

Charles University in Prague, Faculty of Science
Department of Social Geography and Regional Development



Marie Macešková

**NON-REGIONAL GOVERNMENTAL POLICIES AS A KEY
MECHANISM OF REGIONAL DEVELOPMENT:
THE CASE OF REGIONAL DIMENSION OF SECTORAL AND
HORIZONTAL POLICIES IN THE CZECH REPUBLIC**

Synopsis of PhD Thesis

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Supervisor: Assoc. Prof. Jiří Blažek

1. INTRODUCTION

Fiscal policy seems to be only a purely economic issue. However, social geographers have caught this topic in order to depict implications for regional development. As Martin and Minns (1995) pointed out, without the understanding of regional patterns of (not only) public financial flows, our knowledge of mechanisms and factors of regional development is severely limited.

As regards the social geographical research of public finance, the attention has traditionally been paid to the issues of regional policy financial flows and their regional impact in connection to the overall effectiveness and efficiency of regional policy (e.g., Armstrong, Taylor 1985; Martin 1998, 1999; Cappelen et al 2003; Bradley 2006; Gripaos et al 2008; Crescenzi 2009). However, this sort of policy represents only a relatively small proportion of the entire governmental policy of state (e.g., in the Czech Republic only 0.06% of GDP was devoted to explicit regional policy in 2007). Hence, some authors (e.g., Heald 1983/1987; Molle 1990; Blažek 2002; Heald, Short 2002; Fothergill 2005) highlight that the entire macroeconomic policy brings about much profound regional impact than the “narrowly”-designed regional policy (explicitly focused on delineated regions). In the case of the Czech Republic, hundreds of billion of Czech crowns (CZK) are annually distributed within the territory, whilst the budget of the explicit regional policy equals approximately only CZK 1.5 billion.

Interestingly, however, there is a lack of empirical studies focused on regional impact of non-regional governmental policies (as argued by e.g., Molle 1990; Blažek 1996). Particular sectoral (e.g., transport policy) and horizontal policies (such as employment policy, or environmental policy) which are parts of governmental policy (fiscal policy) do not incorporate explicit regional dimension. Though, due to the high volume of the allocation of finance they bring about significant regional impact (CEC 1998; Robert 2007; Schout, Jordan 2007; Waterhout 2007; CEC 2008). Consequently, regional impact of sectoral, horizontal and so called non-spending policies is thought to be “blind spots” of regional development analysis (Wishlade, Yuill, Davezies 1997, p.18).

Public expenditure is also observed with regard to a question of how much money a particular region contributes to the system of public finance and, on the other hand, how much money the given region acquires within the redistributive mechanisms of the public finance system (e.g., Boyne, Powell 1995). In general, it is assumed that the more economically developed a region is the higher contribution it makes to the public finance system. Furthermore, less socioeconomically developed regions receive more public finance (in comparative terms) than the rich ones (e.g., Wishlade et al 1996). Hence, such a regulative mechanism is thought to help to reduce regional disparities in terms of economic performance. However, elimination of regional differences is far from being a primary goal of public financial sources redistribution, which key objectives are to enhance solidarity within society and reduce social disparities among individuals (Schumpeter 1947/1955; Hlaváček 2001). The general assumption described above has been, however, analysed empirically only in a sporadic way, not only due to limited data sources on regional structure of public finance (e.g., Morgenroth 2008). Moreover, it is still not clear whether the distribution of current expenditure and distribution of capital expenditure have the same regional patterns. Indeed, there are signs that regional patterns of distribution of these two kinds of public expenditure are surprisingly different (e.g., Directorate-General for Research 1991; Prud`homme 1993). The nature of current expenditure undermines its allocation to areas inhabited by low-income population, i.e. to economically weak regions (CEC 1998; The Impact of Member State Policies on Cohesion 2004; Macešková 2009). Consequently, the territorial distribution of current expenditure fulfils the stabilisation function of governmental policy (de la Fuente 2004). In contrast, the allocation of capital expenditure involves an important dilemma to what type of regions the public investments should be distributed. On one hand, the emphasis might be put on efficiency aspect in order to support external competitiveness of state as such. Hence, the primary receivers of capital financial flows would be the most economically developed regions of state

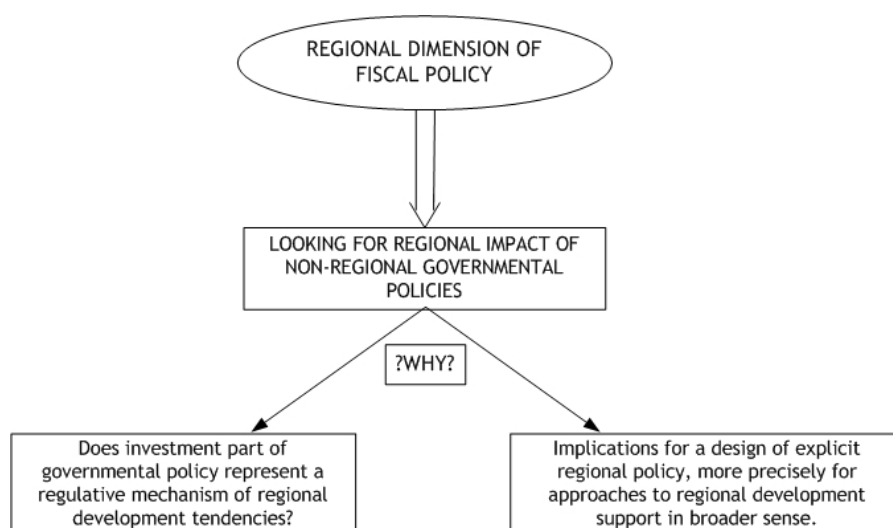
(e.g., *The Impact of Member State Policies on Cohesion 2004*). On the other hand, the prime goal of capital expenditure distribution might be social solidarity. Therefore, economically weak regions of state would be the key receivers. Such a regional allocation of capital expenditure would help to eliminate barriers of economic growth together with initiating positive development in lagging behind regions (cf. Vanhove 1999). Notwithstanding the fact that decision making on public expenditure does not directly take into account regional dimension (as discussed above), the regional impact of public expenditure is of crucial importance.

2. RESEARCH QUESTIONS, OBJECTIVES AND HYPOTHESES

Regional dimension of governmental policy is a very broad topic. Therefore, only the regional dimension of the expenditure side of fiscal policy, and more specifically capital expenditure was the focus of the dissertation. The very importance of investments lies in the fact that they are dedicated to developmental activities and to actions increasing capital in general. Hence, the allocation of public investment funds induces dynamic effects, not only from the regional point of view (Short 1981; Auteri, Costantini 2004). Consequently, public investments are considered to be one of the key factors triggering socioeconomic development together with prosperity of regional economies (Kitson, Martin, Tyler 2004).

The main aim of the dissertation was to explore regional dimension of the allocation of public capital expenditure that has been distributed from the central level of public administration on the example of the Czech Republic. This issue was tackled from two standpoints (see figure 1). Firstly, the premise of the regulative role of public finance (public policies) was questioned as one of the main starting points of the dissertation. Therefore, we attempted to look at the regional dimension of governmental policy from the perspective of regulative mechanisms of regional development. More precisely, we tried to answer the underlying question whether spatial patterns of allocation of public capital funds were rather more of a divergent or convergent nature from the regional development point of view.

Figure 1: Main directions of the dissertation



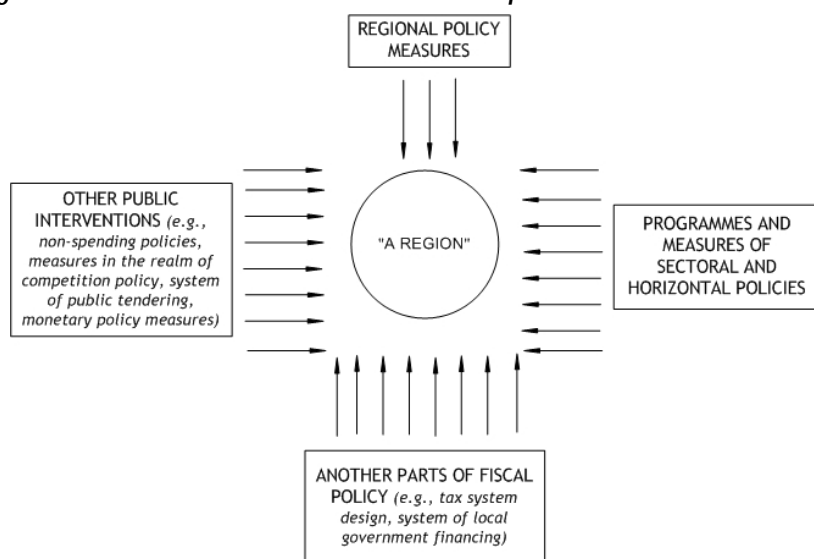
Source: Own elaboration.

Secondly, we focused on the issue of attempts of society to actively influence, (especially) with the help of regional policy tools, socioeconomic disparities among regions (see e.g., Martin 1999; Bradley 2006; Gripaios et al 2008; Crescenzi 2009). However, a certain territory (region) is, apart

from regional policy measures, under the influence of many other public interventions (see figure 2). Consequently, it is a question to what extent the attempts of explicit regional development support in diminishing regional socioeconomic disparities can be successful, more so, if regional impact of non-regional governmental policies (much more robust in financial terms) rests mostly unknown.

Hence, the key objective of the given dissertation is to contribute to the overall understanding of the role of non-regional governmental policies for regional development. The first necessary step towards the general understanding of the role of non-regional policies is to see them in terms of financial amounts (i.e. as money flows) (Cappellin, Molle 1988b), which has been applied in this dissertation.

Figure 2: Schematic visualisation of various public interventions “influencing” a region



Source: Own elaboration.

The main research objectives were formulated as follows:

- § To contribute to the overall understanding of public financial flows within the territory and to academic debate on the importance of regional impact of non-regional governmental policies.
- § To analyse regional dimension of allocation and stabilization functions of fiscal policy of the Czech Republic via regional analysis of capital expenditure distributed from the state budget and also from selected state extra-budget funds, hence, via regional analysis of public capital expenditure allocated within various public sectoral and horizontal policies.
- § To contribute to answer the question whether the nature of regional patterns of public capital expenditure has, from the regional point of view, more a levelling or differentiating effect.
- § To discuss different concepts of regional policy and to clarify terminological understanding of terms “explicit and implicit regional policy” and “narrow and broad regional policy”.
- § To propose a terminological delineation of regional impact of public policies for further discussion.

- § To map recent development of the territorial impact assessment debate and to assess current state of territorial impact assessment methodology and its methodological approaches.
- § To sketch out possible classification criteria for a typology of regional impact of public policies
- § To demonstrate the importance of non-regional governmental policies for regional development (based on empirical analysis), especially for relevant policy makers.
- § To enrich the discussion of prospective synergic tools between explicit regional development support and “other” public policies

Following the above given research objectives, the key research questions were set accordingly:

- § Can we consider the character of regional allocation of public investment as being a rather convergent or divergent mechanism of regional development?
- § What is the accordance between the regional goals of explicit regional policy on one hand and regional impact of public capital expenditure (spent by sectoral and horizontal policies) on the other?

Moreover, we set the following hypotheses to be discussed and possibly verified:

- 1) Within the analysed period 1995-2005, public capital expenditure committed from the Czech state budget and two state extra-budget funds was allocated in favour of the most socioeconomically developed regions of the Czech Republic. Hence, we can suppose the relation between the level of the socioeconomic development of the regions and the amount of invested public capital expenditure (see e.g., Wilson, Wise 1986; Cameron, McLean and Wlezien 2004; The Impact of Member State Policies on Cohesion 2004). Such a regional allocation of this type of public funds would contradict the objectives of the Czech national strategy for regional development and of regional policy aiming at decreasing regional disparities.
- 2) The most profound regional differentiation in the volume of allocated public investment is conditioned by investments to “large” transport infrastructure projects. These projects are extremely financially demanding and belong to a traditional sphere being supported by public sector (The ESPON Monitoring Committee 2004a).
- 3) Public investment committed to the Czech environment policy was distributed to regions with the most severe environmental problems (Commission Services 1999; Blažek, Vozáb 2004).
- 4) Public investment allocated within the R&D and university support was highly concentrated into the most economically developed regions of the Czech Republic (Wishlade et al 1996; The ESPON Monitoring Committee 2004c; Inkinen 2005).
- 5) Public investment spent within the framework of the Czech explicit regional policy and regional development support flowed to regions delineated for the purpose of this policy, which means to economically weak regions as well as structurally harmed ones (MMR 2000).

The depicted topic of the dissertation, that of regional impact of non-regional governmental policies (fiscal policy), reflects not only questions raised within basic research but also the needs of applied research as well as the needs of the current policy agenda in the field of regional

development support (CEC 2008, AER 2009). Consequently, the dissertation aims at fulfilling the challenges of geographical research, i.e. to link geographical research to “practical” needs of society (e.g., Ward 2005) as well as to produce results of geographical research which are applicable in practice (Martin 2001).

3. OUTLINE OF THE DISSERTATION

The dissertation consists of three main parts, i.e. a theoretical framework (chapter 2 and 3), a discussion of the applied research methods (chapter 4), and finally an empirical regional analysis of public capital expenditure distributed from the state budget and two selected extra-budget funds (chapter 5).

Within the introduction of the theoretical framework, current approaches to regional development support are discussed in order to (i) highlight a gradual extension of the relatively narrow sectoral focus of regional policy, (ii) point out the importance of non-regional governmental policies' influence on the eventual efficiency of regional policy measures, (iii) discuss different concepts of regional policy and to clarify terminological understanding of terms “explicit and implicit regional policy” and “narrow and broad regional policy” and to propose a terminological delineation of regional impact of public policies for further discussion, and finally (iv) advocate the importance of research into regional impact of non-regional governmental policies in connection to the design of regional development support. In addition, relevant theories of regional development are discussed to seek implications of the role of public expenditure (and public sector in general) in influencing regional development tendencies.

The main body of the theoretical part is dedicated to (i) depicting regional dimension of fiscal policy (non-regional governmental policies), (ii) an overview and discussion of literature dealing with regional impact of public (capital) expenditure, and (iii) an illustration of regional dimension of various fiscal policy parameters. An emphasis has been put to regional impact of the income side of the public finance system (i.e. tax system design) as well as of the architecture of local government financing. Moreover, the literature review on the regional impact of the expenditure side of fiscal policy (i.e. sectoral and horizontal policies in particular) has been undertaken. Regional dimension of non-spending policies has not been omitted either. Selected examples of “regionalised” public policies are provided at the end of the second chapter. The third chapter maps recent development of the territorial impact assessment debate on the political level. Furthermore, the chapter aims at seeking inspiration for prospective evaluation of regional impact of non-regional governmental policies from recent experiences with territorial impact assessment methodology.

The fourth chapter describes the Czech budgetary scheme to identify the key sources of public capital expenditure. A special attention has been paid to the methods of state budget preparation and to various phases of the budget cycle because (regional) distribution of public finance might be to a certain extent induced by applied method of the budget design. Moreover, particular “subjective” factors came into play within the decision making on public expenditure - these were also briefly tackled within the chapter. The dissertation also deeply discusses the fundamental methodological question related to the regional analyses of public expenditure - whether to use the flow or benefit approach for assignment of particular expenditure to a particular region.

The empirical part of the dissertation provides us with a regional analysis of public capital expenditure committed from the Czech state budget and two state extra-budget funds within the period 1995-2005. The analysis has been conducted in several steps reflecting research objectives and hypotheses. Moreover, we attempted to identify some underlying factors of the observed regional patterns of public investment allocation. We also tried to assess spatial and social concentration of the explored public investment. Finally, the chapter is closed by a summary of the main empirical results juxtaposed with the dissertation hypotheses.

Eventually, concluding part of the PhD thesis presents the main results in connection to a broader context along with sketching out of possible classification criteria for both a typology of public interventions according to a nature of their regional impacts and a typology of regional impacts of public policies. Furthermore, possible directions for future research in the given field are included.

4. FINDINGS OF THE THEORETICAL FRAMEWORK

From our discussion of theories of regional development it became clear that none of the existing theories pays systematic attention to the role of public finance (and public sector in general) for regional development. Although we attempted to deduce from the theoretical concepts some implications with regard to public expenditure (e.g., John Friedmann's differentiating effects, lock-in, networking), it seems inevitable to deepen the understanding of the role of public finance for regional development in a systematic and structured way.

Our insights to current approaches to regional development support reveal that there has been a significant shift from a "traditionally" designed regional policy towards a regional policy with many innovated policy characteristics. In the context of the dissertation, one of the key shifts has been the gradual extension of the relatively narrow sectoral focus of regional policy and of the scope of supported activities towards a broader governmental policy. Hence, we can observe a growing intersection between activities subsidised under the "label" of regional policy and interventions undertaken within policies traditionally governed within particular ministries (sectors). This fact has two main types of implications. First, activities of the same kind are supported by both, the explicit regional policy and relevant sectoral or horizontal policies (e.g., construction of sewages is subsidised within regional policy but also within environmental policy of the state). Since there is a lack of co-ordinating mechanism of regional impact of various public interventions, the efficiency of regional policy measures might be limited. Second, if the scope of activities eligible within regional policy is to be broadened to incorporate nearly "all kinds of activities", then regional policy might be challenged to advocate its desirability because then it will duplicate the already-existing interventions of other sectoral and horizontal policies.

Both above mentioned problems might be solved with a clear re-conceptualization of the "independent" position of regional policy (as proposed by Bachtler and Yuill 2001, 2007, or Blažek and Uhlíř 2002) towards being "only" one of the tools for regional development support along with significantly regionalised measures of sectoral and horizontal policies and also regionalised measures of other state policies (e.g., non-spending policies, tax system).

Consequently, it can be argued that the choice between an explicitly designed regional policy and broad sectoral regional development support (i.e. implicit regional policy) represents another important dilemma of regional policy making to challenge relevant decision makers. Moreover, it seems that this sort of dilemma is the most important one for the overall efficiency of regional policy measures, or more precisely of measures targeted at regional development support.

Review of literature tied to spatial aspects of public (capital) expenditure has revealed that there are only a limited number of empirical studies providing us with deep insights into regional distribution of public finance on lower geographical levels. Hence, this dissertation can be viewed as a rather unique empirical study of regional distribution of public investments within NUTS 3 and NUTS 4 level.

Within our theoretical framework chapters the attention has also been paid to the income side of the public finance system and its implications for regional development. Also we concentrated on the system of local and regional public administration financing which represents another important parameter of fiscal policy. It has been shown that in some countries both parameters mentioned above are integral parts of implicit regional policy, more precisely of regional development support, and hence for the Czech Republic it might serve as an example to be followed.

5. METHODOLOGY OF THE ANALYSIS

Regional impact of public expenditure has been approached by a regional analysis of public capital expenditure. The key sources of public investments have been identified based on a detailed examination of the Czech budgetary scheme and of financial volumes of its parts. Consequently, we worked with long time series (period from 1995 to 2005) of data on public investments distributed from a national level of public administration, i.e. with data on the state budget (collected in a database ISPROFIN) and of two state extra-budget funds (the State Fund for Transport Infrastructure and the State Environmental Fund). The analyses were undertaken on the NUTS 3 and NUTS 4 (district) level. Not surprisingly, we have to face severe methodological limitations due to specificities of different data sources and of the nature of the data itself.

Our methodological approach was based on three main steps of regional analysis. First, we analysed "total" investments (CZK 671 billion) apart from data on investments that was allocated either abroad or its regional allocation was unknown; moreover, projects investments which were predominantly of current expenditure nature were excluded from the analysis as well. Second, we have excluded some data in order to methodologically clean up the database. Hence, extraordinary expenditures (i.e. expenditure which was devoted to the recovery of the territories affected by the 1997 and 2002 floods or to the restitution of former owners of private property that was nationalised during the Communist period) and other specific capital expenditure (e.g., expenditure related the purchase of fighter aircraft) were excluded from the analysis. Such analysis involved about CZK 617 billion. Third, from the analysed amount of the second step of analysis (i.e. CZK 617 billion) we took some further data on investments out - those which was devoted to "large" transport infrastructure projects (e.g., highways projects), by the way, these transport infrastructure data was analysed separately. Therefore, in the third step of the analysis we worked with about CZK 395 billion. These investments were further analysed according to the type of activity they were invested to (e.g., "small" transport and technical infrastructure, explicit regional policy, environmental sector, R&D and universities, health and social care, state defence, public administration, education, and culture).

We applied flow approach in the analysis, though an example of benefit approach was provided. Our selection of basic indicators of regional differentiation of public expenditure allocation was based on literature (Short 1978; Cuadrado, de la Dehesa, Precedo 1993; Wishlade et al 1996; Yamano, Ohkawara 2000; Heald, Short 2002; Giannoni, Hitiris 2002). We used predominantly relative indicators such as public investment per capita, per regional GDP and other economic indicators - they were also related to the average values for the Czech Republic. Spatial and social concentration of capital expenditure was assessed via H indicator (as proposed by Hampl 2005). Correlation analysis was undertaken in order to attempt to explain relations between regional patterns of public investments and various other socioeconomic characteristics of the regions (job opportunities, unemployment rate, share of university educated inhabitants, or index of change of economic level).

6. MAIN SELECTED RESULTS

When presenting the main results of the analysis, we have to take into consideration some methodological constrains, namely regional allocation of some investments might have been distorted by the fact that some investments were recorded according to the seat of the institution receiving the support, although the financial amount of the investment has been further redistributed into other locations. Also, quality of data provided by public institutions calls for caution in interpreting the results. Moreover, there might be a difference between the "physical" localization of the investment and the spatial localization of the effect of the investment. Nevertheless, some important empirical results can be drawn.

- § In comparison to the Czech regional policy, sectoral and horizontal policies dispose with much larger volume of capital expenditure and their regional impact is of much more importance. In line with one of the hypotheses, it was proved that the analysed capital expenditure is heavily concentrated to the most economically developed region of the Czech Republic - the capital city of Prague. Prague received 37.5% of total investments without "large" transport infrastructure investments which equals CZK 125 thousand per capita (326% of the Czech average), CZK 300 million per square kilometre (6000% of the Czech average), and also CZK 241 per CZK 1.000 of regional GDP (159% of the Czech average). If the "large" transport infrastructure investments were included (the second step of the analysis), the dominant position of Prague was not so much articulated, but still of significant notice.
- § Nevertheless, it has to be pointed out that the dominance of Prague might be (to some extent) influenced by the above mentioned data constraint related to the localization of the institution "officially" receiving the investment.
- § Apart from Prague, ten other NUTS 4 regions had received an above-average (the Czech Republic taken as average) allocation per capita, for example Brno (the second largest city in the Czech Republic), and also other two NUTS 4 regions (Tachov and Bruntál) which belong to the regions delineated for the purpose of the Czech regional policy. On the other hand, as much as twenty-two NUTS 4 regions did not even reach 50% of the average of the Czech Republic. Among these, quite interestingly, nine were regions delineated for the purpose of the Czech regional policy. The lowest level of capital investment per capita (related to the Czech average) was recorded in Most (18%), Karviná (25 %), and Teplice (26 %).
- § Regional disparities in public expenditure per capita (without "large" transport infrastructure investments) (measured by coefficient of variation) were relatively large, however, when Prague was not considered, the level of variation was reduced. Thus, Prague represents an extreme case.
- § We have proved a statistically significant relation between public investments (without "large" transport infrastructure investments) per capita and level of economic development of a region (both of NUTS 3 and NUTS 4 level). However, again, when Prague was excluded, this relation became statistically insignificant.
- § It was confirmed that "large" transport infrastructure investments had a crucial influence on regional disparities in terms of allocated public investments, especially proved on the cases of Plzeňský and Olomoucký NUTS 3 regions. These two regions reached high levels of total capital expenditure when "large" transport infrastructure investments were included in the analysis. However, when we omitted "large" transport infrastructure investments, these regions significantly lost their relative positions in comparison to other NUTS 3 regions. Consequently, it can be stated that if there was any economically weak region (at NUTS 3 level) among the top receivers of the total analysed expenditure (the second step of our analysis - see above), it was only due to high volumes of "large" transport infrastructure investments within this region.
- § From the analysis of capital expenditure devoted to explicit regional development support, it became clear that this type of expenditure had a low spatial concentration, which contradicts the very regional policy concept (based on territorial concentration of the support). Within the analysis of investments devoted to explicit regional development support, among districts which reached an above-average level of investments per capita eighteen were districts which did not belong to regions delineated for the purpose of the Czech explicit regional policy. However, it is important to note that some of the analysed capital expenditure devoted to explicit

regional development support was not managed by the Ministry for Regional Development (which is the institution in charge of the Czech explicit regional policy). On the other hand, three districts (Teplice, Český Krumlov and Ostrava) belonging to the regions delineated for the purpose of the Czech explicit regional policy ranked at positions below average. Nonetheless, the overall regional pattern of capital expenditure devoted to explicit regional development support revealed that a certain priority had been given to the delineated regions. Moreover, a statistically significant correlation between the intensity of regional allocation of capital expenditure devoted to explicit regional development support and unemployment rate (which is used as one of the main indicators when defining regions for the purpose of explicit regional policy support) has been observed. We cannot, however, accept the respective hypothesis.

- § Surprisingly, investments in the realm of environment policy were not significantly concentrated to regions with severe environmental problems (north-western Bohemia and northern Moravia). Nevertheless, it can be confirmed that this investment was allocated to regions in which it is necessary to solve a specific problem with respect to the environment (e.g., support of mining reduction, revitalizing the river system, and pond reconstruction). We cannot, however, accept the respective hypothesis.
- § Regional allocation of public investment to R&D and university sector followed the expected regional pattern (see our hypothesis) of such expenditure into economically more developed regions (Prague, Brno) and to regions where a public college is located, or to regions with headquarters of important research institutions (the Prague hinterland). Nevertheless, it is necessary to point out that it is not only capital expenditure from the central level (as analysed here) that is devoted to the sector in general in the Czech Republic.
- § The lowest variation in regional investment distribution was observed in investment to education, paradoxically, explicit regional policy (see above), and also to health and social care category of investment. It has been shown that public investment in “basic” services for the inhabitants was distributed quite equally in comparison to other categories of capital expenditure (e.g., defence, R&D and universities), although their level of variation was still remarkable.
- § Conducted correlation analysis has suggested that the observed regional patterns of public capital expenditure might be in a relation to level of success in economic transformation since 1989 of regions.

7. SELECTED CONCLUSIONS

With a certain level of caution, it can be summarised that on the example of the Czech Republic (in the period 1995-2005), the analysed public capital expenditure were highly concentrated to the most socioeconomically developed region - the capital city of Prague. Therefore, a growth dimension of public investment allocation (Johansen 2007) has been, most probably unintentionally, encouraged and, hence, the economic centre of the state has been given an impetus for further development. Prague has been, thus, strengthened and cumulative mechanisms conditioning its attractiveness have been amplified. It indicates that the distribution of public investment might have from the regional point of view a rather differentiation effect on regional development. This statement, however, needs further research examination because of a relatively short analysed period of time along with certain specificity of the Czech case due to deep transformation processes which took place in the Czech Republic in the given period.

It is necessary to stress that from the point of view of the entire expenditure side of the governmental policies comprising both capital and current expenditures, the region of Prague is very likely the most important net payer in the system of public finance due to its buoyant tax base.

Furthermore, there is a clear conflict between the goals of explicit regional policy (aiming at the support of less well-off regions) and mostly unintended impact of much more vigorous non-regional governmental policies (generally supporting the most developed regions). This conclusion leads us to call for a strong coordination of regional impact of sectoral and horizontal policies (e.g., via ex ante territorial impact assessment of public policy programmes).

In this context, it seems necessary to look for crucial characteristics of public investment (e.g., financial volume and scope of the investment, one-off investment versus gradually distributed financial amounts, probability that the same kind of investment would be repeated in time) which have the strongest influence on the eventual regional impact of an investment. In addition, we have to seek factors which determine a differentiating effect of public investment allocation on regional development. Such factors might be for example geographical level on which we measure regional impact of a particular investment, level of socioeconomic development of a region where an investment project takes place, or to what extent is the localization of the effect of an investment different to the "physical" localization of the particular investment. The above mentioned characteristics of public investment and factors determining a differentiating effect of public investment allocation might be used to produce a typology of public interventions according to their (different) regional impact. Moreover, a typology of regional impact itself is desirable to be worked on. Both typologies can simultaneously enrich the developing methodology of territorial impact assessment. However, building up such typologies brings about many challenges inter alia due to the fact that during implementation of public intervention many intervening factors come into play.

In order to reflect regional dimension in sectoral and horizontal policies, it is desirable to have a high level of co-ordination of public interventions which are currently performed by various governmental bodies. Moreover, it might even be necessary that some of these bodies would have to give up some parts of their agenda and transfer them (along with respective financial amounts) to a governmental institution which is responsible for explicit regional policy. This shift of power requires a strong political leadership and political willingness, which can be hard to achieve. Hence, there is another option how to improve the co-ordination of regional impact of public intervention that of implementation of "regionalised" sectoral and horizontal policies - which means to reflect specific needs of regions. In addition, it is important to reflect different absorb capacity of regions vis-à-vis various types of public interventions. Hence, such regionalised sectoral and horizontal policy measures can be regarded as tailored-made policy measures with respect to regional specificities and capacities.

The dissertation tries to stimulate research into regional impact of non-regional governmental policies in the Czech Republic. Besides public capital expenditure (which has been analysed within the PhD thesis), public current expenditure, non-spending policies, and the income side of fiscal policy need to undergo a thorough scrutiny. Moreover, each of the sectoral and horizontal policies should be examined in a detailed manner in order to detect their importance of influencing regional development. Another set of research questions to be answered pertains to the issue of which regions are net payers and which are net receivers vis-à-vis public finance system.

Finally, a conflict between the goals of explicit regional policy and mostly unintended impact of much more vigorous non-regional governmental policies along with a pressure for efficient use of public finance in regional development support can contribute to a gradual incorporation of regional dimension into wide spectrum of public interventions as suggested above. However, how to succeed in such a demanding task and how to ensure the co-ordination of regional problems solving remains a great challenge not only for competent policy makers but also for geographers who can surely enrich the development of territorial impact assessment methodology.

8. SELECTED LITERATURE

- AER (2009): AER Contribution to Green Paper on Territorial Cohesion. Strasbourg, Assembly of European Regions, 22 p.
www.aer.eu/fileadmin/user_upload/MainIssues/CohesionRegionalPolicy/AER-TerritCoh-DEF-REV.pdf (3.3.2009).
- ARMSTRONG, H., TAYLOR, J. (1985): *Regional Economics and Policy*. Hertfordshire, Philip Allan, 340 p.
- AUTERI, M., COSTANTINI, M. (2004): Fiscal Policy and Economic Growth: The Case of the Italian Regions. *The Review of Regional Studies*, vol. 34, no. 1, pp. 72-94.
- BACHTLER, J., YUILL, D. (2001): *Policies and Strategies for Regional Development: A Shift in Paradigm? Regional and Industrial Policy Research Paper No. 46*. Glasgow, European Policies Research Centre, University of Strathclyde, 41 p.
- BACHTLER, J., GORZELAK, G. (2007): Reforming EU Cohesion Policy. A reappraisal of the performance of the Structural Funds. *Policy Studies*, vol. 28, no. 4, pp. 309-326.
- BACHTLER, J., YUILL, D. (2007): *Regional Policy in Western Europe: Taking Stock of the Shift in Paradigm*. Bochum, RUFIS Beitrage zur Ballungsraumforschung, Heft 10, 46 p.
- BINEK, J. (2008): Metodické přístupy k prostorovému plánování. In: *Sborník příspěvků ze semináře k „Mezinárodnímu roku planety země“ (CD-ROM)*. Brno, Masarykova univerzita, pp. 186-192.
- BLAŽEK, J. (1996): *Regionální vývoj v České republice v nových podmínkách: subjekty, organizační rámec a regulační mechanismy*. Disertační práce. Praha, Univerzita Karlova v Praze, Přírodovědecká fakulta, 33 p.
- BLAŽEK, J. (2002): *Regionální rozvoj a regionální politika - obecné problémy a specifika ČR v období transformace*. Habilitační práce. Praha, Univerzita Karlova v Praze, Přírodovědecká fakulta, 37 p.
- BLAŽEK, J., UHLÍŘ, D. (2002): *Teorie regionálního rozvoje (nástin, kritika, klasifikace)*. Praha, Karolinum, 211 p.
- BLAŽEK, J., VOZÁB, J. (2004): The Institutional and Programming Context of Regional Development in the Czech Republic: a Critique. In: D. Drbohlav, J. Kalvoda, V. Voženílek (eds.): *Czech Geography at the Dawn of the Millennium*. Olomouc, Palacky University in Olomouc, pp. 255-267.
- BOYNE, A.G., POWELL, M.A. (1995): *Territorial Justice: Spatial Justice and Local Government Finance*. www.psa.ac.uk/cps/1995%5Cboyen.pdf (14.1.2005).
- BRADLEY, J. (2006): Evaluating the Impact of European Union Cohesion Policy in less-developed countries and regions. *Regional Studies*, vol. 40, no. 2, pp. 189-199.
- CAMERON, G., McLEAN, I., WLEZIEN, CH. (2004): Public Expenditure in the English Regions: Measurement Problems and (Partial) Solutions. *Political Quarterly*, vol. 75, no. 2, pp. 121-131.
- CAPPELEN, A., CASTELLACCI, F., FAGERBERG, J., VERSPAGEN, B. (2003): The Impact of EU Regional Support on Growth and Convergence in the European Union. *Journal of Common Market Studies*, vol. 41, no. 4, pp. 621-644.
- CAPPELLIN, R., MOLLE, W. (1988b): Conclusions. In: W. Molle, R. Cappellin (eds.): *Regional Impact of Community Policies in Europe*. Avebury, Aldershot, pp. 184-199.
- CEC - Commission of the European Communities (1998): *Economic and social cohesion in the European Union: The impact of Member States' own policies*. Luxemburg, Office for Official Publications of the European Communities, 253 p.

- CEC - Commission of the European Communities (2008): Green Paper on Territorial Cohesion: Turning territorial diversity into strength (preliminary draft). Brussels, 12 p. http://ec.europa.eu/regional_policy/consultation/terco/paper_terco_en.pdf (13.11.2008).
- COMMISSION SERVICES (1999): Report on Community Policies and Spatial Planning. Working document. ec.europa.eu/regional_policy/sources/docoffic/official/reports/pdf/coordfon/report_en.pdf (20.4.2008).
- CRESCENZI, R. (2009): Undermining the Principle of Concentration? European Union Regional Policy and the Socio-economic Disadvantage of European Regions. *Regional Studies*, vol. 43, no. 1, pp. 111-133.
- CUADRADO, J. R., DE LA DEHESA, G., PRECEDO, A. (1993): Regional imbalances and government compensatory financial flows: the case of Spain. In: A. Giovannini (ed.): *Finance and Development: Issues and Experience*. Cambridge, Cambridge University Press, pp. 261-300.
- DIRECTORATE-GENERAL FOR RESEARCH (1991): The Regional Impact of Community Policies. Research and Documentation Papers. Regional policy and transport, series 17. Luxembourg, Office for Official Publications of the European Communities, 93 p.
- DE LA FLUENTE, A. (2004): Second-best redistribution through public investment: a characterization, an empirical test and an application to the case of Spain. *Regional Science and Urban Economics*, vol. 34, pp. 489-503.
- FOTHERGILL, S. (2005): A New Regional Policy for Britain. *Regional Studies*, vol. 29, no. 5, pp. 659-667.
- FRIEDMANN, J. (1966): *Regional Development Policy: A Case Study of Venezuela*. Cambridge, MIT Press, 279 p.
- GIANNONI, M., HITIRIS, T. (2002): The regional impact of health care expenditure: the case of Italy. *Applied Economics*, vol. 34, no. 14, pp. 1829-1836.
- GRIPAIS, P., BISHOP, P., HART, T., McVITTIE, E. (2008): Analyzing the impact of Objective 1 funding in Europe: a review. *Environment and Planning C: Government and Policy*, vol. 26, no. 3, pp. 499-524.
- HAMPL, M. (2005): *Geografická organizace společnosti v České republice: transformační procesy a jejich obecný kontext*. Praha, Univerzita Karlova v Praze, Přírodovědecká fakulta, 147 p.
- HEALD, D. (1983/1987): *Public Expenditure*. Oxford, Basil Blackwell Ltd., 376 p. (reprint z roku 1983).
- HEALD, D., SHORT, J. (2002): The regional dimension of public expenditure in England. *Regional Studies*, vol. 36, no. 7, pp. 743-755.
- HIRSCHMAN, A. O. (1958): *The Strategy of Economic Development*. New Haven and London, Yale University Press, 217 p.
- HIRSCHMAN, A. O. (1964): Interregional and International Transmission of Economic Growth. In: W. Alonso, J. Friedmann (eds.): *Regional Development and Planning. A Reader*. Cambridge, Massachusetts, The M.I.T. Press, pp. 623-641.
- HLAVÁČEK, J. (2001): *Redistribuce: projev lidských preferencí a společenských potřeb*. Working paper, Praha, UK FSV - IES, 25 p.
- INKINEN, T. (2005): European Coherence and Regional Policy? A Finnish Perspective on the Observed and Reported Territorial Impacts of EU Research and Development Policies. *European Planning Studies*, vol. 13, no. 7, pp. 1113-1121.

- JOHANSEN, S. (2007): Macro Policies nad Regional Impacts in Norway. In: W. Heijman (ed.): Regional Externalities. Berlin, Heidelberg, Springer-Verlag, pp. 287-306.
- KITSON, M., MARTIN, R., TYLER, P. (2004): Regional Competitiveness: An Elusive yet Key Concept? *Regional Studies*, vol. 38, no. 9, pp. 991-999.
- MACEŠKOVÁ, M. (2009 forthcoming): Nezaměstnanost a sociální dávky. In: M. Ouředníček, J. Temelová, L. Pospíšilová (eds.): Atlas sociálně prostorové diferenciace České republiky.
- MARTIN, R. (1998): Regional Policy in the European Union. Economic Foundations and Reality. Brussels, Centre for Policy Studies, 145 p.
- MARTIN, R. (1999): The Regional Dimension in European Public Policy: Convergence or Divergence?. New York, Palgrave Publishers, 197 p.
- MARTIN, R. (2001): Geography and public policy: the case of the missing agenda. *Progress in Human Geography*, vol. 25, no. 2, pp. 189-210.
- MARTIN, R., MINNS, R. (1995): Undermining the Financial Basis of Regions: The Spatial Structure and Implications of the UK Pension Fund System. *Regional Studies*, vol. 29, no. 2, pp. 125-144.
- MINISTERSTVO PRO MÍSTNÍ ROZVOJ (2000): Strategie regionálního rozvoje České republiky. Praha, 113 p.
- MOLLE, W. (1990): The Economics of European Integration. Theory, Practice, Policy. Hants (England), Dartmouth Publishing Company Limited, 547 p.
- MORGENROTH, E. (2008): Regional Dimension of Taxes and Public Expenditure in Ireland. *Regional Studies*. (dostupná pouze online verze pro členy RSA - 15.12.2008).
- PRUD'HOMME, R. (1993): The Potential role of the EC budget in the reduction of spatial disparities in a European economic and monetary union. In Commission of the European Communities: The Economics of Community Public Finance. Reports and Studies, European Economy no. 5. Luxembourg, Directorate-General for Economic and Financial Affairs. pp. 321-351.
- ROBERT, J. (2007): The Origins of Territorial Cohesion and the Vagaries of Its Trajectory. In: A. Faludi (ed.): Territorial Cohesion and the European Model of Society. Cambridge, Lincoln Institute of Land Policy, pp. 23-35.
- SHORT, J. (1978): The regional distribution of public expenditure in Great Britain, 1967/70 - 1973/74', *Regional Studies*, vol. 12, pp. 499-510.
- SHORT, J. (1981): Public Expenditure and Taxation in the UK Regions. Hapshire, Gower Publishing Co. Ltd., 110 p.
- SCHOUT, J. A., JORDAN, A. (2007): From Cohesion to Territorial Policy Integration (TPI)? Does the European Union have the Capacity to Govern in a More Joined up Manner? *European Planning Studies*, vol. 15, no. 6, pp. 1-17.
- SCHUMPETER, J. A. (1947/1955): Economic Possibilities in the United States. In Readings in Fiscal Policy (selected by a committee of The American Economic Association). London, George Allen and Unwin Ltd., pp. 521-539.
- THE ESPON MONITORING COMMITTEE (2004a): ESPON 2.1.1 Territorial Impact of EU Transport and TEN Policies, 291 p. www.espon.lu/online/documentation/projects/policy_impact_index.html (22.4.2005).
- THE ESPON MONITORING COMMITTEE (2004b): ESPON 2.2.1 Territorial Effects of the Structural Funds - Third Interim Report, 299 p. www.espon.lu/online/documentation/projects/policy_impact_62.html (22.4.2005).

THE ESPON MONITORING COMMITTEE (2004c): ESPON 2.1.2 Territorial Effects of EU Research and Development Policies, 207 p. www.espon.lu/online/documentation/projects/policy_impact_20.html (22.4.2005).

The Impact of Member State Policies on Cohesion (2004): Final report, 190 p. http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/3cr/impact_member.pdf (26.11.2004).

VANHOVE, N. (1999): Regional Policy: A European Approach. Third Edition. Aldershot, Ashgate Publishing Ltd., 639 p.

WARD, K. (2005): Geography and public policy: a recent history of 'policy relevance'. Progress in Human Geography, vol. 29, no. 3, pp. 310-319.

WATERHOUT, B. (2007): Territorial Cohesion: The Underlying Discourses. In: A. Faludi (ed.): Territorial Cohesion and the European Model of Society. Cambridge, Lincoln Institute of Land Policy, pp. 37-59.

WILSON, P. A, WISE, C. (1986): The Regional Implications of Public Investment in Peru, 1968-1983. Latin American Research Review, vol. 21, no. 2, pp. 93-116.

WISHLADE, F., YUILL, D., TAYLOR, S., DAVEZIES, L., NICOT, B. H., PRUD`HOMME, R. (1996): Economic and Social Cohesion in the European Union: The Impact of Member States` Own Policies. Final report for the European Commission. Glasgow, European Policies Research Centre, University of Strathclyde, 160 p.

WISHLADE, F., YUILL, D., DAVEZIES, L. (1997): Economic and Social Cohesion in the European Union: The Regional Distribution of Member States` Own Policies. Paper for European Urban and Regional Research Network "Regional Frontiers" Conference, Frankfurt (Oder), Germany, 26 p.

YAMANO, N., OHKAWARA, T. (2000): The Regional Allocation of Public Investment: Efficiency or Equity. Journal of Regional Science, vol 40, no. 2, pp. 205-229.

Selected statistical and other sources

Czech Statistical Office - Statistical Yearbook of the Czech Republic 1997-2006. Prague.

Czech Statistical Office - Regional Accounts 1995-2005. Prague.

Internal materials of the Ministry of Finance of the Czech Republic - ISPROFIN for the period of 1995-2005 (database).

Internal materials State Fund for Transport Infrastructure (SFTI) - budgets of SFTI for the period of 2001-2005 (database).

Internal materials State Environment Fund (SEF) - budget of SEF for the period of 1999-2005 (database).

Act no. 104/2000 Sb., Act no. 218/2000 Sb., Act no. 243/2000 Sb., Act no. 388/1991 Sb., Act no. 586/1992 Sb., Act no. 90/1995 Sb., Act no.117/1995 Sb.

9. ANNEXES

Annex 1: Contents of the PhD Thesis

1. INTRODUCTION	
2. THEORETICAL FRAMEWORK	
2.1 REGULATORY MECHANISMS OF REGIONAL DEVELOPMENT: DISCUSSION OF CURRENT APPROACHES TO REGIONAL DEVELOPMENT SUPPORT WITH A SPECIAL FOCUS ON REGIONAL POLICY CONCEPTS	
2.1.1 <i>Public policies as “regulator” of regional development</i>	
2.1.2 <i>Regional policy: basic definition and shifts in its conception over time</i>	
2.1.3 <i>Essential reasons for necessity of regional policy</i>	
2.1.4 <i>Conceptual dilemmas of regional policy</i>	
2.1.5 <i>Explicit and implicit regional policy versus regional policy in “narrow” and “broad” sense</i>	
2.1.6 <i>Regional dimension of fiscal policy in connection to regional policy</i>	
2.2 VIEWS OF REGIONAL DEVELOPMENT THEORIES ON PUBLIC EXPENDITURE.....	
2.2.1 <i>Group of “core-periphery” theories</i>	
2.2.2 <i>Marxist theories</i>	
2.2.3 <i>Current theories of regional development inspired by institutional streams</i>	
2.2.4 <i>Concluding remark</i>	
2.3 FISCAL POLICY AND ITS RELATION TO REGIONAL DEVELOPMENT.....	
2.3.1 <i>Role of public expenditure in regional development</i>	
2.3.1.1 <i>Importance of stabilization function of fiscal policy</i>	
2.3.1.2 <i>Regional view on influence of public expenditure distribution</i>	
2.3.1.3 <i>Discussion of previous research work on regional dimension of public expenditure</i>	
2.3.1.4 <i>Literature debate of public investments in regional development</i>	
2.3.2 <i>Regional impact of fiscal policy: regional policy in “ broad” sense</i>	
2.3.2.1 <i>Regional dimension of tax system design</i>	
2.3.2.2 <i>Regional impact of system of local government financing</i>	
2.3.2.3 <i>Regional impact of sectoral and horizontal policies</i>	
2.3.2.4 <i>Regional impact of non-spending policies</i>	
2.3.3 <i>Regionalisation of sectoral and horizontal policies: selected examples</i>	
3. TERRITORIAL IMPACT ASSESSMENT: EVOLUTION AND DEVELOPMENT OF THE METHODOLOGY	
3.1 TIA: DEVELOPMENT OF THE DISCUSSION IN A POLITICAL ARENA.....	
3.2 CURRENT STATE OF TIA METHODOLOGY DEVELOPMENT	
3.2.1 <i>Discussion of the terminology</i>	
3.2.2 <i>Practical experience with TIA application</i>	
4. METHODOLOGY OF THE REGIONAL ANALYSIS OF PUBLIC CAPITAL EXPENDITURE IN THE CZECH REPUBLIC ..	
4.1 BUDGETARY SCHEME AND PUBLIC EXPENDITURE IN THE CZECH REPUBLIC	
4.1.1 <i>Budgetary scheme</i>	
4.1.2 <i>Budgetary process</i>	
4.1.3 <i>State budget: techniques of its design</i>	
4.1.4 <i>State extra-budget funds</i>	
4.1.5 <i>Other sources of public expenditure</i>	
4.2 <i>FLOW AND BENEFIT</i> APPROACH TO REGIONAL ANALYSIS OF PUBLIC EXPENDITURE	
4.3. APPLIED METHODOLOGICAL PROCEDURE.....	
4.3.1 <i>Data sources and analysis procedure</i>	

4.3.2 Applied approach and selection of indicators	
5. REGIONAL ANALYSIS OF PUBLIC CAPITAL EXPENDITURE DISTRIBUTED FROM THE CENTRAL LEVEL OF PUBLIC ADMINISTRATION	
5.1 REGIONAL ANALYSIS OF TOTAL CAPITAL EXPENDITURE	
5.1.1 Regional analysis of methodologically “not-cleaned up” capital expenditure and illustration of flow and benefit approach	
5.1.2 Regional analysis of public investments excluded extraordinary and other specific capital expenditure	
5.1.3 Regional analysis of public investments excluded extraordinary capital expenditure, other specific capital expenditure and investments devoted to “large” transport infrastructure)	
5.2 REGIONAL ANALYSIS OF CAPITAL EXPENDITURE ACCORDING TO TYPE OF SUPPORTED ACTIVITY	
5.2.1 Regional analysis of transport infrastructure investments	
5.2.2 Regional analysis of capital expenditure distributed within the Czech explicit regional policy and regional development support	
5.2.3 Regional analysis of investments in environment sphere	
5.2.4 Regional analysis of capital expenditure allocated to health and social care	
5.2.5 Regional analysis of investments within public administration sphere	
5.2.6 Regional analysis of investments within state defence sector	
5.2.7 Regional analysis of capital expenditure devoted to universities and R&D institutions	
5.2.8 Regional analysis of capital expenditure devoted to elementary and secondary education	
5.2.9 Regional analysis of investments devoted to culture	
5.3 LEVEL OF REGIONAL DIFFERENTIATION IN PUBLIC INVESTMENTS DISTRIBUTION AND AN ATTEMPT TO IDENTIFY SOME UNDERLYING FACTORS	
5.3.1 Assessment of spatial and social concentration of capital expenditure	
5.3.2 Assessment of a relation between regional allocation of investments and selected socioeconomic characteristics of the regions	
5.4. SUMMARY OF EMPIRICAL ANALYSES	
6. CONCLUSIONS	
6.1 STARTING POINTS AND OBJECTIVES OF THE THESIS	
6.2 MAIN RESULTS	
6.3 DISCUSSION OF SELECTED “CLASIFICATION ASPECTS” OF PUBLIC INVESTMENTS IN THE LIGHT OF FURTHER RESEARCH	
7. LITERATURE	
ANNEXES	

Annex 2: Selected publications of the author related to the PhD thesis subject

BLAŽEK, J., MACEŠKOVÁ, M. (2009/2010 forthcoming): Regional Analysis of Public Capital Expenditure: to which regions is public capital expenditure channelled - to "rich" or to "poor" ones? *Regional Studies*. (accepted for publication, i.f. 1,797 in 2007)

HÁNA, D., MACEŠKOVÁ, M. (2009 forthcoming): Poslanecké dotace v kontextu implikací pro regionální rozvoj (Parliamentary grants in the context of the implications for regional development). *Economics and Management (Ekonomie a Management)*. (accepted for publication)

MACEŠKOVÁ, M., TEMELOVÁ, J., OUŘEDNÍČEK, M. (2009 forthcoming): Sociálně prostorová diferenciacie v České republice: implikace pro veřejnou (regionální) politiku (Socio spatial differentiation in the Czech Republic: implications for (regional) public policy). *Journal of Economics*. (accepted for publication, i.f. 0,115 in 2007).

MACEŠKOVÁ, M., ŽÍŽALOVÁ, P. (2008): Research and Development Policy in the Czech Republic: Regional dimension? In T. Siwek, V. Baar (eds): *Globalisation and its impacts on localities*. Sborník z „The Third International Conference on Globalisation and its impacts on localities“, Ostrava, University of Ostrava, pp. 197-206.

MACEŠKOVÁ, M. (2007): Regionální dimenze fiskální politiky na příkladě veřejných investičních výdajů v Česku. (Regional dimension of fiscal policy - an example of public capital expenditure in the Czech Republic) *Geografie-Sborník ČGS*, vol. 112, no. 1, pp. 17-32.

MACEŠKOVÁ, M., ŽÍŽALOVÁ, P. (2007): Regionální aspekty politiky výzkumu a vývoje v České republice (Regional aspects of research and development policy of the Czech Republic). In P. Švec and M. Vančura (eds.) *Česká geografie v evropském prostoru - Vyžádané přednášky, Sociogeografické procesy*. Sborník příspěvků z XXI. sjezdu České geografické společnosti. České Budějovice: Jihočeská univerzita v Českých Budějovicích, Pedagogická fakulta, katedra geografie.

MACEŠKOVÁ, M. (2006): Analýza regionálních dopadů fiskální politiky v ČR: příklad veřejných investičních výdajů (Analysis of regional impact of fiscal policy of the Czech Republic: an example of public capital expenditure). In S. Nunvářová, I. Opluštilová (eds.): *Současné problémy rozvoje regionů a přístup veřejné správy k jejich řešení*. Sborník referátů z III. mezinárodní vědecké konference mladých vědeckých pracovníků a doktorandů. Brno, Masarykova Univerzita, pp. 157 - 165.

