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Intergovernmental transfers and regional development policies in Poland: praxis and problems

Magdalena Leisten Johansson

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Intergovernmental transfers and regional development policies in Poland: praxis and problems

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Abstract. The analysis of the association between national/supranational transfers and reductions of regional economic disparities is the main focus on this paper. The empirical test that lays the foundation of its reasoning consists of panel data from 16 regions in Poland over the period of nine years, 2006-2014. Simple correlation analysis is used to demonstrate how transfers affect the budget structure and development which in turn affects subnational government fiscal behaviour towards investment; a prerequisite for economic convergence. Evidence is thereby found to argue that the intergovernmental transfers designed to converge economic and social disparities of Polish regions are currently not synchronized with regional and EU pro-development policies. By relating the evolution of economic disparities in Poland, explicitly to coherence of financial arrangements of subnational government, their investment behaviour and regional policies, the paper contributes to close a knowledge gap in the Polish policy debate.

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1. Introduction

The uneven levels of development in Polish regions provide a good illustration of the challenges of regional development emphasized by Krugman theory (1991). Most of the economic activity is concentrated around the capital city (Price Water House Coopers, 2007). In contrast, there is lasting low concentration and poor quality of socio-economic activities along the eastern border of Poland where 19% of the population lives. This is reflected in significant differences in the GDP per capita, equipment in human capital, unemployment rate, use of innovative technology, concentration of small and medium enterprises or even effectiveness of R&D activity (Herbst, 2012; Gorzelak and Jalowiecki, 2010; Olechnicak, 2004). Closing the gap between the regions has long been and continues to be one of the major challenges of the country.

Theory suggests that one of the factors differentiating the development potential of regions results from differences in resources, technology, infrastructure or historical conditions. As emphasized by the new economic geography theory in particular, within any country, these differences are significant drivers of the spatial distribution of economic and social activities and the prospects for future economic growth (Krugman, 1991). When considering the regional development potential can be divided into endogenous (internal) and exogenous (external). The endogenous factors include all set of resources or history as mentioned, but also the structure of the regional economy, regional productivity, quality of accumulated capital (Nazarczuk, 2013) ,and even quality of the environment (Zaucha, 2007). The exogenous factors include dimensions decided outside of the regions such as national policies and regulations or EU policies and funds allocations or even economic crises. The main concern is the extent to which regulations, policies or funds are able to compensate for the wide range of internal factors when these penalize the growth potential. Modern regional economy outlines the predominance of internal over external features in many countries and the limits of the role for external interventions and the challenges of policy interventions (Gorzelak, 2004).

Despite the risks of limited effectiveness of policy interventions, policies focusing on equalization, redistribution and convergence of growth in regions continue to be on the political agenda of many countries. Poland, like most European countries, also relies on these interventions. Its convergence policies have however evolved over time. In recent years, national policies have turned from standard cohesion approaches in National Regional Development Strategy 2001-2006 (NRDS) where regional development was defined as a growth of competitiveness to so-called polarization-diffusion model in National Strategy for Regional Development 2010-2020 (NSRD) (Ministry of Regional Development, 2010). This strategy offers a new way of thinking proposed in the Green Paper on Territorial Cohesion, turning territorial diversity into strength. This reorientation of regional policies favors the stimulation of endogenous factors and is inclined to in-depth analysis of growth potentials and barriers at regional level. However, one of the basic matters of key importance to improve regional potential, and through that, support accumulated regional socio-economic activity, is the possibility of subnational government to be continuously active in regional investment. And this depends on their degree of financial capabilities.

The financial capability of a region is defined as by the level of own revenue[1] per capita. The regional differences in capability discussed later causes unequal chances not only to conduct investment activity but also target disparities. To correct these disparities and play a key role in equalization and redistribution of revenue, countries usually rely on intergovernmental transfers from state to subnational governments. Poland is not different. The structure of subnational financing in Poland is based on the Act on Local Government Revenues of 13 November 2003, and financial management and its principles on the Act on Public Finance of 27 August 2009. This act sets a precise financial arrangement between different levels of government. Poland's intergovernmental transfers are essentially of two broad types: (i) General grant, which is divided into educational and balancing part for municipalities, counties and regions, equalization for municipalities and counties and regional for regions only, and, (ii) Earmarked grants.

In addition, Polish convergence efforts have also enjoyed the support of the EU Cohesion Policy and the matching set of structural funds distributed to member states covers the issue of regional convergence. Poland as a member of European Union since 2004 is one of the largest recipients of EU funds. Under the 2014-2020 funding Poland will receive over 77.6 billion euro, from which over 40% will be allocated to regional governments. Conceptually, these structural funds can be

treated as intergovernmental transfer between supranational and regional government and hence many of the incentive issues associated with the design of transfers by the fiscal federalism literature can be adapted to the analysis of these supranational intergovernmental transfers. For the remainder of the analysis, each of the intergovernmental transfers mentioned is going to be seen as income transfer to subnational governments. It is important to recognize that characteristics of each income transfer are different:

1. General grants are unconditional.
2. Earmarked grants are conditional and non-matching.
3. Structural fund is matching and has to be spend on delegated tasks.

While these transfers look good on paper, their effectiveness in Poland is strongly questioned, triggering recent debates and policy changes. The criticism comes from, unsurprisingly, the richest regions regarding equalization grants, but also academics referring to the failure of financial structure as a whole (Gruziejewska, 2016; Wosiek, 2013). Empirical evidence suggests that core regional disparities are not disappearing. In 2014 GDP per capita varied between 70.9% of the national average in the poorest Lubelskie to 160.4% in the richest Mazowieckie at the ratio of 2.3. The unemployment rate in the same year varied between 6.2% to as much as 16.3%. Moreover, regional differences in total level of revenue per capita of subnational governments within regions do not coincide with the above mentioned inequalities distribution.

This evidence raises an important question of whether those intergovernmental transfers and policies are in fact closing the developmental gaps or redistribute income without bigger pro-development plan. The analysis of the association between national/supranational transfers and reductions of regional economic disparities is the main focus on this paper. Since numerous studies have examined the evolution of economic disparities in Poland, without relating them explicitly to coherence of financial arrangements of subnational government, their investment behaviour and regional policies, the paper contributes to close a knowledge gap in the Polish policy debate.

The analysis is derived using data from all Polish regions (NUTS II) for the period of 2006-2014. The assessment is based on:

1. A review of the policies used by Poland, and of the EU policies supporting Poland in these efforts.
2. An identification of the specific goals and instruments of each policy.
3. An analysis of social and economic indicators between regions.
4. An assessment of their synergies, based on a simple correlation analysis, considering when they complement or substitute each other.

This paper is organised as follows. Chapter 2 introduce the survey of the theory, paying special attention to the fiscal decentralization as a starting point, followed by the description of fiscal gaps and the use of intergovernmental transfers and its design, ending on the link of the intergovernmental transfers on regional growth. Chapter 3 reviews past and current polish policies linking them to the regional context and the structure of the subnational government budget. Next in chapter 4, the theory and policy background is confronted with attempts to bring new evidence of the impact of income transfers on regional convergence in Poland. Finally, chapter 5 presents the conclusion and policy discussion.

NOTES TO CHAPTER 1

1. Own revenue includes tax revenue, asset revenue and revenue collected from various fees, full explanation in chapter 3.

2. Theory

The point of departure for the overall theoretical setting for this paper is the theory of intergovernmental transfers to subnational governments. Even when granted its own taxation powers, subnational governments are often responsible for more provision of public service than can be financed from their own sources of revenue. The resulting difference between expenditures and own-source revenues at different levels of sub-national government is often referred to as vertical fiscal imbalance (VFI) (Bird and Tarasov, 2004). Intuitively, balance as opposed to imbalance could be achieved by simply granting the sub-national government more revenue authority. However, this type of strict revenue separation, or 'tax separation' as it has also been called, is usually avoided since governments at the same jurisdictional level invariably have different levels of fiscal resources relative to their expenditure responsibility (Bird and Tarasov, 2004).

The resulting difference in the resources available to governments at the same level is referred to as horizontal fiscal imbalance (HFI) and it is this fact, that there always will be some jurisdictions that are richer than others, that always will cause the most intricate attempt to resolve VFI by delegating more revenue authority, to fail (Bird and Tarasov, 2004). This is the fundamental explanation for why some balancing role invariably will be assigned to intergovernmental fiscal transfers.

The theory of fiscal decentralization often ascribes intergovernmental transfers the role of an important policy instrument for the central government (Oates 1999; Tiebout, 1956; Smart and Bird 2010). As a policy instrument they may serve a number of different functions. They can provide fiscal equalization and thereby combat disparities across jurisdictions, they can be used for revenue-sharing purposes, and they can internalize spill over effects to other jurisdictions (Smart and Bird 2010).

The transfers can appear in two distinct categories. They can be either "conditional grants"– that place various kinds of restriction on their use by the recipient, for instance a condition that the recipient matches the grant by own income sources. Or they can be "unconditional grants"– that is, lump-sum transfers to be used in any way the recipient wishes (Ibid).

The fact that conditional grants give recipient governments less autonomy and more central government control than unconditional grants may seem so obvious that it is hardly worth questioning. This aphorism is very common not only among believers in the theory of fiscal decentralization, but also within standard setting international organisations and supranational governments dealing with intergovernmental fiscal relations in practice. For instance, a report from the OECD's Network on Fiscal Relations Across Levels of Government considers the distinction between conditional and unconditional grants "crucial for assessing sub central fiscal autonomy" (Bergvall et al., 2009). In a similar tone, article 9 of the European Charter of Local Government by the Council of Europe states that "As far as possible, grants to local authorities shall not be earmarked for the financing of specific projects. The provision of grants shall not remove the basic freedom of local authorities to exercise policy discretion within their own jurisdiction" (Council of Europe, 1985). Regardless of the overwhelming theoretical support for unconditional transfers, it has been emphasised that there is no linear relationship between its use of and the applying central governments preference for local autonomy (Boadway, 2007). Since the central government has many other instruments of control, the use of unconditional transfers would only mean less central control all others held constant.

One frequent application for unconditional transfers is to address the problem of Horizontal Fiscal Imbalances causing regional disparities. These equalization transfers generally have two distinct rationales. The first is to provide a necessary baseline for decentralization by to some extent equalizing the fiscal capacity of sub-national governments and thereby bringing all closer to being on the same footing in respect to incentives (Feldstein, 1975). The second rationale is to provide sufficient resources to enable all local governments to provide a basic package of local services. Within each subnational level of government there are invariably some jurisdictions that are richer than others. Decentralization of tax revenue without creation of equalization transfer programs is therefore believed to broaden income inequalities between regions, as tax capacity differ (Hausmann, Rodriguez and Wagner, 2006).

As outlined in OECDs definition of conditional transfers above, Intergovernmental transfers from central or supranational (EU) governments can be designed to be matching, meaning that they require a contribution, even if modest, by the recipient subnational governments. Such transfers recognize the potential disincentive effects on

subnational operation and maintenance of centrally financed local investments, while having the advantage of requiring some local revenue effort and exhibited ownership. Matching transfers to finance specific investments are often all so justified on the basis of the existence of spillover benefits or central government interest in priority programs such as health or environmental protection (Bird and Smart, 2010).

To pursue equalization objectives, the income level of the subnational government could be used to define the extent of matching, with wealthier subnational governments either receiving a smaller matching share than the poorer ones, or a ceiling being placed on the amount of matching grant that can be received. It is important to acknowledge that in some cases matching grants favour richer subnational governments who can afford to match larger amounts, or in different words, punishes poorer ones who cannot afford the matching requirement and therefore might forego the investment (Boadway and Flatters, 1982; Boadway, 2007). In contract to that theorem, some argue that the larger investments needed in wealthier local governments are proportional to the matching funds received and thereby that equity is not a concern (Grand, 1975; Weingast and Qian, 1997).

The argument has been delivered, that a decentralized system encourages jurisdictional competition, providing a perfect instrument for poorer regions to compete with richer through regional policies (Weingast and Qian, 1997). They argue that equalization simply incentivize lack of economic progress. Development of favourable investment conditions by the local government through lower capital tax, regulation or welfare state and autonomy to do so play important equity role per se. This disciplinary manoeuvre towards local government forces to deliver appropriate standards of development and economic growth. Therefore, they argue that it is rather interjurisdictional competition, not equalization transfers which reduce regional disparity (Weingast and Qian, 1997).

A different line of reasoning was initiated with the new economic geography theory. It argues that economic integration in itself may lead to regional inequality and divergence (Krugman, 1991). One important feature in the new economic geography that strongly relates to disparities and equalization between subnational jurisdictions is the notion of the increasing gap between core and periphery regions (Krugman, 1991). With a general cost reduction of transportation, trade openness directs productive factors towards the 'core' regions where returns are higher, at the expense of peripheral areas (Boldrin and Canova, 2001). In the Polish setting, the poorest regions are located in peripheral East. Hence, the new economic geography seems to suggest that if the goal of the economic policy is to minimise disparities and inequalities between regions, less developed and peripheral regions should be supported by regional policies in order to counteract the impact of market forces working towards divergence. And intergovernmental transfers of various types are commonly recommended by theory to finance the implementation of these regional policies.

Despite the clear rationales and the obvious solution that equalisation transfers have on the disparity problem, like every problem has a solution every solution has a problem. If equalizing grants would fully compensate for differences in tax bases, sub-national governments would be deprived of any incentive to increase their tax bases (Martinez-Vazquez and Boex, 2001). Increasing tax bases, in the form of attracting industries for instance, inevitably entails costs. What makes some local governments accept such costs is often the hope that attracting industries will also increase their tax bases, and this, in turn, will either make it possible to increase public expenditures or to lower tax rates. This mechanism is economically virtuous and would be very detrimental to break (Prud'homme, 2007). Hence, subnational governments diverging tax capacities are double featured. What seems to be commonly acknowledged as the most paramount feature is that they are innate; and as such they should be compensated. On the other side, they are acquired, or man-made; and as such they should be encouraged (Prud'homme, 2007).

3. Polish policies to reduce regional inequality

Policy changes and reforms implemented in Poland since 1990 have facilitated the integration with European Union. A progressive decentralization of the state, followed by the EU membership meant that regional policy and approach towards regional economic convergence in Poland has changed both in terms of organizational and legal structure. The key result in the Polish regional policy was the adoption on the 12th of May 2000 the Act on Supporting Regional Development[1]. It was the first document of this magnitude representing the foundation of the regional policy in Poland in relation to the priorities of European regional policy (Grochowski and Rzeznik, 2010).

The success of a legislative initiative in 2000 was made possible by the reform of the territorial state and creation of three tier subnational government carried out a year before, which is discussed later in the chapter. As a result of these changes, the National Regional Development Strategy 2001-2006 (NRDS) was created and became the main instrument of regional policy planning (Grosse, 2007). This document stipulated the criteria and principles for policy formulation and implementation of regional development in Poland. The main objectives for NRDS was to create conditions for increasing regional competitiveness, prevent marginalization of certain areas and promote economic and social cohesion between regions (Ministry of Regional Development, 2010).

In 2006, the Act on Principles of the Development was adopted and it is currently the applicable law[2]. This Act defines development policy as a set of interrelated activities undertaken and implemented in order to ensure sustainable socio-economic spatial development, as well as raising economic competitiveness and job creation at the national, regional and local level. After passing the act, the regional policy acknowledged the need of a separate program, which would be focused exclusively on eastern Poland. As a result, the government introduced the Operational Development Program of Eastern Poland and began to draft a separate strategy designed specifically for that part. However, this act at the same time eliminated the NRDS. And for the following four years, the government did not introduce a document that could replace the previous national strategy. The abandoning of new strategy preparation was regarded as an error after the regional policy of subnational government had noticeably weakened (Grosse, 2007).

The year of 2010 is a period in which new National Strategy for Regional Development 2010-2020 (NSRD) comes in to force and this time it is not based on simple mechanism of solidarity, but aims to stimulate the growth of internal development potential of regions (Grochowski and Rzeznik, 2010). This Ministry of Development calls the new strategy 'tailor-made' and instructs the subnational governments to participate in investment, which supports the strongest sides of a given region (Ministry of Development, 2010).

Despite the fact, that the new NSRD removes regional government from being the key player in regional policy, it assigns the financial responsibility for the execution of tasks to subnational government (Ministry of Regional Development, 2010). This setting brings major uncertainties regarding source of funds available to the regions for the encouraged investment. The question arises whether this setting emanating from the new model will slow down the growth of regions lagging behind and lead to further marginalization. In order to begin the assessment, the following part of this chapter describes the fiscal structure of subnational government and its legal status.

3.1 Fiscal structure of subnational government

The Act on Local Self-government of 8 March 1990 revived municipality as the basic unit of administrative division and above all the basic local government unit. The second stage of decentralization occurred after almost 8 years, which resulted in Act on Territorial Self-Government of 5 June 1998. This long recourse break engenders in strengthening temporary administrative and financial solution (Lipowicz, 2009). The reforms from 1998 closed the final stage of Polish administrative decentralization creating three-tier territorial system: 2478 municipalities (gminy), 314 counties (powiaty) and 16 regions or voivodeships (wojewodztwa). Municipalities and counties have a status of local government and viovodeships operate at regional level.

The experience gained in the years 1990-1997, caused the Polish Constitution of 2 April 1997 to enable local governments with own revenue according to their tasks. Any changes in the scope of duties and authorities of local government units must comply with appropriate changes in the share of public revenues. While those arrangements seemed to fairly acknowledge the financial independence, in reality financial structure was clearly distinct from the tasks of subnational government (Regulski, 2000)[3]. De-

spite fiscal decentralization efforts, Polish subnational governments are still longing for stable income which would ensure real independence (Lipowicz, 2009). Furthermore, intergovernmental financial relations in Poland are articulated through the Act on Local Government Revenues of 13 November 2003. Currently, the structure of subnational government budget is designed as follows:

1. Own revenue based on vertical distribution of 'shared tax' revenues as presented in the table 3.1,
2. General grant (subsidies), which is divided into educational (all tiers), balancing (all tiers) and equalization (municipalities, counties)/ regional (regions), and
3. Earmarked grants

Taxes

The rational management of any financial activity of subnational government, starting from provision of public goods and ending in investment, determine the level of own revenue per capita. As a result of the subnational government budget structure presented in Table 3.1 and unevenly spatially distributed economic activities, the level of own revenue significantly varies across regions. The indicator of the level of own revenue per capita is often used to define financial autonomy. In the Polish subnational government budget, shared taxes are classified as own revenue, although the subnational government has no power to determine their amount or composition. Limited power over tax policy and rates in Poland reduced the possibility for subnational government to maximize their revenue-raising ability. However, at the same time it reduces the risk of the well know phenomena of 'race to the bottom'. In this case, own-revenue indicator seems to better express the autonomy than the level of subnational expenditure. The expenditure financed by external transfers, especially earmarked represents relocation of the funds rather than autonomous decision. Even if it is fair to question the real autonomy of Polish subnational government, the dependence on own resources compared to transfers should strengthen the incentives of subnational governments to behave in a fiscally responsible way (Singh and Srinivasan, 2006).

Transfers - unconditional grants

As most decentralized countries, Poland faces vertical and horizontal fiscal imbalances. These stem from unevenness between subnational governments revenues in relation to its spending responsibility (vertical fiscal gap) (Boadway and Tremblay, 2006), and differences in regional economic activity, creating uneven regional revenue (horizontal fiscal gap) (Weingast, 2009). In this setting, the central government makes use of various types of intergovernmental transfers to support subnational level in closing the fiscal gap. In Poland own revenue per capita varies significantly among regions.

Table 3.1. Distribution of subnational revenue. Source: Own preparation based on Act on Local Government Revenues of 13 November 2003

Type of Revenue	Municipalities *(gminy)*	Counties *(powiaty)*	Regions *(wojewodztwa)*
Personal Income Tax (PIT)	39,34%	10,25%	1,60%
Corporate Income Tax (CIT)	6,71%	1,40%	14,75%
Other	Tax revenues: e.g. property, forest, inheritance Local charges: e.g. stamp duties, market fee, geological and mining, incomes from properties. Revenues from inheritance, donation, penalties and fines, 5,0% generated from state budget related to government administration tasks, interests: on loans, funds deposited in banks	Revenues to the county generated based on separate regulations, income from the property of the county, inheritances, donations, penalties defined in separate regulations, 5,0% generated from state budget related to government administration tasks, interests: on loans, funds deposited in banks	Revenues received by the provincial budget units and payments of provincial budgetary establishments, income from the property of the region, inheritances, donations, penalties defined in separate regulations, 5,0% generated from state budget related to government administration tasks, interests: on loans, funds deposited in banks

Therefore, the income transfers constitute a significant share of subnational government budgeting. The biggest share is made up of general grant, which is divided, as mentioned, into three parts. The separation into single components allows the central government to allocate the funds according to established algorithms and criteria. It is important to mention that the separation into components do not determine the method or purpose of spending. The general grant is unconditional and subnational governments have full autonomy over its expenditure. This method coincides with the European Charter of Local Self-Government, which states that subsidies should not fund explicit tasks.

The grant is calculated and allocated based on absolute and relative criteria depending on the type of component. According to absolute criteria, lack of fulfilment of set measures by the subnational government automatically deprives the possibility of receiving the subsidy. Absolute criteria apply to almost the entire balancing and equalization/regional part[4]. The educational part is calculated based on relative criteria, which means that all subnational government receive the subsidy. The criteria do not eliminate the fund but adjust the amount accordingly to the characteristics of the educational system in a given area. The amount for the educational part cannot be less than adopted in the Budget Act in the base year, adjusted by the amount of other expenses arising from changes carried out in educational tasks.

The balancing part is designed to compensate for differences in own revenue between individual subnational governments and provide financial assistance to the economically weak. These funds are part of an economic support system to poorer subnational government and are fully funded by the central state. The equalization/regional part functions as a horizontal redistribution of finance. This transfer commonly called 'robin hood' *(janosikowe)* is created from the financial contribution of subnational governments characterized by high degree of own revenue. However, in the current context of national economic slowdown and related decline of own revenues among contributors, Poland undertook its first steps to verify this system (Poniatowicz, 2011). The system is based on the 2003 Act on Local Government Revenues and principle of financial solidarity between subnational government units. Yet, in March 4, 2014 the Constitutional Court issued the ruling that 'art. 31 and art. 25 of the Act of 13 November 2003 on Local Government Revenues do not guarantee regional governments to keep sufficient part of their own revenue to conduct assigned tasks, and are inconsistent with art.167 paragraph 1 and 2 in connection with art. 166 paragraph 1 of the Polish Constitution and is not inconsistent with art. 9 paragraph 5 of the European Charter of Local Self-Government, signed in Strasbourg on 15 October 1985.' (Constitutional Court, 2014).

The ruling meant that the central government had to redesign the calculation system for the regional tier. It is notable that the equalization transfer system raises doubts, and has been heavily criticized since 2005 (Struzik, 2016). Since 2003 only two out of 16 regional governments contributed to the equalization part- Dolnoslaskie and Mazowieckie. From the contributors' point of view, the design of the general grant is outdated and does not adjust the calculated amount to external factors, for example economic crises. In 2013 the regional government of Mazowieckie had to pay 660 million zloty which equalled 48% of own tax revenues. The temporary solution (18 months since March 2014) is still in effect, and as recently announced by Ministry of Finance, is being planned to remain until 2019 (Wojtczuk, 2015). Presumably, the Act designed in 2003 assumed progressive growth of other regions, in contrast only two regions contributed to 14 others. The contributors claim that regional policies and the faulty system do not encourage pro-development actions in poorer regions (Grzeszak, 2014).

Earmarked transfers

Another instrument used by the Polish government is the system of earmarked grants. Here the central government has full power to direct the funds into assigned tasks. The earmarked grant system is based on the Act on Public Finance of 27th August 2009. This act states several characteristics of the earmarked transfers: the earmarked transfers are based mostly on non-matching system[5], grants must be used to finance or co-finance public tasks and grant transfers are subjected to special accounting rules. The characteristic of the earmarked grant is that the funds must be spent for the purpose for which they were designed. For that reason subnational government in Poland are subjected to thorough supervision. According to the Act, if the funds are misused, under-utilized or taken in to excessive height during the financial year, the region is responsible to refund the amount to the state budget[6]. Subnational government is therefore subordinated to the rigors of performance, which means that it will be required to achieve the assumed indicators. This system, as mentioned in the survey of theory, ends freedom for interpretation of tasks, however, government can enhance pro-development activities. Yet, in 2009 social assistance was one of the major tasks of earmarked grants, representing 2/3 of these transfers, particularly at the municipal level (Stęszewski, 2009).

EU structural funds

In contrast, pro-development investment has been the main objective of Structural funds, for which regional governments have to co-finance. Since 2004 onwards, regional economic convergence in Poland has been partly

financed by the EU structural funds. Regional European policy also known as Cohesion policy was operationalized from the main EU objectives stated in the Treaty on European Union in which part of it was fully devoted to a social and economic regional cohesion.

"Article 174 of the Treaty on the Functioning of the European Union (TFEU) provides that, in order to strengthen its economic, social and territorial cohesion, the Union is to aim at reducing disparities…" The EU established that minimizing disparities among regions should be worked out through promoting more harmonized development. In order to achieve the objectives, European Cohesion Policy was developed and in 1975 the European Regional Development Fund (ERDF) was established.

The Structural Funds amounting to 77.6 billion euro 2014-2020 and 67 billion euro in 2007-2013, makes Poland the largest beneficiary of the EU cohesion policy funds. However, the change, of key importance for this paper, is the creation of Regional Operation Programs (ROP) for the period of 2007-2013 and 2014-2020. The funds transferred to subnational governments are matching and require co-funding. The main classification of the funds is so called Objective 1, which focuses on regions with GDP per capita below 75% of the EU average. All Polish regions were classified as Less Developed Regions (under 75%) prior to 2007. The share of Regional Operational Funds (ROP) in 2007-2013 was 23.8% and by the end the amount reached 16.6 billion euro of all EU funds planned in Poland. The vast majority of the Structural Funds 2007-13 obtained by the Subnational Governments were allocated towards investment grant in which most were assigned towards infrastructure investment (Ministry of Development, 2015). In 2014-2020, the regional government will manage over 40% of the funds compared to 23% in the previous allocation. The European Commission approved the Partnership Agreement (PA) defining the investment strategy of a new pool of EU funds. It is therefore fair to claim that regional operation funds play an important financing role for the regional budget.

The PA focuses on following priorities:

- Promoting business environment and facilitating entrepreneurship and innovation,
- Social cohesion and active labour market participation,
- Network infrastructure for growth and jobs,
- Environment and resource efficiency.

Summary of the Partnership Agreement for Poland, 2014-2020 (European Commission, 2014)

The issue of concern is the growing challenge in accessing structural funds through a co-funding system especially for poorer regions. In the structure of increasing financial needs subnational governments are struggling with high measures of public debt. Subnational debt management could, therefore, be a step for further research. A number of the studies confirm the negative impact of regulation of financing operational programs especially financed by EU on the level of public debt and deficit (Kłos, n.d). The problem of financing regional development deserves special attention in the practical aspect of financing operational programs from public funds, including funds from the EU. The planning of expenditure and revenue must take into account the real possibilities of the budget. With the long term development approach subnational governments should account to what extend they can finance programs on their own and seek opportunity to generate real income from it. Above all, constant struggle in accessing finances from various institutions has developed uncooperative relationship between subnational governments and other entities, which in those circumstances have been perceived through the prism of the 'applying for funds' procedures (Grochowski and Rzeznik, 2010).

As mentioned in the theoretical part, any form of equalization transfer is to provide sufficient resources to enable all local governments to provide a basic package of local services. However, if those transfers focus only on redistribution and do not give incentive to provide market- enhancing public goods, the regions may achieve equal public services but become fully dependent. In other words, regions may end up with unutilized economic potential.

NOTES TO CHAPTER 3

1. Based on: Journal of Laws 2000 No. 48, item 550.
2. Based on: Journal of Laws No. 227, item 1658.
3. Prof. Jerzy Regulski- creator of the local government reform in 1990.
4. A small amount of the regional part is divided adequately to current expenditure on regional rail passenger services. The organization of regional passenger rail transport is the responsibility of every regional government, and therefore the transfer of funds are allocated to all regional governments accordingly to their expenditure.
5. There are exception in close-ended matching grants (Stęszewski, 2009).
6. Art. 49 Act from 13 November 2003 r. On Local Government Revenues.

4. New evidence of the impact of transfers on regional convergence in Poland

Whether the fiscal policies, designed to converge economic and social disparities, are currently synchronized with subnational, national and EU regional pro-development policies, or not, will be sought to be determined in the following. However, due to difficulties in measuring the failure of the policies to synergize precisely, the impact can be assessed using a number of proxies. The universal variable of growth which is the GDP per capita, can function as a dependent variable and can be correlated with: (a) Indicator of subnational tax autonomy (*%OwnRevenue*) which also measures the revenue mobilization, (b) The size of the income transfers which measures subnational fiscal dependency. The first part of this chapter presents the argument linking regional disparity and budget structure, while the second section uses simple correlation analysis to demonstrate how transfers affect the budget structure and development. The last section considers how this argument affects subnational government fiscal behaviour towards investment and therefore economic convergence. Fundamentally, the reasoning seeks to demonstrate the problem of transfer and policy design. Hence, the objective is not to produce a general assumption of intergovernmental transfers. The empirical test that lays the foundation of this reasoning consists of panel data from 16 regions in Poland over the period of nine years, 2006-2014 (2007 for EU funds). The regions from a single country were used to control for national regulations. The period was chosen due to the introduction of the EU Regional Operational Programs in 2007 which provided a substantial financial income transfer to subnational government. The years 2006 and 2014 were included in the analysis to increase the reliability of the sample period. The lack of direct EU income transfers to the subnational budget in 2006 and the major increase of those transfers in 2014 were taken into account. These transitory fluctuations were smoothed out by constructing three- year average variables in the panel. The appropriate economic, social and territorial indicators and measurement were derived from relevant literature.

4.1 Regional disparities

As mentioned, the investment capacity of subnational government is a crucial move towards improvement of economic potential in any given region. However, regional disparities in economic development cannot be observed in abstraction from the basic regional characteristics. The economic structure in Poland differs from region to region and it seems to influence the outcome of their performance. The indicators such as higher education, infrastructure, and innovative activity will be used to describe regional characteristics.

To summarise the basic characteristics of regional distribution in table 4.1, one can tell that the Mazowieckie region is an outstanding leader. The highest number of R&D institutions, followed by the highest number of highly educated individuals, the highest expenditure on innovation activity and the largest stock of infrastructure. The Wielkopolskie, Slaskie and Dolnoslaskie region are clearly above the average in mentioned activities. Above that, those regions benefit from their proximity to the western border, have large urban agglomerations and historically were more developed in terms of infrastructure. The least developed regions in terms of infrastructure seems to be located on the east side of the country, called the eastern-belt. Their geographical location and neighbourhood with countries outside the single market together with underdeveloped transport infrastructure limits their possibility to develop productive trans-border collaboration. Above that, the employment structure in Lubelskie, Podkarpacjie, Podlaskie and Świętokrzyskie is dominated by agriculture. The share of agriculture employment in all 4 regions is above 30 % and in Lubelskie it reaches even 38%.

4.2 Regional development

The basic understanding about the regional characteristics allows to recognise possible obstacles in economic development. Further analysis to identify the state of regional development can be done through, perhaps, the most basic indicator which is the regional GDP per capita (table 4.2). The analysis of the GDP per capita shows that eastern regions are continuously lagging behind and the capital region grows exceptionally. The national government plays a significant role in the formation of the set of instruments to assist underdeveloped regions to 'catch up'. However, it must be done in collaboration with lower levels. As discussed in chapter 3, the importance of subnational government in regional development is both nationally and internationally recognised.

Table 4.1. Regional characteristics (2014). Source: Own preparation based on Local Data Bank at https://bdl.stat.gov.pl/BDL/start

Region*	Population	R&D[1]	No. MSc Absolvents	Innovation[2] (zl)	Public Roads (km)	Employed in Agriculture (2010) (%)
Dolnośląskie	2877840	292	16,964	3,006	23,637	8,4
Kujawsko-Pomorskie	2069543	137	8,545	1,447	26,724	15,5
Łódzkie	2534357	198	11,107	2,445	26,175	18,8
Lubelskie	2151895	121	11,906	588	34,970	38,5
Lubuskie	1011024	47	2,007	648	14,830	10,2
Małopolskie	3310094	308	23,739	1,464	30,068	22,1
Mazowieckie	5242911	895	36,568	4,436	53,454	13,4
Opolskie	1028585	77	4,261	677	10,937	15,8
Podkarpackie	2103505	158	7,513	2,565	20,695	32,7
Podlaskie	1188329	64	5,218	525	26,491	31,2
Pomorskie	2240319	196	11,227	1,943	23,236	8,3
Śląskie	4635882	431	18,274	2,070	25,684	6,1
Świętokrzyskie	1266014	56	4,068	381	17,181	32,3
Warmińsko-Mazur.	1427241	64	4,678	533	22,914	15,3
Wielkopolskie	3419426	356	17,744	2,186	40,331	15,7
Zachodniopomorskie	1693072	74	5,983	1,658	19,692	8,7

* *Highlighted regions belong to the eastern belt,* [1] Number of Active R&D institutions, [2] Expenditure on innovation activities in enterprises per 1 person professionally active.

Table 4.2. Progress of regional development expressed in GDP per capita and Index Value. Source: Own calculation based on data from Central Statistical Office and Local Data Bank

	GDP per capita			**GDP Index value (%)**		
Region*	Average 2006-2008	Average 2009-2011	Average 2012-2014	2006-2008 PL=100	2009-2011 PL=100	2012-2014 PL=100
Dolnośląskie	33,390	42,347	48,690	117.6	122.8	124.0
Kujawsko-Pomorskie	26,618	31,294	35,329	93.8	90.8	90.0
Łódzkie	28,594	34,998	40,437	100.7	101.5	103.0
Lubelskie	21,631	26,168	30,431	76.2	75.9	77.5
Lubuskie	27,358	31,877	36,140	96.4	92.4	92.0
Małopolskie	27,651	33,489	38,450	97.4	97.1	97.9
Mazowieckie	47,454	59,805	69,368	167.2	173.4	176.7
Opolskie	25,970	31,251	34,986	91.5	90.6	89.1
Podkarpackie	21,978	26,537	30,596	77.4	77.0	77.9
Podlaskie	22,625	27,669	31,316	79.7	80.2	79.8
Pomorskie	30,111	36,542	41,784	106.1	106.0	106.4
Śląskie	32,822	40,609	45,339	115.6	117.8	115.5
Świętokrzyskie	24,726	29,281	31,852	87.1	84.9	81.1
Warmińsko-Mazur.	22,870	27,417	30,987	80.6	79.5	78.9
Wielkopolskie	32,696	40,123	46,303	115.2	116.4	117.9
Zachodniopomorskie	27,606	32,277	36,237	97.3	93.6	92.3

**Highlighted regions belong to the eastern belt.*

4.3 Subnational government revenue

Public efforts put into regional convergence comes with regional development strategies and a range of fiscal arrangements, both are defined as exogenous factors. Since financing the public investment and boosting development is a major part, it is argued that structure of the subnational budget and fiscal arrangements might influence the current stage of economy in any given region. In order to support the argument, the internal investment potential and fiscal autonomy has to be assessed as endogenous factors. The calculation of the share of own revenue to total revenue in all subnational governments can serve as an estimate of basic revenue autonomy and shed light on their budget structure. The revenue autonomy is believed to be a more suitable indicator of financial independence than expenditure autonomy, mainly due to the fact that it provides the basic incentive for shaping local pro-development policies (Asatryan, Feld and Geys, 2015). However, so called shared taxes described in the previous chapter, used in the polish system provide even less autonomy.

As shown in table 4.3, the fiscal autonomy expressed in the percentage of own revenue varies across the regions. The low base of own revenue can be observed in the poor regions, which is an expected phenomenon. The less the region develops the more can become dependent on income transfers. Note that level of dependence on income transfers is almost twice as high in the poorest region as it is in the richest region. It is important to notice the decline in the share of own revenue in the period of 2009-2011. This drop may result from the national economic slowdown in 2009 in which the growth of GDP dropped from 7.2% in 2007 to 2.6% in 2009 (Ec.europa.eu, 2016). The drop also indicates the vulnerability of this source of revenue to macroeconomic changes. In time of unexpected economic shock poorer regions may not have the flexibility to increase supplementary revenue. In the Polish context, it is fair to claim that due to political resistance to introduce new fiscal arrangements regarding subnational government revenue, the central government reveals its preferences to larger redistributive transfer mechanisms. Hence, it might create dependent regions to behave financially irresponsible during the crises and give no incentive to save during economic boost. For that reason income transfers must be further evaluated.

4.4 Analysis

In order to assess income transfers to subnational governments within the 16 Regions, data was extracted from various sources: the yearly Budget Reports be-

Table 4.3. Subnational government revenue. Source: Own calculation based on data from Central Statistical Office and Local Data Bank

	Total Revenue of Subnational Governments[a] (zl per capita)			Own Revenue of Subnational Governments (zl per capita)			Share of own revenue to total Revenue (%)		
Region*	Average 2006-2008	Average 2009-2011	Average 2012-2014	Average 2006-2008	Average 2009-2011	Average 2012-2014	Average 2006-2008	Average 2009-2011	Average 2012-2014
Dolnośląskie	3,632	4,472	5,198	2,350	2,535	2,970	59.31	56.78	57.13
Kujawsko-Pomorskie	3,221	4,048	4,669	1,625	1,794	2,136	44.75	44.34	45.69
Łódzkie	3,136	4,000	4,467	1,818	1,961	2,372	52.03	49.01	53.06
Lubelskie	2,987	3,916	4,579	1,221	1,325	1,605	36.71	33.91	35.03
Lubuskie	3,337	4,270	4,601	1,670	1,802	2,113	45.58	42.17	45.90
Małopolskie	3,176	4,140	4,531	1,699	1,837	2,150	47.94	44.38	47.40
Mazowieckie	4,317	5,032	5,760	3,120	3,144	3,534	68.25	62.51	61.33
Opolskie	3,200	3,966	4,259	1,669	1,760	2,023	47.85	44.38	47.47
Podkarpackie	3,139	4,217	4,664	1,267	1,399	1,620	35.80	33.24	34.71
Podlaskie	3,101	4,204	4,822	1,433	1,616	2,000	40.26	38.43	41.40
Pomorskie	3,574	4,461	5,273	2,139	2,322	2,593	53.94	52.17	49.14
Śląskie	3,205	3,863	4,440	2,083	2,216	2,455	58.63	57.46	55.29
Świętokrzyskie	3,167	4,346	4,644	1,423	1,598	1,736	38.75	36.81	37.37
Warmińsko-Mazur.	3,441	4,377	5,095	1,536	1,684	1,956	40.15	38.51	38.41
Wielkopolskie	3,251	4,041	4,509	1,878	2,054	2,337	51.59	50.83	51.79
Zachodniopomorskie	3,448	4,341	5,037	1,908	2,044	2,511	49.95	47.09	49.82

[a]*Total Revenue = Own revenue + general grant +earmarked transfers. * Highlighted regions belong to the eastern belt.*

tween 2006 and 2014 for each region, Local Data Bank, Central Statistical Office and Regional Operation Program Plans for each of the 16 Regions. The data was analysed through correlation analysis and is presented in table 4.4. For the purpose of the study, the variables analysed are explained as follows: OwnTRANS1 which is own revenue plus general grant transfer per capita and represents full autonomy of its expenditure. OwnTRANS2 variable represent own revenue plus earmarked transfer per capita and does not represent autonomy of expenditure, but is subject to central government assigned tasks. Where TRANS1 and TRANS2 are explained transfers alone, TRANS3 represents the share of EU structural funds designated to Regional Operation Programs per capita and represents partial autonomy of expenditure[1]. Budgeting of TRANS3 has changed the legal status in accounting during the period of research, therefore, it will not be assessed as a part of subnational budget but external income only.

The results obtained from the analysis (Table 4.4) demonstrate that there is strong positive correlation between share of own revenue to total revenue of subnational governments with the regional GDP per capita of a given region. They also suggest in the rows 5, 6 and 7 that GDP has an impact on grants, earmarked transfers and EU funds allocation. However, this negative correlation with both earmarked transfers and general grants declined over the period of study. This suggests that either, they have no impact on GDP, or the allocation of transfers is not based on the regional development measures. All of the results turns out to be statistically significant. Since the result of total revenue has not shown strong correlation with GDP per capita since 2009, it is fair to claim that lower levels of economic development among regions did not translate directly into lower level of total revenue per capita. This suggests that income transfers presumably are focused on social injustice but have little impact on increasing regional economic growth. For that reason, further analysis is conducted to examine the direction of intergovernmental transfer allocation. The level of dispersion among social and economic indicators may confirm the argument. Yet, before moving on to disparity analysis, the expenditure of subnational governments is assessed. This will add to the possibility to observe regional behaviour in terms of spending.

The spending pattern for the beginning of the period 2006 and the end 2014 is being assessed. The analysis reveals that the subnational government expenditure and regional GDP per capita in 2006 were strongly correlated. The fig.4.1 illustrates that apart from Mazowieckie

Table 4.4. Correlation analysis between regional GDP per capita and sources of revenue. Source: Own calculation

		Dependent variable GDP per capita		
	Independent variable	2006-2008	2009-2011	2012-2014
1	*%OwnRevenue*	.932** *.000*	.905** *.000*	.862** *.000*
2	OwnTRANS1	.937** *.000*	.894** *.000*	.873** *.000*
3	OwnTRANS2	.933** *.000*	.855** *.000*	.801** *.000*
4	*Total revenue*	.837** *.000*	.597* *.015*	.582* *.018*
5	*TRANS1*	-.760** *.001*	-.715** *.002*	-.676** *.004*
6	*TRANS2*	-.769** *.001*	-.772** *.000*	-.555* *.026*
7	*TRANS3 (2007-2014)*	-.678** *.004*	-.678** *.004*	-.797** *.004*
	Observations *Number of Regions*	*112* *16*	*112* *16*	*112* *16*

*** Correlation is significant at the 0.01 level (2-tailed),* Correlation is significant at the 0.05 level (2-tailed), p-values in italic.*

most regions cluster within a narrow range in both expenditure and GDP. The graph shows that the redistribution was not that significant, but its strong correlation with the GDP (0.79) displays stronger impact on growth. Interestingly, in 2014 the redistribution appears to be stronger (fig. 4.2), but correlation with GDP is weaker (0.54). The regional dynamics seem very different. All of the five poorest regions belonging to the eastern belt display the regional GDP per capita below 32.000 zl, but their expenditure varies significantly. The same situation can be observed for the three top regions (excluding Mazowieckie) Wielkopolskie, Slaskie and Dolnoslaskie. Their regional GDP per capita is almost equal but spending differs in almost 1.000 zl per capita. Analysing vertically, Dolnoslaskie and Warminsko-Mazurskie present an almost equal spending pattern, but in terms of regional GDP per capita the gap amounts to 20,000 zl.

A difficulty with testing and interpreting is that expenditure pattern is problematic to measure. However, the analysis of the type of dispersion among regions might function as a proxy to understand the equalization effect. For that reason, a wide range of indicators has been tested. The choice of indicators which can effectively show the area of disparity and the method of concentration measurement is important. Therefore, the unweighted coefficient of variation (CV) method is applied, it is unit-free and allows to compare disparities among different indicators.

In addition is commonly used among empirical researchers (Shankar and Shah, 2003; Kessler and Lessmann, 2009) and is calculated as follows:

$$CV := \frac{1}{\bar{y}} \left[1/n \sum_{i=1}^{n} (\bar{y} - y_i)^2 \right]^{1/2}$$

Where $\bar{y}$ stand for the Polish average GDP per capita, y_i is GDP of the region *i* and *n* is the number of regions.

Fig. 4.1. Subnational government expenditure per capita and regional GDP per capita in polish regions (2006). Correlation= 0.79, p-value =0.00. Source: Own calculation

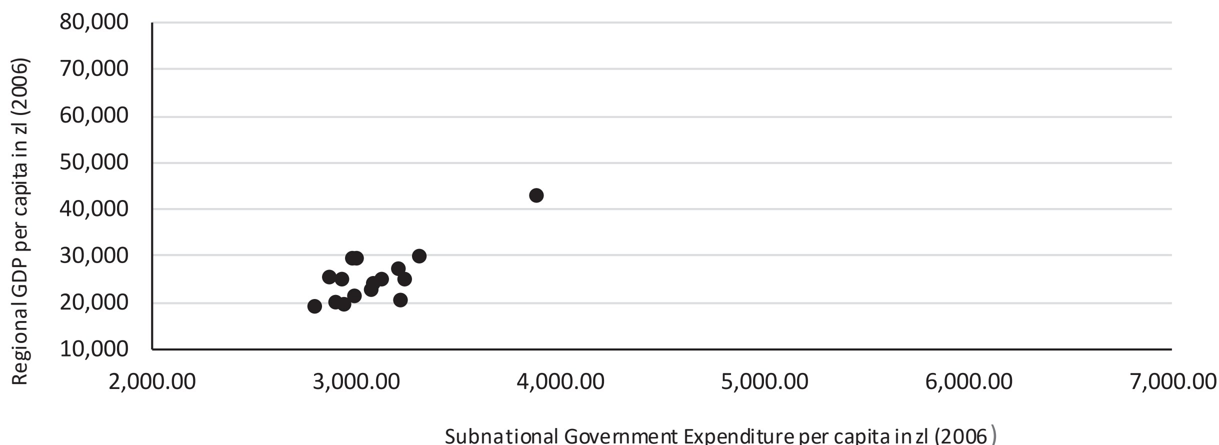
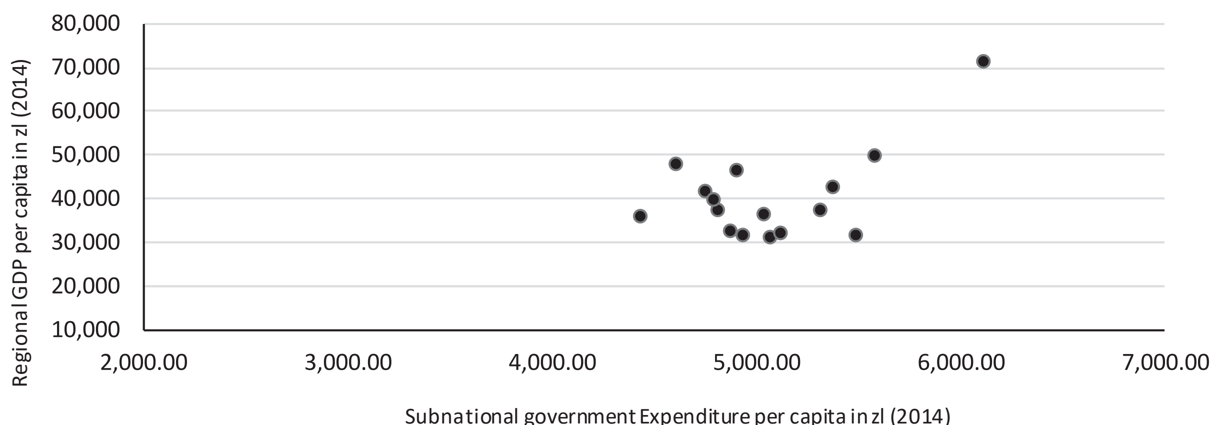


Fig. 4.2. Subnational government expenditure per capita and regional GDP per capita in polish regions (2014). Correlation= 0.54, p-value =0.05. Source: Own calculation



For this analysis, the chosen indicators should assess at least two categories of disparity: economic and social. However, an additional territorial category was added to understand the basic structure of population and access to infrastructure, which could distort the economic level of development. The assessed indicators are listed below:

1. Economic: a) economic potential (performance GDP/per capita); b) development attractiveness (Private Investment/ per capita); c) Manpower (Unemployment rate- in percent, Research and development- number of active R&D institutions per 100 thousand inhabitants)
2. Social : a) population performance (Education enrolment); b) Social Infrastructure (Social service-number of nurses per 10 thousand inhabitants, Health service-number of inhabitants per hospital bed)
3. Territorial: a) Structure of the region (Share of city inhabitants %); b) traffic infrastructure (public roads in km).

The analysis of the regional economic disparity indicates that disparity among regions' GDP per capita is growing during the period of 9 years. The disparity in unemployment rate is in decline but still not below 20%. The private investment suggests high disproportion, the decline after 2009 might be the result of lower investment within the Mazowieckie region during the economic crisis, as it rises back to 30% in 2011. However, the biggest disparity is noticed among R&D activities. The number of R&D institutions is concentrated mainly among the three wealthiest regions, referring to the regional characteristic table 4.1.

The regional social disparities are very minor, with all three indicators being below 1%. The result suggests that the basic social needs in terms of education and health care are met equally among all regions. The responsibility assigned to subnational governments to provide social equality seems to be corresponding with the outcome, suggesting that subnational government expenditure is highly focused on social injustice and leaves little room for the economic improvement. This setting might drive poorer regions into a low revenue trap and to become transfer dependent. The third category analyses the territorial differences, which could potentially affect the improvement of economic potential, attractiveness and the direction of public investment.

As shown in table 4.7, there is minor dispersion in the share of urban population. However, note that the dispersion in the stock of transport infrastructure is ranging between 41% in 2006-2008 to 39% in 2011-2014. This provides some evidence for the direction of the public investment. As earlier discussed, EU structural funds for both periods 2007-2014 and 2014-2020 prioritize infrastructure development for the operational programs. The coefficient on the public roads has dropped, but only for 2% over 9 years.

Table 4.5. Regional economic disparity. Source: Own calculations

Economic	GDP per capita (zl)		Private Investment per Capita (zl)		Unemployment Rate (%)		Research and development [a]	
	Mean	CV	Mean	CV	Mean	CV	Mean	CV
2006-2008	28,381	0.224	2,927	0.328	13.0	0.243	2.5	0.486
2009-2011	34,480	0.244	3,075	0.278	13.6	0.231	3.9	0.423
2011-2014	39,265	0.253	3,407	0.303	13.9	0.215	6.9	0.410

[a] Number of active R&D institutions per 100 thousand inhabitants

Table 4.6. Regional social disparity. Source: Own calculations

Social	Education enrolment rate (%) [a]		Health Service [b]		Social Service [c]	
	Mean	CV	Mean	CV	Mean	CV
2006-2008	100.92	0.016	220	0.099	58	0.082
2009-2011	100.12	0.017	217	0.100	61	0.095
2011-2014	98.55	0.020	208	0.085	67	0.085

[a] Secondary education, [b] Number of inhabitants per hospital bed, [c] Number of nurses per 10 thousand.

It is important to acknowledge that the transport infrastructure influences both production and consumption while it also leads to a reduction in cost and time of travel (Rietveld, 1989). Radical improvement in infrastructure without regional plan might lead to substantial redistribution of economic activity among regions. However, redistribution in this case may lead to the growth of economic activity in one region and to decline in another. Therefore, the new National Strategy for Regional Development 2010-2020 emphasised the direction of growth in a so called 'tailor-made' approach. Despite the spatial issue being included in the NSRD, the EU Partnership Agreement 2014-2020 does not directly stress the importance of development of internal regional assets (European Commission, 2014). Consequently, both policy frameworks may affect subnational investment decisions in the opposite way.

Deliberate choices for the type of investment are influenced not only by the scale of economic benefits brought by the project but also involves the enlargement of current expenditure for the operation and maintenance, which has to be taken into account. A narrow base of own revenue in subnational governments might therefore direct the investment towards projects that are less expensive to maintain. The subnational government investment policy is therefore fundamentally associated with identifying the possibilities of using sources of income for the investment but also for the asset management.

The Ministry of Finance uses an indicator to assess self-financing of subnational governments, and is identified as:

$$Si = \frac{(\mathrm{Os} + \mathrm{Ar})}{\mathrm{Aex}}\, x100$$

Where Si is self-financing (%), Os is an Operational surplus/deficit, Ar is asset revenue and Aex asset expenditure (Ministry of Finance, 2012). The higher the ratio, the lower the liquidity risk, however, high ratio may also be a result of too low level of investment in regard to the potential. In addition, asset revenues is subjected to strong fluctuations causing index value change from year to year and does not provide concrete data.

Besides above, this paper seeks to provide clarity on the use of intergovernmental transfers, therefore, the self-funding indicator was replaced by the net amount indicator, which allows to evaluate the investment capacity regardless of the source of financing. Net amount is calculated as a difference between total revenue and current expenditure[2] (Zawora and Zawora, 2014). The table 4.8 shows that in the period analysed, the ability to finance investments among the poorest regions gradually improved. In 2008, the richest region (Mazowieckie) had the highest net amount, while in 2014 the highest net amount was exhibited by the poorest region (Podlakie). Simultaneously, the expenditure shows pro-investment behaviour among the poorest regions.

To summarize this chapter, the analysis was not able to prove direct impact of income transfers on regional GDP convergence, yet it did not prove direct negative impact as a fiscal policy alone. However, one can point out, that the 5 poor regions are consistently lagging behind with their regional GDP per capita being no more than 32.000 zl in 2014. There is similarity among their own revenue base but not among their expenditure. The expenditure, however, seems not to impact regional GDP per capita in the period analysed. Yet, there is a visible impact on the size of investment. Although, the impact of the subnational government investment on the regional GDP may take substantial period of time to occur. Therefore, it is difficult to state at this point in time whether the investment was focused on strengthening endogenous factors or will develop competitive environment to other regions. The dependency on income transfers among poor regions is high, hence, it can make those subnational governments to: first, have lower fiscal discipline, second, see central government not as a partner in regional politics but as money holding bureaucrat. The coefficient of variation for social indicators demonstrates that equalizing efforts in that regard are essentially met but disparity among economic indicators are growing.

At this point some additional remarks are necessary. The theoretical model of income transfers suggests that transfer systems aim to; enable subnational governments to finance subnational service and assist in expanding their tax base. The analysis shows that poorer

Table 4.7. Regional territorial disparity. Source: Own calculations

Territorial	Share of city inhabitants (%)		Public roads (km)	
	Mean	CV	Mean	CV
2006-2008 2009-2011 2011-2014	59.33 59.07 58.72	0.173 0.170 0.170	23937.1 25051.9 25920.7	0.410 0.405 0.394

**Highlighted regions belong to the eastern belt.*

regions are pro-investment oriented, however, the type of investment may not be well ex-ante analysed and perhaps serve as a quick return rather than sustainable development. The regional policies seems to progress with time but does not necessarily specify the fiscal source for that progress.

Table 4.8. Investment capacity and investment expenditure. Source: Own calculation based on data from Central Statistical Office and Local Data Bank

	Total Revenue – Current Expenditure (zl per capita)				**Share of Investment expenditure in total expenditure (%)**		
Region*	2008 (zl)	2010(zl)	2012(zl)	2014(zl)	Average 2006-2008	Average 2012-2014	Average 2012-2014
Dolnośląskie	766.7	762.8	1132.1	994.9	21.9	24.2	19.5
Kujawsko-Pomorskie	677.1	684.5	808.6	905.7	19.4	22.8	19.3
Łódzkie	759.7	746.4	679.7	850.8	20.5	23.8	18.6
Lubelskie	608.9	658.6	858.9	1126.4	18.1	22.9	22.1
Lubuskie	568.5	715.2	591.0	874.6	19.3	25.7	14.7
Małopolskie	685.5	820.2	787.7	905.9	20.7	24.6	18.1
Mazowieckie	971.9	723.7	871.0	1159.5	22.3	21.0	17.1
Opolskie	681.1	683.7	668.0	705.4	20.6	22.9	15.1
Podkarpackie	680.4	868.4	820.2	1168.2	18.7	25.2	21.6
Podlaskie	738.5	967.0	900.5	1442.9	19.3	28.7	22.1
Pomorskie	858.8	874.2	1201.4	1186.8	21.7	25.7	21.1
Śląskie	791.2	797.8	766.7	992.0	21.7	23.1	20.5
Świętokrzyskie	745.1	895.7	873.9	942.8	18.8	26.9	21.5
Warmińsko-Mazur.	679.1	783.8	841.4	1287.7	17.3	23.9	20.7
Wielkopolskie	770.0	660.6	783.2	827.4	20.9	25.3	17.2
Zachodniopomorskie	814.4	755.5	935.1	967.3	18.9	25.0	19.5

NOTES TO CHAPTER 4

1. Autonomy of expenditure within predesigned operational programs following Lisbon Strategy (for more see: Lisbon Strategy evaluation document, 2010).

2. Current expenditure includes debt obligations, does not include asset expenditure.

5. Conclusion and policy discussion

The main contribution of this paper is the updated knowledge on the regional disparities and analysis of intergovernmental transfers in relation to regional development policies. The paper has analysed the above factors across 16 Polish regions. However, no simple answers can and nor should be extracted from this study. Intergovernmental transfer design is more often than not regarded as complex and highly politicised. The theoretical survey suggests that the fiscal arrangements, development efforts and their economic impact vary across countries. However, what does emerge from this research is that across the studied sample, intergovernmental transfers and regional strategies are fairly disconnected. Since the beginning of the transition period and decentralization process, Polish government has developed a combination of policies and instruments in an attempted to reduce the disparities between Polish regions. However, the speed of changes in regional policies does not match the outdated fiscal policies. Furthermore, the lack of synergies between progressive regional strategies and fiscal arrangements is visible in the increasingly fiscally dependent poor regions.

It can be argued, that looking at the evolution of the polish economy, the presence of significant fiscal redistribution at central level was likely to restrain negative effects of quick growth. However, over a decade after economy has opened, Polish government is still unwilling to give up sufficient fiscal autonomy to regional level. From a single point of view, greater fiscal autonomy in tax base revenue would benefit larger and richer regions. Yet, the eastern regions could use that arrangement to unleash their unexploited potential. It is also clear, that regions in the eastern belt are equally poor, regardless of their size of expenditure or size of their transfers. Moreover, the regional economic factors are growing apart.

Answering whether Poland should use an intergovernmental transfer system, from a social perspective it is highly advisable. Transfers have not allowed the revenue to fall below a certain level which would affect provision of essential services. From the economic perspective, the result can prove that the problem lies not in the transfers itself but in the inflexibility to address economic changes.

As evaluation has shown, Polish transfers has had an impact on equalizing the revenue, however the impact varied across regions and time. The volatile economic environment of economic growth and intense slowdown functioned under the same transfer design. The research forces to reflect, not surprisingly, on when the intergovernmental transfer instrument facilitated the regional growth and when it had a reversed effect. This question opens a possibility for further research, in which comprehensive analysis of economic fluctuation would be required. This study can serve as a foundation for further research, proving that in order to finance investment and stimulate economic growth, subnational governments need some stable fiscal capacity. The economic fluctuations, as proved, affect own revenue of subnational governments. Nevertheless, regional disparities and reduction of financial fluctuation, even so interconnected, are two different goals and should be treated by separate mechanisms.

Furthermore, if poor regions are strongly transfer dependent they may act with no fiscal discipline. However, if they do not have a sufficient help from the central government, that might restrain their investment spending. In the case of Poland, the narrow subnational tax capacity and transfer dependency did not influence the size of investment. But, if these subnational governments, responsibly took into account their long-term financial commitments for operation and maintenance, the transfer dependency would influence the type of investment. In this case the priority, perhaps justified, would depend on inexpensive operation and maintenance rather than on improvement of economic potential.

However, the opposite situation may also occur, exposed to a large sum of transfer (e.g. EU transfer) might lead to irresponsible spending. Overconfident projects, expensive to operate and maintain in very poor regions can drive the budget into large deficit, and if borrowing is restrained only for investment, those regions can risk simple bailout.

One main suggestion coming out of this study is the redesigning of fiscal policy, where the formula for distribution of intergovernmental transfers could be fixed periodically and give more room for flexible manoeuvre during periods of growth and recession. This arrangement would also allow the fiscal policy to adjust to regional, national or European development goals, allowing the subnational government budget capacity to synergize with their development responsibilities.

The research demonstrates that current fiscal policies are inconsistent with Polish Constitution, Regional Strategies and Cohesion Policy. To overcome inconsistency the use of temporary financial solutions has been ap-

plied, however, it impairs the subnational government ability for long term planning. This also may cause insufficient use of existing policy infrastructure, where cooperation between subnational governments and other related agencies (Ministry of Regional Development, Ministry of Finance, EU institutions) are reduced to procedures of applying for funds.

Also, the remaining bargaining for 'Robin Hood' transfers between the two contributing regions and the rest of the country also deviate from a possibly more optimal distribution. The research proves that the 5 eastern regions, regardless on the fiscal efforts, are continuously behind the rest. It should be stressed that endogenous factors might play a key role in their economic state. This eventuality was addressed by the new NSRD with its new 'tailor made' approach. It based its development strategy on internal features as a unique regional strength. Moreover, it requires the subnational governments to conduct exhaustive analysis of the development barriers. This might also minimize the regional competition.

Financial transfers in this setting should correspond with regional development efforts. The subnational governments are already politically accountable to their regional policy choice, if the transfers are designed in proper, fully transparent and uncomplicated way, there will be no need for regional competition and the concept as a whole would function in bigger solidarity and intraregional cooperation.

In bringing this paper to an end, one can claim that the current intergovernmental transfer system in Poland reflects a past economic reality that shaped them rather than the system shaped the reality. However, the economic reality is continuously changing, yet the transfer system remains the same.

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