operation costs of the NDC system in Sweden: they reduce the pension provided from this system by 0.5 %. The Swedish premium pension system, which is very efficient from the international point of view, reduces the resulting pension by 7.5 %. Gross international rule states that a fee of 1 % of assets reduces the paid-in contributions (or the final fund value) by approximately 20 %. (Diamond, p. 7, 2011) The administrative and other annuity costs are to be added. Under Czech conditions we may assume relatively high additional costs and losses in the mentioned concept of the OECD and losses resulting from the anticipated appreciation of the Czech currency. A final basic issue then is the investment income that remains to clients after deduction of all costs and system losses. Generally we can suspect that it will be - in the model example - substantially less than it was in developed countries, on which data the OECD model is based. However we cannot exclude that it will be on average

a few (2-4 %) percentages of assets annually, after adjusting for inflation. At the same time it can be assumed that replacing the just introduced pension savings by the Swedish premium pension system can save the order of 2 % of assets annually, representing about 40 % of the paid-in contributions or the resulting annuity. Differences in efficiency between the Swedish premium pension system and the Czech pension savings are of big magnitudes - and therefore it is worth considering the application of this Swedish pension, too. The Swedish premium pension system is essentially social pension insurance with individual investment of funds. Its reform of 2010 even shifted it more toward the use of state mutual funds at the expense of hundreds of small private mutual funds.

The government's pension reform reinforces the importance of several providers of a heavily government-supported product that will not even marginally be a sort of pension insurance. "Spreading" the band of state subsidy provision from CZK 500 per month up to CZK 1,000 of participant's contribution significantly deepens unjustified discrimination against the private life insurance and its providers. Removal of the nominal savings guarantee and the move to mutual funds remove the last remnant of the possible arguments in favour of the preference of this product and financial market segment in relation to life insurance and ordinary mutual funds. The government has preferred selective subsidizing of investment products provided by the existing pension funds to a simple transformation of the pension funds for ordinary life insurance companies and to fiscal equalization of the comparable and same products. Lobbying thus prevailed over liberalism and efficiency.

Conclusion

Pension theory is not able to convince politicians refusing participation of public sector in the provision of old-age pensions. Always the extent of public pension provision and the extent of private pensions subsidization will be a matter of public choice. An essential role plays here also the construction of the products. In practice, these concepts and designs are substantially influenced by the pension lobby, especially in post-communist countries.

High investment returns in previous decades led to changes in the private protection products; part of this trend is the increase in the use of defined contribution products, at the expense of defined benefit products, and the tendency to shift investment risk to individual clients. The private sector started to offer the same products as a replacement of public pensions, too. Experience has confirmed that the cost of a single-stage transformation of the pay-as-you-go public pensions for mandatory private pensions is a fundamental problem of such a paradigmatic pension reform. Privatization of public pension system can be made only in small, gradual steps.

Most countries that embarked on the path of the partial privatization of the pension system carried out also a fundamental reform of public pensions, transiting to social old-age insurance, applying substantially the earnings-related principle. To a remarkable extent the tendency to divide the public pension system into two pension pillars displayed: one of them is a solidarity pillar and the other one an insurance pillar. New products of the social old-age insurance are: NDC and point system.

The result of the tendency towards privatization is a revival of interest in the creation of reserves (funds) in the social insurance system. Funds can be (and in many countries

are) generated in the NDC system and generally there is no reason not to think again about the restoration of the fully-funded social insurance, specifically in the FDC form. Social NDC insurance with partial funds and social FDC insurance itself are (relatively new) competitors to private FDC savings/insurance products.

The development of privatization theories led to the creation of "competitive" social insurance products. Social FDC insurance may use the same investment techniques and methods as private savings/insurance does. It turns out that social FDC/NDC insurance is capable of much better use of high investment returns than competitive private products. Moreover, the use of investment income for the benefit of all insureds is substantially more logical and meaningful than purely individual investment. More than 90 % of the insureds fully comply with state mutual fund in the role of default fund.

The social FDC insurance product can be used as supplementary social insurance, instead of subsidizing private pension savings and insurance products. Supplementary social insurance yields will be - ceteris paribus - significantly higher than the returns of private pension savings. Government subsidies to supplementary retirement savings can be abolished and the saved money may be used in a meaningful manner for the benefit of the insureds and citizens, for example to create funds in the system of social insurance.

Pension reform - as enacted by the Czech government - follows a different way than the modern pension theory. It is to be expected that the potential investment returns will be wasted on high administrative and other systemic costs of several financial groups.

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SESSION III:
PUBLIC SERVICES

Development of Social Insurance Revenues in the Czech Republic

Ondřej Bayer

Abstract

The paper analyses income development from social security insurance premia in the Czech Republic from the perspective of a macroeconomic modelling, and discusses its development with respect to the development of personal income taxes. The presumption is that premia development should follow the development of revenues from the personal income tax. The main method chosen for the analysis is a formation of regression models, by use of which are identified the main explanatory macro indicators; another applied method is the Figureical analysis of monitored variables. Subsequently, regression models are discussed in terms of their similarities. The results suggest that the development of social insurance cannot be unequivocally predicted using estimates of the development of total revenues from the personal income tax. Instead, as a relatively solid indicator of the development appears the use of revenues from the personal income tax from employment.

Keywords

Social security, personal income tax, regression analysis

Introduction

The paper analyses development of the social security contributions in the Czech Republic in terms of the macro-modelling and bringing the development of revenues from the social security contributions closer to the development of revenues from the personal income tax.

The chosen issue, or parts of it, have already been addressed by a number of studies[17]. Vančurová and Láchová (2010) engage in a description of the tax system of the Czech Republic with an emphasis on specific aspects of the tax system. The publication itself focuses on practical aspects of the taxation and resulting taxpayer's responsibilities.Bezdek and Stiller (2000) in their paper create models for the main elements of the Czech tax system. For purposes of this paper is an important the similarity of estimated models for insurance and personal income tax, when the explanatory variable is household money income from wages. Podhradská (2008) and Bayer (2011) design their own tax system regression models using methods of a simple regression analysis and a time series analysis and compare them with the reality. Klazar (2003) in his thesis estimate models of individual tax returns for the Czech Republic based on regression, time series and Box-Jenkins analysis.

Vančurová (2006) in her paper evaluates the possibility of unification systems, PIT and social insurance from the perspective of the individual taxpayer. Vlach et al (2008) in their research, analyze the possibility of merger insurance premiums and personal income tax system, which are based on international experience of countries that the merged system. Further discuss the similarity of both systems; the conclusion

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[17] Summary of following sources is based on author's previous thesis

creates assumptions for the possibility of merging the systems. Barrande et al (2004) in their paper discuss the development and unification knowledge about insurance and taxes in the countries of Central and Eastern Europe as well as discuss the various procedures for implementing a unified system. Dawkins and Johnson (1998) in their paper analyze various options for maintaining systems in terms of Australian tax legislation.

Hindls et al (2006) describe the basic statistical methods in which, among other, they deal with the regression method and time series analysis as used for econometric modelling. These approaches are applied also within prediction of tax revenues.

The presented paper is divided into several parts. The first part deals with the description of algorithms of individual monitored taxes, a brief description of the data sources used, characteristics of the explanatory variables and a description of the regression analysis. The following part in turn focuses directly on the solving of examined issues and discusses the results. The final part is the conclusion that discusses the degree to which this paper fulfilled its objective.

The aim of this paper is to document the dependence of revenues from the social security contributions on the personal income tax, or possibly its determinants. From the methodology perspective, employed were methods of the regression and Figureical analysis.

Material and Methods

This section deals with the description of basic phenomena related to the explanatory variables and summary of the data selection methodologies and analytical methods used.

Basic Algorithm of Social Security Contributions

Social security contributions assume the most important place in the tax mix of the Czech Republic, where they make up over 40% of the tax revenues. According to some theories, social security contributions are not specified as a tax since they do not satisfy the non-purpose condition. The actual social insurance premium may be broken down into several components:

1. Public health insurance: this type of insurance is mandatory for all persons living in the Czech Republic; funds from the premia are used to cover the costs of medical care.
2. Social security:
   a. Pension insurance: funds from this sub-system are used for state transfers in the form of pensions (old-age, orphans, survivors and disability).
   b. Health insurance: funds are intended for the sick, or possibly as a support during the maternity leave.
   c. State employment policy: resources are used to fund the support in unemployment and a job creation.

The actual algorithm for calculating the social security contributions is as follows:

Table 1 Social insurance premium algorithm

Assessment base
* Premium rate
Premium

Source: Author

The assessment base of insurance premia is calculated from partial tax bases of the personal income tax, when the base is chosen either according to section 6 (Income from employment and functional benefits) for calculation of the premia of employees, or pursuant to section 7(Income from business and other self-employment) for an "entrepreneur". Given that the starting point for the assessment base are the taxpayer's taxable incomes, the volume of exempt incomes is relatively comparable as well18. For employees the assessment base remains without any further modifications, but for entrepreneurs it holds that

$$AB = 0.5 * (I - E) \tag{1}$$

where AB is the assessment base, I are taxable incomes, and E are tax recognised expenditures.

Another specific feature of insurance premia in the Czech tax system are minimum and maximum values of their assessment base.

For most taxpayers who follow section 6 is the minimum assessment base of the general health insurance CZK 8,000 (the so-called minimum wage) per month, except for policyholders for which pays the state (retired, dependent children, students and persons receiving parental benefit). In practice this interpretation means that a person without taxable income under section 6 is liable to pay CZK 1,080 per month. In this case, for the social security there are no minimum assessment bases.

For taxpayers with incomes under section 7 are minimal bases constructed differently. Provided the income from business represents their main activity, the minimum assessment base of the general health insurance is defined as:

$$AB_{ghi} = m * 0.5 * AW, \tag{2}$$

in the case of social security:

$$AB_{ss} = m * 0.5 * 0.5 * AW, \tag{3}$$

where AB is the assessment base, m is the number of months and AW is the average wage (in 2011 amounting to CZK 24,740).

For both types of policyholders (employee and "entrepreneur"), the system of insurance has the same maximum assessment base:

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[18] There are specific exceptions among tax-exempted incomes from the perspective of PIT and the social security contributions, but examination of these exceptions is beyond the focus of this paper. For details, see (Vančurová, Láchová, 2010).

$$MaxAB = 6 * m * AW, \tag{4}$$

where MaxAB is the assessment base for health insurance premia and the social security, respectively, m is the number of months and AW is the average wage.

In the Czech Republic is the larger portion of an employee's premia paid by the employer (Vančurová, Láchová, 2010).

Basic Algorithm of Personal Income Tax

Personal income tax (PIT) represents a significant part of the current tax mix in the Czech Republic (over 10%). This tax is levied on an income of individuals and its object are all taxpayer's incomes, unless exempted or excluded.

Algorithm of the PIT calculation may be summarised as follows:

Table 2 Calculation of PIT

Tax base
-   Non-standard deductions
= **Tax base after reduction**
* Tax rate
= **Amount of tax before credits**
-   Standard credits
= **Tax after credits**

Source: Vančurová and Láchová (p. 157, 2010).

Given the use of a single tax base would be relatively inappropriate, there are several sub-bases which may be labelled pursuant to relevant sections of the Act on Income Tax19:

Section 6   Income from employment and functional benefits – this partial tax base comprises taxation of wages and salaries. With respect to the tax collection, under this section is often used the withholding tax method, where the taxpayer and payer are not the same person. Particular uniqueness of the Czech tax system is the use of a "super-gross wage", when wages or salaries are for tax purposes increased by premia paid for employees by their employers. According to Vančurová and Láchová (p. 145, 2010), revenues from this sub-base represent at least two-thirds of the total PIT revenue.

Section 7   Income from business and other self-employment – in this sub-base are taxed business incomes. The taxpayer may claim expenditures towards achievement of the income.

The actual total tax base can never be lower than the sub-base under section 6.

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[19] Sections 8-10 are not relevant to the objectives of the paper.

Deductions include items that may reduce the tax base. These are mostly donations to charities, voluntary pension and life insurance and interests on housing needs (Vančurová and Láchová, pp. 167-170, 2010).

The tax rate is in the Czech Republic uniform and linear at 15%.

The tax credit in essence acknowledges benefits associated with the social status of a taxpayer, where as a credit may be claimed disability, a credit for a husband/wife without income, or a credit per student. In specific cases may be recognised the so-called tax bonus, when together with claiming preferential tax treatment of a child the taxpayer receives from the state a transfer.

Regression Analysis – Explanatory Variables

The previous overview of basic calculation algorithms related to the social security contributions and personal income taxes is important for exploring their similarities. It is obvious that variables that affect the amount of taxes collected pursuant to sections 6 and 7 also affect the amount of premia paid. For purposes of the regression analysis it is necessary to estimate which macroeconomic indicators could represent quality explanatory variables.

As the best indicator unequivocally seems the use of the above mentioned average wage. It is included in the calculation of premia and at the same time it should also influence the amount of collected taxes pursuant to section 6.

Another important variable shall be the GDP which should within the regression model explain the development of the economy as a whole. Provided it can be assumed that the GDP growth is positively correlated with the volume of wages and profits, the growth in the GDP should also influence the revenue of the observed variables.

The final observed variable with a potential to improve the models' accuracy is the unemployment rate. However, in this case there are already apparent distortions in the structure of observed incomes, since an unemployed person reports for the purposes of PIT no income, while towards the social insurance s/he must in most cases pay the health insurance from the minimum assessment base.

Regression Analysis – Methodology

Regression analysis is a mathematical-statistical method aiming to explain the observed value (dependent variable) using other explanatory variables. Via regression analysis is possible to measure the strength of the dependency of the observed variable on pre-selected parameters. When using only one explanatory variable, we talk about a simple regression analysis; using more explanatory variables represents a multiple regression. The output of the regression analysis represents the regression equation that may take several main shapes.

Table 3 Types of regression equations

Straight line	$Y = b_0 + b_1 * x$
Parabola	$Y = b_0 + b_1 * x + b_2 * x^2$
Logarithm	$Y = b_0 + b_1 * \ln x$

Source: Author

where Y is the explained variable, x is the explanatory variable and b are estimates of parameters processed using the OLS (ordinary least squares) method.

However, the equation itself is still not a telling indicator of the degree of an explanation by the means of explanatory variables. It is necessary to take into account also the value of statistical tests.

For an evaluation of the model as a whole is used the coefficient of determination (R2) which indicates how many percent of the variance in the observed variable is the model as a whole able to explain. In a multiple regression there appears the partial coefficient of determination (part. R2), used to determine the variance explained by each explanatory variable. Equally important is the value of the F-test that, based on the statistical significance, tests the model as a whole. Also important is the t-test which examines whether the use of individual explanatory variables is statistically significant. Most statistical models assume as the limit of the statistical significance the value 5%. The final important test is the Durbin-Watson statistic, used to identify autocorrelation. Autocorrelation represents the case when the explanatory variable is influenced by itself over time. If the Durbin-Watson statistic ranges around the value 2, it may be argued that the hypothesis of autocorrelation is rejected.

Characteristics of Data Files

For purposes of the regression analysis were used time series of the ARAD system, provided by the Czech National Bank, and for the time series of unemployment it was the database of the Czech Statistical Office. As explanatory variables were selected the following series
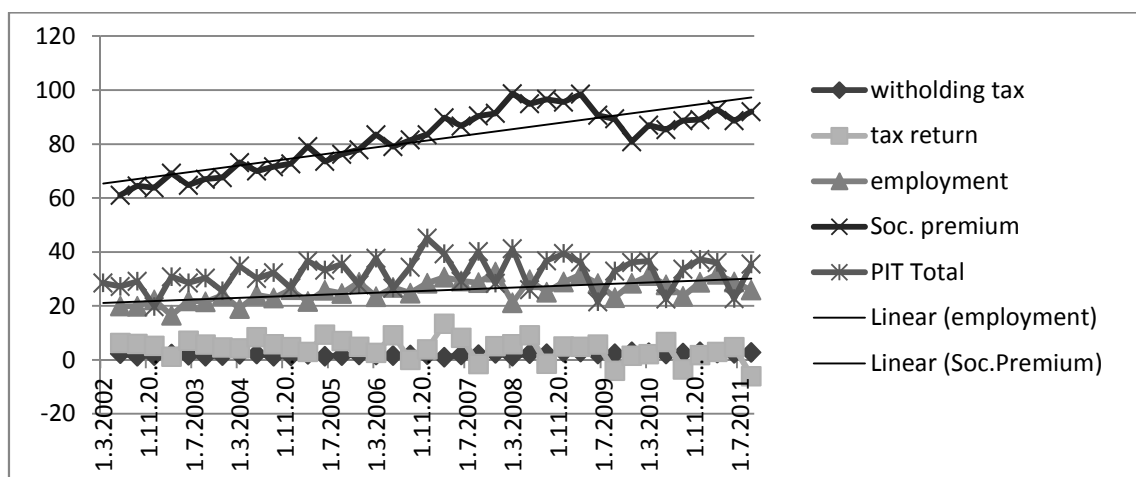
3. Revenue from the social security contributions
4. PIT collection: total collection, collection by tax returns, collection by withholding tax, collection from employment

Data series were selected on the quarterly basis in order to obtain relatively long time series. Unfortunately, it is quite difficult to obtain explanatory variables in shorter than quarterly intervals. High seasonality in observed series was dealt with by seasonal adjustment using the method X12ARIMA.

Results and Discussion

In examining the issue of the development of social security contributions in the Czech Republic, as first was performed a simple Figureical analysis of the observed explanatory variables. Figure 1 demonstrates their development.

Figure 1 Development of tax income and social security contributions in billions CZK

Source: Data from ARAD and Czech Statistical Office
Calculation: Author

From this very quick Figureical analysis it is evident that the highest degrees of similarity demonstrate social security contributions and the income from employment. This phenomenon is caused by the algorithm of premia calculation, as already described. Development of the total PIT collection cannot represent a good indicator, because it also includes incomes pursuant to sections 7, 8 and 9. Collection from tax returns shows at certain intervals even negative values. The final observed variable – collection of the personal income tax by withholding – represents in total revenues a minimum item and therefore neither this quantity has a potential to become a good explanatory variable.

These preliminary findings should be confirmed by the regression analysis. Initially was performed a multiple regression using macroeconomic indicators (GDP, unemployment and average wage) aiming to create a top-quality regression model. Subsequently, using similarities in individual models, discussed was the development of the observed variable and the degree of similarity to other models.

The following Table summarises the most suitable regression models.

Table 4 Regression equations

Variable	Equation	R²	DW
Soc. premium	SP = + 5.003 + 0.1284*GDP - 1.632*unemployment	94.35%	1.87
PIT total	SAPIT_total = + 4.768 + 0.05817*GDP - 0.0006319*wage	38.60%	1.97
Withholding tax	withholding = - 0.05773 + 0.0001049*wage	41.48%	1.82
Tax return	return = + 14.36 - 0.0005065*wage	16.31%	2.08
Employment	SAEmployment = - 3.382 + 0.04248*GDP	73.02%	2.01

Source: Author
Note: SA means seasonally adjusted, Significance levels of variables are 95%.

Estimating the regression models of PIT is rather complicated, since in itself, this tax hides many random factors that may influence the resulting models. In the case of estimates of the total collection, collection by withholding taxes and the collection using tax returns, the explanatory power of models does not exceed 50%. An interesting

factor is the fact that only for the social security contributions showed as statistically significant the variable of an unemployment rate, while the average wage proved to be irrelevant.

From the perspective of examining dependencies between the development of insurance premia and parts of the income tax revenue should be noted, that the GDP has in the model of insurance premia very high explanatory power (over 80%). This strong dependence is the reason why this development can be best correlated with the tax collection from employment, for which the informative value of the GDP exceeds 70%, while the total personal income tax collections are affected by the development of the GDP by "only" 23%.

These models meet the DW condition, when the value of this statistic is in the interval (1.8, 2.2), and therefore can reject the hypothesis of autocorrelation. The problem of these regression models can be heteroskedasticity, because monitored data sample is relatively small (38 observations). These models could be possible relatively inaccurate in the case of heteroskedasticity. Unfortunately for the removal hetereskadisticity it is necessary to extend the data sample, but the longer quarterly data are not common available. Another possible problem may be different than the normal distribution of data, there would be probably better to have longer time series.

For the final testing of the impact of the dependence of revenues from insurance premia has been designed a regression model with the explained variable set as a revenue from social security contributions and the explanatory variables set as segments of the personal income tax collections.

$$SP = 36.81 - 0.9757 * \text{tax return} + 1.908 * \text{Employment} \tag{5}$$

For purposes of the explanatory power were in the model left revenues from tax returns. Over 50% of the variance of the observed quantity explains income from employment. This variable may thus be evaluated as clearly the best indicator of the development of the social security contributions from individual segments of the personal income tax.

The result of regression analysis confirms the high correlation between social insurance and employment taxes. This result is caused by a similar determination of the tax base, mentioned above, which also says Vančurová (2006) and Vlach et al (2008). For the purpose of reducing state's administrative costs it would be best to try to unify the two systems as argued by Brande et al (2004) and Dawkins and Johnson (1998). If there were this unification it would be necessary to analyze sense of maximum and minimum premium in security system from the perspective of tax equity, according to the Vančurová (2006) it would be possible to establish uniform minimum and maximum assessment basis for the merged system.

Conclusion

The paper has confirmed existence of several basic factors that influence the development of revenues from the social security contributions in the Czech Republic. The highest degree of dependence shows the insurance premia on the GDP that reflects the overall economic situation. Within the monitored dependences was proven the largest dependence of the insurance premia on the income

from employment. This relatively strong degree of dependence is caused by the system of calculation of both observed variables. An interesting observation is an independence of the insurance premia on the development of average wages. This may be caused by the existence of minimum and maximum assessment bases of the insurance premia.

Acknowledgements

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Financial Affordability of Housing in the Czech Republic (1991-2009) with Focus on Social Inequalities

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Abstract

The aim is to analyze the issue of financial affordability of housing in the Czech Republic. First, focus will be the development in financial affordability of rental housing from 1991 to 2009. The analysis focuses not only on general trends in household expenditures, but also on housing expenditures of various social groups. When analyzing the burden of housing expenditures of different social groups, we claim it is essential to adopt a differentiated approach and reflect that different social groups may in different ways react to increasing housing expenditures. The key question is whether there has been (and to what extent) a shift in financial affordability of housing among different household types. The results of analyses show that there has been a continuous increase in household expenditures for housing and that especially the households of elderly were threatened most by the financial affordability of housing. Finally, it is shown, that the inequalities between the wealthiest and the poorest (in terms of proportion of income devoted to housing expenditures) are increasing.

Keywords

Introduction

The Czech Republic has in the past 20 years undergone a significant shift from centrally planned economy to the market driven one. This shift has had many important consequences in the housing sector. In the beginning of 90s there has been a strong focus on the issue of availability of housing and only gradually in the course of 90s the attention shifted to the issue of financial affordability of housing.

The concept of financial affordability is usually defined as a relation between the incomes and household housing expenditures. The particular housing is affordable, if this ratio is on an acceptable level. This however means that this level has to be set normatively and also that factors that may bias and distort the real affordability of housing have to be counted in: this concerns especially market regulation, overconsumption of housing, state allowances as well as the existence of secondary housing. There are generally three ways of how to set the standard for financial affordability of housing.

First, there is the traditional ratio standard, which takes into account the overall level of housing expenditures in regard to the total income of the given household (Hulchanski 1995; Garnett 2000). These ratios can differ according to the fact, how broadly or narrowly we define expenditures for housing and household incomes. E.g. household incomes can be included before tax or after tax, it can be taken into account the state allowance etc. In household expenditures it can be included also credit installments, household energy consumption or other services linked to running

a household. The ratio of financial affordability of housing is then set normatively, usually on the level ranging from 20% to 33%.

Second, there is the referential approach to financial affordability of housing. In this approach it is not set the limit level, but it is rather pointed to other sectors of housing (the level of housing expenditures in private rental sector) or is set so, that it would guarantee housing for particular social groups (e.g. rent should be determined so, that it would be affordable to households with many children or with low incomes).

Third, residual income approach is based on computation of the residual income, which is based on net household income reduced by housing expenditures. Residual income approach stems from the assumption, that expenditures for housing represent the highest and relatively fixed part of household expenditures. The provision of basic household needs is thus limited by expenditures on housing. In this approach, a household is in the threat of financial affordability when net household incomes, after being reduced by housing expenditures do not suffice to cover other basic household needs – including clothing, nutrition, education etc. Obviously, also in this approach it is necessary to set the level of financial affordability in a normative way. Also, this standard (limit) may vary with household type, number of household members as well as social and economic context (Stone, pp. 162-164, 2006).

In conclusion, in all of these 3 approaches it is necessary to set the standard of financial affordability normatively. Although all of these approaches have to deal with specific methodological issues, the standard ratio approach and residual income method are the most commonly used in housing research. For the analysis of financial affordability of housing in the Czech Republic we first used the ratio approach (Figures 1-4). These analyses were also complemented by the residual income approach (Figure 5 - poverty index).

Material and Methods

Even though the ratio measure is commonly used today in many studies, there are few methodological difficulties. First, it is important to take into account not only what is included in household expenditures (household energy costs, insurance etc.), but also factors, that reduce housing expenditures (state allowances and benefits). In addition to this, it has to be taken into account two other factors that reduce the burden of housing expenditures. First, some households live in such conditions that can be evaluated as much above the generally required housing standards (Thalmann 1999) – we call this housing overconsumption. In our analysis we make an adjustment according to a rule of ratio between the number of household members and the number of habiTable rooms (more about housing overconsumption in Lux, Sunega, pp. 855-857, 2006 or Lux et at. 2003). Second, also the existence of secondary housing has to be taken into account.

First, we define the ratio measure of financial affordability of housing. We compute the "load ratio" in the following way:

*"load ratio" = monthly expenditures of household (basic household expenditures)/monthly household total net incomes*100.*

Basic housing expenditures = total household expenditures for rent, utilities and other services[20].

The data sets for the measurement of financial affordability of housing were drawn from Statistics of Household Accounts (SHA), a survey conducted annually by the Czech Statistical Office. The data was weighted in order to reflect the representative structure of the population of the Czech Republic. Also, throughout the study we will be using (in terms of the ratio standard) three normative thresholds: 20%, 25% and 30%.

As mentioned above, when computing the ratio standard, we take into account factors that overestimate the real burden of housing expenditures (state regulation, secondary housing, state allowances and housing overconsumption). State regulation (adjustment 1) refers to the fact, that the self reported expenditures for rent in the data sets in some cases exceeded the rent level set by the regulation21. In such cases the reported expenditure for rent was decreased to the maximum level set by the regulation. Secondary housing (adjustment 2) means, that some households also include in their housing expenditures the costs of running a secondary housing. Housing overconsumption (adjustment 4) refers to situation, when the number of rooms exceeded the number of household members (Thalmann 1999). In both cases, housing overconsumption as well as secondary housing, the adjustment was done on the basis of comparison with the average household expenditures in the given municipality without secondary housing (or no housing overconsumption respectively). Finally, household expenditures were reduced by the housing allowance (adjustment 3) for all eligible households. For a detailed and thorough description of this methodology see Lux and Sunega (2006).

Results and Discussion

The Figure 1 shows a 18 year development of the average load ratio of basic housing expenditures. The particular curves are defined in the following way:

Load – unedited average load ratio of basic housing expenditures to total net incomes

adjustment 1 – unedited load adjusted for state regulation of rents

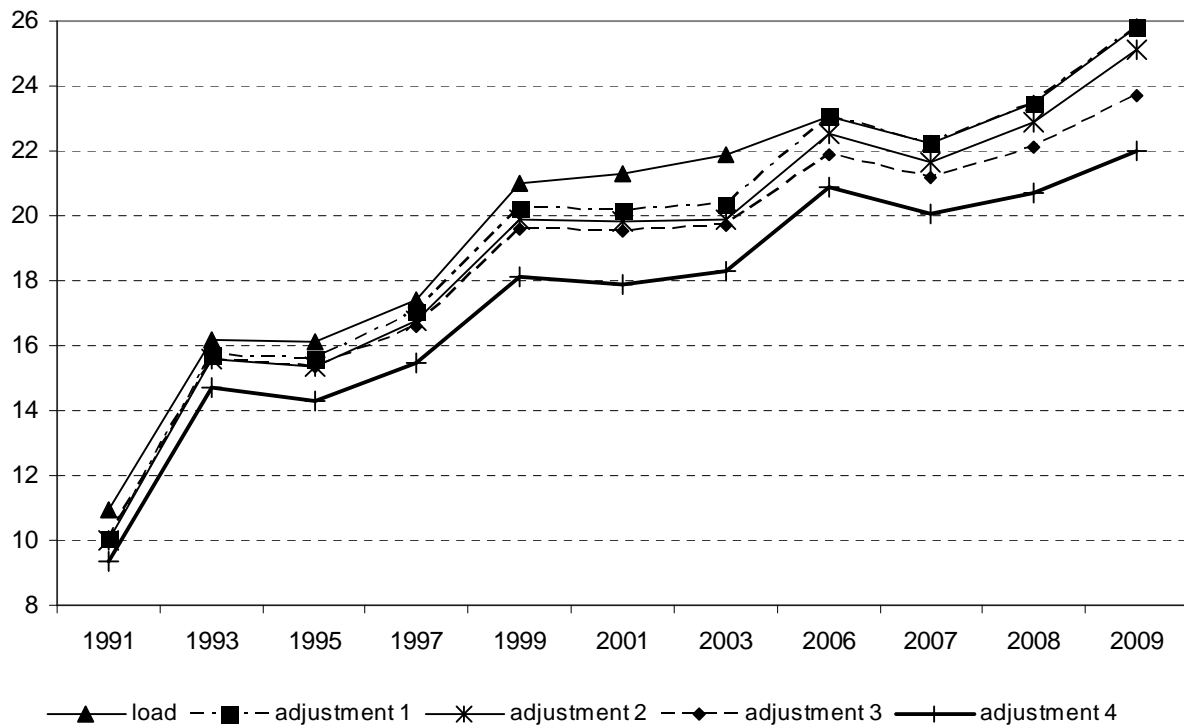*adjustment 2 – adjustment 1 plus expenditures on secondary housing*

adjustment 3 – adjustment 2 plus state housing allowance

adjustment 4 – adjustment 3 plus taking into account overconsumption of housing

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[20] These included: the sum of expenditures for rent, heating, water rate, electricity, fuels, and other related services.

[21] Some households probably included also expenditures for utilities.

Figure 1 Development of average "load ratio" of basic household costs in 1991-2009
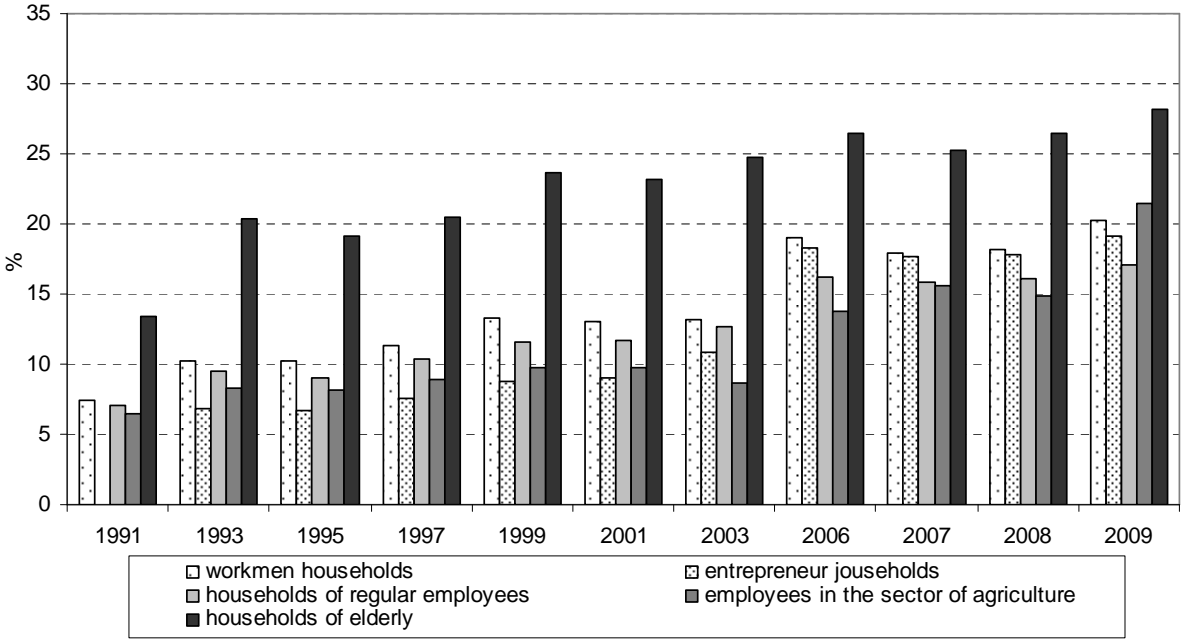

Source: SHA 1991-2009, own calculations.

Figure 1 shows the unadjusted average ratio of housing expenditures22, as well as all four adjustments. These adjustments should give more accurate picture of encumbrance of housing expenditures. However, all of the adjustments are made computationally, modeling appropriately the data available. The question, whether these adjustments reflect financial affordability in reality, is rather questionable. Take an example of household overconsumption, which refers to a situation when a particular household uses a number of rooms which exceeds the number of household members. In such a situation, the particular household pays for such housing more, than would be necessary and thus financial strain is in this case exaggerated. On the other hand, for elderly people may be the solution of housing overconsumption for several reasons rather difficult. There might be a lack of small flats in the given municipality (this is particularly the case in many Czech municipalities), low willingness of elderly to move to a far away location etc.

From the Figure 1 we can see the trend in the load ratio of basic housing expenditures. This ratio has been increasing continually over the past 20 years, in 2009 reaching the level of about 25%. Figures 2 and 3 depict the same ratio, but for different social groups. We use such definition of social groups that is commonly used by the Czech Statistical Office: (1) regular employees, (2) households of self-employed and entrepreneurs, (3) workmen households, (4) households of elderly and (5) households employed in agricultural sector. In Figure 2 we show the ratios after all adjustments (adjustment 4).

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[22] Monthly expenditures of household/monthly household total net incomes.

Figure 2 Development of the unadjusted load ratio of housing expenditures in rental sector according to the social group of the head of household
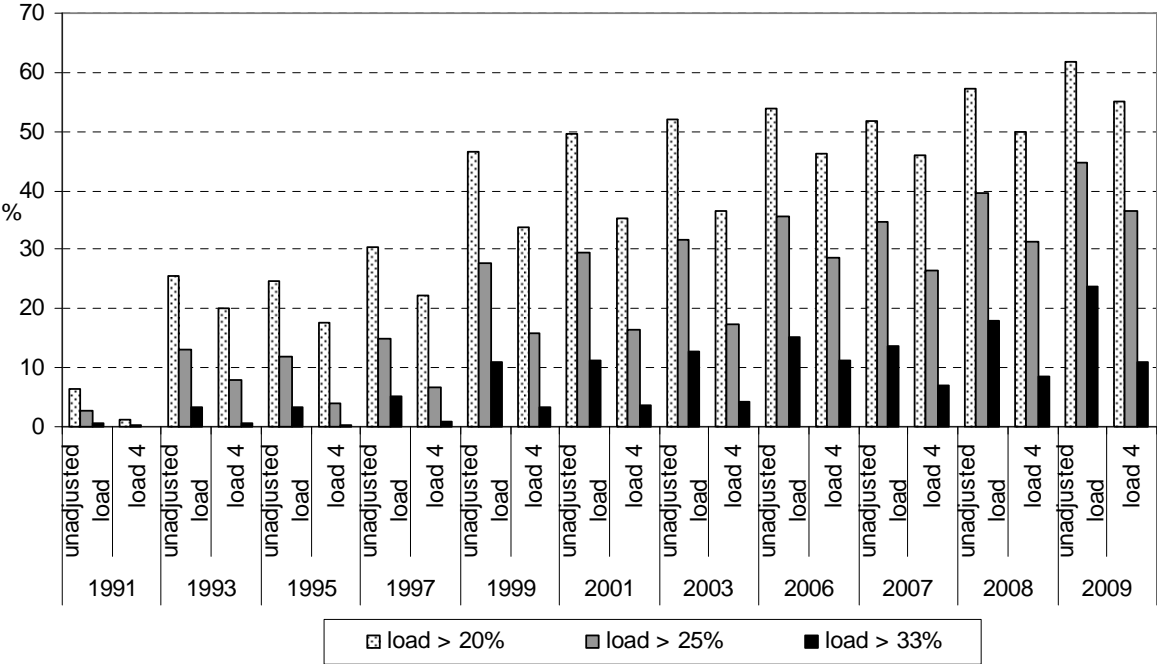

Source: SHA 1991-2009, own calculations.

Figure 2 clearly shows that the load ratio is the highest for households of the elderly. For this social group the ratio in 2009 was 28%, which is above some normative levels, but represents a rather satisfactory ratio. However, the unadjusted ratio was as much as 34% (respective Figure not presented here). This suggests that on average housing is for the households of elderly in the Czech Republic on the verge of financial affordability. Moreover, over the past few years, there has been a gradual increase in the level of ratio of housing expenditures. What however seems to be a more important case, is the significant difference in the load ratio of the elderly compared to other social groups.

Figure 3 shows the proportion of households in the rental sector, that were in the threat of financial affordability measured by the ratio standard with normative thresholds set on 20%, 25% and 30% of net household income. To be as clear as possible, we are presenting results for the unadjusted load ratio and for the encumbrance with all four adjustments. From 2001 to 2007 the proportion of households above the normative thresholds has been stagnating. From 2007, however, there has been an increase in the proportion of households, for which their housing ceases to be financially affordable (even after including all four adjustments). E.g. in 2009 both (adjusted as well as unadjusted) ratios show that for about 40% of Czech households, at the normative level of 25%, their housing was not financially affordable.

Figure 3 The ratios of households with the load ratio of housing expenditures (in the rental sector) higher than 20%, 25% and 30%
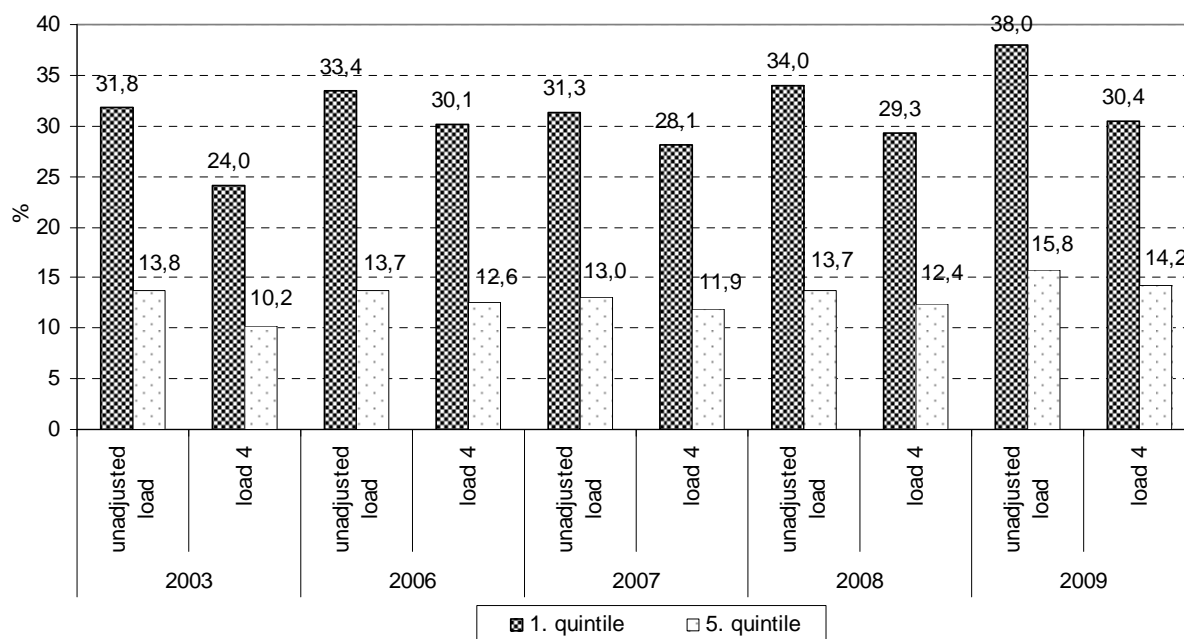

Source: SHA 1991-2009, own calculations.

On more general level we can inquire, what are the inequalities in financial affordability of housing not only between the elderly and other social groups, but also when comparing households only in terms of wealth and income levels.

Figure 4 compares the adjusted and unadjusted load ratios of the wealthiest and poorest households in the period from 2003 to 2009. The analysis, in accordance with general expectations, shows, that the load ratio of the poorest families (1st income quintile) was significantly higher than the encumbrance of the wealthiest households (5th income quintile). While the difference in the unadjusted load ratio between these two types of households was in 2003 about 18%, in 2009 it was as much as 22%. If we look at the development of the adjusted ratio, we can see a similar dynamics. The difference in adjusted load ratio between the 1st and 5th quintile was 14% in 2003 and as much as 16% in 2009. It follows from these findings that the differences in load ratio of the wealthiest and the poorest households have become greater in the course of the last few years and was not relevant just in the first few years after switching to market economics in 1990s.

Although the ratio analyses presented above represent the most common approach to the measurement of the financial affordability of housing, some scholars prefer the residual income approach (Stone 2006). In this vein it is argued, that the real burden of housing expenditures to a great extent depends not only on the general levels of the total net income, but also on household type and size. High expenditures that go beyond 30% or 40% can be for wealthy household an issue of voluntary choice; a preference of high standard of housing. On the other hand, for households with low incomes the expenditures for housing on the level of 25% can be unbearably high and undesirable.

Figure 4 Development of adjusted and unadjusted load ratio – comparison of the wealthiest and poorest in the rental sector

Source: SHA 2003-2009, own calculations.

The logic of the residual income approach was used in Figure 5 – the poverty index. It was computed in the following way: First it was computed the net residual income, which was computed as a difference between monthly net household income and the sum of (adjusted) basic expenditures for housing. The resulting sum of money should, following the logic of the residual income approach, be enough to cover the basic needs of the given household. In order to specify this level of basic needs, it was used the minimum subsistence level used in the Czech Republic. In this way, it was set the minimum residual income so that it would reflect the minimum subsistence level[23]. The poverty index was computed as a ratio of net residual income and minimal residual income. Values of the poverty index around 1 represent standard of living near to the minimum subsistence level. High values indicate high standard of living. The approach is from methodological perspective close to housing induced poverty (Kutty 2005) or shelter poverty concepts (Stone 1990; 1993).

Figure 5 shows the development of the poverty index for various social groups from 1990s until 2009[24]. The least threatened social groups by the financial affordability of housing were the households of regular employees and self-employed/entrepreneurs. E.g. In the last four years among the households of regular employees the size of residual income was about 4 or 5 times the size of the minimum

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[23] The minimum subsistence level, legally defined in č.110/2006 Sb., refers to eligibility for social benefits caused by low household income. This level has been changing over the past 20 years and the level of minimum subsistence level used in the analysis reflects these changes (for an overview and description of methodology see Lux and Sunega 2006).

24 From 2007 onwards there was a significant change in the construction and computation of the minimum subsistence level. Until 2006 it was computed in binary way and from 1.1.2007 was excluded that part, which was concerned with the level of expenditures for housing. At the same time two new allowances were introduced: housing allowance and housing supplement payment.

subsistence level. On the other hand, the most threatened households were the elderly25. The poverty index among these households was in the period of 2003 to 2009 on average about 2.5 times higher the minimum subsistence level needed to ensure nutrition as well as other basic needs. From Figure 5 we can see, that the poverty index was continually increasing in the period from 1991 to 2001. This means that in this period the size of disposable household income (not blocked by housing expenditures) was increasing. After 2003 a certain differentiation took place as the poverty index was increasing only among the households of entrepreneurs, employees and workmen.

Figure 5 Development of the poverty index in the period of 1991-2009 according to the household social group in the rental sector.
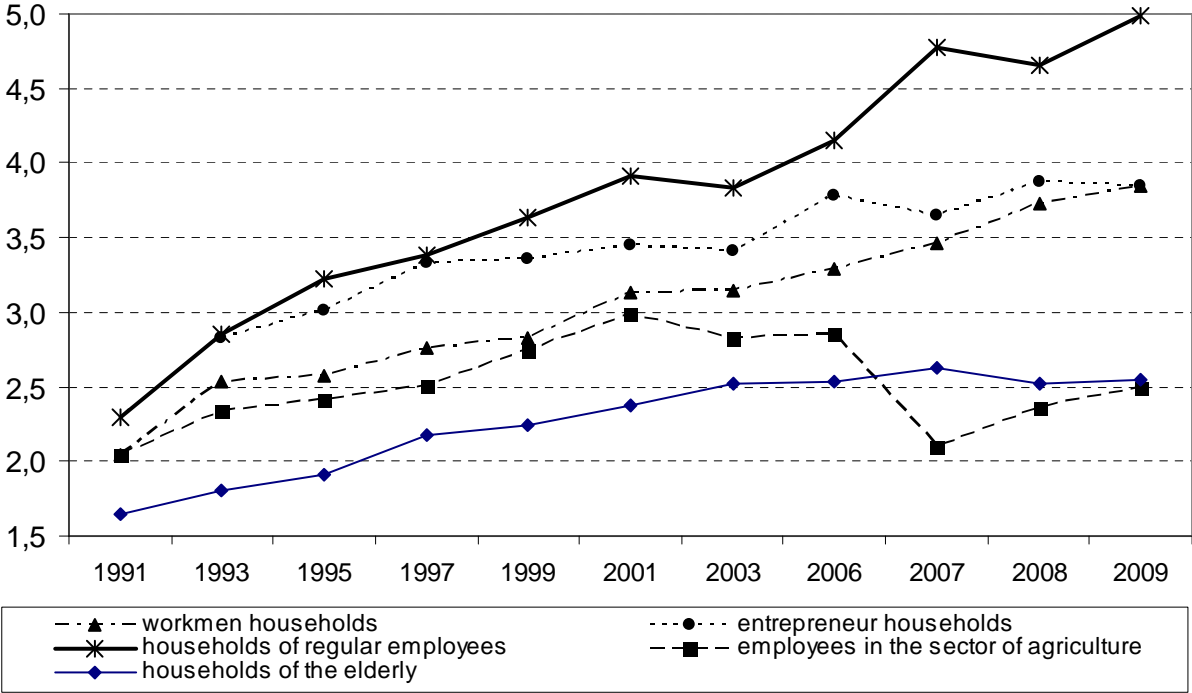
Source: SHA 2003-2009, own calculations.

Although the ratio as well as residual approaches to the measurement of housing affordability methodologically differ, the analyses show, that both methods give similar picture of the dynamics of development of financial affordability of housing in the Czech Republic in the past 20 years. The analyses show that Czech households face continual and long term trend of the increasing costs of rental housing. The inequalities between the poorest and the wealthiest households are somewhat increasing (Figure 5). Figure 2 shows that especially the households of elderly are threatened by the financial affordability; the average ratio of expenditures for housing is on the level of normative thresholds. Last but not least, also the poverty index for the households of the elderly and the employees in agriculture has been stagnating since 2003. The above presented analyses thus suggest that inequalities in financial affordability of housing are not decreasing. On the contrary, it seems that they have been rather somewhat deepening.

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25 The results for the employees in the sector of agriculture are limited because of small numbers of these households in SHA data sets.

The analyses of the financial affordability of housing in the Czech Republic have shown that the strongest rise in the expenditures for housing took place in the beginning of 1990s. Although the rise in the encumbrance of housing expenditures was in the period from years 2000 to 2007 relatively low, from 2007 to present, also due to the rent price deregulation, the burden of housing expenditures has been increasing more strongly. The hardest affected were the households of the elderly, who spent the biggest proportion of their income on housing. It can be regarded as alarming that in 2009 the adjusted load ratio was for the households of elderly about 28%, which is almost on the level of the highest of the normatively defined thresholds.

Conclusion

It is not a surprising finding that the average ratio of housing expenditures to income in the rental sector has been in the past 20 years continuously increasing. This development was caused by numerous factors, mainly by rent deregulations as well as increasing income inequalities. The average load ratio in 2009 was about 22% after all adjustments, which is quite an acceptable burden of housing expenditures. On the other hand, these findings conceal the fact that the burden of housing expenditures can vary significantly, if we analyze the situation of particular social groups. A more detailed analysis has shown that it is especially households of elderly that face ratios of housing expenditures around the proportion of 34% of net income, which is above all generally acknowledged maximum normative thresholds. Even after taking into account various adjustments (in the case of the elderly especially the housing overconsumption), the load ratio was around 28%. This finding can be regarded as rather alarming as for example in the case of regular employees this ratio was about 17%. Last but not least, the inequalities in housing expenditures among the wealthiest and poorest households also seem to have been increasing.

On the whole it can be summarized, that inequalities in the financial affordability of housing in the rental sector have not been decreasing. The empirical evidence presented in this paper suggests the contrary: the differences between the poor and wealthy are increasing. It could be argued, that this is just a natural development and side-effect of the transformation from an egalitarian to a market driven society. On the other hand, the fact that some social groups are on the verge of financial affordability of housing measured by the normative thresholds and that the inequalities are gradually increasing can be regarded as potentially troubling.

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Institutional Opportunities for Supporting Roma Children in the Czech Educational System

Laura Fónadová, Markéta Páleníková

Abstract

Various researches and studies show that Roma population in the Czech Republic faces systematic disadvantages in several areas. The most serious disadvantage is the one in the labor market. One of the main reasons leading to this situation is the low educational level Roma people attain. The causes that lay behind the specifically low qualification of the Roma are the access to various levels of education and the process of passing through the whole educational system. There are numerous publications on this issue, including discussions on the possible influence of individual, family background, educational system or social climate. However, to what extent the present Czech educational system is able to compensate the different individual backgrounds? The goal of this paper is to introduce possible tools aimed to compensate the influence of various individual backgrounds and of other factors related to the marginalization of the Roma in the Czech society. The present paper also raises the question of how public institutions can improve educational perspectives of the systematically disadvantaged groups of children in the Czech educational system.

Keywords

Disadvantages of the Roma, educational system, social barriers, social inequalities

Introduction

In contemporary Czech society Roma people, as an ethnical group, are systematically disadvantaged in several social spheres: in the labor market, living conditions or in the educational system. Their social chances in these three areas are incomparably smaller if we are to compare them to the ones of the majority population.

We clearly identify specific high unemployment rate of Roma population in the Czech labor market. The unemployment rate in 2001 was four times higher than for the majority population. When compared to the majority population, we can observe that about half of the economically active Roma people were unemployed for more than one year (Sirovátka, 2006). This unemployment rate markedly contrasts with the high level of participation of the Roma in the labor market during the communist period, when the employment rate was around 90% for men and more than 50% for women (data for year 1970) (Sirovátka, 2003).

The situation of a person in the labor market is immediately reflected in the quality of life or the living standard of his family. Regarding the standard of living of the Roma, one of its key indicators is the rate of dependency on social allowances/benefits. This rate varies around one fifth of all households in localities with lower proportion of Roma population up to two-thirds of all households dependent on social benefits in areas with a higher proportion of Roma population (Sirovátka, 2003). Low socio-economic status of Roma people reinforces the negative stereotypes majority population holds towards

Roma people and that mass media significantly boost up (for example, recent media discourse on "inadapTable members").

The success in the labor market, the performance of more skilled work and related financial rewards and consequently living standards, and higher individual or family status are directly conditioned by the educational attainment. Nevertheless, own or surrounding-attributed ethnicity represents in the Czech society a significant predictor of disadvantages in the educational process. This issue channeled our research focus towards the institutional level. The aim of this paper is to assess the Czech educational system in relation to the Roma in terms of:

- equal access or potential barriers in the access to education and the process of passing through the educational system (opportunity to access);

- motivation, i.e. to what extent the Czech educational system is able to motivate in attaining higher education, especially Roma children or children who are otherwise disadvantaged - for example, children from low-income families or families with low qualifications in the labor market (a significant part of Roma families also belong to) (achieving success).

In our analysis, we will primarily focus on the level of basic education, i.e. ISCED 1 (primary education - first degree) and ISCED 2 (lower secondary education - second degree). It represents the whole compulsory school attendance period which is nine year in the Czech educational system. According to the Education Act (2004, section 45), the level of basic education is attained when pupils successfully complete basic educational programme at a basic school, or the lower level of six or eight-year secondary general school or its equivalent in the eight-year programme of conservatory or basic educational programme at special basic school. Since the school year 2006/2007, the fields of the basic education consist of basic school and special basic school.

We are aware of the controversies in the use of category Roma. However – as Gabal and Čada (2010) do – we proceed from the assumption that the designation Roma can not be simply displaced by the fact that it does not exist (and either the law knows nothing about it) something like the Roma pupil (or Roma job applicant), especially when inequalities based on the ethnic origin are systematically found above constitutionally defined principles of equal opportunity.

Data and Methods

Equal Access to Education

Czech educational system makes reference to disadvantaged children - for example, the Education Act specifically provides for the education of children, pupils and students with special educational needs. Such a child is a person with disabilities, physical handicap or socially disadvantaged. Socially disadvantaged (Education Act, 2004, section 16) is considered a child in or having:

- family environment with low socio-cultural status, threaten of socio-pathological phenomena;

- ordered institutional upbringing or protectively placed upbringing

- the status of refugee, beneficiaries of subsidiary protection and participant in the process of granting international protection in the Czech Republic based on special legal regulation.

These categories of children have the right to adequate education, school counseling and school counseling facilities. Although, at first glance it might seem obvious that there are no barriers in the access to education26 or discriminatory behavior against selected groups of pupils in the Czech educational system, the opposite is true. This fact is particularly demonstrated in the verdict of the European Court of Human Rights in November 2007, in which the court found an indirect discrimination against Roma children by enrolling them in special, later practical schools27. The verdict points to the fact that the Czech Republic commits indirect discrimination against these children. The conclusion is based on the disproportional representation of Roma children in special schools. (The enrolment of Roma children was done by testing and parent consent and in many cases it is questionable whether parents were adequately informed, as they were asked to sign a pre-filled-in form, i.e. an unreasonable decision.)

In 2005, a political commitment named "Decade of Roma Inclusion 2005-2015" was prepared and launched by an international initiative of twelve states. A unified methodology of indicators was created for the purpose of monitoring and comparing the degree of integration of Roma population in the major areas of social life. This methodology is shown in the Table 1.

Table 1 Three-stage Integration Indicators (Core indicators bold)

	Employment	Education	Health	Housing
1. Access	**Labor force participation rate**	**Enrolment rate in pre-primary education**	**Possession of health insurance (rate)**	**Legal housing in a segregated neighborhood (as opposed to illegal housing) (rate)**
2. Result	**1-unemployment rate (including self-employment),** 1- unemployment rate (excluding self-employment)	**Integration at classroom level in primary education (index),** 1-Special school incidence	**Registration with a general practitioner (rate),** Registration with a gynecologist (rate), Vaccination rate	**Legal housing in a non-segregated neighborhood (rate)**

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[26] If we are to consider the basic human rights and liberty, each person has the right to education as article 33 states. Further on, citizens have the right to attain free of charge primary and secondary schools, and, on the basis of their abilities and the possibilities of the society, to attend also university education. The law also states that citizens in need have the right to certain help/assistance from the state. "The law stipulates the conditions under which the citizens in educational system have the right to certain help/assistance from the state" (Ústavní zákon č. 2/1993 Sb. hlava čtvrtá, článek 33).

27 Special schools were abolished by the Education Act No. 561/2004 and were replaced by another category - practical basic school for children with low mental disability.

3. Success	Average hourly wage, Occupational status (ISCO-88)	Share with (upper) secondary or tertiary education (ISCED 3+) Share with tertiary education (ISCED 5+), Mean educational achievement in standardized screenings and tests, Mean length of stay in (pre-preprimary) education	Life expectancy at birth, Infant mortality rate	Mean net floor area (in m²) per inhabitant (in legal housing in a non-segregated neighborhood), Mean number of rooms per inhabitant (in legal housing in a non-segregated neighborhood)

Source: Kahanec, pp. 23, 2009

Let's look at the mentioned indicators of the integration of Roma population in the Czech educational system. The rate of participation of Roma children in pre-school education in comparison with the majority population is much lower. Gabal and Čada (pp.124, 2010) reported that approximately 40% of all Roma children currently attend kindergarten facilities. For comparison, the participation rate for other children is about 90%.

The following Table (Table 2) shows the situation in the dimension of "results", namely the approximate proportion of Roma children who attended a special school before January 2005. The Table is based on the simple assumption that the vast majority of pupils found in these schools are Roma children.

Table 2 The proportion of Roma children who attend special school from the total Roma population in the age of compulsory education in 2003/04

Year (2003/04)	Proportion of Roma population in the Czech Republic	Roma population aged 6-15 years	Roma children in special schools (2003/04)	Share of Roma children in special schools
	200 000	44 000	24 163	0.55
	250 000	55 000	24 163	0.44
	300 000	66 000	24 163	0.37
	350 000	77 000	24 163	0.31

Source: Hůle, D., pp. 42, 2007

Regarding the phenomenon of segregation of Roma pupils, Nekorjak et al. (2011) summarize the fundamental debate around the degree of "guilt" of the educational system. On one side are those who believe that the criticism of the educational system is not justified, because the problem has mainly its roots in the family. On the other side are those who see the fundamental problem in the institutional racism.

It is difficult to answer the question whether the systematic exclusion of the Roma from education is primarily related to the economic deprivation, or is the result of an explicit discrimination. However, it clearly points to a significantly lower school

success of Roma children, especially children from socially excluded localities, while it is true that "the ability of schools to motivate them to educate and meaningfully spend leisure time decreases with the age of the Roma children" (pp. 126, Gabal, Čada 2010).

What do we know about the school success of Roma children in the upper secondary level of education (ISCED 3 +)? For example, according to the estimates offered by the Open Society Institute (OSI), in 2005 in the Czech Republic 7.3 percent of young Roma were enrolled in some type of high (secondary) school ended with GCE28, but only 1.2 percent of these young Roma in the same age cohort had the chance to successfully complete it and get a certificate of secondary education. According to the same estimates, only 0.3% of the same cohort attended and graduated some university education (OSI, 2006). If we compare these data with data for the whole population of secondary school students, we find that only 0.5% Roma children were among the total number of newly enrolled students in secondary schools with GCE in 2005 (OSI, 2006).

Results and Discussion

We allege that the status of Roma children is very low in the current Czech educational system. This fact restricts their educational prospects and limits their educational aspirations and opportunities. A number of measures were adopted by the Ministry of Education (see Report of the Czech Government, 2009) as well after as before the verdict given by the European Court (2007):

- the abolishment of special schools;
- the establishment of new positions of pedagogical teaching assistants;
- the establishment of preparatory classes and courses necessary to even up or complement education29;
- removing formal barriers to continuing education at high school of general type for pupils coming from any type of primary school institution (until then, it was not possible to participate in upper secondary education in the case where a pupil completed compulsory education at a special school).

However, despite these measures, the Czech educational system continues to face with indirect discrimination against the Roma, as the mentioned verdict of the European Court shows. The main factors influencing the educational path of Roma children as presented by Gabal and Čada (pp.119-120, 2010) are as follows: poor pupils' adaptation to school, the relationship to school, career aspirations and the climate in the school.

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[28] GCE – general certificate of education

[29] These classes are regulated by the Education Act (2004, section 47) in the previous year of compulsory school attendance and are intended for children who are socially disadvantaged and where there is the assumption that their enrolment in preparatory classes equalize their development. Such a class can be established in case there are at least 7 children to attend it. The school principal decides whether the child can be enrolled in such a class on the basis of the application submitted by the parent or legal representative and the written recommendation from the counseling facility (it is handed by the legal representative together with the application list). A similar purpose - such as balancing social disadvantage - has also the measures in pre-primary (pre-school) education. Last year of pre-school education is provided free of charge.

Some research studies point to the fact that the Czech school system can not adequately compensate for the different skills that stem from different social backgrounds (Matějů, Straková, 2006). If we also take into account the fact that the free choice for a school forms - especially in larger cities - an ethnically segmented educational market where local hierarchy of schools exists and leads to pupils' selection, we are faced to a deeper dilemma regarding the possibility to find general effective tools of inclusive policies. It points to the real key players who are the parents and their rational learning/educational strategy (more on the links between families´ school choice and racial segregation see Coleman, 1992; Saporito, 2003).

Conclusions

In the case of the access to education of Roma children, many measures have been taken, but we are still struggling with the problem of ethnic segregation and indirect discrimination. The main problem is the transition between various levels of education, namely:

- the transition between the pre-primary and the 1st level of elementary (primary/basic) education;
- the transition between primary and lower secondary levels of education (the second stage is accompanied by a major outflow of Roma pupils); which influences
- limited chances of attainment upper secondary education.

Motivated by these facts and inspired by foreign researches (see e.g. Saporito, Sohoni, 2006), in the future studies, we would like to focus on this issue and identify the potential for the elimination of the mechanisms of the indirect discrimination against Roma children in education.

In the first phase of the research we will concentrate on mapping the rate of participation of Roma children in primary education (primary/basic school) in the South Moravian region, respectively in schools providing primary education in the district of Brno-city.

These schools will be categorized into three groups on the basis of the proportion of Roma children:

- schools without Roma children's attendance;
- schools with a low proportion of Roma children (less than 20%);
- schools with a higher proportion of Roma children (20% and more).

The focus of our future research will be:

- schools where Roma children are presented, but they are not typical "Roma schools";
- schools from so-called "Roma localities".

These categorized schools will be further explored how could we differentiate them in terms of their approach to pupils? To what extent we can speak about ethnic-friendly institutions? By that, we understand a school which particularly cares about the learning progress of the Roma pupils (in terms of children as defined), where there are mutual relationships between teacher and children/their parents, and where we can talk

about an added value in education (i.e., where the learning process has a positive effect on the child's potential and tries to maximally benefit from it).

This added value will be measured on the basis of the differentiation in the qualification a child has on the arrival in the educational process (1st grade) and the one has at exit (5th grade)30.

From the perspective of public policy, this research project, as it is so far formulated, has a broader utility in terms of the question on the priority of the conflicting educational concepts, such as inclusiveness and the market-liberal conception of the educational system. (More on this topic see Norwich, 2002)

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[30] Children finish the compulsory school attendance in the 9th grade. However, we work with the 5th grade as our study was focused on the primary education level (i.e. first level of primary school based on the conditions in the Czech Republic)

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How Can Economist Contribute to the Research of Charitable Giving?

Marie Hladká

Abstract

The topic of philanthropy has been receiving attention internationally for several decades. Like other areas of non-profit studies, charitable giving and volunteering are attracting more and more attention from researchers in a wide variety of disciplines including economics. Even though philanthropy tends to be considered a sociological theme rather than an economic one, it poses a lot of questions that challenge economists too. My research questions are as follows: How can economists contribute to the theory of philanthropy? Can we consider voluntary giving a demonstration of generosity rather than market-based solutions? I intend to examine the terms that are used in the theory of public economics and to use them to look at the issues of philanthropy. They are e.g. the Samaritan's Dilemma; the prisoner's Dilemma; or the free-rider problem.

Introduction

Philanthropy can be concerned as an integral part of public sphere and public sector. Philanthropy should be seen as both a powerful way to meet public needs and a meaningful way to express private beliefs and commitments. Philanthropy allows private actors to act in public ways. It tends to be individualistic in nature yet it operates in the public sphere and has an important role for public sector, public administration especially for the government. There are few main ways, in which this relationship between philanthropy and government can be fashioned. This relationship can we call as *supplementary* (philanthropy track what the public sector is doing and look for opportunities to add funds where needed in other to strengthen the public sector's ability to meet needs), *complementary* (instead of simply tracking government priorities and supplementing public expenditures where needed, philanthropy can seek to define a relationship whose central feature is the sensible and productive division of labour between sectors), *adversarial* (donors can pursue philanthropic agendas that are actively geared toward counterbalancing and reversing wrong directions and bad choices made by government). This relationship can we considered as the mail factor which influence interest of economist in public sector. Empirical findings related to philanthropy influence theory of public economy and policy. Issues relating to philanthropy can be also added to modern and current topic in the public sector research.

The research in philanthropy consists of a set of basic questions: What we know about the people who give money to non-profit organizations? How much do individuals give to charity today? What are the main ways in which the public gives to charity? Why do people give to charity? Which causes does the public support? Etc. *The aim of this article isn't to provide up-to-date information in each of these areas.* I think

that if we want to describe philanthropy through numbers and values (how many, who, how, etc.), we should first know the reason why. Why do people donate money? If we know the answer to this question we will be able to interpret competently the data obtained from previous questions. My research questions are as follows: *How can economists contribute to the theories related to philanthropy? Can we consider voluntary giving a demonstration of generosity rather than market-based solutions?* This paper doesn't present any research results, but outlines the topics that are often subject to foreign research scientists in economy. The author believes that these economic issues should be also open in the Czech Republic. Large share of individual giving isn't able to be explained without standard economic theory, based on the narrow self-interest. This article describes by help of economic theory what determines pro-social behaviour, why people contribute to public goods. Author use method of description and brings own opinion to the theory. Firstly, I intend to examine the terms that are used in the theory of public economics and to use them to look at the issues of philanthropy. They are e.g. the Samaritan's Dilemma; the Prisoner's Dilemma; or the free-rider problem. Next, I try to answer the second question by means of sociological theory. The economists who investigate philanthropy are repeatedly faced with the obvious fact that it does not involve any buying and selling; it is not a marketplace operation. We have to look for, and identify, social values of donors and volunteers rather than economic values because the economists are not able to explain empathy, altruism and helping behaviour through economic principles.

Data and Methods

The exact data related to the giving's rate in the Czech Republic are not available. Czech Statistical Office this indicator does not follow directly; it was only done some independent research that affected individual giving. According to some survey[31], the proportion of donors among the Czech population does not change significantly. In the year 2004 47 % of the Czech population gifted money or gifts to any non-profit organizations, i.e. 4 % more than in 2000. About a quarter of the population (26 %) donate money to non-profit organization, about one fifth (21 %) contributed to their gift of two or more NGOs. Do to the fact that almost half of the population enters into the process of donation, it is good to ask what leads individuals to provide gifts? Theories of economic construct giving. In standard economic theory people are described as selfish money-maximizing actors. Some research results show that people deviate from this prediction. This paper presents conditions under which people are willing to contribute money to public goods. By economic analysis author draws on results from empirical findings which influence economic theory and policy (see Fehr and Schmidt, 2003). To explain charitable giving (contributions of money and time to public goods), various theories have been presented. These are mostly based on *self-interest* or *non-selfish behaviour.* In this paper author deals with *three most important sets of theories* on non-selfish behaviour: theories based on pro-social preferences, theories based on the norm of reciprocity and approaches that focus on institutional environments. This paper provides insights into the *types of models* that predict giving behaviour. The main methodological issues involve *analyzing* of the main theories and models describing charitable giving, then the author continue based on *synthesis*

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[31] STEM: Civil society 2004. Final Report from a representative survey in the CIVICUS Civil Society Index. Prague: Civil Society Development Foundation, 2004.

of obtained knowledge with discussion of interesting issues referred to the theoretical background. This paper has proven informative about models of persuasion and more generally permits *measurement of key parameters* to help construct economic theories of giving. Various academic disciplines are related to voluntary sector and charitable behaviour in the form of individual giving, and in each discipline there are numerous streams. Jas (2000) classifies six key disciplines. These are: *Neo-classical micro-economics, Rational action theory, Economic sociology, Sociological perspective.* This paper thinks about charitable giving in terms of neo-classical micro-economics approach and sociological perspective.

Theoretical Background

In recent years it has been proposed several models that try to express why do economists actually concern with happiness of others, and whether these motives can be systematically explained by pro-social behaviour.[32] In the review of theories we can meet with three dominant models, which are pro-social preferences, reciprocity and institutional environment.

1. Pro-social preference: indicate that the utility of individual is directly dependent on the utility of other people; people's utility functions are interdependent. People do not care only for themselves but also take into account the good of others. These theories are accurately presented by formulations that utility of others 1) influences individuals utility directly (pure altruism), 2) influences individual utility only partially, because helping others also causes an additional effect, which is called "warm glow"(impure altruism), 3) has an impact on an individual utility, which depends on the difference between what an individual receives and how well others have (inequality aversion).

Pure altruisms: the pure altruism model assumes that the consumption and utility of other enter into individual utility functions (Becker, pp. 1063, 1974). People contribute to the public good (charity) because they are delighted with pleasure of others. Altruistic preferences are often used to explain the wide range of pro-social behaviour: giving (Fehr, Schmidt, pp. 817, 1999) and volunteering (Unger, pp. 71, 1991), etc. The theory of pure altruism does not care about the source of well-being of others. If the utility of any individual in society increases, increases the altruist´s utility as well.

Impure altruisms: Andreoni (pp. 1447, 1989) added a model of pure altruism with motive of the "warm glow". People just do not care about other benefits, but also gaining something in return for their pro-social behaviour. It is not about private goods (such as in models based on self-interest), it is an inner feeling.

Aversion to inequality: People do not like inequality (Fehr, Schmidt, pp. 817, 1999). This theory explains why people behave altruistically and contribute financially to people whose solvency is smaller but still behave enviously toward those who are better off.

2. Reciprocity: Reciprocity express expectation that people render good for good and that do not help those who injured them. The theory of reciprocity, in contrast

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[32] In literature we can find different definitions of pro-social behavior, all agree in principle that helping behavior arises from the benefit of another. Pro-social behavior is usually defined as any act performed in favor of the behavior of another person or group of persons, such as helping behavior, which aims to bring benefits to other.

to theories of pro-social behaviour, also engaged in what leads people to behave altruistically. In theory, we find a large number of works that deal with this theme. They claim that life in society always generates reciprocity, that reciprocity is an important component of pro-social behaviour (Gouldner, pp. 161, 1960), discourages from free-rider problem (Fehr, Schmidt, pp. 817, 1999). In the case of giving, reciprocity is often less important, depending on the situation. It's hard to imagine for instance that the victims in Haiti have ever returned our gift.

3. Institutional environment: No less important is the institutional environment in which people decide whether to donate money or time. The institutional environment is defined by Meier (pp. 25, 2005) as "*a summary of the basic political, social and legal rules on the basis it leads to the production, exchange and distribution*." Institutional environment influences the individual motives such as altruism and reciprocity. [33] In the institutional environment, we find three important examples that have considerable effects on pro-social behaviour. They are property rights, cohort effect (people behave more pro-socially when they are located within close groups) and communication (communication is the basis of each meeting, if people know that other passengers are not free-rider, their willingness to contribute increases).

Discussion

From an economic point of view depends pro-social behaviour on its costs: the more expensive is a pro-social behaviour, the less it occurs. Therefore, according to standard economic theory is true, the less is the donation of money and time to charity expensive, the more these activities people will carry on. In the field of giving there are two ways how to support pro-social behaviour: people get a discount provided for the donation (e.g. tax abatement), people compete with each other for the amount of the donation (e.g. in the U.S.A. employee of one company compete who donates more). Of course these financial incentives can be implemented in various areas: volunteerism, civic association, etc. Meier (pp. 32, 2005) presents two effects arising from these financial incentives: **relative price effect** (the effect of relative prices) and the **crowding-out effect**. The effect of relative prices have to be taken into account in three levels: 1) the price of giving plays an important role (in the case of the tax abatement cancellation charity donations will fall)[34], 2) we must also thing over the substitute and complement (charity can be carried out through money donation or donation of time) 3) charity depends on opportunity cost. Crowding-out effect corresponds to the question whether the provision of public funding (subsidies) to non-profit organization displaces individual donations of individuals in society. It is one of the key issues in public finance. Many theoretical and empirical research's try to substantiate the relationship between donations and government (public) funding.

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[33] In a situation where there are mechanisms for suppressing free-rider, reciprocity is more important than the environment in which the individual is located.

[34] In most country's the charitable donations can be deducted from taxable income. This mechanism implies that the richest individuals, who face the highest marginal tax rate, have the greatest opportunity (incentives) to donate because they face the lowest marginal cost of giving. For the richest the charitable giving carries with it the highest effective subsidy. If an individual facing a marginal tax rate of 15 percent, the price of hundred crowns given to charity is 85 crowns; the remaining 15 crowns are paid by the government in taxes foregone, hence the subsidy.

Philanthropy is often associated with the terms that are used in the theory of public economics. These are e.g. Samaritan's Dilemma or Prisoner's Dilemma. The **Samaritan's Dilemma** is one of Buchanan's articles written in – what he once called – his pessimistic working period (Buchanan, pp. 169, 1977). Samaritan's dilemma refers to a possible problem that people can face when they try to help the poor. Sometimes the effort to help the poor can give those incentives to continue in behaviour that keeps them in poverty. Payton (2004) explains that the principle of reciprocity assumes that we will want to help someone else in trouble if we can anticipate that we might need help ourselves someday. But another way of thinking about the needs of the other is not reciprocal at all. It is the simple and powerful feeling of shared suffering and the sense of vulnerability; it is the feeling that causes us to say - or at least to think – "I know how you feel. I've been there." That experience of shared suffering may be the most effective motivator for philanthropic activities. Stone (pp. 9, 2008) says: The Samaritan's Dilemma calls on us to restore the public sphere as a place where citizens can fulfil their moral aspirations. If government helps the neighbours, citizens will once again want to help govern. With unforgetTable stories of how real people think and feel when they practice kindness, Stone shows that everyday altruism is the premier school for citizenship. Helping others shows people their common humanity and their power to make a difference.

The next economic term concerned with philanthropy is **Prisoner's Dilemma**. The Prisoner's Dilemma Game was developed by mathematicians in the 1950s. The Prisoner's Dilemma Game has been extensively discussed in both the public and academic press. Thousands of articles and many books have been written about this disturbing game and its apparent representation of many problems of society. The Prisoner's Dilemma game is a way of studying how people behave in a situation with different rewards for co-operating with, and cheating on, another person. The research's confirmed to economist that cooperation is robust. The Prisoner's Dilemma is presented as follows: Two suspects are arrested by the police. The police have insufficient evidence for a conviction, and, having separated both prisoners, visit each of them to offer the same deal. If one testifies (defects from the other) for the prosecution against the other and the other remains silent (cooperates with the other), the betrayer goes free and the silent accomplice receives the full 10-year sentence. If both remain silent, both prisoners are sentenced to only six months in jail for a minor charge. If each betrays the other, each receives a five-year sentence. Each prisoner must choose to betray the other or to remain silent. Each one is assured that the other would not know about the betrayal before the end of the investigation. How should the prisoners act? The dilemma arises precisely because each prisoner must decide what is best for him without knowing the decision of the other. If what is best for him is defined solely in terms of individual self-interest, the best decision is not to cooperate with the other prisoner and accept the offer of immunity. If what is best for him includes the interests of the other prisoner, he should cooperate with the other prisoner and remain silent, provided that the risk to self-interest of conviction is tolerable. Charitable decisions typically involve repeated interactions between people who know each other. A basic result from game theory is that optimal behaviour in a situation where people interact repeatedly can be very different from that in a one-shot setting (Mayr et al, pp. 306, 2009).

The question why people give to charity has led to a need for an economic theory to

explain it. Generally it is considered that at the beginning is focus on human behaviour and motivations of behaviour. Maybe that is the reason why we can find the relevance of philanthropy for many disciplines across the social sciences and further afield. There is a lack of theoretical and empirical work in this area although. Especially in the Czech Republic we don't have any analyses of economic theories of charitable behaviour that is inspired by altruistic motivations. Behaviour, including charitable behaviour, is often linked to **self-interest**. Altruistic behaviour is explained through self-interested agents realizing gains from cooperation. Now I would like to explore the concepts of altruism. What does it mean, how should it be modelled, and what does it tell us? At its core, the concept captures according Rutherford (2010): "*a concern for others that is not linked to a concern for oneself. This is an internal state, and is not directly observable.*" If we read this definition, an important question comes to mind. Can we infer altruism from observing so-called "altruistic" behaviour? There are huge differences between the acts we observe and the internal state. For example a rich philanthropist may give big amounts without a real concern for those the donation is helping. If we call the giving or observed altruistic behaviour generosity, than there is a divide between the act of generosity and the internal state of altruism.

The debate about the role that altruism plays in economic behaviour was launched by Titmuss (pp. 220, 1970), with a specific example of blood donation. Titmuss wrote about the collection of blood donations that were paid for. The conclusions of economics are clear: the introduction of paid blood donors would increase the supply of blood. But Titmuss was of another opinion. He suggested that this argument was false because it worked only with self-interest and ignored the significant role that altruism plays in many types of transaction. Titmuss claimed that the introduction of payment for blood donation would decrease both the quantity and quality of blood supplied. Economists at the time largely disagreed, for example Kenneth Arrow. He used the utility theory (in Phelps, pp. 19, 1975) and identified three motives for action that could lead to altruistic behaviour. These are:

Charity as a Social Contract

Charitable giving wasn't explicitly connected with altruism in the seventies (1970-1980). The prevalent theory focused on self interest as the driving force. This theory describes charities as a result of a social contract to overcome some failure that would otherwise lead to inefficient outcomes. The literature falls into two categories: Government failure and Contract failure. Government failure describes the situation, when private firms are unable to provide public good effectively and the government endeavours to solve this through intervention. But there are a few constraints leading to the failure of the state. Young (pp. 190, 2001) outlines five constraints[35]. The theory of government failure suggests that the development of non-profit organizations is the response to these constraints. The second failures are market failures that results from information asymmetry between buyers and sellers. I don't consider this theory relevant to this article, and so I don't pay any more attention to it.

Pure Altruism

Attentive readers will have observed that the theory of social contract seems to be unsatisfactory for the explanation of altruistic behaviour. How can we add

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[35] These are: Categorical, Majoritarian, Time horizon, Knowledge and Size constraint.

altruism to a rational self-interested motivation? The theory of pure altruism gives our answer. Say we have two persons Ann (A) and Ben (B). Their utility we denominate UA (Ann's utility) and UB and the quantities of X consumed by Ann XA respectively XB. The basis of the theory we can summarize in following formula:

$$UA = f\,(XA,\, uB(XB)) \tag{1}$$

What does it mean? It is very easy. Ann's utility is influenced not only by her consumption of good A but also by Ben's utility (his consumption of good A). If Ann has a quantity of X, while Ben has none, Ann gives a part to Ben in other to maximize her utility. This formulation evidently gives us the possibility how to examine altruism. In other words, the standard model assumes that people care about the level of the public good only insofar as it contributes to their own consumption. Donors are concerned primarily that charities (NGOs) receive some total amount of money, regardless of the sources. In economic word: the individual is indifferent between giving one crown to a charity and the charity's receiving one crown from someone else. This model draws attention to the Free-rider Problem. In economics, collective bargaining, psychology and political science, "free riders" are those who consume more than their fair share of a resource, or shoulder less than a fair share of the costs of its production. Free riding is usually considered to be an economic "problem" only when it leads to the non-production or under-production of a public good (and thus to Pareto inefficiency), or when it leads to the excessive use of a common property resource. Ann cares only about the absolute quantity (utility) that Ben receives, whether she gives it to him or not. Ben can be supported by another subject (person). When Ann reduces in this context her transfer to Ben, their utility will increase. (She doesn't include the loss of other people's utility to her marginal utility.) This incentive to free-ride will result in low transfers made to Ben. This model of altruism is deservedly called "theory". In practice we cannot measure the utility of people we have never met. We would expect free-riding to be a real problem in charitable giving or in the provision of charitable services. But free-riding seems to be much less prevalent in practice than is predicted in theory. People give small donations to charity, where the marginal effect of their contribution is slight. The theory of pure altruism doesn't explain this.

Impure Altruism

When people make donations to public goods, such as charity, there may be many factors influencing their decision other than altruism: social pressure, guilt, sympathy, or simply a desire for a „Warm Glow". People often say that "they want to make a difference", or that they get o good feeling from making a sacrifice that benefits others. To explore the lack of free-riding in charitable giving the economists introduce the concept of a "Warm Glow". In the late 1980s, an economist called James Andreoni (pp. 467, 1990) argued that the internal motives for giving were indeed more important than many people had acknowledged. He introduced his idea - the "Warm Glow" theory. In the Warm-Glow view of philanthropy, people aren't giving money only to help e.g. to save the whales; they're also giving money to feel the glow that comes. People will give money not just because they know the supported project or the supported organization's work, but because they like being the kind of person that supports. The model of pure altruists suggests that the recipients are unknown to the donors and we can't know their consumption. It is the reason why activities undertaken by charitable organizations tend to involve a separation between donor and recipient.

In the concept of impure altruism it is not important. For the impure altruists care only about the means not ends. Behavioural implications of Warm Glow are known in theory as the Crowding out Effect. It means that if the contributions to a public good or to charity increase, the transfers by others get reduced. We can distinguish between individual and public support. Individual support: since the donor only cares about the total benefit to a recipient, the increase in other contributions will reduce his voluntary donations. Public support: public spending on public goods will crowd out private spending. Andreoni´s proposal for Warm Glow giving included utility only from the means but not the ends as a solution to the problem of free-riding in charitable provision. But Rutherford (2010) says: *"Answering the question of – Why do people give money? – with – Because they enjoy it – begs the question – Why do they enjoy it?. Can we really separate analysis of the means from the ends in this way? And can the enjoyment of giving without regard to the purpose of the gift really be called altruism?"* Possible answer: if we pursue the Warm Glow effect, we are no longer altruistic.

Conclusion

This article examines what economic can tell us about people's motivations to charitable giving. The text start with standard neoclassical utility theory and the implications of the assumption of selfish preferences or what is rather called pure altruism. This model predicts free-riding (benefiting from public goods without contributing to them). Than I explore some alternatives to the pure-altruism model e.g. warm-glow models of altruism, where people drive a benefit from the act of giving. Initially it seems that it is one-way transaction, whereby money is given away for nothing at all in return. After some time however it becomes clear, that in many cases some form of return is expected and received by the donor. The researches have shown the possibility, that people flaunt with their philanthropic activities in other to impress other people with their generosity. This indicates, that non-material returns have important place in pro-social behaviour. All different approaches discussed it this paper have shown that philanthropy or charitable giving is a process of exchange that involves both economic and social values, and that is driven by both selfish and altruistic motivations. Author's discussion about the possibility of economic theory to help reveal the reasons for donation is intended to create a theoretical framework for research in the dissertation. These motives will be modified according to theoretical concepts as the real factors that influence the decision to donate money.

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Application of Wagner's Reframing of the „Social Origins" Theory in the Czech Republic

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Abstract

If we look for an alternative to the Salamon-Anheier Social Origins Theory, for methodology we find it in the article by Wagner (2000), Reframing „Social Origins" Theory: The Structural Transformation of the Public Sphere. Wagner introduces an alternative concept based on a historical and institutional analysis of intersectoral dynamics and structural changes.

Wagner tries to reformulate social origins theory in such a way that its shortcomings are eliminated; mainly its ahistorical character and the lack of respect for changes, which take place in the public space. He introduces a new variable, the so-called elasticity of institutional change, that is the relation between percentage change of nonprofit providers and government providers.

The authors apply this variable to the Czech environment and examine how the size of the nonprofit sector depends on public expenditure in general, in individual fields as well as during the recession of 2008-2009. They proceed from a time series based on data from the National Accounts and Nonprofit Institutions Satellite Account (newer ones are not available yet).

Established facts can help to clarify the role of public support and its actual effect on the functioning of the nonprofit sector. The authors intend to contribute to the discussion about the significance of public support and base their contribution on exact statistical data.

Keywords

Social origins, public support, satelite account of the nonprofit institutions, elasticity of the institutional changes

Introduction

The topic of this article touches upon the approximately 40-year-long effort of researchers to understand the essence of the phenomenon of the nonprofit sector. The Social Origins Theory (SOT) concerns an approach reflecting the multifactor character of the causes of existence and development of the nonprofit sector. The core of this approach is aptly described in Salamon, Anheier (1998), as well as in many other subsequent writings, which develop or criticize the original concept (examples are Steinberg, R., Young, D. R. (1998), or Wagner, A. (2000)).

In the short history of its existence, this theory has played the role of an often-cited source, which many others have drawn upon. This approach is valuable for its fundamental thought - the implementation of more factors into the examinations of the private nonprofit sector.

However, several shortcomings can be identified even within the Social Origins Theory.

Questionable aspects of this concept include, among other things, the method of measuring the nonprofit scale, and also the fact that, although it considers the influence of historical development on functions of nonprofit sector, it is, in principle, of a static nature.

Although certain model forms of nonprofit models are defined based on selected factors, social origins theory operates with the historical development unilaterally, or in only a very limited way. Considering that the aforementioned factors are developing and changing, the shape of the prevailing forms of nonprofit models has to be changing as well. However, these changes are not included in the analyzed concept.

Another fact is neglected which the authors themselves point out in their other theory (so called 3rd Party Governance). The relationships between the public and private sectors are ignored here, as well as the (often growing) influence of mutual dependency of these sectors, or of individual subjects operating within these sectors.

One of the attempts to reformulate, rather than contradict, this approach is conducted by Wagner (2000). In this article, the authors use his writing as a basis for proposing methods for investigation of nonprofit sector development.

Material and Methods

Wagner attempts to reformulate the social origins theory in such a way that its shortcomings are eliminated. Wagner's approach is based on the same principles as the social origins theory. However, it does not focus primarily on the absolute institutional size of the nonprofit sector (that is a mere evaluation in the sense of "extensive, large" or "limited, small" which uses the not so convenient criterion of the number of employees in the nonprofit sector). It instead considers the component of time and also the degree of change in organizational structures within the public space. It refers to the patterns of mutual dependency between public and non-state institutions. It introduces two new traceable variables so that the transformation of the organizational structure of the public space can be examined. These variables are the "Elasticity of Institutional Changes" and the "Pattern of Mutual Dependency between Providers of Public Services" (the relationship could be of either substitutive or complementary character).

First we focus on the first of the two variables, the Elasticity of Institutional Changes. It has the following form:

$$e = \frac{d(NP) \times G}{d(G) \times NP} \tag{1}$$

This is the relationship between the change in percents (d) of nonprofit providers (NP) and governmental providers (G). Wagner does not speak explicitly about the relationship of the amount or volume of funds. However, this relationship also provides space for considering the dynamics of the development of nonprofit providers in relation to the government sector.

Wagner states that the variable e is a function of the institutional structure of the public sphere. Provided that the institutional structure is dominated by the government, we can expect the value e < 1. The rate of change of the nonprofit sector of public

services providers is lower than the rate of change of the governmental sector. On the other hand, in a pluralist institutional structure, nonprofit providers are motivated to cooperate with the government. In this situation, it is likely that this organizational sector grows faster than the governmental sector, hence e > 1.

Data used in this article was taken from the National Accounts and the Nonprofit Institutions Satellite Account; in the Czech Republic, this data is provided by the Czech Statistical Office. From the system of the National Accounts, data about the expenditure of governmental institutions according to functions (COFOG) were used, mainly the macroeconomic indicator Government Final Consumption Expenditure. Data about the number of employees, output and value added (gross) for all private nonprofit organizations according to the Industrial Classification of Economic Activities (ICEA) were taken from the Nonprofit Institutions Satellite Account.

Because the version of the Nonprofit Institutions Satellite Account currently Available from the website of the Czech Statistical Office is the version before revision, we used data from the National Accounts data before revision, as well, although the Czech Statistical Office presents this data on its website after revision since October 2011. The statistics we follow have different classifications of output structuring. However, they are relevant, comparable and coherent statistics (Šlégrová, 2001), hence they can be used for our purposes despite various industry structures of government expenditure and private nonprofit organizations' macroeconomic indicators.

Analysis

Elasticity of the private nonprofit sector36 is verified on the case of social services, where private nonprofit organizations constitute an important producer. In 2005, private37 nonprofit providers represented almost 30% of the total amount of social facilities and their share of the whole capacity was 11% (Prouzová, Špalek, Křivánek, p. 91, 2007). If we quantify the size of the private nonprofit sector based on subsidies from state, regional or municipal budgets, we conclude that more than CZK 4 billion were spent on social services in 2008 (ARIS, online).

Government expenditure will be quantified in this article as the macroeconomic indicator Government Final Consumption Expenditure38, specifically in the area of social activities.39 As Figure 1 shows, the expenditure of government organizations for collective and individual consumption in this area generally tends to grow between the years 2002 and 2008, although between the years 2002 and 2003, 2004 and 2005, and 2006 and 2008, the nominal values of the expenditure decreased.

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[36] A private nonprofit organization is considered a „*unit created with the purpose of production of goods and services the status of which does not allow this production to be a source of income, profit or financial returns for those who founded it, manage it or finance it*" (Stone Tice, p. 1088, 2010). In the Czech Republic, this specification is monitored within the Nonprofit Institutions Satellite Account. Thus the structural-operational definition of Salamon and Anheier is thus basically met (CSO, online2).

[37] The quoted source refers to a narrower specification of non-state nonprofit providers; however, in this case we can apply our statement to all private nonprofit organizations, as in the private nonprofit sector it is specifically non-state nonprofit organizations who provide services in the examined area.

[38] Macroeconomic indicator in the sense of the European System of Accounts (ESA, p. 76, 1995)

[39] "Social matters" according to the classification of the COFOG – classification of governmental institutions' functions

Figure 1 Development of Government Final Consumption Expenditure in the Field of Social Activities from 2002 to 2008 (in millions CZK, in current prices)
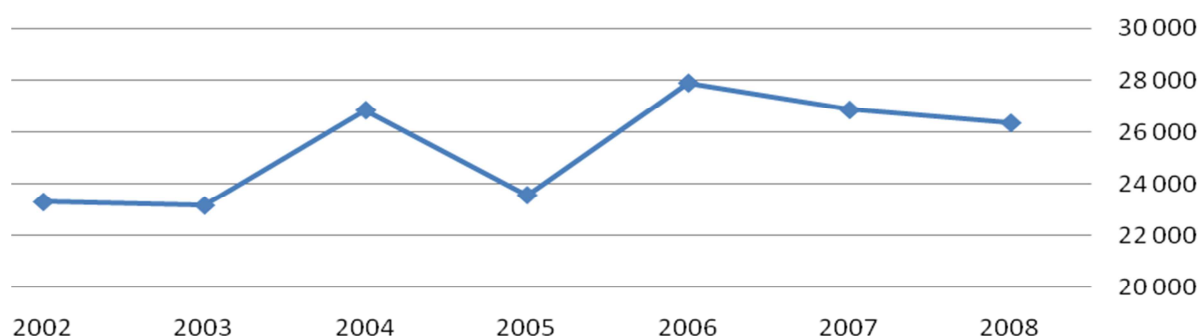
Source: (CSO, online) adapted by authors

In the case of private nonprofit organizations, annual change will be observed on three macroeconomic indicators.40 For the private nonprofit organizations input indicator, "Number of Employees" will be used. For the private nonprofit sector output indicator, "Output41" will be used; and last but not least, "Added Value (gross)42" will be used to express the performance or productivity of the private nonprofit sector. Regarding private nonprofit organizations, all three studied quantities in the observation period from 2002 to 2008 show an annual nominal growth.

Table 1 Development of Economic Indicators of Private Nonprofit Institutions in the Field of Social Activities between Years 2002 and 2008 (in number of jobs converted to full-time jobs, and in millions of CZK, in current prices)

Private nonprofit organizations in the field of social services	2002	2003	2004	2005	2006	2007	2008[43]
Number of Employees	2 125	2 082	3 058	6 506	7 867	9 336	8 601
Output	876	1 060	1 287	2 585	3 136	3 821	4 026
Value Added (gross)	514	531	796	1 636	1 992	2 469	2 502

Source: (CSO, online2) adapted by authors

In the basic formula of elasticity, we observe the sensitivity of change of the private nonprofit sector with respect to changes of government expenditure in the indicators "Number of Employees," "Output" and "Value Added (gross)."

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40 "853 Social activities" according to the ICEA - Industrial Classification of Economic Activities. Classifications from COFOG and the ICEA are coherent and there is a converter for these two classifications which we used in the area of social activities which we studied.
41 Macroeconomic indicator in the sense of European System of Accounts (ESA, p. 59, 1995)
42Macroeconomic indicator in the sense of European System of Accounts (ESA, p. 279, 1995)
43 New data up to 2008 is not available in suitable structure because of revision of National Accounts in 2011. In a few mounts there will be available data from 2005 to 2010 in another but still suitable structure.

Elasticity is expressed in the following form (the form suggested by Wagner cannot be applied to the data available):
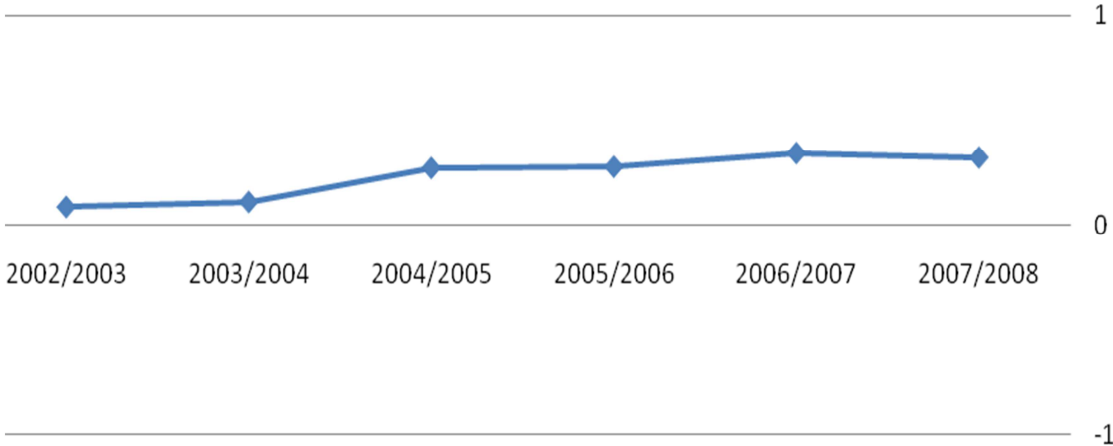
$$e=\dfrac{\dfrac{NP(t)-NP(t-1)}{NP(t-1)}}{\dfrac{G(t)-G(t-1)}{G(t-1)}} \qquad (2)$$

Figure 2 Elasticity of the Private Nonprofit Sector on Government Expenditure Measured by Output (in %)
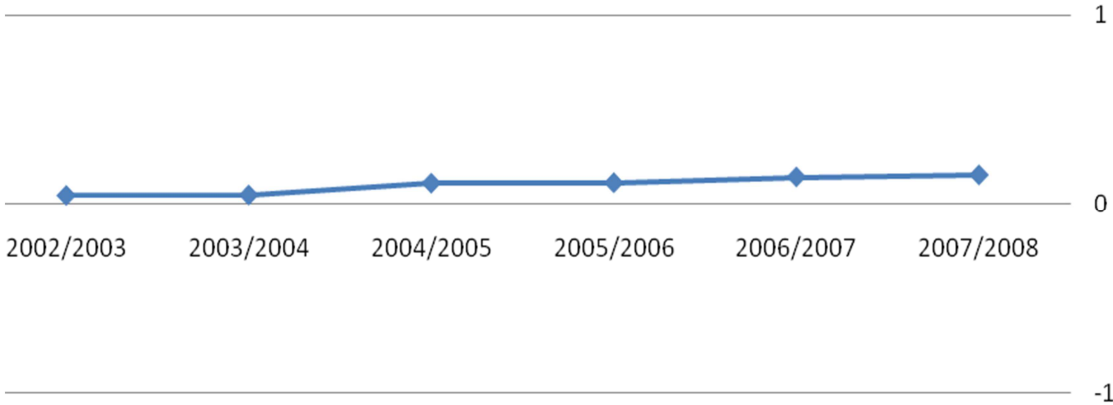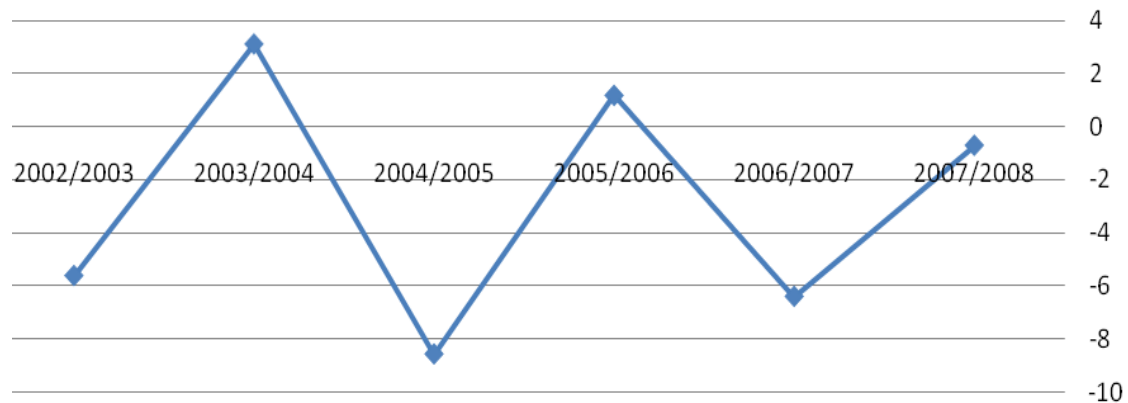

Source: Authors

Figure 3 Elasticity of the Private Nonprofit Sector on Government Expenditure Measured by Number of Employees (in %)

Source: (CSO, online) adapted by authors

Elasticity measured by input and output of private nonprofit organizations, represented here by number of employees, shows only slight sensitivity. This can be seen in the rate of growth of elasticity, as there are larger differences in elasticity in those years when there was a nominal growth of government expenditure.

Figure 4 Elasticity of the Private Nonprofit Sector on Government Expenditure Measured by Value Added (gross) (in %).

Source: Authors

Elasticity is noticeably apparent with this indicator and the time lag is relatively short here; this is especially remarkable considering the slowly rising trends shown in the Figures above, in which elasticity was measured using the number of employees and output. There are two possible ways of interpreting this:

- Either the correlation is spurious, as the quantities are not related and the development of added value (gross) is influenced by other factors; or

- Although added value (gross) is growing, the sensitivity to the change of government expenditure is demonstrated by the fact that the growth rate of this indicator is noticeably slower in years of nominal decrease in government final consumption expenditure.

Results and Discussion

Let us now briefly discuss the results.

- Organizations in the private nonprofit sector, from the viewpoint of the System of National Accounts, can be found in the sectors of market producers (S.11 – non-financial corporations) and non-market producers (S.13 Government Institutions and S.15 Nonprofit Institutions Serving Households) (United Nations, 2003). A question arises whether non-market producers are more sensitive to changes in government expenditure, or whether, in the case of social services, the institutional sector of the producer is irrelevant.

- The change of government expenditures' influence on organizations in the private nonprofit sector in this article was studied in the area of social services. Will this sensitivity be proven in other specific areas, where private nonprofit organizations are an important player in the Czech Republic, as well?

- The Czech Statistical Office is currently reviewing the Nonprofit Institutions Satellite Account and the revision of National Accounts has already been published. Will the results of this revision have an impact on the area we studied?

- Taking into consideration that the Nonprofit Institutions Satellite Account is

based on the National Accounts, which are, among other things, based on the balance between individual institutional sectors, the question arises of how great the impact of using this statistical method is on the elasticity results.

Conclusion

In this article, we focused on the dynamics of nonprofit providers in relation to the government sector as shown in the example of social services in the Czech Republic. In the Czech Republic, the social sector is not constituted solely by public providers of social services, but also by public financial support to other providers of social services, hence we did not consider only government producers, but the overall government expenditure in this field of the government sector.

In the studied period, nominal growth of nonprofit producers occurred even during years when government expenditure in this area nominally decreased. The dynamics of growth in nonprofit producers is slightly higher in years with annual growth of government expenditure in this area. In the case of nonprofit producers in this area, we can talk about "a hallmark of a good employer", although this is probably not the only possible explanation. In years of nominal decrease of government expenditure, nonprofit producers apparently maintained employees and services for clients using other resources.

Although our paper can serve as basis of our other research, the contribution cannot be generalized to the whole research field. We are convinced that this line of research can bring significantly new and important results in the future.

However, we are not able to offer any strong and unequivocal conclusions in this time. What we can offer is the inspiration for other researches in the field of the non-profit studies. Understanding the dynamics of the non-profit –public sector relations represents potentially prolific direction of the non-profit sector research.

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What a Patient Must, Can and Wants to Have: Demand for Health Care and its Economic Consequences

Jan Mertl

Abstract

The aim of this paper is to show three different approaches to health care provision based on different position of the patient in the system – or to be more precise, different incentives for health care provision. It tries to justify, that there is not a single type of demand for health care, but looking close at the demand, we can identify three subtypes of it, based on objective need evaluation and subjective decision. These are what a patient must, can and wants to have, respectively. In reality, their specification is always s a little bit blurry, however they are highly useful for theoretical analysis of the subject and discussions about the health system configuration and financing.

Introduction

 We can start at the classical concept of social and health policy – the welfare state. This concept has three basic variants: universalistic (redistributive), performance-oriented (achievement based) and liberal (residual) (Titmuss, 1974) (Esping-Andersen, 1990).

In the limited space of this paper we cannot analyze all the partial implementation of the welfare state. Therefore we focus on one sector, where the welfare state plays an important role – health care. In models specified above, the health care consumption is viewed as social right, performance oriented achievement of society and individually obtained goods, respectively. It is known that the implementation of the welfare state in the sense of ensuring the availability and quality of health care in the population may have a structured form, using different concepts of financing, and in reality neither shall enforce strictly government (Semaško, 1946) or a market (Payne, 2007, 2010) allocation system.

Health care is one of the industries which is currently under fiscal pressure (Mertl, 2011). At the same time it has to deal with the progress of medicine, e.g. availability of new methods of treatment (medical inflation) and diagnostic techniques, especially in civilization diseases. It also has a strong and highly visible social dimension in a view of illness as an undesired state of distress and suffering (Durdisová, Mertl, 2008) and knowledge of social medicine as a discipline (Holčík, 2009). Demand for health care is segmented and includes both realized and explicitly expressed demand, as well as implicitly hidden demand, and even the need for unwanted health care (Mooney, 1992). The demand for health care suffers from market failures (Arrow, 1963) (Akerlof, 1970) and adverse selection when purchasing health insurance (Cutler, Zeckhauser, 1997).

If we analyze the health care demanded by patients based on their budget constraints, we come to essential term of the elasticity of demand for health care. If being based

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on private spending, according to available evidence (Feldstein, 1971) (Feldstein, 1973) it is rather inelastic, meaning that its reactivity to the price change is rather low and therefore it cannot be expected that the market structure grown on this demand will be flexible and perfectly competitive. Similarly, problems could be expected in the health insurance mechanisms, caused by parallel existence of direct demand based on out of pocket payments and indirect demand "through" health insurance, and also because of the existence of information asymmetry and adverse selection (Arrow, 1963).

The aim of this paper is to show three different approaches to health care provision based on different position of the patient in the system – or to be more precise, different incentives for health care provision. It tries to justify, that there is not a single type of demand for health care, but when looking close at the demand, we can identify three subtypes of it, based on objective need evaluation and subjective decision.

Material and Methods

This paper is based on theoretical analysis of demand for health care and selective comparative analysis of different mechanisms for health care provision and financing, including careful view of the position of the patient and the development of medicine and its possibilities. No empirical data is used: the sense of the paper is to provide a fine-grained theoretical approach to the different forms of demand for health care with relationship to the current trends in this area of social policy.

Results and Discussion

The concept of the welfare state in health care is not primarily about the definition of its role in terms of ex ante specification of what the state has to do in health care in the sense "welfare state must use its mechanisms to ensure the well-being." Paradoxically, we are interested primarily a result of this implementation, that is, whether by using the available mechanisms of the welfare state the desired effects are achieved in terms of population health status, availability and quality of health care. In this sense, the theory gives the welfare state mechanisms the reason and legitimity to interfere into "free" market allocation of resources.

Three types of welfare states correspond to the three "pure" health care financing systems: universalistic in the form of British National Health Service, bismarckian performance-based in the form of social health insurance and liberal in the form of purchasing different health insurance plans in the United States of America. It is analytically useful, that these types of systems emerged in reality – and we should not talk about them in the past tense only, because just like the welfare state itself, the health systems underwent relatively strong convergence and reformist tendencies, while not disturbing their original essence (Mertl, 2010).

At the same time, the health care paradigm is evolving and the welfare state must respond to it. This will also clarify the financing schemes that will be used. This can be broken down to classify health care and access to it as follows:

The first stage – the oldest and by default representing the largest and most widely applied part of medicine. At this stage, we are talking about the medicine saving a life and health, the doctor is the one who performs "lege artis" care and being responsible for it. Health care in this scheme must be provided - is based on an objective indication.

Medicine is seen as a sovereign art, which should not be wasted in any way, and if its stock is in a deficiency, then the criterion for its usage is the severity of the case and the patient's prospects for the future. It is interesting that at this stage (historically), doctors were able to make under a broad social consensus such decisions that today - in terms of relative abundance of resources and capacities – would be seen as very problematic. Gradually, the scope this type of care grew with the lege artis standard and provision of health care began to be understood as a civilization and medical achievement of systematic evidence-based practices leading to healing, not as random human attempts at correcting mechanisms of natural selection. Obligatory nature of providing this care, which always will form a crucial part of medicine, however, remained unchanged.

The second stage, where the medicine with the development of its potential made patient appear as a client, not only as a thinking biological machine which should be repaired by using drugs, surgeries etc. The patient has its own priorities and health care demanded – he wants it. This medical care may not even have direct medical indication. If he wants something, he should pay for it, because it improves his individual benefit. The question arises: does this belong in the health care space at all? Are plastic surgery or a luxurious room in the hospital compatible with medical ethics? Does a doctor not waste his skill and talent in the care of individual patient's wishes, when he should devote his effort to more severe cases? This has clear reminiscency to the previous stage, where on one hand, you have got a lot of sufferers that the doctor has to choose from to provide treatment, and on the other hand, he is asked to provide paid, luxurious and possibly even not medically necessary treatment to others who are able to pay for it. Over time, the social consensus in developed countries settled on the fact that it is acceptable.

The third stage can be traced at present. The development of new technologies, medicines, palliative medicine and diagnostics of civilization diseases especially leads to considering the effect of treatment versus the costs. And so the first clearly defined boundaries between the indicated care and care provided "on request" are sneaking a difficult question: what the patient really must have? And the answer might be: everyone may not have everything what is in medicine available today, there are treatment methods that despite a possible medical indication primarily benefit the individual patient utility and therefore their consumption is allowed to be based on his individual decision. The patient can have them. As a negative definition of the safety and efficacy of therapy can be applied the principle that if a certain type of care is not consumed (wanted) by a particular patient, he will suffer no harm compared to the state when he consumes (wants) it.

It is really tough to provide clear examples of the above typology, because they are highly dependent on the country where they are applied and the development of medicine as a whole. But as a brief illustration, we can say that for example in current Czech stomatology, the type of "must" care are amalgam ("black") fillings for the molars, the type of "can" are ceramic ("white") fillings for the molar and the type of "wants" is the care of dental hygienists or cosmetic dental care. In psychiatry/psychotherapy, the "must" type of care is drugs treatment and basic psychotherapy, the "can" type of care is e.g. autogenic training and the „wants" type could be e.g. personal development and coaching. In orthopaedics, the "must" type is conventional endoprosthesis

with standard rehabilitation, the "can" is a longer lasting model of endoprosthesis and "wants" is extensive rehabilitation program after operation.

The above typology has however a major impact on the role of the welfare state in health care. Suddenly ideologically tinged dispute between state and market (Goodman, 2005), (O Neill et al, 2007) pales in light of the concrete definitions of the operation and characteristics of health care. And this is true even if we know that the boundaries through those three types of care (must, can, want) are blurred. It is obvious that for high quality health care system it is difficult to refuse to provide the "must" type of care, and vice versa care of "wants" type in the case of understanding it as a luxury could be seen as rather ineffective and thus being crowded out of the health care system.

The definition can project into the design of funding (financing) schemes, which is very useful, because traditionally the concept of welfare state suffers from the difficulty of rational economic implementation. Its final form is almost always a combination of allocation of public resources on the principle of social effects obtained for them, sharing the risks on the principle of social or private insurance and private resource allocation based on the principle of individual benefits obtained for them, and finally control of the rules under which the schemes will work.

It is also worth noting that in health care, we have two important types of solidarity – according to wealth (income) and according to health status. These two types of solidarity are not the same and the solidarity according to health status is actually even more important that the wealth one. It is so because the risks selection in health is ethically, economically and medically highly problematic and thus is not recommended to be allowed at all. The main reasons are as follows (Mertl, 2011):

- empirical - the majority of negative experiences with health care financing and provision with a significant proportion of private funding and private insurance (e.g. the U.S. health care system) outcomes from the usage of risk selection mechanisms.

- ethical - not just because of the "solidarity" with healthy patients, but mainly because of the fact that house, car or life insurance a person can relatively freely get rid of. And if he does not want it at all or loses the ability to pay premiums, he does not necessarily need it and may therefore not insure it or even can sell it. But himself and his health risks a man cannot change – or just partially, but this also needs medical care (e.g. getting rid of addictions etc.).

- medical - in determining health risks the insurance companies rely on medical records, resulting in that those who are not treated properly or at all will have "cleaner" medical records than those who are honest and seek for treatment of their problem, even by complicated methods of treatment. Moreover, it is known that the ability of institutions (health insurance companies) from paper documentation to deduce reality, especially with regard to complex diseases, is limited. Medicine can treat well, but it is far less successful in healing. Past medical history can act as a strong discriminatory factor, moreover, in many cases not closely approximating reality. It can lead to segmented medicine.

If a person has a particular disease, it does not mean it will necessarily consume health care in other branches of medicine. This would lead to a "professionally" segmented insurance claims, undesirable from the viewpoint of the integrity of patient treatment.

- psychological - if the patient is/was being treated for any illness, and simultaneously he is because of this fact discriminated against the possibility to invest into their treatment or denied in continuing treatment (perhaps because the insurance company refuses to prolong his insurance), it will cause him to extremely negative feelings about it.

- legal – it is debaTable whether patients can be forced to provide information about their health, especially in government-supervised health system, for the "pricing" of their risks. Tell someone about their health problems and on this basis, to pay higher health premiums is in civilized countries, in principle, unacceptable, and especially difficult to government to enforce or facilitate.

- economic - the more we allow risk selection in health insurance, the more it will become a problem, because the insurance companies will then make selections based on this and/or try to make profits of it at the expense of services provided. In the end, a lot of people will not be insurable because of their individual risk exceeds their ability to pay. In the private health insurance without the specific regulation the insurance market fails, it results in grouping clients according to health risk theoretically up to its full individualization and thus un-insurability of a large number of potential candidates or making the insurance pools very small.

Because of those reasons, we should not try to focus only on the public part of health care financing, which is seen as necessary, and "let the market decide" about the rest. The market will just decide in such a way, that it will very problematically measure the health future of the patient and try to make a insurance plan for it. This is too weak and will not work, moreover, it will prevent any sharing of the burden of disease and will lock the majority of people out of the possibility of spend their private money in order to gain private health utility. We have to look deeper, and while differentiation by health status is highly discouraged, differentiation by wealth seems more acceptable, especially in the connection with gaining private health utility.

If we look at our categories of demand for health care, we can thus differentiate them as follows:

Financing care of the "must" type is necessary to be financed by solidaristic public payment – regardless of income or health condition. Those resources should come from taxation, it is a best way to do it. To make sure, that they will not disappear in public budgets, it is worth to mark them as health tax rate at the time of payment. If public payment does not exist or is not juicy enough, the result will be no access to medical care in the relevant social[44] groups, an increased incidence of catastrophic

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[44] After the introduction of the National Health Service in Great Britain after the Second World War came the clinics thousands of people who until then could not afford health care or for other reasons they did not have access to care. And paradoxically, the same British system encountered in the eighties and nineties of 20th century great difficulties with waiting lists – which is in big contrast with satisfying needs previously. And it shows how complicated the challenge of the welfare state, particularly in health industry, is.

emergency medicine and lost opportunities for positive externalities arising from the application of methods of social medicine. At the same time the results of international studies show positive effects of investments in health on economic growth (Suhrcke et al, 2005) and employment (Lindholm, 2001) - we can say that it is advantageous to seek a high level of standard of care is closely interconnected to proven (evidence-based) effects in public health.

Financing care of the "can" type is a good field for regulated private financing schemes, optimally differentiated according to income, but not by the (initial) state of health at the time of the contract or even worse, medical history. In this type of care is maintained condition of objective medical indications, but without the existence of an objective need for this treatment or a particular method. Such schemes will increase the individual benefit of the individual, while simultaneously regulation of the products will prevent or reduce the incidence of market failure in terms of categorizing patients according to their individual health risk, which is undesirable as stated before.

Financing care of the "wants" type could use direct payments, but it can also connect with schemes of previous type ("can"). Especially when taking into consideration that the real decision-making capabilities of most patients on the "health market" are limited and it is more efficient to purchase this care collectively (by third party), e.g. through health insurance or health savings account.

It is probably too optimistic to say that the use of these mechanisms can solve all the problems of financing health care, but it is not the aim of this analysis, anyway. We show only that the implementation mechanisms of the welfare state may not only be a simple choice between solidarity and equivalency principle (Krebs, 2009), or rather, that the resulting ratio of equivalency and solidarity in social systems is mainly the result of consideration the specific situation in individual areas of social policy and social security, and will therefore vary between these areas or even parts of the health system.

Conclusion

Health is a key component of national economy and human capital and it is worth to be invested in. The classic typology of welfare state in health systems currently shows a lot of convergence tendencies, mainly because every model principle (universalistic, performance and liberal) has its rationality with relationship to the different behaviour of people.

Based on our analysis, we can differentiate three basic types of demand for health care with strong implications on health systems configuration and financing:

- what patient must have,
- what patient wants to have,
- what patient can have.

All of them are perfectly rational. The first one is by far the largest, is the pillar of medicine as a science and outcomes from the lege artis principle of medicine, where a doctor is obliged to provide health care in such a way that the patient will be helped according to its objective condition.

The second one is based on the decision of patient and in this mechanism, the doctor acts as a patient's servant fulfilling his wishes. He obviously should consider, whether they are real and not harmful to his health, but he does not decide about their application and payment – the patient must decide whether are useful for him. Usually, the patient is not even considered sick when seeking for those methods.

The third one is based on the recent development of medicine and methods of treatment. There is increasing number of diagnoses where there is more methods to choose from, whose economic parameters are different and sometimes even subjective perception of their application is tied to a particular patient. Thus, there are more options that the patient can have, even if there is a clear medical indication for it because of his condition.

It is also worth noting, that the borders between those categories are not so clear in reality and they can also differ in particular patient's case. However, in the financing schemes, a compromise in their actual separation and specification must be found. Some examples were given in the discussion section of this paper.

Public health investments are ineviTable as a resource for financing of the "must" type of care, so that its consumption is made possible/facilitated, respectively. It is not true, that the concurrent allocation of private resources on health will at the end of the day increase the overall health utility for everybody, and has never been proven so, as it was on some other markets, e.g. computers or food. Thus, solidaristic financing remains the best method for financing the necessary treatment at the level that is common and agreed in society. Public financing should work the way that every fellow citizen is sure, that when things go wrong, they really do not have to worry about their health fate and future and they will be taken care of.

Private health investments should provide voluntary (optional) opportunities to increase individual utility regardless of the health status of a patient (voluntary means that if option is not chosen, the health status must not be harmed or worsened). At the current state of medicine, there are plenty of treatments that are suitable for this type of financing based on the increasing possibilities of medicine and variety of methods available. The actual financing schemes (other than direct payments which are relatively easy to implement) are still a topic for future research.

The key to success is to effectively combine public and private resources, both on the macroeconomic and microeconomic level, and keep a close eye on those people who will be dependent on public resources only (expect always at least 1/2, maybe 3/4 of population).

In Czech republic, we are still very far from successful implementation of those approaches, the development stopped at the stage of putting medical equipment into a public health care system with good tradition of high availability and universal coverage, but the opportunities of productive allocation of money have not been taken, resulting in the Czech health care system being relatively cheap in the terms of share on GDP and having the strong tendency to split into a two-tier health care system.

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Financing of Culture in the Czech Republic, Slovak Republic and Poland

Jitka Nováková

Abstract

This paper is focused on the issue of financing culture in the Czech Republic, the Slovak Republic and Poland. In the first part there are defined potential sources of culture financing. In the second part the analysis and the comparison of the chosen source of financing in the specified countries was made. The aim of this paper is to make an analysis of the chosen source of culture financing in the Czech Republic, the Slovak Republic and Poland. Following methods were used for the solution – analysis, abstraction and comparison.

Keywords

Culture, cultural policy, sources of culture funding, state budget, Ministry of Culture

Introduction

The question of financial security of institutions providing cultural services is often very difficult because the culture is often viewed as some kind of "extension" of other areas of the national economy. The financing of culture is influenced by the general economic situation, i.e. most of legal persons or activities in culture cannot rely solely on revenue from users of their services and can not do without contribution or subsidy from the public budgets or without other assistance of public administration. It is not easy to find the optimal amount of such financial means. The state must find an answers to a number of key issues such as whether to primarily support the professional work from the public budgets or what indicator (e.g. number of visitors) to choose to decide on the amount of support for culture from public sources.

The aim of this paper is to make an analysis of the selected source of financing culture in the Czech Republic, Slovak Republic and Poland.

Material and Methods

To address the issue, following methods were used: analysis (Czech and foreign publications and papers on the addressed issues in particular), synthesis (this method is primarily applied to determine the economic model of cultural policy, based on identical characteristics – properties - identified in the monitored countries), abstraction (the method was used to formulate the general assumptions and theoretical background) and comparison. This method was used for the comparison of the proportion of expenditures on the budget section of Ministry of Culture in the monitored countries to GDP and the total expenditures of the state budget, as well as to compare the proportion of the expenditures on budget section of Ministry of Culture pursued countries per capita.

Sources of Financing Culture

There are two basic forms of support for culture - direct and indirect. The direct forms

of support include donating and sponsoring, public support provided for example by Ministry of Culture, contributions from foundations or lottery funds. The indirect forms of support include for instance tax reliefs for donors45. Financing of culture in individual countries differs mainly in mutual proportions of direct and indirect forms of the support.

The essential sources of funding and support to non-profit cultural activities are especially in the developed countries with a democratic tradition of market economy as follows:

- income from own activities (e.g. revenue from own economic activity, income from user fees etc.),

- grants and contributions from public budget (subsidies and contributions belongs to the major sources of funding46)

  - subsidy means "*money from the state budget, state financial assets or the National Fund provided to natural or legal person for a stated purpose* " (see section 3, paraFigure a) of act no. 218/2000 Sb. regulating budgetary rules, as amended),

  - the term contribution is not defined in the legislation, in practice the contribution is not as strictly specific as subsidy and does not have to be fully drawn - it can usually be carried forward as part of an improved economic result,

- donating (donor is usually someone to whom the specific area of culture is important for personal reasons, but mostly it is a case of one-time donations),

- sponsorship (this source of financing culture is very rare – Hamerníková (p. 85, 1996) says "*main shortcoming of the sponsorship is that sponsors tries to advance their own interests and take control over the art content of the sponsored activity.*"),

- foundation and foundation's activity,

- funds (funds provided under predetermined conditions of the subsidy and occasionally also loans to various entities based on nonmarket principles),

- public collections,

- foreign sources (this source of financing culture can be used by individual countries in connection with their membership in various international groups; it is mainly case of the United Nations47 and the EU). At the present time, following sources are used for financing cultural services: the Culture 2007-2013 programme, other community programmes, which can also be used to support cultural projects, the financial means of the International Visegrad Fund (i.e. mainly the support of common cultural projects of the Czech Republic, Slovakia, Poland and Hungary), and source of financial assistance Swiss Contribution, which followed the Norwegian funds.

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[45] In the Czech Republic, there is no system of tax reliefs or exemptions concerning the culture.
[46] E.g. In case of a state-funded institution this is a critical resource, without which the functioning of the organization was not possible.
[47] Namely the United Nations Educational, Scientific and Cultural Organization UNESCO.

The Analysis and Comparison of the Selected Source of Financing Culture

The principle of multiple-source funding of culture, which is based on the concept of cultural policies of the monitored countries, currently prevails there. Many Czech and foreign authors concern themselves with the issue of cultural policy. For instance Nekolný (p. 171, 2000) understands the cultural policy only as allocation of funds, to which mainly priorities, criteria, system of allocation, financial means and feedback for efficiency is needed. Throsby (p. 8, 2010) approaches the cultural policy "*as a support or a ban (prohibition) on cultural practices and values from the side of the governments, businesses, the institutions and individuals.*"

The way of cultural policy creation and implementation is based on the nature of the current cultural heritage. "*Governmental programmes differ in degree, which emphasizes the preservation of national heritage against creation of „something new ". States that are aware of their own strong cultural identity (e.g. Japan or France) tend to emphasize the preservation of national heritage. Countries without a long dependence on cultural history (e.g. Canada) rather support cultural development (something new).*" – see Cummings and Katz (p. 351, 1987).

The supply of cultural goods and services in any of the monitored countries cannot do without contributions from the public budgets. In most European countries the expenditures on culture are around 0,7 % of GDP and 1 % of the state budget – see Škarabelová, Neshybová and Rektořík (p. 33, 2007). This is a reflection of historical development of institutional ensuring and financing in the individual countries[48].

The comparison was made for the selected source of financing culture in the monitored countries. The selected source is contributions from the state budget- **expenditures on budget sections of ministries of culture**.

All monitored ministries of culture have very similar competences in its management. They are all central authority of the state administration for cultural monuments, art, the press, radio and television broadcasting services etc. The authority of Czech ministry (MK ČR) and Slovak ministry (MK SR) does not show large differences. Differences can be found in the titles of individual branches; however their activity is in fact very similar. The issue of churches and religious communities comes under both ministries - unlike the Polish Ministerstwa Kultury i Dziedzictwa Narodowego (hereinafter referred to as MkiDN). Therefore, for the purpose of this paper, some of the information on financing culture from budget sections of the individual ministries excludes the expenditures for churches and religious societies.

The proportion of the expenditures on the budget section of Ministry of Culture in the monitored countries to the total expenditures of state budget is constantly increasing. The largest proportion of the expenditures of the budget section of Ministry of Culture to the total expenditures of state budget in the years 2002 - 2009 (see Figure 1) shows the Slovak Republic (in the reference period MK SR spent on average 1,16 %), and even in the case of excluding the expenditures for the churches and religious societies (the expenditures are on average around 0,90 %)49. Poland shows the smallest

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[48] For instance, in the monitored countries there are many institutions in the culture, which have the legal form of state-funded organization. These organizations are eligible for the contribution to its operation from its founder, who may be state, region or municipality.

[49] 1 % of the state budget is recommended as a minimum limit for culture budget within the EU.

average proportion of the expenditures of MK to the total expenditures of the state budget. This proportion fluctuated around 0,67 %.

Figure 1 Comparison of Proportions of Expenditures on Budget Section of Ministries of Culture CZ, SK and PL to Total Expenditures of State Budget
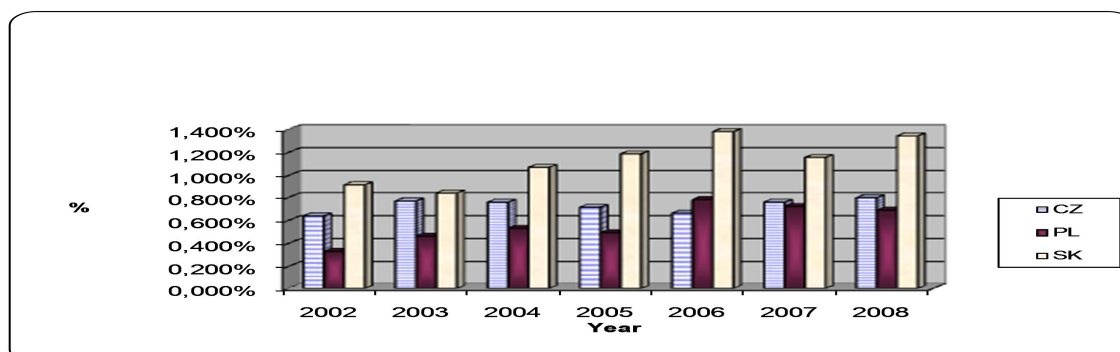
Source: http://www.nipos-mk.cz, http://www.culture.gov.sk/ministerstvo/, http://www.mkidn.gov.pl, own processing

Only in the Slovak Republic the limit of 1 % is exceeded with the expenditure on the budget sections of Ministry of Culture, for the whole reference period except for the years 2002 and 2003. In case of excluding the expenditures on the churches and religious societies (hereinafter referred to as CNS), the limit of 1 % was exceeded in the year 2006 and 2007 - 2009 (see Figure no. 2). Expenditures of budget sections of MK ČR and MKiDN have never reached the stated limit of 1 %.

Figure 2 Comparison of the Proportions of Expenditures on Budget Section of MK CZ, SK and PL to Total Expenditures of State Budget
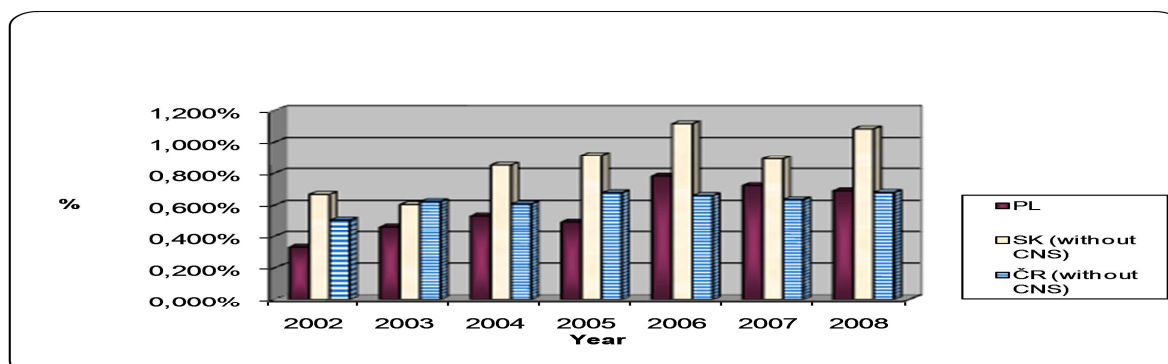
Source: http://www.nipos-mk.cz, http://www.culture.gov.sk/ministerstvo/, http://www.mkidn.gov.pl, own processing

When the expenditures on budget sectors of ministries of culture in the monitored countries are recalculated per capita (in EUR 50) it is clear that most financial means are spent by the Czech Republic, even in case of excluding expenses for the churches and religious societies. Within the reference period, the expenditures of state budget to the budget section of MK ČR fluctuated on average around 23,35 EUR per capita. MKiDN spent the least financial means of its budget. Within the reference period it was on average only 9,58 EUR per capita.

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50 For the recalculation of the expenditures of the budget sections of MK of individual countries to € the rates set by the European Central Bank as of the last date of the reference year were used.

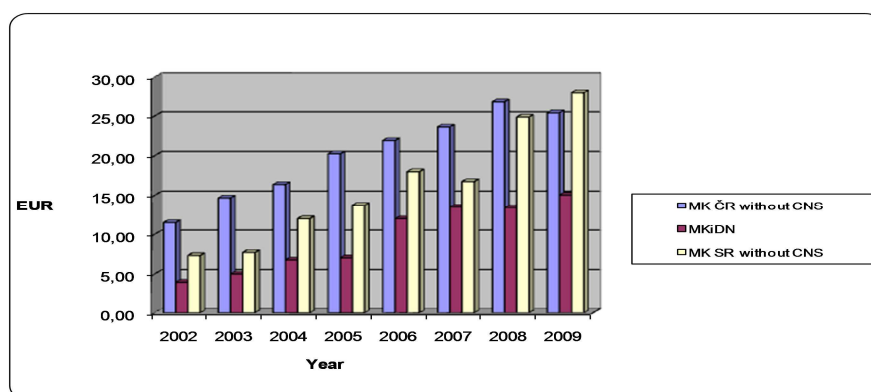**Table 1 Expenditures on Budget Section of Ministry of Culture in Monitored countries per Capita (in EUR)**

Year	Expenditures on budget section MKČR	Expenditures on budget section MK ČR without CNS	Expenditures on MKiDN	Expenditures on budget section MK SR	Expenditures on budget section MK SR without CNS
2002	14,55	11,49	3,96	10,11	7,33
2003	18,18	14,68	4,98	10,72	7,71
2004	20,46	16,36	6,77	15,11	11,99
2005	21,39	20,24	7,04	17,85	13,73
2006	22,03	21,92	11,97	22,29	18,00
2007	28,29	23,63	13,49	21,74	16,74
2008	31,63	26,92	13,38	30,87	24,88
2009	30,26	25,41	15,04	34,24	28,06

Source: http://www.ecb.europa.eu/stats/exchange/.html, http://www.nipos-mk.cz, Eurostat, own processing

While the exchange rate of Czech and Slovak crown was continuously increasing against euro in the years 2002 - 2009, the situation in the individual years was very volatile in Poland. Polish zloty was the strongest (against euro) in 2007. Nevertheless, only 13,49 EUR was spent per capita in that year.

MK ČR spent most financial means per capita during 2008, when the expenditure amounted to 31,63 EUR (without expenditures to CNS 26,92 EUR), which is the biggest amount of the all monitored countries for that year. Slovak Ministry of Culture reached the biggest amount spent per capita in 2009, with the amount of 34,24 EUR (without expenditure to CNS 28,06 EUR).
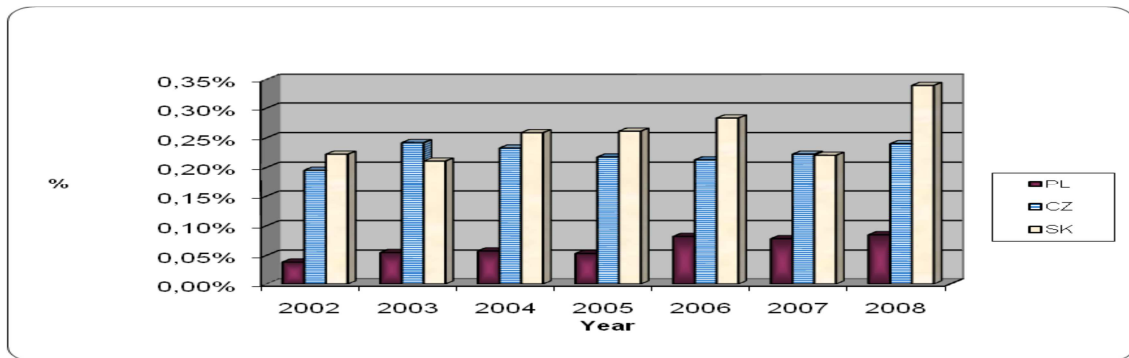
Figure 3 Expenditures on Budget Sections of MK of the Monitored Countries per Capita in EUR

Source: http://www.nipos-mk.cz, http://www.culture.gov.sk/ministerstvo/, http://www.mkidn.gov.pl, own processing

Slovak Republic showed the highest proportion of expenditures on budget sections of Ministry of Culture to GDP (during 2003-2007 on average 0,25 %), only in 2003 the proportion was by three hundredths percent bigger in the Czech Republic (see Figure 4). In Poland, the proportion of the expenditures on the budget section of Ministry of Culture to GDP was around 0,15 %, which is the lowest amount of all the monitored countries (the EU recommends 0,7 %).
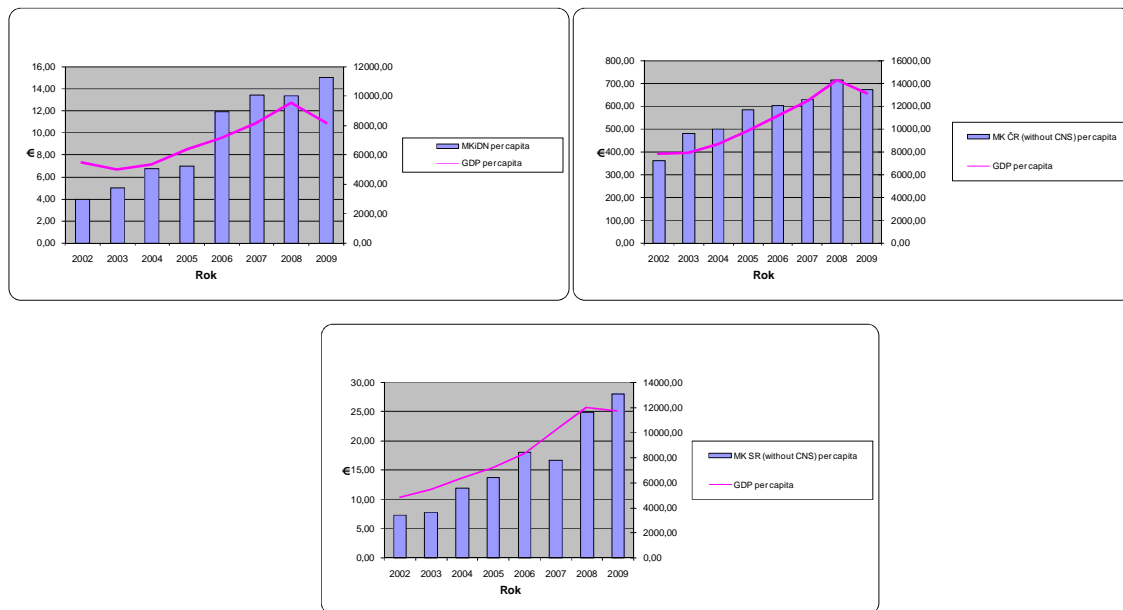
Figure 4 Proportion of the Expenditures on Budget Sections of Ministry of Culture to GDP

As an illustration, the expenditures on budget sections of ministries of culture per capita in the monitored countries were Figureically compared to the development of GDP per capita (all in EUR) - see the Figure 5.

Figure 5 Expenditures on Budget Sections of MK in the Monitored Countries per Capita to GDP per Capita.

It is clearly visible on the Figure that the development of expenditures on budget sections of ministries of culture per capita in the monitored countries follows the development of GDP per capita, with the exception of Poland in 2008 and Slovakia in 2007.

In Poland, GDP per capita increased in 2008 by 16,8 % compared to the previous year but the expenditures on budget sections of MKiDN decreased by 0,81 %. In Slovakia, GDP per capita was increasing in 2007 while the expenditures on budget section of MK

SR decreased by 6.97 % compared to the previous year.

The highest amounts spent per capita were as follows:

- MK SR in 2009 at the amount of 749,4 EUR; GDP per capita was that year 11649,62 EUR,

- MK ČR in 2008 at the amount of 716,8 EUR; GDP per capita was in that year 14245,01 EUR,

- MKiDN in 2009 at the amount of 15,04 EUR. In comparison to the previous year, there was an increase of 12,42 %. GDP per capita in that year was 8141,56 EUR.

Results and Discussion

Culture can be financed by wide range of direct and indirect sources. Government, market and non-profit sector operate as sources of financial means for culture and their blending is rather a rule then an exception – see Klamer, Petrova and Mignosa (p. 4, 2006). Despite that it must be noted that under the conditions in the monitored countries the financial means from state budget (or public budgets) are still one of the most important ones.

Although the limit for culture in EU - 1 % of the state budget (all monitored countries are EU members) - is recommended as the minimum amount. By the comparison of statistical data it was found that the expenditures ratio on budget section of MK ČR and MKiDN to the total expenditures for state budget has never reached the limit. The largest proportion of the expenditures on budget section of Ministry of Culture to the total expenditures on state budget as well as VAT during 2002 -2009 can be found (among the monitored countries) in Slovak Republic (even if the expenditures to churches and religious societies are excluded), the smallest ratio is shown in Poland.

The selected source of financing culture – expenditures on budget section of ministries of culture[51] – however captures only data of institutions responsible for culture at the central level and ignores data from other departments[52] – this may distort the general view of this issue.

When the expenditures on budget section of MK are recalculated per capita, it can be noted that the highest amount of financial means was spent by the Czech Republic. The development of expenditures on budget sections of ministries of culture per capita in the monitored countries follows the development of GDP per capita with few exceptions.

A question (that has not been solved by this paper) remains - why is the proportion of expenditures on budget section of MK ČR and MKiDN to the state budget so undervalued? A possible reason could be the fact that culture (although the authors of cultural policies in the monitored countries claim the opposite) is not perceived as a priority sector of the national economy.

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[51] Note: the data have to be read in the context of each country's governance of culture.
[52] Note: e.g. important Czech cultural institution – Vojenský umělecký soubor Ondráš funds Ministry of Defence of the Czech Republic, which is its founder.

Conclusion

Prior to 1989 only the state financed culture in the monitored countries. After that year, there was a radical change in the financing of cultural goods and services. Other entities other than sections of the state budget of MK entered the process of financing culture.

Although the vision of cultural policies of the monitored countries is to ensure a possibility of multi-source financing of cultural goods and services – see *Státní kulturní politika České republiky 2009-2014* (p. 15, 2009), one of the most important sources are the financial means from the state budget (or public budgets). The reason for it is the fact that in the monitored countries there are many institutions in the culture, which have the legal form of state-funded organizations and are eligible for the contribution to its operation from its founder, who may be state, region or municipality. It is a reflection of the historical development of the institutional ensuring as well as the funding in the individual countries.

The proportion of expenditures on budget section of MK ČR and MKiDN (unlike budget section of MK SR) to the total expenditures of the state budget does not meet the EU recommended limit. When recalculating the expenditures on budget section of MK per capita, Czech Republic spends the most financial means.

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Corruption as a Problem of Parallel Redistribution System

Tomáš Otáhal, Petr Wawrosz

Abstract

We present a model of parallel redistribution system to explain the problem of corruption. Within this model we synthesize both agency theory and rent-seeking. More precisely, we argue that the principal-agent theory has problems accounting for the environment in which the agents offering and accepting corruption operate as well as explaining the importance of the agents for the survival of their environment. The rent-seeking theory, on the other hand, finds it difficult to establish socially effective legislation and ways to determine the barriers to entry that motivate agents to behave corruptly. Both problems, however, are central to solving the problem of corruption. Lacking the knowledge of the agent's environment (system) and their significance for the survival of the system, the theory cannot define incentives that would discourage the agent from corrupt behavior. If the rent-seeking theory does not determine the barriers to entry that motivate agents to behave corruptly, it cannot determine the proper legislation that would deter corrupt behavior and lead to general prosperity. Both problems can be explained and solved within theory of redistribution systems and its part theory of parallel redistribution games.

Keywords

Corruption, redistribution system, parallel redistribution game, game theory

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Introduction

Corruption53 is generally considered one of the most serious dangers which threaten a democratic society (Bardhan 1997, Lambsdorff 2007). Therefore, various forms of corruption are among the crimes and corruption issues dealing with police and other relevant authorities. In order for a democratic society was able to fight corruption, it also needs practical tools of an effective theory which can explain why there is corruption, what threatens all of society, which forms the fight against corruption are effective and which not.

Corruption is generally one of the forms of human action (Mieses 1949, Otáhal 2006). Economics is then necessarily one of the disciplines, which should address corruption in the theoretical and scientific level. Within this perspective resources used for corruption could be used alternatively while motives are primarily economic since corruption should bring benefits to both sides of corrupt contract. It means that corruption brings utility to both the person who is bribed and the person who is

a provider of bribe (Treisman 2000, Lambsdorff 2007, Colombaztto 2003, Otáhal 2007). So how the problem of corruption can be further explained?

Economic theory deals with corruption either in the principal-agent theory (Becker a Stigler 1974, Benson a Baden 1985, Klitgaard 1991) or in the theory of rent-seeking (Tullock 1996). In our article, however, the theory explaining the causes of corruption and lack of leave unanswered some key questions whose answer is required for the purposes of combating corruption. The combination of both theories can help to address these key issues, but we believe it is also necessary more general theory of corruption, namely the theory that deals with characteristics of both the environment in which corruption occurs and can accurately describe the characteristics of corruption. As an effective theory are shown in game theory and the theory of redistribution systems (Valenčík and Budínský 2009) and parallel game theory (Valenčík 2008). The purpose of the paper is therefore to present a model of parallel redistribution system to explain the problem of corruption more generally. The paper is organized as follows. First is explained by the nature of corruption, including why the corruption is a problem, briefly describes the existing economic theories that deal with the issue of corruption and pointed out their weak point and how a combination of both theories are given problems to solve. The issue is explained by the nature of the theory of redistribution systems, including the theory of parallel redistribution games. The conclusion summarizes the main findings of the text.

Theory of Corruption: Description and Difficulties

Definition of Corruption

Corruption is a term which is named after a specific contract at least two people - the corrupt and the corrupting. While the corrupt promises that he will provide a service (and performance within this service can be a tangible and intangible) for corrupting and corrupting is committed for this service somehow reward (reward again can have tangible and intangible nature).

Within such context corruption is the result of human action (Ackerman 1999, Otáhal 2006, Lambsdorff 2007). People are guilty of corruption, because corruption brings them satisfaction (utility). Therefore, corruption from the perspective of human action does not constitute an economic problem. If the corrupt and corrupting interact reach a higher level of utility, it is from the perspective of economics of mutually beneficial exchange (Kohn 2004).

The key problem of corruption is behind the implicit assumption that there is the third party which does not wish the agent, with whom it is in a contractual relationship, to be corrupt. Corruption is not in the third party's interest. Thus, the policy recommendation comes out from the third party's effort to set an arrangement of contractual terms or rules developing a system of incentives forcing the agent not to take rewards for providing services that the third party does not wish to sell. This is the key point of all economic policy recommendations resolving problem of corruption. Hence, a contractual relationship between a corrupt agent and a corruptor is not an economic problem connected with corruption. An economic problem connected with corruption is the third party's effort to make some kinds of contracts among agents and others prohibited (Otáhal, pp. 167, 2007).

Yet believe that our definition is consistent with the definition of corruption is often mentioned (Nye 1967, 418): „behavior which deviates from the normal duties of a public role because of private-regarding (family, close private clique), pecuniary or status gains; or violates rules against the exercise of certain types of private-regarding influence. This includes such behavior as bribery (use of reward to pervert the judgment of a person in a position of trust); nepotism (bestowal of patronage by reason of ascriptive relationship rather than merit); and misappropriation (illegal appropriation of public resources for private regarding uses)". In contrast to this definition, however, we believe that corruption does not occur only in the public sector, but wherever a party of corrupt contract can violate legal or moral rules, which is committed by the third party (see below).

Principal-agent Theory

As mentioned in the introduction, economic theory looks at the issue of corruption generally view principal-agent theory or perspective theory of rent-seeking. Principal-agent theory explores the relationship of two agents when one agent is responsible for another agent (principal) certain tasks. Interests of the agent may be in conflict with the interests of the principal and the agent may act contrary to the interests of the principal (Jensen and Meckling 1974, Perloff 2008). This in itself does not mean corruption - to be a corruption agent must provide a benefit to another agent (other than the principal), the provision of that benefit is in conflict with legal or moral rules committed by principal (generally up to a set of rules can include commands administrator).

A typical example of corruption is a situation when a company manager (agent) acts contrary to instructions or the interests of owners (principal) and prefer a supplier who supplies goods for a company or factors of production more expensive than other operators, with the preference of this agent has an advantage. In so doing, the agent harms or violates the property rights of the principal (here the example in reducing their profits). Generally, the agent in case of corruption harms the principal's property rights by their use gives a bribe to wishes of other people. For this reason, Benson and Baden (1985) consider corruption as illegal market with property rights. This is an illegal market, where the illegality is not given by the conduct rules prohibiting only the state but banned by the market rules designated by agreement between the principal and agent.

Relationship manager and agent are encumbered by an asymmetry of information - for principal is costly to monitor whether the agent acts contrary to his instructions (Perloff 2008). Therefore, the agent is exposed to the temptation to violate the principal commands and acts that are contrary to the interests of the principal (including corruption) can occur. On the other hand, the principal may cause the agent to act in accordance with its instructions. It does so through a system of incentives, which are part of a contract principal and agent, on the basis of an agent should decide to implement such decisions, which are interest of the contract principal. Incentives can be divided into two categories - rewards and punishment. They are set so that the principal agent of either rewarded if they act contrary to the principal commands, avoid, or punished if you break orders principals. Category reward and punishment, however, cannot be separated from each other, because one without the other missing its meaning. As an entrepreneur can be encouraged to seek profiTable opportunities

without having to be the wrong decision in the case of forfeiture, the agent also encouraged to respect the commands, so do not do that unless there is no risk that such conduct will be punished. On the other hand, as not to encourage entrepreneurs to discover profiTable opportunities just by being punished for bad exploring opportunities as well as from the agent cannot be punished for violation of instructions from the controller anticipated that it will meet the conditions of the contract, unless the conditions for fulfilling the contract awarded.

Let us reduce now a situation where an agent acts contrary to instructions from the principal, to corruption. From here said implies that agents and principals may be members of the private and public sectors. Corruption is often (Spector 2005) restricted to the corruption of agents who operate in the public sector (such as official corruption), but this is not the only possible corruption. In the case of corruption in the public sector is somewhat difficult to define principal - it may be the employer of the agent (e. g., police, city, ministry, etc.). However these principals can be watched as the purpose established organizations that emerged to satisfy the public or social needs. In other words, these organizations are the agents, while the principals can be regarded as citizens (persons) of the territory in which the organization operates. Specifically, municipal office can be considered as an agent of the people (principals), who live (reside) in the territory of the office scope of authority, the Ministry employees are considered agents of all citizens of the country, European Commission staff agent for all citizens of EU countries, etc. Although this view is not often shared in the theory (Lambsdorff 2007), we consider it to be substantial. Tackling corruption, including the question of what system of rewards and punishments to the agent has set up, is depended on the organization (environment, system) in which the principal trying to discourage the agent from corruption. Different agents may violate various important property rights principals, in some cases this is more serious breach than in others. As an example, different severity of breach of duty policeman who accepts bribes, and breach of duty and a waiter that better serves the guests to give him a tip than the guests who do not tip him. Principal-agent theory by itself is not able environment in which corruption occurs define. It is then able to define the agents and the importance for the survival of the organization.

Rent-seeking Theory

Rent-seeking theory understands rent-seeking as entrepreneurial decisions to which entrepreneurs are encouraged by the fact that inefficient state regulation exists on the market, in other words, the state created a barrier to entry (Buchanan 1979). In general, the term rent-seeking was designed to describe the behavior in formal institutional setting where individual efforts to maximize value generate social waste rather than social surplus (Tollison 1982, Tullock 1996, Otáhal 2008a). Essential to this definition is use political institutions or political process. Thus corruption also included in the rent-seeking theory must take place mainly on the level where one of the parties involved in the corrupt exchange is representative of the state. The problem of corruption in the theory of rent-seeking, however, arises only when state officials and entrepreneurs create artificial barriers to entry, thus reducing social welfare (Tullock 1996). In other words, rent-seeking theory does not consider corruption a situation where entrepreneur bribing state officials to artificial barriers to entry were reduced. From the point of view of rent-seeking theory corruption can include legal activities -

barriers to entry can be created (increased) through activities such as lobbying, etc.

From here comes the difference between corruption, how it understands the theory of rent-seeking and corruption, as understood by the principal-agent theory. The rent-seeking theory does not look for the corruption as at an exchange, where the distinction between ordinary and corrupt business rules is determined by the legal administrator, which in the case of corruption agents violated. For the theory of rent-seeking, corruption is determined by consequences that entails exchanging agents (which is a representative of the state) for the society. Recommendations rent-seeking theory applied to solve the problem of corruption can be formulated as follows: If the objective of economic policy, the removal of corruption, it is necessary to remove the space to create artificial barriers to entry that encourage entrepreneurs to corruption lowering social welfare. As an efficient tool it is a recommended replacement of discretionary powers of politicians and officials fixed the rules by which politicians and civil servants have to follow (Otáhal 2008a).

The theory of rent-seeking, however, faces the problem how to determine the strict legal rules that are socially efficient and how to define the artificial barriers to entry that encourage agents to corruption. Some artificial barriers to entry can be namely socially efficient - as an example can be mentioned barriers regulating the entrepreneurship of financial institutions as these barriers can at least partially prevent financial institutions based only person with fraudulent intent. Emphasize at the same time that the definition of social efficiency is problematic - as it is noted in Rizzo (1979) efficiency can be defined differently than in terms of goals, which acting person is trying to achieve. Different players but they have different objectives and therefore not can provide for all people a goal. That is why it is not possible to determine whether this goal fulfilled effectively from the perspective of the whole society.

Theory of Redistribution System and Corruption

Theory of Redistribution Systems and Parralel Redistribution Games

The preceding text suggests that the two major economic theories that deal with the problem of corruption face some difficulties. The principal-agent theory has difficulties accounting for the environment in which the agents offering and accepting corruption operate as well as explaining the importance of the agents for the survival of their environment. The rent-seeking theory, on the other hand, finds it difficult to establish socially effective legislation and ways to determine the barriers to entry that motivate agents to behave corruptly. Both problems, however, are central to solving the problem of corruption. Lacking the knowledge of the agents' environment (system) and their significance for the survival of the system, the theory cannot define incentives that would discourage the agents from corrupt behavior. If the rent-seeking theory does not determine the barriers to entry that motivate agents to behave corruptly, it cannot determine the proper legislation that would deter corrupt behavior and lead to general prosperity. Both problems can be explained and solved by theory of redistribution systems ant its part theory of parallel redistribution games. This section will briefly describe the basics of the theory.

Theory of redistribution systems is based on the fact that most social systems, i.e. an environment in which people exist, have the character environment in the

environment where is redistributed income and wealth or a direct source of goods that this environment is available in. For purposes of this text will be redistribution defined as a situation where a person is rewarded differently from their performance (Valenčík 2008). The redistribution has some objective reasons. This is particularly the facts that in any system necessarily live people, whose economic performance or the ability to produce goods and collect the goods necessary for his living is low, or zero. Typical examples are children, elderly, sick, disabled, etc. If a society wants to ensure the life of these persons (groups of persons) must redistribute necessarily - some people take resources and goods and other giving. History shows that a given redistribution occurred since the beginning of human existence. After all, otherwise humanity would survive at all. From a philosophical point of view we can say that a given redistribution is a manifestation of humanity, thanks to this redistribution people meet in the I-You mode, while in this mode develops a person (personality) of individual people - people are learning collaboration, cooperation, solidarity, help. Generally redistribution helps to socialize the individual people. Man encounters the redistribution from his birth, takes it for granted, as something given to him. Redistribution of this environment is man's own perspective (immanent), philosophically, we can write that a person is born in (is casted to) the redistribution environment. Potůček (2005) therefore rightly notes that all the economic and social systems are currently redistribution systems. The redistribution in favor of people who needs it can be called as necessary redistribution (Wawrosz 2011). Although the criterion of needed redistribution as arbitrary we believe to be important. Apart from necessary redistribution it is possible to meet with cases of redistribution in which a person who is redistributed in favor does not need the redistribution – such redistribution can be called as unnecessary redistribution. Redistribution hence provides environments for corruption, because in them there is a reallocation of funds other than those corresponding to performance of its members, which also encourage members to redistribute through bribes and to rent-seeking.

Economic theory in analyzing the issue of redistribution necessarily has to note redistribution reduces the efficiency of the system. It is quite logical - it is also a redistribution of certain associated costs. Sources used to redistribute it cannot be used to produce new goods, thus not contributing to the growth of system performance. In particular, redistribution, however, also discourages from productive behavior. He/her is at the expense of redistribution going on and who is losing the fruits of his/her effort is not motivated to economic activity hence tend to rent-seeking. The disincentives, however, leads to a decline in the performance of the system and therefore to decrease the amount of resources that can be redistributed within the system. Likewise, the person in whose favor the redistribution is done, is not if it is income (or assets and resources) available through redistribution, too motivated to be economically active and to contribute to improve the performance of the system. Given the fact - the more redistribution within the system, the smaller the system performance is usually interpreted as a dilemma (the trade-off) between equality and efficiency (Okun 1975), Stiglitz (2000), Musgrave (2004).

Necessary and unnecessary redistribution must be governed by certain rules, which define, for whose benefit and at whose expense is to be redistributed to resources or goods and to what extent, to be redistributed, etc. These rules may be formal (legal) and informal character. It is important that the necessary and unnecessary redistribution is carried out in accordance with the standards applicable in the society

(organization), i.e. no violation of the rules governing the society (organization). Regardless of the nature of redistribution can then be given redistribution (redistribution system) to mark the legal system of redistribution - redistribution occurs in accordance with the standards of the company. It should be stressed that these rules do not only have in general binding rules (laws, regulations, decrees, etc.), but can be a type of informal rules of customs, traditions, etc. So the word "legal" in our meaning cannot be here related only to the recognized state law.

Besides the legal systems of redistribution, however, there are other forms of redistribution - the parallel redistribution systems. The basic characteristics for a parallel system of redistribution are:

- In a parallel redistribution are violated the rules that exist within the legal system through redistribution act, which in the legal system of redistribution is not allowed.

- Redistribution that occurs in parallel redistribution system is hidden and secret.

- Redistribution in favor of members of a parallel system of redistribution is happening at the expense of the original redistribution system within the parallel system of redistribution exists. Shortly, redistribution in favor of members of a parallel system of redistribution represents rent-seeking game.

- Members of parallel redistribution system strive through the system to increase the remuneration paid to them. This remuneration may take the form of cash or in kind, may be to gain an advantage (position) - for example, easier access to resources, goods (including information, etc.), so this position thanks to members of a parallel redistribution of higher revenues or lower costs than if they did not participate in parallel play.

For characteristic parallel redistribution system can thus indicate that each system of parallel redistribution game corresponds to a specific type of disruption of the institutional framework - a parallel redistribution system (play) violates the legal institutional arrangements of redistribution system, and this disruption is happening covertly, i.e. violating aspire to him by other persons (players) and could not learn to failure to intervene. In terms of new institutional economics (Furubotn and Richter 2005, Otáhal 2009b) parallel redistribution can be described as a manifestation of the game opportunistic behavior - individual entities behave differently than the respective institutions. Corruption can then be considered as an example of parallel redistribution game - the aim of corruption against the rules to reallocate resources, which could have a third party (those not participating in the redistribution of the contract) for the benefit of participant's corrupt contract.

Conclusion

It is shown that the existing economic theories dealing with the issue of corruption, i.e., principal-agent theory and rent-seeking theory suffers from serious problems, so in the fight against corruption can lead to erroneous conclusions. Principal-agent theory has problems accounting for the environment in which the agents offering and accepting corruption operate as well as explaining the importance of the agents for the survival of their environment. The rent-seeking theory, on the other hand, finds it difficult to establish socially effective legislation and ways to determine the barriers to entry that

motivate agents to behave corruptly. The theory of redistribution systems and parallel redistribution games solves these problems by: a) defines the environment in which corruption occurs as a legal system of redistribution b) defines a parallel redistribution system (the game) as a system in which violations of legal rules redistribution system and defines corruption as an example of a parallel redistribution games c) based on the definitions contained in section a) and b) concludes that reducing the legal redistribution eliminates stimulation agents to behave in a corrupt d) is able to describe the features that should have rules to discourage agents from corruption. Further research should consist of detailed characteristics of redistribution system, parallel redistribution of games in the analysis of the negotiation process, to which the parallel redistribution of games there, including strategies that are applied in the negotiations, in a more detailed description of the agents for the survival and fulfillment of objectives of the organization for which operate in a closer definition, it is desirable to create artificial barriers to entry and historical examples that show how the above general findings were applied in practice in different communities in order to reduce corruption.

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Providing of Municipal Library Service Evaluation in South Moravian Region

Vilém Pařil

Abstract

The subject of the following article lies in library services provided by municipalities in the South Moravian Region. The key objective of this paper is an analysis of library services sector in South Moravia. Assumption of this analysis is to identify the size of the municipality sample that are analyzed, which takes into account the administrative criterion, legislatively enshrined in the law on municipalities, which sets the limit of three thousand people to be able to reach the status of the town. This will be respected, and therefore there will be municipalities with more urban character. The analysis is aimed on the performance of library services, as well as municipal library finance of institutions and their position in the municipality or town budget. Another feature that is taken into account is the institutional background and form of establishment of library facilities within the municipality or its organization. There is also taken into account the aspect concerning the status of municipalities according to delegated and individual incidence status and the impact of this status on the extent of library service providing. The analysis will also take into account the evolution of providing these services over time and will try to capture the trends of this specific sector of municipal economy.

Keywords

Municipal public services, municipal library services, municipal budget, service evaluation

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Introduction

If we would like to attend the problem of municipal library services firstly the public service in general view needs to be defined. There are some problems even in definition of public service (Vítek, 2001). One of the criterion how to define public service is to distinguish institutional - outputs provided via public institutions - and functional approach - publicly beneficial activities with no importance about who is provider of these services (Vítek, 2001, p. 12). Institutional approach says that public service is kind of service where in the role of final user (consumer) is public as social subject (Ochrana, 2007, p. 8). Functional approach reflects the fact that border in providing public services in terms of its financing is very difficult to identify and it is determined by historical and social evolution (Medveď, Nemec, Orviská, Zimková, 2005, p. 54). There is also need to distinguish between insuring and providing public services because publicly insuring services are financed by public sector but can be provided by both public and private sector (Musgrave, Musgrave, 1994, p. 8). Public services can be provided by public sector by several ways: public administration, public organizations, non-profit private organizations, profit organizations or even by household sector (Hyánek, Prouzová, Škarabelová, a kol, 2007, str. 24-25). The subject of this article is the sector of library services in the region of South Moravia. Municipal library services are provided by public organizations (allowance organization and municipal organization

units) and they are mostly financed by municipal budgets. The aim of this article is to estimate total performance of municipal library services and identify the demand on municipal library services in the region of South Moravia and analyze some institutional and formal disparities.

This article has two key research questions. First research question is "if there is any approach how to measure effectiveness of municipal libraries based on which recommendation to municipality management can be provided?" And second research question is "if there is any connection between municipal library service performance and local labor market situation or quality of life?" According to these two research questions there are several thesis to prove in this article. First thesis is: "There are measurable indicators that can be transformed to one key indicator reflecting the municipal library effectiveness." Second thesis is: "The key performance library indicator is instrument complexly reflecting economic and social impacts of this specific public sector service." The last thesis is: "Municipal library service performance has positive influence on local labor market situation or quality of life so it is factor of knowledge based economy or society."

Material and Methods

This research is focused on library services analysis. This analysis is based on analyzing 47 chosen municipalities in South Moravian Region according to the population criterion where the limit of at least three thousand people was taken into account (this criterion fulfill 47 municipalities in this region). As basic data used for this research on library service providing in South Moravian Region there was both kinds of data primary and secondary sources. As one of basic source of data the website of ARISweb was used in this research (website of Ministry of Finance in Czech Republic for checking public national, regional and municipality organizations budget)[54]. Second basic information source is a database of Czech Statistical Office. Last basic source of information with primarily character was questionnaire survey in 47 analyzed municipalities[55]. The basic approach for making following analysis is benchmarking method that was used. To answer key research questions of this article there are four views on library sector analyzed in this article: financial view, performance view, institutional view and municipal population category view. First is financial view. In this part there is following methodology used to analyze data on municipal libraries. The basic information is item 3314 of sectorial budget classification mentioned above.

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[54] This source of information was used to identify evolution of public expense in municipal library service in the whole area of the region – it means the evolution of item number 3314 of sectorial budget classification. Then this source was used to identify evolution of budgets for libraries constituted as allowance organizations.

[55] Survey has been performed via asking their competent employees responsible for municipal library services and also checking specific websites of all municipal libraries analyzed in the sample. This survey has been processed during the autumn of the year 2010 ten and in the spring of 2011 and that´s why the period of years 2005 to 2009 was analyzed.

Then there are information from profit and loss account where has been identified different categories of expenses and revenues[56]. In performance view following basic indicators are analyzed numberof titles, borrows, visitors, employees and other actions and activities organized via libraries[57]. In third and fourth part there is analysis of institutional form of libraries58. In last part the population categories are taken into account. In the last part there is analysis of performance indicators related to local labor market expressed by unemployment rate and there is also analyzed relationship with migration rate that can provide us in some view basic information of quality of life in chosen municipality.

There is also need to identify the part of 47 municipalities and their position in whole South Moravian Region. This basic information can be seen in following Total population of South Moravia in 2009 has been 719 thousand and total costs of library sector has been almost 187 million CZK. The sample represents 6.98% of municipalities (limited by the criteria of at least three thousand citizens) but also 62.76% of population and 83.77% of costs (ARISweb, Czech Statistical Office). It means almost 85% of municipal public expenses to library services (item 3314). There is trend of declining importance of these 47 municipalities compared to the rest (in five years decline of about 0.5% of population and about 5% of total expenses in library services).

Budgetary and Financial View

First view on the library service sector is financial overview. Total revenues of 47 municipality libraries during the period from 2005 till 2009 reached 153.6 million and costs reached 152.9 million. Libraries show in total positive difference with surplus. Related to structure of financial sources - 91 % of sources are provided by public sector and only about 9 % comes from library sector activities.

More detailed view on library public financial sources shows Figure 1 where we can see that about 80% of sources come from municipal budgets. The second most important financial source is regional budget. To have a complex overview also on the expenditure´s side of the budgets Figure 2 shows the proportionality and structure of costs in libraries whereas most important are personal and general expenses (about 90 %).

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[56] In expenses two basic categories were distinguished capital and current expenses (costs), Current expenses were further broken up to personal expenses (items 521 to 528 from profit and loss account on ARISweb), deficiencies and losses (item 548), general expenses (items 501 to 503, 511, and 551) and other expenses. In terms of revenues there were analyzed following sources of finance: municipal sources, regional sources, national sources, European Union sources, gifts and own sources (meaning the finance from organizational own activities – items 601-602 and 604). Last two categories were included in private sources and the others are included to public sources.

[57] Then there are other counted indicators related to financial features and municipal population characteristics. These are titles per inhabitant, borrows per inhabitant, borrows per titles, visitors per inhabitant, average cost per title, average cost per borrow, average cost per visitor, average cost per other activity or actions, titles per employee, borrows per employee, and other activities per employee.

[58] There are following types: municipal organization unit, allowance organization and allowance organization unit. Also type of municipality is reflected. In delegated power view there are municipalities with enlarged delegated power (type III.), with delegated authority (type II) and basic delegated power (type I) and also one magistrate is distinguished (which is corresponding with type III). This was done due to exceptional role of Brno municipality library in whole sector. In individual power following categories are identified: statutory town, town and municipality (there is no township in this sample).

Figure 1 Financial resources of library services   **Figure 2 Financial costs of library services**
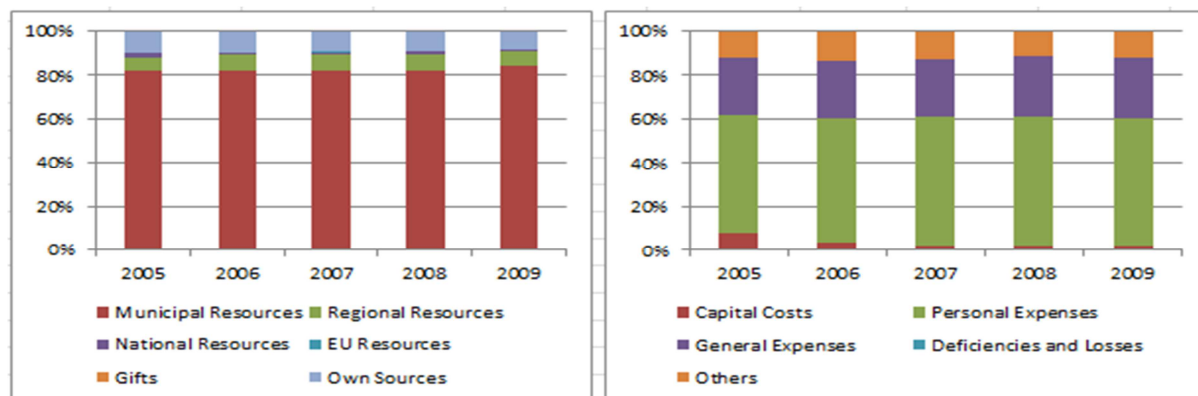
Source: ARISweb, own survey and calculations

Performance View

The second view on the municipal library sector includes five key indicators mentioned in methodology above and also other twelve evolved indicators. First basic indicators of total performance of library services in 47 analyzed libraries are following: titles (2.4 million), borrows (4,9 million), visitors (1,6 million), 5.3 thousand actions handled with 351 employees. Number of titles is increasing during whole five-year period. In contrary the amount of borrows increases in 2006 and then began to decrease in 2007 and 2008. In the year 2009 there is again little growth of this indicator. The estimation of whole library sector performance in South Moravia according to participation of 47 analyzed municipalities and their proportion on library expenses of whole region (85%) is following: there is performance in average of 2.8 million titles, 5.7 million borrows, 1.9 million visitors and 6.2 thousand other activities handled with 410 employees. In the following Table number 1 evolved indicators are showed. In the view of demand on library service we can see that there is about 7 borrows per inhabitant a year.

Table 1 Evolved indicators - average performance

Indicator / Year	2005-9 (av.)	Indicator / Year	2005-9 (av.)
Titles per inhabitant	3,36	Av. costs per visitor	95,15
Borrows per inhabitant	6,80	Av. costs per action etc.	29 258,69
Borrows per titles	2,03	Av. own resources per borrow	2,86
Visitors per inhabitants	2,26	Titles per emplloyee	6 854,59
Av. costs per title	63,60	Borrows per employee	13 870,85
Av. costs per borrow	31,47	Actions, session per employee	15,04

Source: ARISweb, Czech Statistical Office, library final reports, own survey and calculations

Institutional View

In following part the criterion of institutional form and municipality type will be analyzed. First there is showed in Table 2 average performance in key indicators according to the municipality delegated and individual power type of library establishing municipality in categories defined above. Here is better to take into account that magistrate municipality (only Brno) should be normally in category three of delegated power type but according to its exceptional role it is separated to special category. Here we can claim that statutory town Brno with magistrate authority includes

almost half of borrows in whole analyzed sample (in total 2.303 mil. of 4.87 mil. borrows per year). Second part of Table 2 makes provision for library organization type – basically three types of library organization were identified: allowance organization, allowance organization unit (mostly the unit of municipal cultural center) and municipal organizational unit.

Table 2 Average performance according to institutional form (excluding Brno)

Indicator / Status	town	municipality	III.	II.	I.	allowance org.	allowance org. unit	municipal org. unit
Titles	38 727,08	14 555,93	55 558,88	21 864,52	17 899,37	198 767	29 285	24 554
Borrows	62 969,84	15 757,85	99 031,10	28 592,94	19 304,14	477 408	46 124	36 518
Visitors	20 328,36	4 147,42	33 796,81	6 950,33	4 902,89	171 040	12 567	10 061
Employees	5,00	1,00	9,00	2,00	1,00	36	3	3
Actions, sessions etc.	77,79	23,13	127,23	25,41	24,85	545	32	38

Source: ARISweb, Czech Statistical Office, library final reports, own survey and calculations

Municipal Population Category View

Fourth part of this analysis is aimed on municipal population category. In this part six population categories were determined59. Another municipal population category is not included in analyzed sample of 47 municipalities. The total performance on chosen indicators of libraries according to the population category we can see in Table 3.

Table 3 Total performance according to municipal population category

Indicator / Category	above 100 th.	20 - 100 th.	7 - 12 (20) th.	5 - 7 th.	4 - 5 th.	3 – 4th.
Titles per inhabitant	2,16	4,86	4,24	4,05	4,58	5,37
Borrows per inhabitant	6,26	8,59	8,74	6,19	5,56	5,70
Av. costs per title	74,76	77,84	64,67	40,09	40,08	39,31
Av. own res. per borrow	2,88	3,85	2,34	1,37	2,09	2,09
Titles per employee	5 634,13	4 264,92	8 442,63	12 537,56	12 928,35	14 571,99
Borrows per employee	16 338,22	7 247,16	16 819,51	18 749,45	15 823,13	16 246,82

Source: ARISweb, Czech Statistical Office, library final reports, own survey and calculations

Municipal Unemployment, migration rate and Library Sector Performance

In following part there are shown relations between municipal economic situation and library sector performance of services. At first there is need to specify geoFigureical unit that can be analyzed. According to Czech official territorial structure there has been chosen division related to second type of delegated power municipal authority

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59 First one corresponds to Brno because it is the only statutory town with more than 100 thousand citizens. Then category from 20 to 100 thousand inhabitants was determined but in reality there are included town only from 20 to 35 thousand because of lack of bigger municipalities in the region of South Moravia. Third population category includes municipalities within 7 and 20 thousand inhabitants but also here we need to make a note that there are no municipalities with the population in the range of 12 and 20 thousand citizens in South Moravia. Last three categories include municipalities with five to seven thousand inhabitants, four to five thousand inhabitants and three to four thousand inhabitants.

(excluding these not meeting criteria of at least three thousand inhabitants in its administration center). In the analysis above municipalities included can be spread to 30 micro-regions. As indicator of quality of local labor market situation and quality of life two indicators have been chosen – regional unemployment rate and local migration rate. If we take into account normalized key performance indicator[60] and we compare it with regional unemployment rate and local migration rate, there are two correlation rates that can be determined. The correlation rate for regional unemployment rate is -0.28 and the correlation rate for local migration rate reaches 0.20. From these two numbers we cannot conclude unambiguously that library sector performance in municipalities correlate explicitly with library service performance in municipalities because values for both are too low but we can at least say that there is obvious fact that library service performance has negative relation with local unemployment and positive relation with local migration effect.

Results and Discussion

The sector of municipal library services was analyzed in 47 biggest towns and municipalities in South Moravian Region[61]. If we count as key indicator of demand on municipal library services the number of borrows and number of visitors we can say that total demand of 47 municipalities was varying from 4,6 million of borrows to 5.1 million of borrows in the period from 2005 till 2009. According to the proportional importance on municipal library expenses in whole South Moravian Region (that is varying from 83.5 % to 89 %) we can estimate the total demand about 5.5 million of borrows in whole region. Here we need to make a note that even if Brno is not the best in relative evolved indicator (borrows per inhabitant) it is the most important provider of municipal library services in South Moravia with about 2,3 mil. of borrows. Number of borrows were declining in 2007 and 2008. The number of visitors is varying from 1.5 million to 2.1 million and there was also a decline in the year of 2008. In the view of supply of municipal library services we take into account two main indicators that are number of titles, and number of actions and other activities organized by libraries. The number of titles at disposal is in analyzed sample growing during whole period from 2.25 million to 2.5 million even in the years where borrows were declining. The number of other public actions and activities organized by libraries has the even more significant growing trend from 4.5 thousand in 2005 to almost 6 thousand in 2009. At this moment we need to take into account that this kind of services can be provided also by other types of libraries as regional library, university libraries etc. that were not included in this analysis. For that reason we need emphasize the role of Brno municipality where regional library and more university libraries are situated.

Now we can finally discuss problem regarding the first research question "if there is any approach how to measure effectiveness of municipal libraries based on which recommendation to municipality management can be provided?" To answer this

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[60] Key performance indicator consists of: titles per inhabitants, borrows per inhabitants, borrows per titles, visitors per titles and inhabitants per action. Each of indicator has been normalized according to the formula $[(Xmax-X)/(Xmax-Xmin)]*100$ and then the normalized key performance indicator has been derived as average value of normalized partial indicators for each region level two of delegated power.
[61] Only five municipalities of second type of delegated power were excluded because of the population criterion of three thousand in the year 2009: Ivanovice na Hané, Klobouky u Brna, Vranov nad Dyjí, Březina and Ždánice

question there are two parts related to different thesis claimed in the introduction of this paper. First thesis - "there are measurable indicators that can be transformed to one normalized key indicator reflecting the municipal library effectiveness" - has been approved because there is some basic information that can be relatively easily provided on which the key performance indicator can be raised up. Here it is necessary to mention that municipal libraries has no obligation to provide data as number titles, borrows and other activities to another institution (for example to Regional Authority) despite of this fact some of libraries publish yearly these information in final reports (but generally only biggest institutions and not small municipal libraries). The answer second question - "if there is any connection between municipal library service performance and local labor market situation or quality of life? - related to the thesis mentioned in the introduction that "municipal library service performance has positive influence on local labor market situation or quality of life so it is factor of knowledge based economy or society" - we can claim that this thesis hasn´t been clearly approved because the correlation ratio of key performance indicator with local unemployment rate and with migration rate was very low but at least we can state that the relation between providing municipal library services and unemployment is negative and relation with migration is positive. In some works the connection between knowledge accessibility and regional growth has been proved for example in Sweden (Andersson, Karlsson, 2007, p. 145) or connection between globalization and local development has been analyzed (Butcher, 2006, p. 154). In other works we can find the emphasis on global and multinational character of developing networks where these characteristics have its very specific and important role (Sachwald, 2007, p. 376). The problem analyzed in this article lies in the thesis if we can consider municipal or rather local library service performance as factor of growing local or regional economics in the view of knowledge society factor. This analysis is focused just on library performance but it is not the only feature that need to be taken into account in growth factors of knowledge economics. But finally following thesis has been partly proved – municipality where there is more efficient library sector is tending to have lower local unemployment rate and in the contrary higher positive local migration balance. The problem of library services lies in fact that their fundamental function is more cultural than economic and in the municipalities there are different knowledge based economy factors as e.g. system of education or opportunity of requalification that have of course stronger economic and labor market impact than library services and that´s why the correlation is not enough strong. Due to the negative relation with local unemployment rate and positive relation with migration rate there can be concluded that library services have additional positive role and can be considered as additional knowledge economy/society factor. Last thesis related to both research questions - "the key performance library indicator is instrument complexly reflecting economic and social impacts of this specific public sector service" – hasn´t been in fact approved because above designed normalized key performance indicator can be used to compare different libraries in offering titles (that is its main objective) but it cannot be used for complex supply of services provided by municipalities that in statistical view lies in the indicator above called "other actions and activities". This category can have quiet important role in small municipalities because there are several kinds of services provided as e.g. author´s discussions or readings for basic schools or even for public, courses focused on integration seniors through the trainings on basic computer skills, e-banking or special services for people on maternity leave for sharing experiences so there is also as technical as social

cultivation role. The problem of providing this kind of additional activities is that there is no common strategy and strong cooperation among potential municipality libraries.

Conclusion

It can be conclude that municipal library service demand is almost 5 million borrows in the municipalities of more than three thousand population and it is estimated on 5.5 million borrows a year in whole South Moravian Region. In the view of number of library visitors the total amount is settled near to 2 million a year. In the view of supply of municipal library sector amount of title reaches - during analyzed period - approximately 2.5 million titles and number of public organized actions and activities is more than 5 thousand a year. Supply indicators are not every time corresponding with demand as we can see the decrease of demand in 2007 and 2008 but in this period the supply was still growing. We need to emphasize the role of regional center Brno that provide about 47 % of municipal library services (excluded the services of regional and university libraries mentioned above) with the cost of only 38 % of analyzed sample. So we can identify the effect of economies of scale in library services. There is one more fact that needs to be mentioned in this context. Because library services provided in Brno are also higher quality level comparing with the others (for example larger scale of on-line services, more professional literature and more professional public actions comparing with almost scholar public sessions organized in smaller municipalities and aimed mostly on school pupils). This analysis can be an input in further more complex research regarding for example including of regional and university library services and determining whole demand on library services in South Moravia and estimating all costs and services.

In the end there are several recommendations based on the analysis above that can be provided to municipal libraries in the South Moravian Region. The first one is related to economies of scale that can be used also in providing municipal library services in several ways. First is related to IT/registration and internal identification system that is separated to particular municipal libraries but it can be easily organized as in e.g. university libraries where there is one system where it is possible to search in all titles keeping on all faculties – reciprocally it can be organized on the regional level where there is one system that can merge all book/title resources in all municipal libraries with the note for user where is the closest library where he can find searched book or title. Then there is second note related to small libraries that have no enough financial sources to keep fulltime job employees and it creates lack of professional human resources. There is opportunity to share costs for e.g. one fulltime employee among the different municipalities/libraries that are neighbors or at least very close to each other. The third recommendation related to economies of scale is related to other activities provided that are held by each library but there is possibility as in previous case to cooperate at least at micro-regional level that save the expenses of all participants. Recommended additional activities to improve for example the integration of seniors are trainings in computer skills, using e-banking, e-government instruments or e-health instruments especially in small municipalities where there are no schools or universities that can provide this kind of services. According to Table 3 there is need to mention that small municipalities has in average more titles per inhabitants then the bigger ones but problem is in offering their services because borrows per titles and borrows per

inhabitants are quiet lower in small municipalities. Probably this problem is partly depending on local demoFigureic circumstances but partly it can be solved by using some library marketing strategy to offer their services that is related to the lack of human resources discussed above. Final recommendations are related to institutional municipal library view where average performance values showed in Table 2 can be considered as limits of standards that should be reached by different types of municipalities. In view of organizational form there can be conclude according to Table 8 that libraries with lower number of titles than 30 thousands and lower number borrows than 45 thousand per year can be kept as municipal organizational unit. On the other side a library with more than 100 thousand titles and 170 thousand borrows per year should be constituted as allowance organization.

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Transparency of Allocation of Public Grants
for Czech Sport Organizations

Marek Pavlík

Abstract

Sport is one of areas which are usually supported from public finance resources. The main goal is to assess the transparency of allocation of public grants to sport organizations, with focus on municipal level. In its first part we discuss selected theoretical assumption about providing of public grants to the non-state organizations and introduce main features of such system in the Czech Republic. The core part focuses on the analysis of the system of allocation of municipal grants to sport organizations. Results should provide inspiration for improvement of the grant system in the field of sport NGOs.

Keywords

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). NGOs 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; pp. 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) as well as we can accept that the process of grant allocation is more political than rational economic process (Kantor 1995). Wolman and Spitzley (1999) recommended that future research should focus attention on the participants and their interests in the conflict and how the conflict is resolved. Nevertheless transparency of allocation process is key factor both in the rational economic process and political process (it can affect actors' behavior).

The issue of public grants allocated at the municipality level for sport organizations has been selected for analysis to explore situation in the Czech Republic. Public support for sport and sport organizations has a long tradition in the Czech Republic (see e.g. Novotný pp. 221, 2000), but we know surprisingly little about the transparency of the allocation process.

Regardless of possible categories of grants (see e.g. Špalková, pp. 20-24, 2002), we suppose that through selection of grant recipients we will achieve the expected policy outcome. Provision of grants is connected with policy aims hence the criteria of selecting "the best" grant recipients (or projects) could be derived from these aims. This assumption can be connected to the policy cycle concept (see e.g. Howlett, Ramesh

2003). On the other hand approaches like "clientelism" (see Henry, Nassis 1999) or stakeholder analysis (Friedman, Mason 2004) could provide explanation too.

The rational part of the process of grant allocation is the formulation of "allocation criteria." These criteria are necessary for the examination process which leads to the decision about suitable projects/grant recipients. These criteria should be known also to those who apply for a grant, at least as a condition for transparent and democratic society. However, the 2009 report of Transparency International showed that public officials/civil servants were identified as the institution/sector perceived to be most affected by corruption in the Czech Republic. Hence the problem is probably more extensive than only transparency in grant policies. The situation in the sport remains unexplored.

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 1); however, each decision about grant allocation should be based on the same principle: application of definite examination rules which respect the aims of the sport policy. The sport organizations are not only non-governmental but also or common profit organization. The following analysis is focused only on NGO sport organizations because of two reasons: (1) NGO legal form has strong majority (excluded some professional sports club). Particularly it is due to the tax preferences. (2) Non-profit legal form is usually condition for grants especially on the local level.

**Table 1 Review of sport NGOs and their public sector partners**

Type of sport NGO	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 nonfinancial 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
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 NGOs; 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

Source: Author

The role of municipalities in the process of subsidizing sport NGO is all the more

important because we found out that sport NGOs receive grants and non-financial support of municipalities more frequently than they receive support from its own sport federation/association. See results in Figure 1. The result shows also important information about failing system of "internal" support inside the sport federation. It could be expected, that "internal" supporting system through sport federation and association should be more supportive and generous than municipality support. However sport federations can be also recipients of public grants; different is only the system of redistribution. Nemec (2000) showed that there is a risk of high dependence on public budgets for sport clubs in the case on the Slovak Republic.

Figure 1 Comparison of received support from local municipalities and sport federations
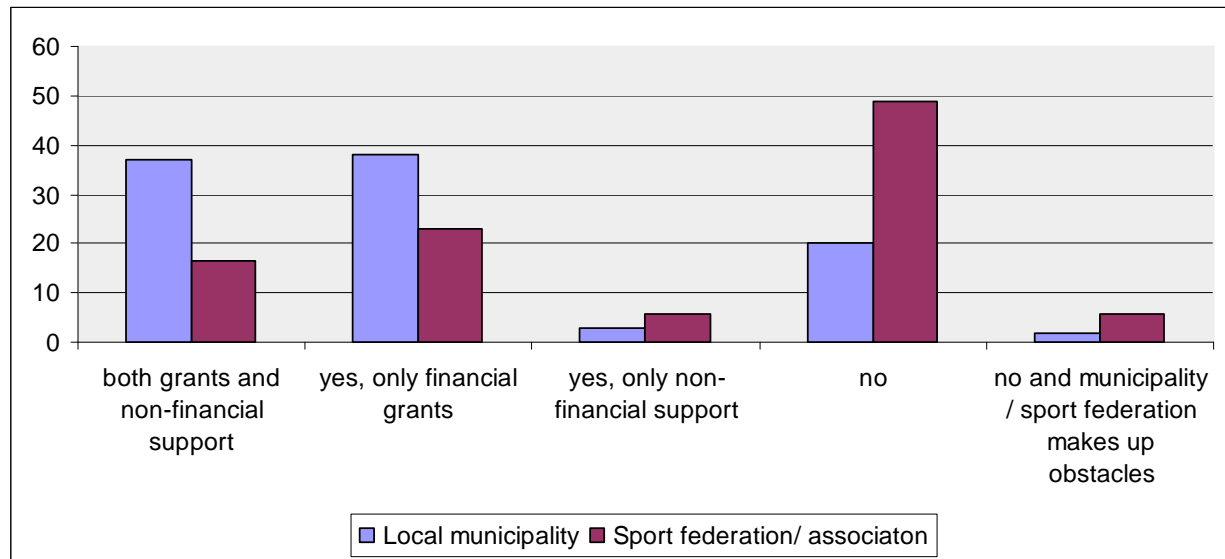
Source: Author

In the following text we focus mainly on sport organizations and theirs relations and experiences with local level government. This step allowed us to compare the declared attitude of municipalities and sport clubs' opinions and experiences.

Research Methodology

The results are based on two separately performed analyses. Our first own analysis gathers data related to the practices of selected municipalities and examines availability and quality of information about allocation rules (process) for grants for sport NGOs. The second analysis presents the results of our questionnaire research among sport clubs.

1. Analysis of Availability of Allocation Rules for Sport Grants

We defined six size categories of municipalities and for the randomly selected municipalities we examined the presence of publicly displayed (through websites) information about grant policy for sport and documents containing definite criteria of the examination process of grant requests (allocation criteria). We sought information about how each grant request is examined and compared with other requests and how the results of the examination can affect the decision-making process. We were also interested in which criteria are more important for decision-makers and if these criteria are publicly displayed or not. All selected municipalities provide grants for sport

organizations and details about all these municipalities (except the largest cities) were unknown to the author before research. The results of this part cannot be considered as representative sample.

The results were displayed as a percentage of answers to the questions given. There are two questions: (1) "Is there a document with general principles of grant policy for sport available?" and (2) "Does a document containing definite criteria of the examination process of grant requests exist?" Both questions can achieve the following answers:

- 1 if document was available (i.e. "yes")

- 0.5 if answer is "partly yes." This category is used for the situations when incomplete information was displayed (i.e. "partly yes")

- 0 if document is missing or not available (i.e. "no; none")

Detailed results are shown in Table no. 1 (information about the contribution of size categories to the total result) and the list of examined municipalities is a part of references.

Table 2 The number of selected municipalities

Size category – number of inhabitants	Percentage of sports clubs in questionnaire research	Number of selected municipalities	Percentage
less than 5,000	12	2	13,3
5,000-10,000	11	2	13,3
10,000-50,000	32	4	26,7
50,000-150,000	19	3	20,0
150,000-300,000	7	1	6,7
over 300,000	19	3	20,0
Total	100	15	100,0

Source: Author

The number of selected municipalities was limited by the number of cities in the size category "more than 300,000 inhabitants," therefore we used data gathered from 15 municipalities. The first question – if the principles of grant policy for sport are available – is answered in Figure 1. No document was found only in municipalities in size category "less than 5,000 inhabitants," while grants for sport NGOs were declared in their budgets.

2. Questionnaire Research among Sport Clubs

This is the key part for confrontation between declared principles and reality perceived by sport clubs. The author performed the questionnaire research among sport clubs in the Czech Republic in spring 2011. The list of 19 questions was sent to 1567 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 enough for the representative sample. 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.

In this paper we analyze responses to four questions: "Did you receive support

from municipality?" (1); "Did you receive sport from your sport federation/association?" (2); "How grants should be allocated?" (3); and "How are grants allocated in reality?" (4).

Respondents (sport clubs) had the opportunity to answer a question about how grants should be allocated as a part of the questionnaire. They were allowed to choose more than one answer, and their contributions to the final percentage were calculated on the principle that one club has one suffrage; thereby in the case of selecting four possibilities it was calculated as one quarter for each category. All answers were anonymous.
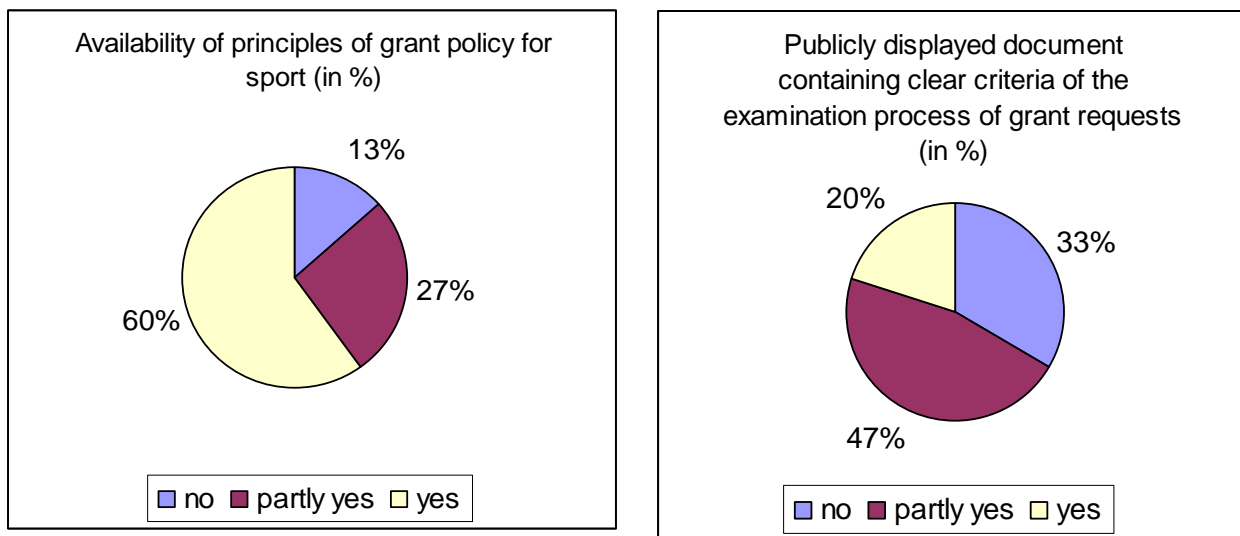
3. Research Results

Results shows dissatisfactory situation in the Czech Republic. The information about allocation process are mostly non-transparent and sport organizations consider such situation as inconvenient.

Existence of transparent rules

What is really surprising is the number of 27% of municipalities where only partial information was found. This means that only application forms for grants were available or only data related to deadlines for grant request and allocation were published. This problem was noticed not only in small municipalities.

Figure 2-3 Results of municipality analysis

Availability of principles of grant policy for sport (in %)
13% no
27% partly yes
60% yes

Publicly displayed document containing clear criteria of the examination process of grant requests (in %)
20% yes
33% no
47% partly yes

Source: Author

No significant differences among cities in given size categories were found. Most municipalities declared that some criteria are important; however, they never specified their value for decision makers. Hence sport clubs with more youth never know if they are in a better situation than sport clubs with more medal winners. Only 20% of municipalities declared such criteria which could be usedmore transparently and which were sufficiently specified for definite and transparent decision making. We have to concede that the existence of "definite criteria" is not a guarantee for a transparent decision-making process; but their existence creates the "chance" at least.

Opinion of Clubs

All answers shows that respondents are expecting the transparency, i.e. clear criteria which are crucial for grants allocation. The option of "free" answer was never used for expressing the preference of any kind of clientelism or corruption activities.

Majority of sport organizations are expecting the existence of definite criteria for grants allocation (see. Figure 4). Together with other answers we also see typical conflict of criteria. What is more important – number of youth; number of member; popularity or something else?

Figure 4 How should grants be allocated?
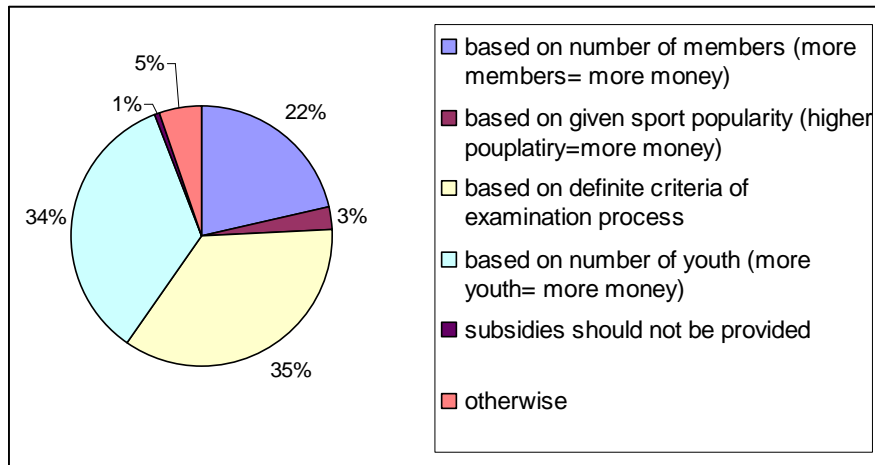
Source: Author

The question of how grants are allocated in reality was asked to all sport clubs and not only sport clubs requesting grants in the previous two years. There are two reasons for this: 1) the sport club could have its own experience older than two years or 2) the sport club could be informed by other sport clubs. If we calculate results only for sport clubs which asked for grants in the previous two years, we receive no significant changes.

Figure 5 How are grants allocated in reality?
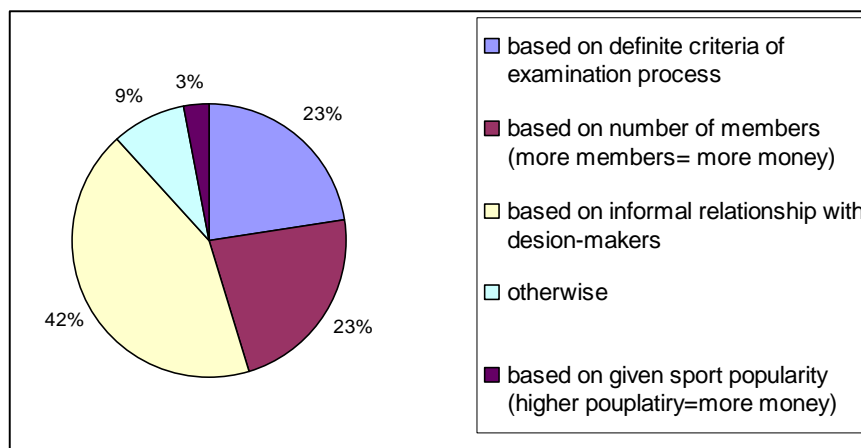
Source: Author

Sport organizations have to provide a lot of information about themselves and about the purpose of the request but in most cases they have no information

about the examination criteria and preferred allocation alternatives. Such situation inevitably leads to the point when the majority of potential recipients begin to perceive it as nontransparent and potentially corrupt.

The process of decision making usually involves three steps: (1) A hearing with the committee of sport (or education) which is an adviser for the municipality body. The committee usually concludes the hearing with some recommendations for the council and the representative body of the municipality. This hearing takes place with the exclusion of the public. (2) The proposal submitted by the committee is discussed by the council of the municipality and it is concluded with recommendations for the representative body. This process does not allow the public to be present either. (3) The representative body makes a decision, usually in accordance with the recommendations of the council and the committee. Then the results of the decision-making process are announced.

4. Summary of Findings

The relatively low trust in the transparency of the process of grant allocation correlates with the low level of availability of information about the decision-making process. The explanation for 22% of respondents having the opinion that grants are allocated according to the number of members can be based on the fact that this information is gathered in most application forms. Although no explicit relation between the number of members and allocation rules can be found, respondents assume there is one. The finding that 22% of respondents suppose that grants are allocated according to published criteria/rules is in line with almost the same percentage of definite criteria being present which resulted from the analysis of municipalities. Apart from a relatively small random group of municipalities, the results show similar findings.

Although the shown results cannot be considered as the representative sample, they certainly showed trends and problems in the process of grants allocation correctly. About 80% of sport organizations are cooperating with local municipalities (they receive financial or/as well as non-financial support) but only minority of these organization operate in transparent and clear environment.

Despite the result of 60% for documents with general principles of grant policy for sport being available, potential recipients know too little about real examination and decision-making process. We proved the existence of the problem of an absence of transparent and publicly displayed definite criteria of examination of sport grants and pointed out that most sport clubs perceive the system of grant allocation as "unfair," mostly due to informal relationships rather than to the selection of better projects. We joined two information sources: a survey among sport clubs and an analysis of randomly selected municipalities; both sources proved very low level of availability of information for potential recipients of grants.

Conclusion

The existence of publicly displayed criteria of examination (or allocation priorities) is one of the key conditions for the shift towards a transparent environment. However, if the results of the application of these criteria are not published, there may still be doubts about the objectivity of the municipality body. The fact that the committee, or the council, or the representative body does not want to accept and publish definite criteria

for the examination process, can be explained by two arguments: 1) the representatives want some freedom in their decision making; 2) the representative body has no policy aims and therefore is unable to have definite criteria.

Although theory suggests that grants are potential tools for production or support of positive externalities, at the same time it assumes that the decision has to bring the best allocation choice. In reality we know only little about the decision-making process and we can assume that some of these decisions are not the best. The system in its current form could work effectively only if all actors of the system acted altruistically. If decision makers seek positive effects more than positive relationships with their friends or their own profit, and if grant recipients want to use the grant for production of positive effects, then the system can be considered as efficient. More "self-profit actors" means more ineffectiveness in the system.

The challenge for the development theory is to suggest administratively simple but definite and transparent system of decision making concerning grants. The challenge for the public sector is the implementation of this system. Considering the fact that any implementation of such system is strictly voluntary, we have to rely on the hope that most municipalities really want to maximize the positive effects of grant allocation.

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Effectiveness, Values or Both?
Nonprofit Organizations as Public Services Providers

Tomáš Rosenmayer

Abstract

The contribution is focused on limitations in research of effectiveness of nonprofit organizations providing public services. As a research example author's dissertation research project is used. In the preface the methodology of dissertation is introduced, including research subject, main research question and research methods covering the types of data collection methods and data envelopment analysis used for interpretation of value of effectiveness of different types of public services providers (governmental, nonprofit and for-profit organizations). In the next section of the contribution, particular limits of organizational effectiveness research approaches as concepts of effectiveness, public services, static and dynamic context are analyzed. Last section consists of author's discussion on various strategies of particular production entities resulting in conclusion that organizational effectiveness is not the only objective of production entity. Especially nonprofit organizations usually prefer value-oriented strategies that influence their position on so called public services market. The results of the discussion correspond with the conclusion drawing the attention on the limits of the chosen approach and suggesting the next course in research of nonprofit organizations effectiveness.

Keywords

Introduction

As effectiveness is a crucial point of all economic theories, the topic of nonprofit organizations effectiveness is studied since the formation of nonprofit studies. B.A. Weisbrod began the process of searching for a distinctive set of roles that nonprofit organizations play in a mixed economy (Steinberg, pp. 119, 2006). According to his theories of market failure and government failure, the consumers, whose demands are not satisfied by the market nor any other alternative mechanism of public good providing, address the nonprofit organizations which are in many cases able to help the to satisfy the demands. Henry Hansmann added an additional shortcoming of markets to the mix: contract failure. In case where quantity or quality of services cannot be verified, markets take advantage of informational asymmetries. Nonprofit organizations that cannot distribute profits provide a more trustworthy alternative.

On the other hand, supply-side theories focus on the perspective of public goods and services providers. These theories analyze not only the motivation factors of individuals resulting in founding of a nonprofit organization but as well the production behaviours of the nonprofit organizations. The production behaviours of the nonprofit organizations had been studied by Lester Salamon who developed theory of voluntary failure defining four types of nonprofit organizations failures: philanthropic insufficiency, philanthropic particularism, philanthropic paternalism and philanthropic amateurism.

The importance of contract failure theory versus various sorts of voluntary failure has not, up to now, been well assessed, that's means that the case for systematically preferring nonprofit providers is de facto, incomplete. The importance of contract failure likely varies across nonprofit industries, and changes with shifts in technology and governmental regulation (Steinberg, pp. 128, 2006). To confirm or rebut these theories, especially to assess the nonprofit organizations effectiveness in comparison with the competitors from enterprise and public administration related organization, hundreds of studies were done. A majority of studies conclude that nonprofit organizations are less efficient, but many studies find either no difference or a difference in the opposite direction (Steinberg, pp. 128, 2006). The research of organizational effectiveness has in the US a long tradition. Baruch and Ramalho (pp. 39-65, 2006), in their article based on the study of 149 research reports, focused on the organizational effectiveness of for-profit firms (100), nonprofit organizations (21) and combination of both (28), compare various approaches to the effectiveness measurement and methods of its assessment. Therefore the researchers dealing with the organizational effectiveness dispose of a wide scale of possible approaches of effectiveness measurement comprising various criteria and methods for calculating of the achieved outcomes.

There is as well interesting discussion on the methodical aspects of organizational effectiveness research between Robert D. Herman and Richard D. Heimovicz (pp. 97, 1994) and between Stephen P. Osborn and Mike Tricker (pp. 91, 1995) published in the magazine Voluntas in 1995. The point of the discussion was the question of comparing the organizational effectiveness between several subjects. While Herman and Heimovics prefer objective indicators based on quantitative investigation, Osborne and Tricker prefer subjective case studies based on qualitative factors. The completely different approach has chosen Sowa at al (pp. 711-728, 2004) who in their article introduced a multidimensional and integrated model of nonprofit organizational effectiveness (MIMNOE). The model captures two prominent dimensions of organizational effectiveness, management effectiveness and program effectiveness.

In the Czech Republic, with ten years long history of nonprofit sector research, there is no study on the effectiveness of nonprofit organizations. One publication on nonprofit organizations in the sector of services was published by Centre for Nonprofit Sector Research in cooperation with Faculty of Economics and Administration of Masaryk University (Hyánek at al, 2007). This extensive analytical study focuses on expression of nonprofit organizations share on public services providing in the Czech Republic. The study provides description of the environment of particular public services including the way of financing and governmental regulations and presents the data on the performance of the particular types of public services providers without any ambition concerning the comments on effectiveness.

The following paper has two objectives: first, to present author's dissertation research project aimed on organizational effectiveness of nonprofit organizations in public services providing, including limits of research of chosen approach. The second objective is to demonstrate the complexity and multidimensional nature of the public services research and the possibilities how the research based on an assessment of organizational effectiveness can contribute to the solution of the respective issues.

Material and Methods

Public services are supplied by government to the citizens, either directly (through the public sector) or through subcontracting private providers of the services. Government sets up rules (quality, standards) under which particular public services are provided by governmental institutions, nonprofit organizations and for-profit firms, and controls that the rules are fulfilled. Each provider could enter the market paying some transaction costs which vary for different markets but are the same for particular providers on one market. Providers could change its range of services, price and quality, but in accordance with the paying rules only.

Under such structuralism paradigm the doctoral thesis will deal with the main research question whether the nonprofit organizations are, in public services production, more or less effective than the other types of producers.

Methodology

To assess the effectiveness of nonprofit organizations, their productivity will be compared with other types of public services producers (government organizations and for-profit firms). In Czech Republic there are two sectors only where all types of public services producers are present: social services (rest homes) and education (high schools).

The research on productivity of public services producers will be set up on the following bases: study of literature on economic theories on nonprofit sector; selection of the best-suited public services performance methods; the ways of public services financing and the share of nonprofit organizations on public services production. On behalf of each production entity the data on its economy and outputs will be gathered and analysed using data envelopment analysis. Among the same production entities a sociologic research focused on organizational and production behaviour will be carried on and both data sets (quantitative and qualitative) will be compared.

Limits of Organizational Effectiveness Approach

The chosen approach is limited in the focus of the research project on the specific industry of public services (in case of the dissertation industry of social services and education). The conclusions of the research can not be generalized for other industries. Furthermore, in the specific industry the conditions can change in time, e.g. due to higher rate of regulation giving rather advantage to the bureaucratic organizations, due to changing of the way of financing or higher attractiveness of the market for for-profit subjects. Marwell and McInerney (pp. 9-12, 2005) described five phases of evolution of such markets: market identification, market growth, increasing cost for goods/services, increasing price for goods/services, and cross-sector competition. The answer for relatively general question (whether the nonprofit organisations are more effective in providing public services than the other types of providers) is just a statement valid for specific industry in the specific time.

Another type of determinant applies directly to the organizational effectiveness. For the assessment of effectiveness achieved outputs will be compared with costs, the research will focus only on one aspect or organizational effectiveness – the performance efficiency. The limitation rests in the fact that the public service providers follow their

own objectives and the produced outputs are just a tool for reaching the objectives. Effectiveness is hence about relating the outputs achieved by organization to its policy framework and objectives (Osborne and Tricker, pp. 89, 1995). The problem issue is the fact that the internal organisational objectives are often not defined in explicit way nor are measurable. The research project will therefore compare rather then organizational effectiveness the ability of particular organisation to produce efficiently the outputs. In order to meet as well the issues related to the behaviours of the particular types of providers, the issues of organizational objectives and its evaluation will be included in the qualitative part of the research.

The public services are by their nature often (directly of indirectly) financed from public sources. Public financing should result from a public policy with clearly stated objectives of programme financing. It would be surely interesting to assess which type of public service producers complete the publicly defined objectives. The evaluation of the organizational effectiveness as one of possible approaches to the research of effectiveness of public service providing can contribute to the issue of programme financing effectiveness just partially. The specifics of the Czech Republic is that the expediency of public expenditure programmes cannot be evaluated as grant programs are not based on policies, do not have stated goals, time lines, or budget allocations (Pospíšil and Rosenmayer, pp. 8, 2007).

Criticisms of the organizational effectiveness approach and the theories of the supply side in general are based on the statement that the nature of public services effectiveness research is not the effectiveness of the nonprofit sector and the other issues of production but the benefits of the consumers. The crucial question which should be answered is "what benefits provide the nonprofit organizations for consumers". Handy et al (2010) updated and extended the research on consumer awareness of an organization's nonprofit status and tested Hansmann's seminal contract failure theory. The results are self-conscious. Students were chosen to represent the consumers, whereas nearly two thirds of them were not able to identify nonprofit status of the university considering it as a for-profit firm. It reveals that the type of public service provider is interesting just for the informed consumers, e.g. those who sponsor the nonprofit organizations of do a volunteer work for the organizations.

It is therefore clear that assessment of the organizational effectiveness, focusing just on the supply side – the public service providers, can provide explanation just for a part of the issue of effective providing of public services.

Results and Discussion

The comparison of organizational effectiveness and production behaviour of particular types of public services providers supposes that the behaviours of alternative institutional forms somehow differentiate. The aim oft the dissertation project will be therefore among other things to find an answer to the question "whether there are any theoretical justifications and empirical proofs of these differences in the production behaviours and how these can be interpreted".

Although the results of the practical research will be available within one year, it is clear nowadays that its interpretation wouldn't be easy. There are two reasons: first, nonprofit organizations and for-profit firms differentiate in theirs organizational

behaviour less than expected. Second, both types of organizations rarely formulate theirs organizational objectives.

Institutional economists have argued that the nondistribution constraint removes an important incentive from organizational decision-making in different ways: 1) claims to residual earnings or profits because the manager of a nonprofit organization may not lawfully share any profit or surplus generated by his or her managerial skills, 2) reduces the incentive to engage in activities that (while privately profiTable) are socially inefficient and 3) nonprofit organization has little incentive, for example, to pollute the air or water with waste products in the pursuit of organization profit (Galaskiewicz and Bielefeld, pp. 206, 2003). Weisbrod asserts that the reaction of nonprofit organizations on governmental failures caused by goods production oriented on elector-median is the providing of the type of public services satisfying heterogeneous needs of the consumers.

There is as well a difference in manner of distribution of the outputs: whereas a for-profit firm established to make profit for its stakeholders has the incentive to sell its goods and services to the highest bid, a nonprofit organization with no stockholders but with managers facing the nondistribution constraint, has no financial incentive to provide its output to the highest bid. In other words, nonprofit organizations are "bonoficers" not "profit maximazers" because they seek to maximize socially desirable but unprofiTable outputs. Whereas the objective function of the firm is not simple because its aim on profit maximization, the objective function of a nonprofit organization is much more complicated and depends on the board of directors, the type of good and service, the respective financing, the level of competition, and the current financial condition facing the organization (Hughes and Luksetich, pp. 121, 2010).

Given that nonprofit organizations are not founded with aim of profit maximization, do they at all pursue its effectiveness? Frumkin and Andre-Clark (pp. 141, 2000) admit that increasing efficiency may be one component of nonprofit success but it is unlikely to be a formula for sustained success. According to them, the most critical work for nonprofit organizations is to clarify their organization's overall strategy, defined as the unique mix of activities and values that make a nonprofit organization stand out from others. They try to describe the tension between values and performance in simplified form in a two-sided grid.

Figure 1 Values and performance in nonprofit organizations

Commitment to Performance

		HIGH	LOW
	HIGH	The Nonprofit "Star"	The Charitable Nonprofit
Commitment To Values	LOW	The Commercial Nonprofit	The Nonprofit "Dog"

Source: Frumkin and Andre-Clark, p. 160, 2000.

Similar grid was constructed by Hansmann even in 1980. In his four-way classification he distinguished donative and commercial nonprofits simply asking whether most of the organizational resources come from donations or other sources and mutual and entrepreneurial nonprofits by the nature of control (Steinberg, pp. 118, 2006). Both these concepts were proposed as ideal types. Searching for the differences in the production behaviours between alternative providers of public services gets therefore complicating because the production behaviours of the particular organization can differentiate as well within the same sectors. Some authors proposed rightfully that nonprofit organizations and firms are only extremes on a continuum ranging from "privately-held for-profit" to "non-revenue generating nonprofit" passing through "publicly-traded for-profit", "regulated for-profit" and "revenue-generating nonprofit" (Baruch and Ramalho, pp. 44, 2006).

If the competitive advantages of nonprofit organizations and for-profit firms were so much different, how these two types come to coexist on the same markets (Brown, pp. 96, 2010)? The justifications vary, e.g. Marwell and Mcinerney (pp. 11, 2005) describe three potential pathways when for-profit firms enter a market populated exclusively by nonprofit organizations:

1. A stratified market contains both nonprofit and for-profit firms, but the consumer population is split in two. Nonprofit organizations serve poor consumers whose costs are subsidized by donors, whereas for-profit firms serve wealthy consumers who pay market rates for service in a direct exchange.

2. A displaced market is one in which the nonprofit organizations that identified and created a market are pushed out by later-entering for-profit firms. Donor subsidies nonprofit organizations either no longer are forthcoming or prove insufficient for nonprofits to cove the increased costs of providing service.

3. A defended market describes the scenario in which nonprofit organizations fight back against for-profit firms incursions, using any number of fundraising, regulatory, legitimacy, or other tool of defence.

Hirth (according to Hughes and Luksetich, pp. 121, 2010) in the other hand proofs that the nonprofit organizations and for-profit firms can mutually influence each other. He considers the effect of competition between nonprofit organizations and for-profit firms on the performance of each and the providing of socially desirable services. Depending on the level of competition, nonprofit organizations pursuing the socially optimal mix or services may increase the quality of their services, and in doing so increase the standard for all firms in the industry. Pursuing the socially optimal quality may result in a differential between the nonprofit and for-profit firms, although in a highly competitive nonprofit mix the standard may be raised for all organizations eliminating any differential.

Galaskiewicz and Bielefeld describe the situation when for-profit firms entered on market with nonprofit domination too. For-profit firms in this case may come to look more like nonprofit organizations. If for-profit firms are allowed to compete for grants and contracts in domains previously reserved for nonprofit organizations, businesses will be under pressure to embrace nonprofit model. Organizational priorities and tactics create a culture that can take over operations and displace other values. On the other hand, in an organization where effectiveness becomes a dominant cultural norm, it can

override mission statements that promise to serve the poor and disadvantaged (Galaskiewicz and Bielefeld, pp. 230, 2003). The decisive factor is an endeavour of the organization to survive on a specific market and its production behaviour adapts on this.

Therefore it seems that the production behaviour of public service provider does not necessarily depend only on the organizational form. On the contrary it can be assumed an influence of another factors, for example character of public service, regulations and standards, way of financing, level of competition, demand heterogeneity or developmental stage of the market. Based on these external factors the provider of public service chooses respective strategy, including the production behaviour. Though the nonprofit organization is not founded with purpose of profitability, it can be forced by external factors to perform highly production oriented behaviour. Similarly a for-profit firm can, for the purpose to remain on the market, provide services suited for minor groups of providers. "Stars" and "Dogs" can therefore figure amongst both for-profit firms and governmental organizations.

Conclusion

Research on effective providing of public services is a multidimensional issue: in addition to the complex process of public policy formation through political processes, setting of suitable terms of regulations and financing including setting of the objectives and evaluation of public expenditure programs efficiency, the issue is determined by various objectives and behaviours of the public service providers and various needs of consumers themselves.

The author has chosen for his dissertation project a supply-side oriented method of organisational effectiveness approach. The rate of effectiveness of particular types of public service providers will be evaluated using data envelopment analysis. However, the result of assessment will be sector-and-time limited – when using the same method the results can be completely different. Because of the survey of organizational and production behaviours of particular types of public services providers, the benefits of the dissertation project will be broader. The dissertation will aim to answer the way how various organizational forms transform its organizational objectives into the services production and to which extent are influenced by external factors such as a way of financing or competitive environment.

It is not of course possible through a dissertation project to analyse complex issue of public services providing in such extent that would answer all the mentioned questions. However, the dissertation project can define further questions and create a new basis for further research. The analysis of literature on the organisational effectiveness brought up two questions: 1) Is it possible to define an objective function of nonprofit organizations? 2) What is model production behaviour of nonprofit organizations in public services providing, or more precisely, what is the weight of value orientation and effectiveness of the organization in creating its specific products. While the author has chosen for the dissertation project on organizational effectiveness research rather the approach of Herman and Heimovics, for processing of these questions the method of case studies that means approach of Osborne and Tricker would be rather more appropriate.

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Analysis of Stakeholders at Public Universities

Marie Slabá

Abstract

Public universities as institutions of public sector have very significant position at the market of tertiary education in the Czech Republic. Universities and their activities had been negatively impressed with the communistic regime in the same way as activities of other institutions in the Czech Republic till 1989. First private universities appeared at the Czech market of tertiary education ten years later. Their activities at the market of tertiary education gave rise to first signs of competitive fight that intensified during next years. Public universities have begun to employ in their activities methods that were used primarily by private sector. One of methods that were originally intended only for private sector is mapping and analyzing of stakeholders. This article focuses on analyzing of stakeholders of public universities. The initial groups of stakeholders of public universities were defined on the basis of the literature search and approved by the authors' survey. The aim of this survey was to define basic groups of stakeholders and their priorities according to the opinion of public universities.

Keywords

Stakeholder, public university, analysis of stakeholders, basic groups of stakeholders of public universities

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Introduction

In today's societies every institution or organization (public and private) is influenced by lots of different groups that are indispensable for their survival at the highly competitive market. These groups involve various types of stakeholders – internal, external, primary and secondary that can influence institution from within or without (Chinyio et al, pp. 10, 2010). The power of influence of these groups has been still growing. Therefore it is necessary to pay careful attention to significant stakeholder groups and to their precise analysis. This article is focused on the stakeholder analyzing as a key part of a modern concept in strategic management – stakeholder management. The stakeholder management represents an approach to strategies from the stakeholders' point of view. In general stakeholder management 'is about relationships between an organization and its stakeholders' (Chinyio et al, pp. 5, 2010). A very important part of stakeholder management is identifying and classifying stakeholder (Chinyio et al, pp. 2, 2010). The concept of stakeholder management was popularized by Freeman in his seminal book – Strategic Management: A Stakeholder Approach (Andriof et al, pp. 9, 2002). We cannot say that it is a totally new approach. 'The use of the term stakeholder grew out of pioneering work at Stanford Research Institute in the 1960s ' (Hit, Freeman, Harrison, pp. 190, 2004). Initially stakeholder management was used mainly in private sector. Today this concept has been spreading into public sector, too.

Freeman defined stakeholders as 'any group or individual who can affect or is affected by the achievement of an organization's purpose' (pp. 53, 2010). This is the first

Freeman's definition of stakeholders that was first published in 1984. The modern definition of stakeholders (for example in the project construction context) is following - 'Stakeholders are individuals or groups who have an interest or some aspect of rights or ownership in the project, and can contribute to, or be impacted by, either the work or the outcomes of the project' (Walker et al, pp. 73, 2008). Johnson and Scholes define stakeholders as 'those individuals or groups who depend on an organization to fulfil their own goals and on whom, in turn, the organization depends' (Johnson, Scholes, pp. 179, 2002).

In practice there are lots of stakeholder groups. Groups of stakeholders are usually divided into two main groups – internal and external (Freeman, 2010). According to their power of influence and importance for organization we can distinguish primary stakeholder groups and secondary stakeholder groups (Chinyio et al, pp. 122, 2010). The character and number of stakeholder groups varies from case to case according to the concrete organization or institution.

Basic internal stakeholder groups for private and public organizations are owners, consumer advocates, suppliers, customers, employees, shareholders, project team, designers and contractors (Chinyio et al, pp. 122, 2010, Freeman, pp. 25, 2010, Agle, Mitchel, Sonnenfeld, pp. 508, 1999). Typical external stakeholder groups are competitors, special interest groups, government, media, environmentalists, local community organizations, financial community, activist groups, political groups, trade associations (Donaldson, Preston, pp. 69, 1995, Freeman, pp. 25, 55, 2010). Weaver and Bourne identify following groups of stakeholders - staff, contractors, suppliers, project manager, senior management, general management, sponsors, clients, bankers, investors, competitors, regulatory authorities, general community (pp 2-3, 2002).

And for example Andriof distinguishes internal stakeholder groups (employees, contractors and trade unions), local stakeholder groups (local media, customer, local-interest groups, local community, local non-governmental organizations, suppliers and local government), national stakeholder groups (national media, customer, industrial customers, national non-governmental organizations, national industry and business associations, investors, academic institutes, national government and regulators) and international stakeholder groups (customers, international media, international non-governmental organizations and multilateral investors) (Andriof et al, pp. 219, 2002).

The primary stakeholders involve for example 'employees, suppliers, customers, and public agencies engaged in formal relationships with the organization' (Buysse, Verbeke, pp. 458, 2003). The secondary stakeholder groups refer to media, special interest troups, not engaged in formal transactions with the organization (Clarkson, pp. 101, 1995). According to the Buyesse and Verbeke external primary stakeholders refer to for example domestic and international customers, domestic and international suppliers and internal primary stakeholders refer to employees and shareholders (pp 464, 2003).

Because this article focuses on the stakeholder groups of public universities the main research question is 'Who are the stakeholders of the public universities?' In the context of public or non-profit organizations, we can identify stakeholders analogous to the traditional definition. Definitions of stakeholders in public and nonprofit management literatures vary in how inclusive they are. That means if they have power to directly affect institution or entity, or if there is an absent of this power (Bryson, pp. 22, 2004).

In the public sector 'a stakeholder is defined as any person, group, or organization that can place a claim on an organization's (or other entity's) attention, resources, or output, or is affected by that output' (Bryson, pp. 48, 2011). But what about the basic stakeholder groups of public universities? Are there any differences? Crucial stakeholder groups of public universities slightly differ from the tradition stakeholder groups in private sector. Some of the stakeholders are same for public and private sector; some of them are involved only in public sector. Universities have also special types of stakeholders. The key stakeholder groups of universities are summarized in the next Table (Table 1: Stakeholder groups of universities).

Table 1 Stakeholder groups of universities

Author	Stakeholder groups
Burrows	Governmental entities, management, employees, clients (students, parents, employers, employment agencies), suppliers, competition, donors, communities, government regulators, non-governmental regulators, financial intermediaries, alliances and partnerships
Franz	Students, families, employers, society
Kanji, Tambi	Students, employees (educators), employers, government, industry, parents
Kotler, Fox	Alumni, local community, general public, mass media, prospective students, current students, accreditation organizations, parents of students, administration and staff, faculty, trustees, regents, competitors, suppliers, business community, legislature and government agencies, foundations
Pereira, Silva	Students, employers, faculty, society, government, families, managers, employees, alumni, suppliers, competitors, council, community group
Rowley	Students, parents and families, local communities, government, societies, local authorities, media
Weaver	Teaching staff, institutional management, students, general society, government, families of students

Source: adapted from Burrows, J. (1999), Franz (1998), Kanji, Tambi (1999), Kotler, Fox (2002), Mainardes, Alves, Raposo (2010), Pereira, Silva (2003), Rowley (1997), Weaver (1976)

As can be seen from Table one and the preceding discussion of the stakeholder literature, there are many stakeholders of universities. Based on the literature search and above discussion, it is possible to identify some stakeholder groups that are typical only for the universities. In the case of universities the clients (as the one of the most important stakeholder groups) are students. However, it is necessary to note, that stakeholder groups differ also according to the country of origin. There are also several special stakeholder groups for example accreditation organizations, or several government organizations or agencies that are typical only for the market of education generally, or tertiary education and for the state or country (for example - The Grant Agency of the Academy of Sciences of the CR in the Czech Republic). In the Czech Republic there is only one author (Světlík, 2009), who deals with stakeholder groups. Unfortunately this author concerns only with stakeholder groups of education generally. Světlík deals with stakeholders from different point of view. Světlík distinguishes stakeholder in education in a broader sense – local community, media and public (Světlík, pp. 63-64, 2009). The most frequently alluded universities' groups are following: students (current, prospective, alumni), students' families (parents), employees, communities (society), media, competitors and government.

Paper's Objective and Methodology

The purpose of this article and the author's research is to identify basic stakeholder groups of public universities at the Czech market of tertiary education and the prioritization of these stakeholders according to the opinion of public universities. Identification and prioritization of stakeholders is an elementary step towards establishing important competitive advantages. We can find several empirical researches interested in stakeholders of teaching institutions, higher education and universities abroad. But there were no empirical research like this in the Czech Republic. This was a main reason for the author's research. Based on the above discussion, we can identify several problems. One problem area is the identification of the most important stakeholder groups of universities for the purpose of research at the Czech market (the crucial stakeholder groups of Czech public universities are summarized in the Table two in the section Material and Methods). Second problem area is the prioritization of the key stakeholder groups by public universities. For this purpose (confirmation of identified stakeholder groups and their prioritization) the author conducted an online survey as a part of the author's dissertation thesis. But there is another question: 'Are there any differences between stakeholder groups of public and private universities?

Material and Methods

As was mentioned in the text above the main research problem was the identification of the general stakeholder groups of universities at the Czech market of tertiary education and their prioritization. As the most effective way to locate sound evidence on key stakeholder groups, the author conducted a literature search of current literature sources concerning the subject of author's research (books, monoFigures, journal and research articles, conference papers, etc.). Crucial stakeholder groups of universities that were identified by the literature search were adapted by the author to the needs of universities at the Czech market of tertiary education. The following Table (Table 2: Stakeholder groups at the Czech market) summarizes stakeholder groups of public universities that can be identify in the Czech market of tertiary education.

Table 2 Stakeholder groups at the Czech market

Primary stakeholder groups of public universities	Secondary stakeholder groups of public universities
Students (current, prospective, alumni), parents, employees (academic staff, pedagogical staff, marketing and public relations deparments), suppliers, partners, Accreditation commission Czech Republic, Ministry of Education, Youth and Sports, faculties and departments of universities	Government, employers, competitors (other universities), high schools, communities (society), interest groups, research grants organizations and donors, media

Source: Author

The purpose of the author's research was to confirm the basic stakeholder groups for the Czech market and determine the priorities of these groups. Necessary data for confirmation of stakeholder groups and prioritization used in this paper were gathered through a survey conducted by the author in Czech Republic this year. For obtaining necessary data were used Method of Computer Assisted Web Interviewing (online survey). This paper results from the author's complex survey with a research sample of 39 universities. This sample involved public and private universities in the Czech Republic. The relevant sample for this paper included 21[62] public universities. A total

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[62] It is necessary to point out that in total there are 26 public universities in the Czech Republic

of 17 usable responses were returned to the author. Return rate of questionnaire was 80,95 %.

Because the list of stakeholder groups (see Table 2: Stakeholder groups at the Czech market) is very extensive, it was necessary firstly to make some reduction for the questionnaire purposes. The final list of stakeholders follows:

- Accreditation commission Czech Republic, Ministry of Education, Youth and Sports,
- alumni,
- communities (society)
- competitors,
- current students,
- donors,
- employers,
- faculties, departments, employees,
- high schools,
- marketing and public relations departments,
- media,
- parents,
- prospective students.

The author used multiple choice questions with multiple answers and a choice 'Other', where respondents could fill in other important stakeholder groups not included in the list. In the second part of survey, respondents were asked to assign priorities to stakeholder groups. For priorities was used a scale from 1 to 14, where 1 means the most important stakeholder group and 14 less important stakeholder group. The priorities were assigned according to the professional judgment of respondents. The most important stakeholder group with the priority 1 is the most important stakeholder group for the marketing communication of universities. All choices were arranged alphabetically. For data evolution the author used absolute and relative frequency.

Results and Discussion

The data gathered during author's survey were subject to two stages of analysis. The first step was identification of stakeholders by the mean of absolute and relative frequency. The second step of the analysis was the prioritization of groups of stakeholders that were identify at the first step according to the opinion of respondents.

First of all, respondents were asked about the stakeholder groups that are important for their university. The main purpose of this question was confirmation of stakeholder groups that were identified based on literature search and adopted for the needs of Czech market of tertiary education.

Table 3 Stakeholder groups at the Czech market

Stakeholder groups	Absolute frequency	Relative frequency (%)
Accreditation commission Czech Republic, Ministry of Education, Youth and Sports	7	40
alumni	13	76
communities (society)	9	52
competitors	5	32
current students	11	64
donors	4	24
employers	2	12
faculties, departments, employees	7	49
high schools	12	68
marketing and public relations departments	3	20
media	15	88
parents	11	64
prospective students	17	100
other	0	0

Source: Author

As can be seen from Table three, all asked respondents (universities) identified as an important stakeholder group – prospective students. 88 percent of asked respondents consider as important stakeholders groups media. Media has a powerful influence on other stakeholder groups. Among important stakeholder groups belong also alumni, high schools, parents, current students and communities (society). Minimum attention is devoted to the donors, marketing and public relations departments and donors.

For each stakeholder group identified in Table three, respondents were asked to assign their priority. Priorities of stakeholder groups are summarized in figure one. The closer the stakeholder group is to the center of the Figure, the more important this group is. The most important stakeholder group according to the public universities' opinion are prospective students, the second most important stakeholder group are parents and the third most important group are current students. The least important groups are employers, donors, communities (society) and Accreditation commission Czech Republic and Ministry of Education, Youth and Sports. It is necessary to say that public universities pay not enough attention to the internal stakeholder groups (mainly faculties, departments, employees). These stakeholder groups are crucial mainly with regard to the Word of Mouth.

Figure 1 Priorities
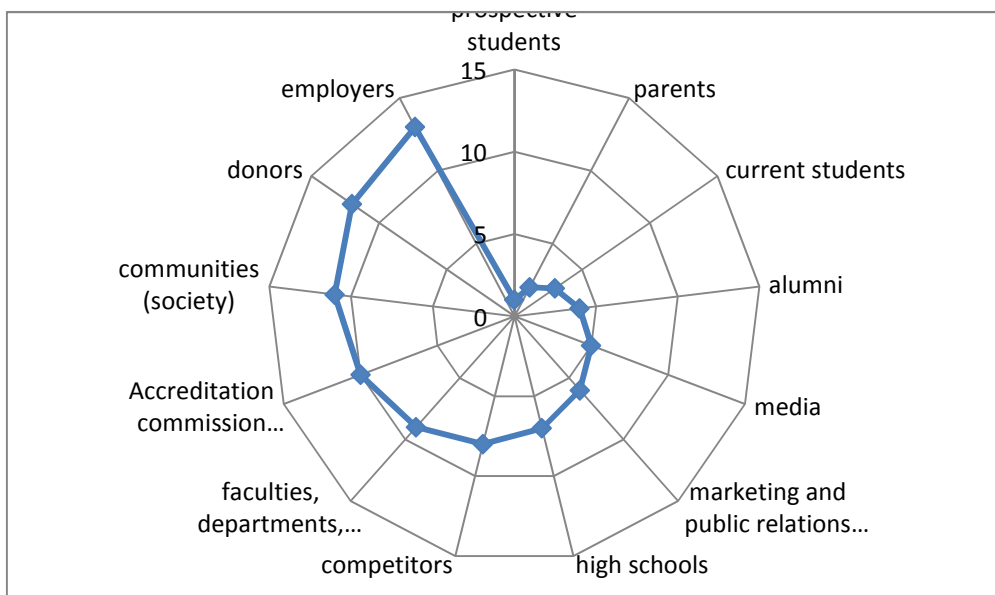
According to the author's survey there are no differences among stakeholder groups of public and private universities. The most important stakeholder groups for both public and private universities are prospective students, parents, current students, alumni and media. Private universities pay more attention to the competitors. Private universities assigned to this group of stakeholder priority seven and public universities assigned to this stakeholder group priority eight. Donors and employers are the least important stakeholder groups for public and private universities.

Conclusion

Identification of stakeholders and their prioritization is not only an important step towards establishing competitive advantages for public university but also this is an crucial initial step towards well prepared marketing communication of this universities. Stakeholders that were identified are considered as important groups for marketing communication of public universities. Therefore identification of these groups is also fundamental step towards identifying their needs and suggesting marketing communication and media to meet them.

This paper summarized initial part of the author's survey. Analysis of figure one makes it clear that the most important group for public universities are prospective students, parents and current students. The least important groups are employers and donors.

During this survey the most important groups of stakeholders were identified and prioritized. The prioritization of this survey was conducted according to the public universities opinion. Identification of stakeholders is an initial step of deeper analysis of stakeholder groups. This survey was only a first part of further author's research that will focus on the stakeholder analysis and mapping as a key element of marketing communication of universities. The purpose of the next author's research is to find out objective methodology for the suggestion of the marketing communication model for universities. According to the literature search several methods of identification

and mapping of stakeholders were identified. These methods are for example Stakeholder Circle Methodology, Organizational ZOO. Lots of matrixes are used for identification of stakeholders – for example power-interest matrix, power-predictability matrix, impact-probability matrix etc. (Chinyio et al, pp. 4, 88, 2010).

Considering modern IT technologies and modern trends in strategic management and marketing the Stakeholder Circle Methodology was chosen for the further author's research. This methodology is based on the usage of modern technologies (it uses the software tool Stakeholder Circle for identification, mapping and visualization of stakeholders). This methodology offers an objective approach to the identification of stakeholders based on the calculation of several indexes. Therefore the further research will be based on this methodology.

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The Influence of the Method of Data Collection
on the Validity of Findings from the Field of Social Services

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Abstract

Hendl (2005, p. 161) believes that the selection of a method should be dictated by the research question. Similarly, Ochrana (2009, 14) writes that the selection of methodology significantly determines the choice of research methods. According to Disman (2009, 287) the research process starts with an observation and data collection. Each research design should clearly define the use of quantitative and qualitative data or the combination of both the methods and data sets (Punch 2008, 74). Quantitative research, whose outcomes we discuss in our paper, requires, as its fundamental method, the collection of data that can then be compared and analyzed by chosen criteria. We believe that the quality of the collected data determines the further direction of the research, and the validity of its findings. This belief is based on the discovery of differences in findings by two research projects – one carried out by the Centre for Nonprofit Sector Research as an independent research institute and the other implemented by the Ministry of Labour and Social Affairs as a state authority. If the data presented by two different institutions differ, the question arises whether to work with the data provided by the higher authority. Our paper thus opens a discussion. We, like so many before us, ask ourselves the question where it is that the problems of differing data and interpretations arise.

Keywords

Social services, nonprofit organizations, survey, data description, quantitative research

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Introduction

It is obvious that in social sciences data collection is the essential method for quantitative research; we exploit the data further by comparing and analyzing them based on selected criteria, and subsequently we can generalize the results. "Survey may be used for descriptive, explanatory, and exploratory purposes. They are chiefly used in studies that have individual people as the units of analysis. Although this method can be used for other units of analysis, such as groups or interaction, some individual persons must serve as respondents or informants. Thus, we could undertake a survey in which divorces were the unit of analysis, but we would need to administer the survey questionnaire to the participants in the divorces (or to some other respondents). Survey research is probably the best method available to the social researcher who is interested in collecting original data for describing a population too large to observe directly." (Babbie, 254).

An analysis of the data, their mutual comparison and generalization together with the quality of the obtained data affect the validity of information found in research. It can be seen on a number of research results presented at conferences, in working papers and the subsequent discussions. The problem lies especially in conclusions that are inferred or even generalized from the research results. Lalayants and Tripodi (2009,

339) state that: "One type of quantitative generalization method comparing one's study findings with those of other studies – have been used infrequently. As the results disclose, only 4.6 percent of all generalizations consist of quantitative comparisons of study findings." This is not a high percentage and thus we are responsible as research teams for what and how we state in the research results, especially in the so frequently desired "popularization of scientific achievements". As researchers we usually know when and why a problem with data quality differentiation and their subsequent interpretation can occur; we also know how the presented research results can be influenced by the method used.

The article does not ask any research question as it is only a discussion. Literature search, the description of selected research, and synthesis of obtained knowledge was used when elaborating it.

Materials and Methods

Besides the problems outlined, before the commencement of research we often deal with the question of whether to use data from the officially collected information systems, of course, if they are available, or whether to conduct our own primary research – regardless of whether quantitative, qualitative or a combination of both. Let us cite an example that has brought us to this issue. It is the informative value of two surveys: one conducted by the Non-profit Sector Research Center (henceforth called also NSRC) as an independent research institute, while the second one by the Ministry of Labour and Social Affairs (henceforth called MLSA) as a national authority. When collecting data for its analyses and research, the MLSA research center benefits from the fact that all organizations providing social services are obliged to provide it annually with the required data (Krebs,Průša, 2011). These data are requested by MLSA for records of the provision of social services as a public service, arising from Act No. 206/2009 Coll., on social services. This means that the Ministry of Labour uses the latest, most accurate and most complete data. In contrast, an independent research institute such as the Non-profit Sector Research Center conducts questionnaire surveys within quantitative research, whose returns generally range from 15 to 30%.

A concrete example is the research of social services in the South Moravian Region conducted by Miroslava Niesnerová within her NSRC activities in her undergraduate Bachelor thesis at the Faculty of Economics and Administration of Masaryk University in 2009. The main research questions, which the conducted questionnaire survey was supposed to answer, were the main sources of financing and methods used by NGOs, particularly providers of social services in the South Moravian Region. Furthermore, the questionnaire focused on the impact of Act No. 108/2006 Coll., on social services, on financing and methods of fundraising of these organizations.

The basic set of all providers of social services in the South Moravian Region was obtained from the registry of the Ministry of Labour and Social Affairs (henceforth called MLSA), which is the official information database. The legal status of these organizations was detected using their idetification number (IČO) in the Business Register, which is accessible on the website of the Czech Statistical Office. The questionnaires were sent directly to the individual facilities providing social services, because each of these institutions is registered under its separate code at the Ministry of Labour and Social Affairs. If there was the same contact information for the facilities listed under the same

provider, such an organization was contacted only once. The questionnaires were sent to a total of 242 facilities via e-mail. 17 emails were automatically returned because it was impossible to deliver them. The final number of questionnaires that were delivered was 225. During the research it was found out that some facilities fill out a questionnaire for the entire organization, and therefore the number of respondents decreased to 217, from which 48 responses were obtained. The return of emails reached 22%. Not all responses were positive as almost half either apologized for not completing the questionnaire or said that they were unwilling to fill them out. The reasons for the lack of cooperation included a lack of time, the fact that some of the facilities were founded after 2007, making it impossible to provide the comparison between 2006 and 2008, unwillingness to cooperate through the Internet, or a lack of interest in the topic of the questionnaire. Organizations established after 2007 were excluded from the survey in advance; however during the survey it occurred that the pre-2007 date of establishment applied to a provider, but a specific facility was established later. Hence the return of questionnaires reached "only" 14% after the adjustment of the data obtained (Niesnerová, 2009, 30).

It emerges from the above-mentioned that the quality and completeness of the obtained data is influenced by the method used. Cokluk, Kayri (2011, 308) argue likewise, stating that: "…in the literature, there have been arguments that there are more effective methods to produce more realistic results.…When higher prospect of biased date production by classical method is considered, further research where other imputation methods are, used as suggested in the literature is recommended and a comparative study of these methods will contribute to the use and extension of the methods."

Results and Discussion

This issue is pointed at in a very compact manner by the authors of publication Efficiency of Assuring Selected Public Services (Ochrana, Fantová-Šumpíková, Pavel, Němec et al., 2007), who collected data in three phases: in the first two phases they approached municipalities with the questionnaire method (with a total return of 14.51% of the surveyed municipalities) while in the third stage they sought data from the Automated Budgetary Information System (ABIS), which is operated by the Ministry of Finance. In this context, they point out that it was not always possible to find complete information in ABIS. In connection with the research methodology, they state, inter alia, that: "Working with data also raised the question of their validity. We chose here a mix of both methods of verification as well as methods of falsification. The verification method was used mainly for research evaluation. Claims included in the individual questions were considered as statements, for which both direct and indirect verification was sought. Of course we are aware of the difficulties arising from the problem (principle) of incomplete verifiability. We therefore accepted the principle of confirmability to formulate research findings." (Ochrana, Fantová-Šumpíková, Pavel, Němec et al., 2007, 19).

In contrast to the above research, the authors of research called Non-profit Organizations in Public Services (Hyánek, Prouzová, Škarabelová et al., 2006) worked only with the official statistical data from the Automated Budgetary Information System (ABIS). The aim was to create an overview of expenditures provided from various levels of public budgets to all areas of surveyed public services and identify which public

services and what specific activities the non-profit organizations are active in. It was not only a matter of activities of NGOs, but also activities of profiTable and public organizations. Based on this research, it was the non-profit organizations as providers of public services in education (Hladká, Prouzová, 2007), social services (Wildmannová, 2007), as well as in the protection and creation of the environment (Soukupová, 2007) that were investigated further.

The answer to the question of whether the research should work with data obtained from official statistics or from authors' own primary quantitative research will probably never be found. It will be permanently under discussion, since the decision of whether to take this or that way will depend on the formulation of a research question, the amount of available data, and also the plans for further work with the results obtained. It is possible that working with official statistics offers additional options of data processing, e.g. with the statistical significance testing method of generalization used by Nurius and Tripoldi (1985) in Lalayants and Tripoldi (2009: 336). The following eight categories are not mutually exclusive; therefore, a single study can contain more than one method of generalization:

- Quantitative comparisons of sample to population
- Qualitative comparisons of sample to population
- Quantitative comparisons of results with those of other studies
- Qualitative comparisons of results with those of other studies
- Use of replication procedures
- Use of representative sampling procedures
- Conceptual generalization of models or methods
- Limitations of generalizability

Working with the results of quantitative research in turn opens up room for further deepening of the identified qualitative survey data, etc.

Another level of the issue is possible and certainly desirable cooperation between research centers with experts from practice, because as Secret, Abbel, Berlin, T. (2011, 18) state: "of all types of practice-research efforts, none holds more promise or poses more challenges than those undertaken by community practitioners and evaluation researchers as they work together to evaluate and replicate social program interventions that strengthen evidence-based practice for social work. Durable and successful practice–research collaborations are built from the willingness and skill of those involved to create mutually acceptable research conditions and to tackle a variety of human relationship factors that, if left unaddressed, can shatter the collaborative effort at any stage in the evaluation research process. Our experience with a successfully executed community-based evaluation project led to the realization that different stages of the evaluation research process required focus on collaborative principles and strategies relevant to those particular stages. … Successful collaboration between practitioners and researchers are merely, and yet foremost, the structures from which to generate meaningful and useful research and program outcome findings. There is an implicit connection between successful collaboration and trustworthy outcomes."

Conclusion

Our short contribution does not aim to answer all the above cited questions, but it tries to point out their existence and importance; it wants to provoke discussion, or continue the discussion that was, is and apparently always will be here, respectively. We will certainly agree on the fact that each method used for data collection and their subsequent processing has its pros and cons. Official sources of information and statistics, such as the Czech Statistical Office, or the above mentioned MLSA, provide accurate data, ensure continuity of data collection, and offer the variability of possibilities of further statistical data processing. However, the biggest advantage is – in our opinion – the obligation of the asked organizations to provide a state authority with data that it is requests. The obligation often stems from fear of punishment for withholding information – no matter if the threat of sanctions is announced in advance – for example, the administrative fee, or it is not announced at all but it is only implied – the dependency on the contribution for the operation e.g. from MLSA. Primary research conducted by independent research teams and centers, on the other hand, offers the possibility of their own variation of questions, closer link with practice, more thorough analyses using the method of in-depth qualitative investigation, and faster response to emerging issues.

In both cases, the important fact certainly also includes who in the organization fills the data or enters them in the statistics, and in what position they do it, as well as how we as researchers interpret and generalize our findings. In order to avoid misleading misinterpretations when interpreting the data obtained from research, we recommended – similarly to Lalayants, Tripodi (2009, 340) – that "… representative samples should be attempted, and the samples should not be obtained in a haphazard way; methods of sample selection and the sample characteristics should be fully described in the text; and researcher should try to relate the sample characteristics to the population form which is was taken as well as relate the findings to others in the literature. The authors recognize that every research design will inevitably have strengths and weaknesses; however, they should be fully described and study limitations should be carefully identified and reported. Next, the authors further believe, that systematic attention should be paid to addressing generalizability guidelines as part of editorial policies. These policies should require that authors submitting manuscripts to social work journals explicate not only what generalization procedures were used, but also what generalization procedures they would recommended to be used for future similar studies."

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