

**Public Finance Optimization – Current Trends**

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**ABSTRACT**

In the aftermath of the Great Recession the fiscal position of the most developed countries has subsequently deteriorated. The fragile recovery after 2009 was accompanied by rapid increase in public indebtedness. As effects of the fiscal expansion have subsided and also as a result of mounting negative expectations, many developed economies are stagnating or are even facing another recession. Macroeconomic forecasts are not favourable for the years to come and it appears that further fiscal consolidation will be an exceptionally difficult task. The improving of budget balance via increasing revenues is substantially limited as the expenditures to GDP ratio is approaching 50%. In such a situation more attention must be paid to the expenditure side of public budgets. The aim of our research is to discuss and suggest possibilities of public finance optimization from the interdisciplinary point of view, both economic and legal. In this effort we focus on rethinking the role of state, increasing the effectiveness of public sector and minimizing the corruption. We also approach the above mentioned issues with respect to possibilities in the framework of the e-Government implementation. We use both qualitative and quantitative methods. Analysing some aspects of the budgeting process, our findings indicate significant ineffectiveness. We mostly analyse current situation in the Czech Republic and draw our conclusions particularly for this territory but many issues are applicable in a broader context.

Keywords: public finance, budgeting, budgetary rules

**1. Introduction**

In the aftermath of the Great Recession the fiscal position of the most developed countries has subsequently deteriorated. The fragile recovery after 2009 was accompanied by rapid increase in public indebtedness. As effects of the fiscal expansion have subsided and also as a result of mounting negative expectations, many developed economies are stagnating or are even facing another recession. Macroeconomic forecasts are not favourable for the years to come and it appears that further fiscal consolidation will be an exceptionally difficult task. The improving of budget balance via increasing revenues is substantially limited as the expenditures to GDP ratio is approaching 50%. In such a situation more attention must be paid to the

expenditure side of public budgets. This article is a partial output of a research aimed at optimising of public expenses. In our further research we are going to deal with possibilities of electronic processes in public administration, specifically also electronisation of public tenders. Implementation of particular eGovernment projects creates conditions for essential modernisation of public administration towards decreasing of ineffectiveness. In this context an interesting issue is also an influence of institutional quality of public administration for a long-term economic growth. The aim of this paper is to deal with a more microeconomic issue of public expenditures' effectiveness. We focus on reserve funds in the Czech budgetary system; via an analysis of changes in their operating in previous years we provide useful evidence about characteristics of the budgeting process and behaviour of its subjects. Awareness of this fact could help to urge systematic changes in budgeting toward higher public expenditures effectiveness. The article is organized as follows: in the second part we discuss the effectiveness in the area of public finance from the theoretical point of view, in the third part we provide evidence on the data from the Czech budgetary practice and in the last part we make conclusions.

## **2. Traditional rationality of the budgetary practice**

Both efficiency and effectiveness of expenditures spent via public budgets belong to crucial challenges we face in public finance area. Application of the 3E principle comprising of efficiency, effectiveness and economy represents the universal demand. Numerous authors describe methods of measuring effectiveness of particular expenditure programs (f. ex. Ochrana, 2011). The appraisal of particular intentions in form of the cost benefit analysis (or in form of other relevant tool) should be a standard part of decision making in the public sector. Using this type of the expenditures evaluation we also deal with some methodological difficulties such as covering all expected costs and benefits, quantifying inputs that are hardly measurable and expressing all the inputs in money or choosing the appropriate discount rate to calculate the present value of future cash flows. Nevertheless for public institutions these analytical methods have become an integral part of their decision making. Via them we are able to assess the allocation effectiveness of particular expenditure programs but an overall picture of effectiveness and efficiency in public sector is missing or is rather blurred. This statement relates especially to effectiveness and productivity of public sector when ensuring public services defined as the technical inefficiency or the X inefficiency (see Jackson, 2003).

Regarding effective allocation, the way of budget preparation and the quality of budgetary process are of a great importance. With respect to the budget preparation, the supply or demand approach can be used (Ochrana, 2003). When using the supply approach administrators of individual budgetary chapters (hereafter budgetary agents) prepare their part of the budget so that they increase their previous expenditures year-to-year by a certain degree depending on inflation, decision to carry out further public services etc. Individual chapters are then aggregated on the level of the central institution responsible for the budget preparation, typically the ministry of finance, and afterwards the claims are adjusted according to expected revenues. A direct link to the volume of provided services or overall effectiveness evaluation is missing. This is the incremental way of budgeting and the relative simplicity is its advantage. On the contrary defining government objectives and ensuing allocation among

government policies according to priorities is the core of the demand approach in budgeting. The budget is not created by a certain institution based on its calculations but the sources are allocated from the centre in accordance with clear budgetary priorities. Nowadays, the supply approach dominates the Czech budgetary practice. A serious disadvantage which is closely related to this type of budgeting, besides other things, represents the overlapping in operating of public sector institutions, both horizontally and vertically.

Permanent overvaluation of expenditure claims is another problem we encounter in budgetary practice. The public choice theory uncovers the rationality of this behaviour. We face the problem of (i) information asymmetry, (ii) specific utility functions of the players (bureaucratic apparatus or political representation) and (iii) budgetary process as a strategic game. Information asymmetry has several forms and it exists for example amongst political representatives (who declare political ambitions in order to seek savings in public sector and reduce the bureaucracy) and bureaucrats who are aware of limited politicians' tenure and oppose these intentions. We can identify other information asymmetry between budgetary agents responsible for particular budgetary chapters and the central authority responsible for the budget preparation and fulfilment. It relates to the already mentioned supply approach to budgeting when the central authority has only limited abilities to assess expenditure claims. The utility function of the leading representatives of the bureaucratic apparatus is based on maximizing budget volume and number of subordinate conducted in two ways; the more subordinates, the higher prestige and remuneration hinges at least partly in the number of subordinate workers. This provides to some extent the response on the question why most attempts to modernize public sector end in failure. Current analysis on public sector (Interior Ministry, 2011) confirms that the number of civil officers has increased in comparison to the state before implementing regional structure; contrary to the objectives of the reform and politicians' pledges. The other above mentioned assumption of the public choice postulates that the budget preparation is not a cooperative process when institutions are looking for best way of allocating resources; it is rather a strategic game between institution responsible for the budgeting – the ministry of finance (as a sponsor) attempting to maintain the state finance "in a decent condition" and budgetary agents who mostly try to maximize their particular chapters, anticipating reactions of their so called opponent. Thus, we face numerous conflicts between rationality in behaviour of budgeting agents and social effectiveness. The budgetary process should be ideally settled in order to minimize socially undesirable, albeit rational from their point of view, behaviour of budgetary agents.

### **3. Reserve funds in the budgetary practice of the Czech Republic**

We attempt to verify several assumptions about budgetary agents' behaviour discussed in the previous part and we do so via the analysis how the changes in rules for creating and using of reserve funds effected the behaviour of budgetary agents. We consider the own funds of the organizational state institutions (hereafter "OSI") that are set up according to the §45 of Act on Budgetary Rules. These changes are mainly amendments of the Act on Budgetary Rules but also discretionary decisions in the form of government resolutions enforcing limitation of budgetary chapters in creating and using of these resources or changing the purpose of money deposited to

the funds' accounts. The transfer of unspent expenditures into reserve funds possible between years 2004 - 2008 (and transformed into the mechanism of claims from unspent expenditures) seems to be one of the interesting features of the budgetary process well illustrating the behaviour of budgetary agents.

The reserve funds are for OSI off-budgetary resources. They are created and used according to the Act on Budgetary Rules and the legislation has been amended several times in the course of previous years. The budgetary rules had enabled transferring very limited amount of money into reserve funds till 2003; 2 % of total budgetary expenses and 5 % of resources dedicated to purpose-built expenditures and endowments. Under such circumstances the clear tendency to ineffective spending in the end of the budgetary period existed and the practice proved this statement to be true. Motivations for this behaviour are basically threefold: (i) reputation risk in the sense the budgetary agent is not able to predict its budgetary claims correctly, (ii) reaching the seemingly ideal state when the chapter using all the money has not advocated the deviation either below and over the budget (iii) potential risk of funds cutting down in the next period, which is inherent to the way the budget is being constructed.

In order to weaken the tendency toward ineffective spending the change of rules regarding handling reserve funds had been initialized. In July the change of budgetary rules came into effect that enabled to transfer the whole difference between dedicated money and real spent expenditures without limitations, i.e. in the end of a particular year unspent expenditures are transferred to reserve funds. From the point of state budget money is spent although it remains on the bank account. Thus the transferred money in the fiscal year negatively affects the budget balance. As a result of the new legislation, which had been promoted by positive motivation to eliminate ineffective spending or wasting money in the end of year, the hike in transfers to reserve funds had occurred. As the table 1 shows non-investment transfers had increased from the marginal 2.89 billion CZK in 2003 to 52.3 billion CZK two years later.

**Table 1: Transfers to reserve funds of OSI, 2003-2008**

| billion CZK                              | 2003 | 2004  | 2005  | 2006  | 2007  | 2008 |
|--|------|-------|-------|-------|-------|------|
| Non-investment transfer to reserve funds | 2,89 | 17,61 | 52,3  | 35    | 60,03 | 1,42 |
| Investment transfer to reserve funds     | 3,49 | 12,6  | 17,88 | 23,36 | 32,69 | 0    |
| Total transfer to reserve funds          | 6,38 | 30,21 | 70,18 | 58,36 | 92,72 | 1,42 |

Source: Final Account of State Budget, 2003-2008

The rapid increase in the volume of money transferred after the change of rules indicates a permanent overestimation in budgetary claims, which stems from the way how the budget is put together, i.e. existing mechanisms of its elaborating and approval. We can draw a conclusion that the ability to reach effective allocation in the course of year is limited and that there is a significant level of budget chapters' imperfection with respect to planning their expenditures. Noticeable change in behaviour induced by the change of rules corroborates assumptions described in the previous part. But under the new circumstances the government has been losing control over increasing amount of money. Using the off-budgetary funds that generate parallel budget in these conditions poses the risk for fulfilling the goals of the fiscal policy. Transfers from reserve funds on the revenue accounts are not mostly budgeted as in time of elaborating of the budget either volume of money, which will be used

nor their potential volume, has been not known. It means that the relative proportion of received endowments in agreed budget is systematically being exceeded. When using these funds budget chapter can exceed over the expenditure limitation, which was implemented as part of the middle term budgeting. Using these funds appears in the revenues of the state budget under the item “Received Transfers.” The following table shows how volume of funds appearing in the state budget has been developing in the course of time.

**Table 2: Transfers to budget, 2003-2008**

| billion CZK  | 2003 | 2004 | 2005  | 2006 | 2007  | 2008  |
|--|------|------|-------|------|-------|-------|
| Transfers from reserve funds - state budget revenues | 2,75 | 4,46 | 43,78 | 77,2 | 46,27 | 52,61 |

Source: Final Account of State Budget, 2003-2008

New conditions brought upon by the change of budgetary rules have therefore certain negative impacts on the overall credibility of the budgetary process as, as on one hand, it is not possible to estimate a certain part of revenues and expenditures approved by the law on state budget are exceeded by engaging money form the reserve funds on the other hand. We can observe another interesting aspect if we compare transfers to reserve funds and state budget deficit. The state budget in this period issued government bonds to cover high budget deficits and at the same time the funds were not allocated for particular expenditures but they remain unchanged in bank accounts. As the next table shows, the transfer to funds even exceeded the whole annual deficit in 2007.

**Table 3: Comparison of transfers to reserve funds and annual state budget deficit, 2003-2008**

| billion CZK                     | 2003   | 2004  | 2005  | 2006  | 2007  | 2008  |
|---------------------------------|--------|-------|-------|-------|-------|-------|
| Total transfer to reserve funds | 6,38   | 30,21 | 70,18 | 58,36 | 92,72 | 1,42  |
| State budget deficit            | 109,05 | 93,68 | 56,34 | 97,58 | 66,39 | 20,00 |

Source: Final Account of State Budget, 2003-2008

Transfers to reserve funds are realized in such an extent have not been anticipated. Using of these resources is then both by change in legislation and by discretionary interventions of the government restricted; OSI can use reserve funds only with the government approval<sup>1</sup>, further they are given orders that the amount of money in the end 2006 will not exceed the amount which was there the year before. Then the limitation comes of the amount of money OSI can use in 2007<sup>2</sup>. Change of budgetary rules in 2007 brought the authorization for government to transfer the funds into the budgetary chapter called “general treasure administration”. Subsequently the government can use these resources to cover unplanned expenditures<sup>3</sup>. In this way,

<sup>1</sup> Government resolution No. 1090 from 2006

<sup>2</sup> Government resolution No. 290 from 2007

<sup>3</sup> On the basis of the Government resolution No. 629/2007 it was decided to use 13.9 billion CZK to support expenditures of a few chapters (i.e. Ministry of Transport, Defense and Health). In the following year 8 billion CZK were used in a similar way, including 4.3 billion CZK for extraordinary increase in pensions.

31.7 billion CZK were used to improve budgetary revenues and hence to reduce deficit in 2009 after the onset of current economic crisis.

In 2008 a fundamental change came into effect with further amendment of the budgetary rules. The ability to transfer unspent expenditures into reserve funds was cancelled and instead of it new legislation brought the mechanism of budgetary claims related to expenditures unspent in the fiscal period. Therefore this change had significant impact on the state budget balance in 2008. State budget concluded with the deficit of 20 billion CZK, which was a very low number in comparison to the result in previous years. If the change in the legislation had not been done, then the deficit would have been higher by 47.5 billion CZK<sup>4</sup>. Taking into account year-to-year comparison and good economic performance at that time such result is not as astonishing<sup>5</sup>.

According to the new legislation, OSI are ordered to register their claims dividing them into profiling and non-profiling ones, where the profiling claims<sup>6</sup> are strictly purpose-related. The decisive proportion represents expenditures for programs and projects financed from the budget of the European Union. The claims from the non-profiling expenditures can OSI use only with the government's approval. Development in claims from unspent expenditures is depicted in the following table.

**Table 4: Development of the budgetary claims from unspent expenditures, 2003-2011**

| billion CZK   | 2008 | 2009 | 2010  | 2011  |
|---|------|------|-------|-------|
| Total claims from unspent expenditures                | 72,5 | 89,8 | 101,2 | 129,9 |
| Claims on profiling expenditures from the EU projects | 54   | 71,5 | 85,3  | 110,9 |

Source: Final Account of State Budget, 2008-2011

#### 4. Conclusion

Concluding from the development of the rules for treating unspent budgetary expenditures the changes and subsequent modifications of these changes are the result of certain behaviour and motivations of the budgetary agents. They adapt to the new conditions and gradually eliminate positive effects expected by the central authority coming from the change of rules or they even cause unexpected effects. The opportunity to transfer unspent expenditures into next fiscal period without any limitation weakened traditional rationality and improved "healthy" behaviour suggesting not spending funds at any cost. Because of the way the budget is constructed, this change could also have increased the tendency of agents to further overestimate their budgetary claims. Subsequent loss of the autonomy over money in funds and their taking away changed the incentives again. The weakened motivation to exploit all the money was restored and it shifted the budgetary agents back toward

<sup>4</sup> We calculate the money that already had not been transferred to reserve funds but became the claim from unspent expenditure in 2008

<sup>5</sup> The deficit reached 66.39 billion CZK in the previous year, real output grew by 3.3 % in 2008

<sup>6</sup> Expenditures financed from the EU budget, from the European mechanisms or NATO, expenditures on R&D, expenditures on programs, purpose-built expenditures, social benefits

the traditional rationality, i.e. spending all the funds at any cost in the end of year. The change of budgetary rules in 2008 caused decrease in expenditures and therefore had positive effects on the deficit. New legislation supported more accurate budgeting; especially as far as the deficit in the ESA95 methodology is concerned (as real allocation is accounted) and decreased the government's need to issue bonds. But there is a risk that the budgetary agents are again prone to ineffective using of funds. Furthermore, because of changes in legislation they gained knowledge that the change of behaviour doesn't pay off. The volume of funds that budgetary chapters were able to transfer into reserve funds corroborates overestimations of budgetary needs and existence of substantial and often unexpected reserves. This situation happened in more favourable period regarding macroeconomic environment. At current times public budgets are under heavy pressure because of economic conditions' deterioration and internal reserves may not be so important. But hand in hand with improving macroeconomic situation and thus with higher revenues for public budgets the risk of expenditures "inflating" is looming again.

The view on development of rules for creating and using the reserve funds clearly shows the weaknesses of the Czech budgetary practice. The analysis of this aspect of the budgetary policy provides an instructive lesson about unsuccessful attempt to implement such an element into budgetary process that would eliminate socially undesired behaviour of budgetary agents, however rational it may seem from their point of view. The partial solution could be a transition to the demand budgeting approach and seeking for such budgetary rules that put traditional behaviour of budgetary agents described by public choice theory into accordance with requirement for effective and efficient allocation of public resources. If we can manage this in accordance, there is a substantial space for budgetary funds savings and optimization in their use. This is a very urgent task especially in the context of the further fiscal consolidation strategy unavoidable in a not too distant future.

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