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**Financial Aspect  
of the Challenges of Regional Policy  
in the New Programming Period**

Zeszyty Naukowe  
Wyższej Szkoły Bankowej w Poznaniu  
2015, t. 58, nr 1

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# **Aspekty finansowe wyzwań polityki regionalnej w nowym okresie programowania**

redakcja naukowa

Marek Dylewski



Wydawnictwo  
Wyższej Szkoły Bankowej w Poznaniu  
Poznań 2015

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edited by  
Marek Dylewski



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Poznan 2015

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# Introduction

The new programming period brings a lot of changes in the use of the funds of the European Union, as well as directions for new ones. It is important to look at the achievements and discuss new and important directions of financing for development.

The aim of the study was an indication of some problems related to the financing of regional development, decisions and instruments for the measurement of effects of absorption of the EU or the analysis of the consequences of their use.

The authors discuss the different issues - from very general, the solutions and the particular problems. Both trends are indicated, as well as specific solutions. The articles also made a summary of the achievements of the previous programming period. The whole problem is entered in three sections, allowing to refer to the challenges in the areas of development, the use of EU funds to broadly defined instruments and solutions in order to stimulate the development of enterprises and institutions in the regions.

The authors are aware that the limited volume and nature of the material cause signaled only a modest part of such important problems related to the financing of regional development, experiences in the use of EU funds, as well as challenges in the new EU perspective. However, I hope that the issues presented will inspire further discussion and research.

*Prof. nadzw. dr hab. Marek Dylewski*



# **Challenges in regional financing and development**



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## **Local government as a beneficiary of EU aid funds – Key challenges for the 2014-2020 Financial Perspective**

***Abstract.** In the context of the new 2014-2020 financial and planning perspective of the EU, the local government in Poland is faced with yet another difficult test of absorption. The aim of this study is not only to show the impact of EU funds on the local finance system in Poland, but also to identify the key challenges that determine the absorption capacity of the LGUs as the beneficiaries of European funds in the new programming period.*

***Keywords:** local government, new EU financial perspective, local finances, absorption capacity*

### **Introduction**

The Local Government Units (LGUs) are, next to businesses, the most important category of beneficiaries of EU aid funds in Poland. The new Financial Perspective for the years 2014-2020 is also the period of new challenges for the local government beneficiaries. All indications are that it will be more difficult than the previous perspective, especially in the context of the local government finances. The aim of this study is not only to show the impact of EU funds on the local finance system in Poland (the end of the previous perspective and the start the new one seems to be a good time to perform such analyzes), but also to identify the key challenges that determine the absorption capacity of the LGUs as the beneficiaries of European funds in the new programming period.

## **1. The local government as a beneficiary of EU funds in the period of 2007-2014**

In the previous financial perspective,<sup>1</sup> i.e. during the period of 2007-2013, the total allocation for the Polish policy of cohesion totaled 67 billion EUR (in comparison, in the period 2004-2006, it was only 9 billion EUR), and as the key sources of funding for the local government investment projects should be considered the European Regional Development Fund – ERDF, the European Social Fund – ESF and the non-structural Cohesion Fund – CF.<sup>2</sup> The Polish LGUs could also apply for the EU funds through the so-called financial mechanisms, i.e. EEA Financial Mechanism and the Norwegian Financial Mechanism – popularly known as the Norwegian funds whose purpose is to finance selected thematic areas relevant to the EU member states. In the 2007-2013 financial perspective was also introduced the possibility for the LGUs to utilize the so-called Financial Engineering Instruments. For example, JESSICA – an instrument designed for local government units for the revitalization of deprived urban areas.

In 2007-2013, the LGUs received more than 76 billion PLN in funding through a number of operational programs.<sup>3</sup> The local government received most of the funds under the 16 Regional Operational Programmes (over 60% of all funded projects), and subsequently in the Operational Programme Infrastructure and Environment (more than 30% of the total value of the projects). The remainder of the total value of co-financed projects (approx. 10%) was associated with programs such as: the Operational Programme Innovative Economy, the Operational Programme Development of Eastern Poland, the Operational Programme of the European Territorial Cooperation, the Operational Programme Technical Assistance.

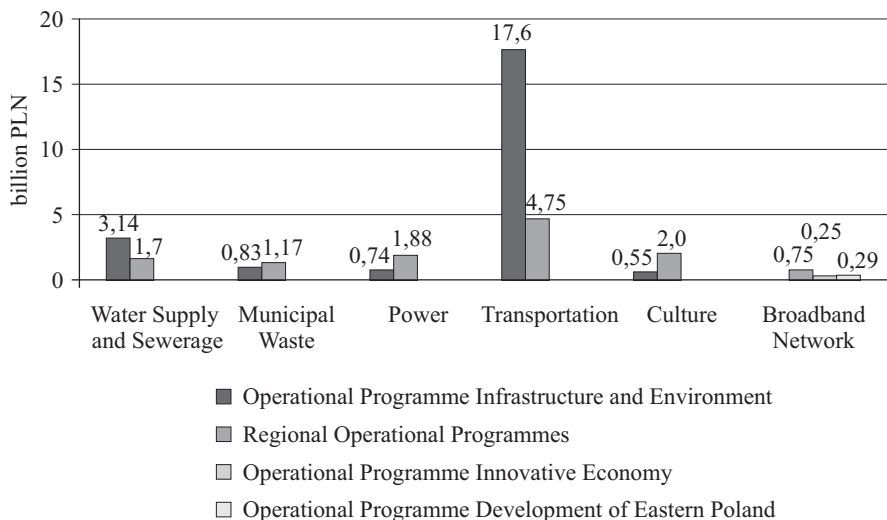
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<sup>1</sup> The EU has a 7-year budget planning cycle, called the programming period or financial perspective. The previous perspective covered the period of 2007-2013, while the current one (often referred to as the new perspective) covers the years of 2014-2020. Within the framework of the financial perspectives, funds are awarded to individual states, which then are issued under the so-called Operational Programs.

<sup>2</sup> In the case of rural communities, of importance were European funds related to the Common Agricultural Policy, i.e. the European Agricultural Fund for Rural Development – EAFRD, and the European Maritime and Fisheries Fund – EMFF.

<sup>3</sup> The Operational Programs are the key documents/planning instruments on the basis of which is effected the management of the Structural Funds, the Cohesion Fund and the other instruments of development nature. They set out the development strategy with a coherent set of priorities to be achieved with the help of a given fund, as well as the details of financial allocation. The operational programs may take the form of national operational programs and regional operational programs. Projects under the national operational programs are drawn up by the Minister of Infrastructure and Development in cooperation with other ministries, and regional operational programs are prepared by the management of province in collaboration with the Ministry of Infrastructure and Development.

Figure 1. Areas of support of the LGUs from EU aid funds in the period of 2007-2013 (in billion PLN)



Source: S. Żółciński, *Rola funduszy unijnych w finansowaniu jednostek samorządu terytorialnego w latach 2014-2020*, Crido Taxand, Warszawa 2013, p. 5.

From the data presented in Figure 1 it shows that, in the analyzed period, predominant were local government projects associated with the issues of transport and water and sewage infrastructure.

## 2. The selected aspects of local finance in the context of the absorption of EU funds in 2007-2013

EU aid funds play an important role as a factor affecting the individual components of the system of local finance. This applies not only to the revenue and expenditure of the LGUs, but also the budgetary performance, as well as debt.

Table 1 shows how, in the previous financial perspective, developed the local government revenues and expenditures related to the financing and co-financing of programs and projects implemented by the Structural Funds and the Cohesion Fund of the EU, as well as other non-reimbursable funds, which originated in the budget of the European funds.

From the data in Table 1 it shows that, throughout the period of the previous financial perspective, the size of the analyzed income across all the LGUs totaled nearly 70 billion PLN, and the percentage of this category of revenue in relation to total local government revenue increased from 5.0% in 2007 r. to

Table 1. The revenue and expenditure of local government units for projects and programs implemented with the participation of the EU in particular years of the financial perspective 2007-2013

Specification	2007	2008	2009	2010	2011	2012	2013
Budgetary revenue of local government units in total, including:	131 380.2	142 569.0	154 842.5	162 796.6	171 309.1	177 413.5	183 454.3
Revenue of LGUs for the implementation of projects and programs involving EU funds, including:	6 622.1	5 447.9	14 548.1	13 793.4	16 344.9	17 078.4	16 012.9
municipalities	1 702.4	1 200.4	2 016.2	5 069.1	6 458.8	5 873.0	4 359.5
districts	677.9	323	926.8	2 092.9	1 842.5	1 341.3	1 257.9
city districts	2 238.6	1 737.3	2 001.5	2 945.6	3 591.7	5 524.4	5 000.5
provinces	2 003.3	2 187.2	9 563.6	3 685.7	4 451.9	4 339.6	5 395.0
Budgetary expenditures of LGUs in total including:	129 113.1	145 182.6	167 828.2	177 766.2	181 594.7	180 459.3	183 838.6
Expenditures of LGUs for the implementation of projects and programs involving EU funds, including:	8 340.4	6 648.8	17 638.8	20 975.4	24 046.2	20 658.3	20 060.3
municipalities	2 049.4	1 561.5	3 524.8	9 211.5	9 634.5	7 138.5	6 002.6
districts	717.0	334.1	1 428.8	2 755.9	2 326.8	1 397.6	1 323.6
city districts	3 219.3	2 456.6	3 016.9	4 852.9	6 595.9	7 140.0	6 663.0
provinces	2 354.8	1 905.0	9 668.2	4 155.2	5 488.9	4 982.3	6 071.1

Source: own study based on information of the Ministry of Finance on the implementation of the budgets of local government units for the years 2007-2013.



8.7% in 2013. The highest, average for all the LGUs, share of the analyzed revenue in total occurred in 2012 (9.9%), the lowest – in 2008. (3.8%). At this point, a brief comment also needs to be made concerning the high value of the analyzed revenue for the provinces recorded in 2009 as illustrated in Table 1. As a matter of fact, it was associated with the so-called Development Grant, passed on at that time to the provincial government, which, however, was abolished in 2010.<sup>4</sup>

In turn, the total size of local government expenditures related to projects and programs implemented with the participation of the EU in the period amounted to about 90 billion PLN, and the percentage of this category of expenditure in relation to local government total expenditure increased from 6.5% to 10.9%. By far the biggest beneficiary of the EU aid funds have proven to be the provincial governments (“EU revenue” in 2007-2013 of more than 24.2 billion PLN) and municipalities (20.6 billion PLN), followed by city districts (18 billion PLN). The lowest revenue related to projects and programs implemented with the participation of the EU funds concerned districts (7.2 billion PLN). In turn, the highest, the total budgetary expenditures associated with it, during the analysed period, were carried by municipalities (31.1 billion PLN), followed by provinces (26.2 billion PLN), city districts (24.1 billion PLN), while the lowest – by the districts (approx. 9 billion PLN).

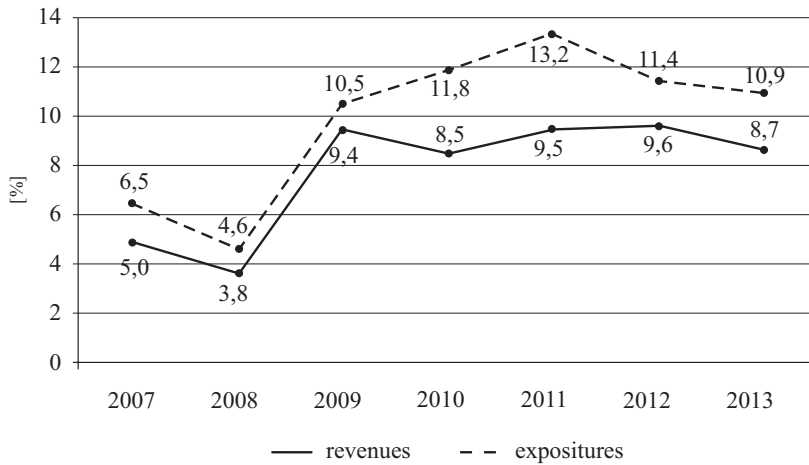
The comparison of the revenues and expenditures included in Table 1 in each year allows for an estimation of the deficit relating to the implementation of local government projects and programs implemented with the participation of the EU funds (the scale of disparities in this respect is also illustrated by the data shown in Figure 2). The conducted comparison shows that the highest deficits, as related to the predominance of expenditures over revenues for the size of the projects and programs implemented by the local government with the participation of EU funds, were recorded in 2010 (7.2 billion PLN) and 2011 (7.7 billion PLN).

It should be noted that, at the same time, those were the years of the biggest investment effort of the local government in Poland. The years 2009-2011, in particular, have proved to be record high in that respect. Illustrated in Figure 3, a kind of “deceleration” of local investment activity has undoubtedly its “EU context” and derives, *inter alia*, from the fact of entry by the Polish local government units in the final phase of the 2007-2013 financial perspective, and thereby the

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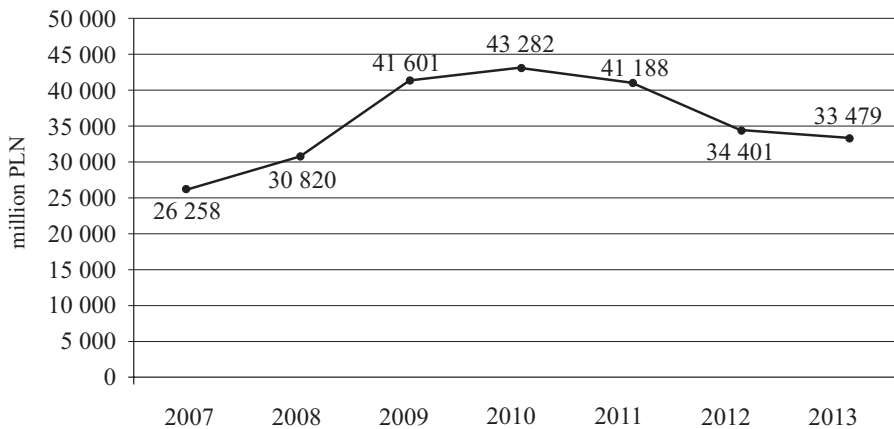
<sup>4</sup> It should be noted that, since 1 January 2010, Poland has a new system of payment for EU the funds, which directly translates into the principle of absorption of these funds by the LGUs as the beneficiaries. The main changes compared to the previously existing solutions are the following: an isolation of the European funds budget within the state budget, the aforementioned liquidation Development Grant as a form of payment and an introduction of the principle that the beneficiary being the local government receives funds for co-financing from two sources: in the form of payments made by the Bank of National Economy [Bank Gospodarstwa Krajowego] and in the form of special purpose grants from the national budget.

Figure 2. Budgetary revenues and expenditures related to the projects and programs implemented with the participation of the EU as a percentage of revenues and expenditures in total of the local governments in 2007-2013



Source: like in Table 1.

Figure 3. The local government investment expenditures in years 2007-2013 (in million PLN)



Source: like in Table 1.

temporary “depletion” of the EU aid funds allocated to the financing of local and regional investment. Of course, not without significance in this regard were also other factors, such as the economic slowdown, resulting in lower than expected

revenue own local government, as well as exacerbation, effective of 2014. of the formal and legal limits of local government debt and the need to adjust the scale of the local government's investment activity to the size of the so-called Individual Debt Indicators (IDI).

This "context of the EU" is also apparent in the analysis of trends in changes in local government debt in 2007-2013 (Table 2). The presented data show that the debt indicator participation in the EU projects and programs in the analyzed period more than doubled, from 7.1% in 2008 to 14.8% in 2013. The explanation of this phenomenon seems to be relatively simple: given the limited LGUs' own funds, the debt instruments (credits, loans, income from issue of municipal bonds) find wider use as instruments to increase the absorption capacity<sup>5</sup> of the local government. This is due to one of the key principles of the EU structural policy, i.e. the principle of co-financing.

Table 2. The LGUs debt for programs and projects co-financed from the EU funds in the period of 2007-2013

Specification	2007	2008	2009	2010	2011	2012	2013
Debt of the local government units (in million PLN)	25 876	28 775	40 294	55 094	65 756	67 835	69 159
The LGUs debt for programs and projects of the EU (in million PLN)	2 375	2 055	2 422	4 951	6 958	6 435	10 214
The share of local government debt for programs and projects of the EU in total debt (in %)	9.2	7.1	6.0	9.0	10.6	9.5	14.8

Source: like in Table 1.

From the data in Table 2 it shows that the share of the debt associated with the projects implemented by the local governments, co-financed by EU funds, in the total debt of local government units is relatively small (9.5% – the average rate for the years 2007-2013). However, what should be emphasized is the high dynamics of growth of the local government "EU" debt. In the analyzed period, the amount

<sup>5</sup> The concept of absorption capacity is understood as the ability of a local government to make an effective use of external funds being, in this case, the EU funds. One can highlight a few aspects/dimensions of this ability like, for example, administration (associated with knowledge, competences and skills of the local administrative staff in effectively applying for aid from the EU); financial (related to the financial situation of the local government, not only in the context of the possibility of providing the so-called own contribution by the beneficiary local government, but also the optimal use of certain financial instruments in this respect); structure (associated with the skillful use of EU funds to the objectives and priorities in line with the LGU development strategy). More on this subject in: A. Wojtach, *Uwarunkowania zdolności absorpcyjnej funduszy unijnych w administracji publicznej*, "Zarządzanie i Finanse" 2012, No. 3(1), pp. 432-433.

of local government debt in respect of the implementation of programs and projects co-financed from the EU increased more than fourfold.

### 3. New conditions concerning the local government beneficiaries in the financial perspective 2014-2020

The year 2014 is the beginning of the new financial perspective for the structural policies of the EU, covering the period of 2014-2020. The implementation of the European Funds in the period of 2014-2020 is based on a number of documents prepared both by the EU and individual Member States.<sup>6</sup> These include, among others, the Partnership Agreement,<sup>7</sup> Operational Programs (to be mentioned further below) and the programs under the European Territorial Cooperation (ETC).<sup>8</sup> The content and scope of the most important assumptions of the mentioned documents, in turn, result from two key strategies, i.e. the EU – Europe 2020<sup>9</sup> and the domestic National Development Strategy for 2020.<sup>10</sup> From the point of view of the local government the relevant documents are also the so-called Territorial Contracts.<sup>11</sup>

In accordance with the Multiannual Financial Framework for 2014-2020,<sup>12</sup> the total allocation for the Polish politics of cohesiveness will be in the amount of 82.5 billion EUR, thus it will be the largest among all the EU Member States. In

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<sup>6</sup> More on this subject in: *Jednostki samorządu terytorialnego jako beneficjenci środków europejskich*, ed. E. Kornberger-Sokołowska, Wolters Kluwer Polska, Warszawa 2012, pp. 112-142.

<sup>7</sup> Programowanie perspektywy finansowej 2014-2020 – umowa partnerstwa [Programming the financial perspective 2014-2020 – The Partnership Agreement], Ministerstwo Rozwoju i Infrastruktury, Warszawa 2014.

<sup>8</sup> In the 2014-2020 financial perspective are provided to implement, with the Polish participation, the following three programs associated with the ETC: The Republic of Poland – The Slovak Republic, Poland – Saxony and the Czech Republic – The Republic of Poland. Documents in this area have been submitted to the European Commission by the Polish side in September 2014. The Commission has three months to assess their conformity with the EU law.

<sup>9</sup> Europe 2020: A strategy for smart, sustainable and inclusive growth, COM(2010) 2020, final version, Brussels, 3.03.2010.

<sup>10</sup> Strategia Rozwoju Kraju 2020 [The National Development Strategy 2020], Ministerstwo Rozwoju Regionalnego, Warszawa 2012.

<sup>11</sup> The Territorial Contract is a document, developed through negotiations between the government and the local government at the provincial level. It is kind of an instrument of project reconciliation between the government and the local government of each province in Poland, specifying the scope of support from the European funds, taking into account the specificities of each region. At the time of this study (September 2014), the Council of Ministers has adopted a resolution approving the Territorial Contracts for the two provinces: Podlaskie and Silesian. Subsequently, there were about to be signed the Territorial Contracts with the other provinces.

<sup>12</sup> Council Regulation (EU, Euratom) No. 1311/2013 of 2 December 2013. Laying down the multiannual financial framework for 2014-2020, “EU Official Journal” L 347/884.

addition, 32 billion EUR will be allocated to Poland for the implementation of the so-called Common Agricultural Policy. The financing funds remain the same as in the previous financial perspective (the European Regional Development Fund – ERDF, the European Social Fund – ESF, the Cohesion Fund – CF, the European Agricultural Fund for Rural Development – EAFRD and the European Maritime and Fisheries Fund – EMFF). Most of the funds will go to the local governments through the Regional Operational Programmes (total budget of the new financial perspective totals 31.3 billion EUR). The next largest allocation of the funds goes to the Operational Programme Infrastructure and Environment (27.4 billion EUR). Other programs include: OP Intelligent Development – 8.6 billion EUR, OP Knowledge, Education, Development – 4.7 billion EUR, OP Eastern Poland – 2.0 billion EUR, OP Digital Poland – 2.2 billion EUR, Technical Support – 0.7 billion EUR.<sup>13</sup>

Like the previous financial perspective, the most important from the point of view of the local government of the beneficiary are the Regional Operational Programmes. Planned under the framework thereof, the overall level of the resource allocation for 2014-2020 is varied for individual provinces and is as follows: Lower Silesia – 2.3 billion EUR, Kuyavian-Pomeranian – 1.9 billion EUR, Lublin – 2.2 billion EUR, Lubusz – 0.9 billion EUR, Łódź – 2.3 billion EUR, Lesser Poland – 2.9 billion EUR, Masovian – 2.1 billion EUR, Opole – 0.9 billion EUR, Subcarpathian – 2.1 billion EUR, Podlaskie – 1.2 billion EUR, Pomeranian – 1.9 billion EUR, Silesian – 3.5 billion EUR, Świętokrzyskie – 1.4 billion EUR, Warmian-Masurian – 1.7 billion EUR, Greater Poland – 2.4 billion EUR, West Pomerania – 1.6 billion EUR.<sup>14</sup>

#### **4. Key challenges of determining the absorption capacity of the local governments as the beneficiary of the European funds in the new financial perspective**

The presented considerations and the data point to the fact that the new financial perspective not only did not decrease, but actually increase the role of the local government as the beneficiary of EU funds. The Polish local governments will manage a larger pool of European funds. This is due to, among others, the decentralization of the management of structural measures, including increasing the share of the European Regional Development Fund (ERDF) in the regional operational programs to 55.6% in 2014-2020 (in the previous financial perspective, this Figure was 49.7%) and increasing the share of the regional component

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<sup>13</sup> Programowanie perspektywy finansowej 2014-2020..., p. 158.

<sup>14</sup> Ibidem, p. 168.

of the European Social Fund (ESF) to approx. 68% of the total allocation for this fund.<sup>15</sup> As a result, while in 2007-2013 the provinces managed about 25% of the total allocation, in the new perspective, their participation in the allocation will increase to about 40%.

The LGUs activity associated with the implementation of projects and programs co-financed from EU funds in 2014-2020 will be mainly affected by several important factors.

First, crucially important to the future level of activity of the local governments as the local government beneficiaries will be their ability to provide the above-mentioned own contribution required in the absorption of EU funds. According to estimates by Jacek Sierak and Michał Bitner, the projected total own contribution of the LGUs, as necessary to ensure the co-financing of EU projects, is approx. 60.6 billion PLN (estimates the total of EU funds provided for the local governments in the period 2014-2020 amount to 107.2 billion PLN).<sup>16</sup>

Second, essential to this effect can be the operating results achieved by individual local governments and, in particular, the ability these units to generate operational surplus. This is a category that indicates whether the local government is able to cover its current expenses with current revenue and, additionally, has a surplus of funds. The principle is simple: the higher the operating surplus, the greater the ability of the local government to pay its financial obligations and to implement new investment programs, including those co-financed from EU funds. This principle has found its formal and legal dimension in the new local debt limits which take effect for the LGUs since 2014, i.e. in the so-called Individual Debt indicators (IDI) defined in Art. 243 of the Law on Public Finance.<sup>17</sup> According to the latest information from the Ministry of Finance,<sup>18</sup> the Polish LGUs increasingly improve their fulfillment of the criteria related to the new debt limit. It should be taken into account that these are estimates based on the provisions of the Multiannual Financial Projections (MFPs), and the realism of these documents leaves much to be desired.

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<sup>15</sup> Ibidem, p. 102.

<sup>16</sup> J. Sierak, M. Bitner, A. Gałązka, R. Górniak, *Oszacowanie środków niezbędnych do zapewnienia krajowego wkładu publicznego do projektów realizowanych w ramach średniookresowych ram finansowych 2014-2020. Raport z przeprowadzonych badań*, Ministerstwo Rozwoju Regionalnego, Warszawa 2013, p. 9.

<sup>17</sup> Ustawa z dnia 27 sierpnia 2009 r. o finansach publicznych, Dz.U. 2013, poz. 885 [The Act of 27 August 2009 on Public Finance, Journal of Laws 2013, item 885].

<sup>18</sup> While this year, the rigors of Art. 243 of the Public Finance Act are not met by the 55 LGUs, the Ministry of Finance estimates that, in 2015, the number of such units will fall down to 38 units, in 2016 – down to 28, in 2017 – down to 19 (data as of May 2014). Cf. *55 JST ma problem z limitem zadłużenia, ale sytuacja poprawi się*, [www.portalsamorzadowy.pl/prawo-i-finance/nowy-limit-zadluzenia-samorzadom-nie-straszny,60002.html](http://www.portalsamorzadowy.pl/prawo-i-finance/nowy-limit-zadluzenia-samorzadom-nie-straszny,60002.html) [25.09.2014].

Third, the activity of the local governments as the local government beneficiaries will be significantly influenced by issues related to the skillful use by local governments of other instruments than the grant facilities. The novelty in EU structural policy addressed to the LGUs is a wider use of financial engineering instruments, i.e. repayable financial instruments treated as an alternative to the dominant financial perspective 2007-2013 subsidy funding of the beneficiaries in the form of grants. This trend can be interpreted as the right direction even in the context of the need to increase the efficiency of absorption of the EU funds in the local government subsector. The financial engineering instruments are characterized by the attribute of sustainability for successive beneficiaries. Received by the local government, funds must be returned, and thus can be redistributed to the next beneficiary local governments. Multiple, i.e. revolving use of instruments provides for their higher efficiency. In the case of the local government sector, the following areas are particularly predetermined to use these instruments: urban regeneration, sustainable urban transport, local development, energy, development of broadband network etc.<sup>19</sup>

Fourth, an important determinant of the activity of local government units as the local government beneficiaries in the new financial perspective will be the ability of these entities to enter partnerships necessary for the implementation of two new structural policy instruments of the EU, i.e. the Integrated Territorial Investments (ITIs) and the Community Led Local Development (CLLD). Through the ITIs, part of the intervention of any of the ROP will be dedicated to the regional cities and their functional areas supported by ERDF and ESF funds. In turn, CLLD is a specific tool for use at the subregional level, led by local action groups, permitting an integrated use of multiple funds in order to implement integrated and multi-sectoral local development strategies. A question arises whether the Polish local governments are sufficiently prepared to enter into such partnerships? The ITIs can become a source of some conflict because, in a certain way, they promote a hierarchy model. The main “actors” in the cooperation model are large cities, and yet, according to the main principle of the creation of local government units, i.e. the principle of subsidiarity, any hierarchy is excluded and contradicts the idea of self-governance.

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<sup>19</sup> More on the return of financial instruments in the following publications: *Mechanizmy inżynierii finansowej w podnoszeniu efektywności absorpcji środków UE i ich znaczenie w polityce spójności po 2013 roku*, Instytut Badań nad Gospodarką Rynkową, Gdańsk 2010; A. Kamiński, *Uwagi do wykorzystania instrumentów zwrotnych w samorządach*, in: *Zwrotne instrumenty finansowe w procesie stymulowania rozwoju regionalnego*, ed. A. Alińska, Szkoła Główna Handlowa, Warszawa 2013, pp. 68-73; J. Szolno-Koguc, M. Twarowska, *Przesłanki i zalety stosowania instrumentów pozadotacyjnych w finansowaniu inwestycji j.s.t.*, in: *Zwrotne instrumenty finansowe...*, pp. 193-205.

Fifth, the investment activity of the LGUs in the new financial perspective will undoubtedly affect the ability of the EU funding for local government infrastructure projects in the public-private partnership (PPP).<sup>20</sup> So far, this model is of marginal use in the Polish local government sub-sector.<sup>21</sup> The more difficult it is to find, in the analyzed sub-sector, implementation examples of PPP in the process of absorption of EU funds. As one of the few in this area can be considered the project to build a waste incinerator in Poznań, which was considered the best pioneering PPP project in the world in 2013. It won a prestigious Partnership Awards prize in London.

## Conclusions

In the context of the just starting new financial and planning perspective of the EU concerning the years 2014-2020, the local government in Poland is faced with yet another difficult absorption test. Firstly, it is the local government that is clearly weakened by the effects of the many years of the global socio-economic crisis and, consequently, the local government with a less efficient system of local finance, translating to the limited capacity of absorption. Secondly, the new perspective also involves new, previously unknown to the local government decision-makers, conditions and fundraising instruments (e.g., the financial engineering instruments or new instruments *strictly* addressed to local communities, such as integrated territorial investments or the community led local development). Local authorities wishing to effectively use the EU aid funds will have to meet these challenges. What is needed is an integrated and well thought out policy of absorption, thus a policy taking into account the individual financial situation of a local government and, at the same time, a policy optimally adapted to the priorities and objectives of the local development strategy. No trick is needed to spend the EU

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<sup>20</sup> Ustawa z dnia 11 lipca 2014 r. o zasadach realizacji programów w zakresie polityki spójności finansowanych w perspektywie finansowej 2014-2020, Dz.U. poz. 1146 [The Act of 11 July 2014 on the principles of implementation of cohesion policy programs financed in the 2014-2020 financial perspective, Journal of Laws, item 1146] introduced a new category of the so-called hybrid project, i.e. project pertaining to infrastructure investments, implemented jointly by the public (e.g., LGUs) and private entities following the PPP formula and co-financed from EU funds.

<sup>21</sup> According to the Ministry of Economy, in the period from 1.01.2009 to 30.09.2013, the number of all announced proceedings, planned for implementation with private partners, amounted to 277, with the participation rate of proceedings ended with the conclusion of a contract stood at just 21%. This means that only every fifth proceeding ended successfully. This pertained to 58 cases (1 – in 2009, 15 – in 2010, 18 – in 2011, 15 – in 2012, and 9 – in the period from January to September 2013). Cf. *Raport rynku PPP. Ocena obecnego stanu i perspektyw zaangażowania sektora publicznego i prywatnego w rozwój partnerstwa publiczno-prywatnego w Polsce*, prepared for the Ministry of Economy by the Foundation Institute for Public-Private Partnerships and Business Advisory Law Firm Cieslak and Kordasiewicz, Warszawa 2013, p. 16.



aid funds as soon and as much as possible to accidentally defined objectives (unfortunately many local decision makers are inclined towards such a strategy) but the trick is to spend these funds as efficiently as possible.

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## **Samorząd terytorialny jako beneficjent środków pomocowych Unii Europejskiej – kluczowe wyzwania dotyczące perspektywy finansowej 2014-2020**

**Streszczenie.** *W kontekście właśnie rozpoczynającej się nowej perspektywy finansowej i planistycznej UE dotyczącej lat 2014-2020, samorząd terytorialny w Polsce staje przed kolejnym trudnym testem absorpcji. Celem niniejszego opracowania jest nie tylko ukazanie wpływu funduszy unijnych na system polskich finansów lokalnych, ale również identyfikacja kluczowych wyzwań determinujących zdolności absorpcyjne JST jako beneficjentów funduszy europejskich w nowym okresie programowania.*

**Słowa kluczowe:** *samorząd terytorialny, nowa perspektywa finansowa UE, finanse lokalne, zdolność absorpcyjna*

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## **The role of banks in forming sustainable local and regional development**

***Abstract.** This paper identifies banks as important entities that directly and indirectly influence the shape of socio-economic order on a local and regional scale. The author postulates redefining of the ancillary role of banking (in respect to commercial banks) and a broader interpretation of this role. The paper aims to present the potential for increasing the usefulness of the banking sector in building socio-economic order in line with sustainable development principles.*

***Keywords:** regional banks, the role of banks*

### **Introduction**

This paper, mainly of normative, rather than empirical and explorative character, addresses the role of banks (especially the commercial ones) in promotion and support of sustainable development on local and regional scale.

Counterbalancing the increasing polarisation of individuals in relation to material wealth (pauperisation of poor vs. expanding wealth of the rich), social strata and whole local communities (the mounting problem of social exclusion), economic entities (disproportions in the potential of SMBs vs. large corporations), and economic disparities on local, regional and even national scale is a challenge faced by various public and legal organizations of the socioeconomic sphere. The task of counterbalancing the increase of these unfavourable phenomena resulting from inevitable globalization processes and manifested in every dimension

of our civilization (i.e. material, social, cultural and spiritual) must be addressed by entities of the private sector. This applies to companies operating both in real economy and that of financial services. Of the latter, substantial role must be played by banks. Why? To put it in the most concise form – because the banks (banking sector) are perceived as “motor forces behind socioeconomic growth and development” (on all scales: local, regional, national and global), a “bloodstream,” “heart,” “barometer” and “mirror” of economy. The significance of banks is recognized and acknowledged both in the science of economics (through dynamic development of banking as a distinct field of economics) and in practical application, through a range of banking privileges conferred to the sector. Those privileges (normative ability to create money, and a set of other privileges resulting from banking law), as well as the significance of banking sector within the financial sector of economy,<sup>1</sup> predestine the banks and morally oblige them to initiate, organize and actively participate in effecting changes in operation of socioeconomic entities. Consequently, they should also be required to persistently demonstrate their usefulness in shaping the social, economic and spatial order of their immediate surrounding, at least on local scale (in case of small banks of local significance), and on regional, national and international scale in the case of large banking entities. Such demonstrations are a tangible manifestation of banks’ ancillary function.

The duty of organizing spatial, social and economic order in line with the concept of sustainable development lies directly in the hands of public sphere institutions, especially those of the territorial self-government. Banks, as the most important financial intermediaries, can offer their support to self-government in fulfilling this function, either directly, or indirectly. This paper aims at proposing such forms of potential direct and indirect involvement of banks in support of self-governmental actions directed at shaping the socioeconomic order, in line with the concept of sustainable development. The author hopes that information presented herein will offer theoretical, cognitive and pragmatic insight, as well as inspiration for self-governmental institutions and banks in expanding and improving future cooperation in this respect.

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<sup>1</sup> The present perception of the European banking sector (including Polish banks) is similar. Banks play a key role in mobilizing domestic savings and capital allocation. This is particularly valid in relation to the countries of continental Europe, with considerably lower participation of other elements of the financial sector (capital market in particular), compared with Anglo-Saxon financial system. This remains true despite the current trend of boosting the significance of capital markets in capital acquisition and allocation, as well as the growing importance of investment funds as savings instruments – both tendencies decrease the relative importance of banking industry. See: J.K. Solarz, *System bankowy w Polsce w perspektywie porównawczej*, in: *Bankowość na świecie i w Polsce. Stan obecny i tendencje rozwojowe*, ed. L. Orężak, B. Pietrzak, INW Olympos, Warszawa 2001.

## **1. Theoretical and practical dimension of banks' ancillary role in shaping socioeconomic order on local/regional scale**

The most basic function, one most typically associated with banks, is the banking service. To justify their operation and privileges (due to certain social costs involved), banks should primarily focus on provision of banking services for the common (social) and own profit, by no means concentrating solely on the latter. This statement is especially binding for banks operating in the form of private joint-stock companies, as opposed to banking cooperatives that, by definition, should direct their profits to integration and further development (notwithstanding the impending universalization of the cooperatives, with the mounting tendency to commercialise cooperative banking). This, in effect, means that banks have two equally important roles to fulfil: ancillary and individual (i.e. acting for the benefit of the society vs. satisfying the interests of shareholders). In most general terms, bank's ancillary role involves support offered to various entities of the real and social sphere of economy (companies, households, self-government institutions, non-profit organizations), in the form of manipulating the flow of finances in such a way that is most suitable for realization of the entities' tasks. At the same time, the support should be offered mainly through the use of banking instruments. The ancillary role is associated with "the common good," a notion that can be described in a variety of ways, e.g. through the teachings of the Catholic Social Doctrine CSD<sup>2</sup> (seemingly, the most inclusive one, though not necessarily of universal appeal, especially from a non-catholic perspective) or the idea of company's social responsibility (which, to a great extent, coincides with CSD). Literature on the subject tends to favour the latter idea of social responsibility, according to which the companies are an integral part of the society as a whole, and as such are responsible for maintaining their relations with other groups of interest on equal terms. The main areas of responsibility for any company, including one of the banking sector, are as follows: human rights, work conditions, equality and diversity, consumer protection, impact on environment and health, economic development, business ethics, lobbying and political influence, company role in conflict zones.<sup>3</sup>

Thus defined, the ancillary role of banks, i.e. offering support to banking customers in rationalizing their financial flows with due observance of sustainable development and social responsibilities principles, becomes a challenge, since for

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<sup>2</sup> I. Celary, *Czym jest katolicka nauka społeczna*, in: *Spotkania z nauczaniem Jana Pawła II w Akademii Ekonomicznej w Katowicach*, ed. G. Polok, Wyd. Akademii Ekonomicznej w Katowicach, Katowice 2005.

<sup>3</sup> T. Swift, S. Zadek, *Corporate Responsibility and the Competitive Advantage of nations*, The Copenhagen Centre & Account Ability, Copenhagen 2002.

most banks, pre-eminence of financial profit over social influence is still valid (dominance of commercial role over ancillary one). Moreover, as demonstrated in a research of Polish institutions, banks are not perceived as a socially responsible partner. This perception is maintained despite the fact that both in annual banking reports and reports promoting best sustainable development practices,<sup>4</sup> one can find some evidence of such positive attitude. This suggests the need for promotion of corporate social responsibility, as well as the postulate for banks to respect the idea in relation to their ancillary role, and – most of all – propagation of the ways to communicate the idea outside of the banking institutions.

In the context of the leading subject of this paper, the task of carrying out the ancillary role can be related to three aspects:

- indirect influence through self-government institutions as banking customers, i.e. through services and products offered and projects managed,
- indirect influence through provision of information to the market – in line with the signalling theory, markets react positively to those self-government institutions that are capable of receiving bank credits,
- direct social influence – employee relations, choice of partners (including self-government entities and specific members of local community, charity and sponsorship activities, educational activities that promote sustainable socioeconomic development.

## **2. Indirect influence through self-government institutions and local SMB companies, and through provision of information to the market**

Bank – being a financial intermediary – influences the socioeconomic order mostly through its customers, regardless of the actual consumer segment they represent (individuals, small and medium-sized business entities, large companies and institutions, self-government entities). This influence is channelled via financial products on offer, services (such as banking consultancy), and projects managed. Through these channels, banks can mobilize savings (from local/national market), and, by transforming their maturity and risk, allocate them to the economy, offering a mechanism for payments and settlements for the economic turnover.

The most common example of indirect influence comes in the form of financing corporate, self-government and individual customers: by providing credits and loans, banks allow them the opportunity to implement strategies, fulfil needs,

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<sup>4</sup> See reports published annually by Forum for Responsibility in Business [Forum Odpowiedzialnego Biznesu], [www.odpowiedzialnybiznes.pl](http://www.odpowiedzialnybiznes.pl) [10.12.2014].

accomplish tasks. In the light of the growing need to counterbalance disproportions in development between local/regional economies as well as extent and consequences of social exclusion, most notable is the banks' participation in the EU regional policy. Polish banks have joined the process of EU regional projects management by preparing and constantly extending their product offer. Banking portfolio in this respect, apart from (profitable) settlement products, includes a range of credit/loan products, such as project co-financing and pre-financing, services for structural support beneficiaries, banking management of EU-supported public-private partnership (PPP) projects, JEREMIE and JASPERS initiatives, and leasing products related to projects with structural fund support.<sup>5</sup> The actual significance (in the value of products sold) of these activities is widely varied, due to the varied stages of EU-support programs (for example, JEREMIE and JASPERS are in their initial stage – formal commencement of support within the framework of the JASPERS initiative was planned on 1 January 2007), and varied experience of banks (minimal in the case of public-private partnership project management, incomparably better in case of pre- or co-financing typical projects). Experience gathered in the course of supporting the acquisition of EU funds brought positive results, not only in terms of the volume of absorbed funds, but also in respect to better knowledge and understanding of the specificity of self-government functioning and diversity of individual levels of self-governmental bodies. Consequently, banking offer is constantly improving, with adjusted financing products and introduction of financial consultancy services for self-government.

In the same way, banks are now more open towards financing the small and medium-sized business sector, one that has typically been regarded as “victim” of globalization processes. However, it must be noted that significant part in the SMB financing is played by the EU, as Community programs may, in some cases, directly involve commercial banking institutions. In Poland, one of the most popular EU support programs in this group is the Small and Medium-size Enterprise Finance Facility, aimed at intensifying banks' lending activities addressed to the SMB sector. The program includes two components. The first one takes the form of credit lines open to SMB entities that fulfil certain conditions – this type of support for Polish banks often reached tens of millions EUR.<sup>6</sup> Advantages, from the SMB viewpoint, include extended list of qualifying activities, long-term repayment schedules, lower margin of required contribution and simplified credit application procedures. The second component, Technical Assistance Package, is a non-repayable support for banks themselves. This type of support is typically

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<sup>5</sup> More on the functions of such products, their benefits and shortcomings: D. Korenik, S. Korenik, *Stosunki samorządowo-bankowe a rozwój społeczno-ekonomiczny w przestrzeni*, CeDeWu, Warszawa 2007.

<sup>6</sup> In Poland, the following banks participate in the Program: BZ WBK, ING Bank Śląski, Fortis Bank, Bank Pekao, PKO BP SA and Raiffeisen Bank.

used to streamline credit risk assessment procedures (linked, in turn, with another type of banks' indirect influence, detailed below), credit SME, train employees and finance SME credit marketing activities. In effect, banks are externally stimulated to fulfil their ancillary role. This brings up yet another conclusion: demand pressure from entities most strongly affected by globalization processes would be too feeble to attract banking interest in extending their range of SME products and services, were it not for the additional motivation resulting from EU support (for both the customer and the bank). Banks have been offered an opportunity to adjust and develop their ancillary role, take more active participation in building the socio-economic order, and face the problem of growing development disproportions (in contrast with entertaining a strong conviction that the issue concerns national and local government authorities, not banks themselves). At the same time, with EU support programs, banks saw the prospect of boosting and stabilizing their income; considering the volume of regional support allocation and character of EU support projects, initial estimates of the pre- and co-financing projects market in Poland reach several billion EUR.

It must be noted at this point, that marked majority of commercial banks in Poland participate in EU projects that are beneficial in building desirable socio-economic order, both on local and regional scale. Large commercial banks were particularly quick in perceiving the market potential in this respect, even in the pre-accession period, and were able to prepare organizational settings for targeting future beneficiaries. For them, the pre-accession period was a good opportunity for developing systemic arrangements to meet the post-accession support policy of the European Community. Banks with foreign ownership were also able to make good use of EU-10 practices in servicing EU-fund beneficiaries. Hence, large commercial banks constituted dedicated structures to prepare products and services for potential beneficiaries of structural funds. Employees of commercial banks received thorough training in EU regional policy and implementation system. Banks concentrated on establishing dedicated personnel for the purpose of setting financial engineering, credit analysis and fundamental consultancy on project accessibility. It is worth noting that the perspectives of EU regional policy were met through involvement in highly profitable activities of EU fund acquisition consultancy, although in different degree and using different approaches, depending on actual qualifications and skills of their personnel. For the purpose of consultancy, some banks employ own staff (typically, corporate and retail advisors directly involved in product sale), others set up special advisory companies or choose to cooperate (to a varied degree) with external advisory teams. On the other hand, this is an important impulse for banks to gain authentic involvement in their ancillary role; the more so, since the methods and degrees of banks' advisory activities (typically within the basic range of services) reflects the prior passive approach to adjusting their banking offer to clients' needs. This also suggests prior



inability of banks to meet the requirements of economic entities in managing their financial flows to the best of their potential. Another distinct evidence of this inability is the implementation of JEREMIE and JASPERS initiatives, meant as a panacea for inadequate participation of banking sector in financing the SME: small and medium-sized companies report inadequate advisory support, hence they lack factual knowledge of project preparation and application procedures. The primary areas of support through JASPERS – namely, environmental protection with efficient use of resources and renewable energy sources, and public-private partnership – reflect inadequate competences of the banking sector in these respects and, especially in case of environmental issues, as an indirect symptom of disregard for ecological criteria in banking practice.

Apart from factual training of employees, banks gradually modified both their product offer (credit products, as well as loan promises, banking guarantees, letters of credit, current exchange risk protection instruments etc.), and their internal credit policies. Depending on internal policy of the bank, projects selected for financing can be analysed not only based on standard economic criteria (“pure” economic calculation, devoid of human factor, i.e. based on technocratic criteria), but also through social and ecological criteria, in line with the corporate social responsibility principle. Consequently, through its credit policy, bank may influence the choice of projects and direct its further support. This is yet another indicator of banks’ ancillary role. As shown in reports of the National Bank of Poland, changes in credit policy, accounting for financial specificity of regional policy projects, were predominantly based on economic calculation of project profitability, i.e. technocratic criteria. In particular, the most noticeable changes were noted in the following areas:

a) risk area:

- methodology of beneficiary credit rating assessment addressed mainly different allocation of risks involved in a project,
- in the catalogue of recognized banking liability collaterals, by extending the list with such instruments as transfer of rights resulting from the co-financing agreement on the part of the institution responsible for beneficiary expense refunds, as well as guarantees from the EU Guarantees Fund,
- it must be noted that both of the above changes resulted in price reduction of selected credit products;

b) area of income/profitability:

- assessment of investment projects was adjusted in line with the non-repayable character of co-financing, with resulting increase of profitability, reflected in the rate and period of return on investment,
- it is worth noting here that this very often resulted in lowered contribution required of the beneficiary (as a result of non-repayable EU contribution perceived as an increase of borrower’s own contribution).

Banks themselves do not report any changes in ecological nor social aspects of their operation. Even if such changes occur, they are not openly communicated. And this is a critical issue, since such an approach can be perceived as a sign of negligence on the part of banks to properly emphasize ecological and social criteria on par with the economic ones, as important elements of financial support offered to the clients.

In fact, the above issue is a decisive factor in the context of banks' ancillary role. By communicating with the outside world, banks indirectly influence the process of socio-economic development. In line with the signalling theory, markets react positively to those entities that are capable of receiving bank credits (or other financing products). Assuming proper analysis and assessment of a client prior to opening a line of financing, bank sends a clear message to the market, that the client in question is a reliable one. Consequently, the bank in a way "helps" the client form certain economic and financial relations with other market entities. Insufficient emphasis on the part of banks on respecting social responsibility of their clients does not contribute to the promotion of sustainable economic development. In this respect, the commercial banking sector in Poland cannot be regarded as an important channel for propagation and appreciation of the corporate social responsibility principles.

### 3. Direct influence of commercial banks

Direct social influence is a separate subject. This paper does not address such issues as employee relations, charity and sponsorship, and educational activities aimed to promote sustainable socio-economic development, although banks should properly focus on these aspects of their activities, as well. For the purpose of this discourse, the aspect of client selection will be discussed, as pertaining to self-government entities and particular local community members.

From the economic standpoint, bank's choice of clients is based on assessed financial and economic profits resulting from support offered to particular clients, the so-called profitable clients. Client's profitability is determined by client-dependent factors as well as factors beyond client's influence (macro-economy, trade or banking policy, such as defined target groups). The binding legal and regulative measures of the banking industry (as set by prudential norms and Basel requirements) favours self-government entities<sup>7</sup> as clients for banking financing products. Sale of risk-bearing products involves decreased absorption of bank-

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<sup>7</sup> For detailed overview see: *Perspektywy współpracy banku z samorządem terytorialnym w Polsce*, ed. D. Korenik, Wyd. Akademii Ekonomicznej we Wrocławiu, Wrocław 2005; B. Filipiak, S. Flejterski, *Bankowo-finansowa obsługa jednostek samorządu terytorialnego*, CeDeWu, Warszawa 2008.

ing regulatory capital and, consequently, lessened demand for this part of capital; moreover, it offers better prospect for operational cost limitation, due to the adjusted reserves system. Such obvious economic and financial benefits stimulate banks' interest in cooperation with self-governmental bodies. Banking experience gathered through involvement in EU regional policy measures (EU support fund absorption on the part of beneficiaries – both clients and banks themselves) is of particular importance here: more insightful knowledge on specificity of financial and functional aspects of local governments should bring results in the context of banking ancillary role. It seems that the banks should be required to prove more active in directing their financing streams allocation in the economy, and even obliged to support positive tendencies in local government. This means that the banks should no longer select their local government clients solely on the basis of former calculation of profitability. Banking policy should favour clients (self-governmental bodies) set on implementation of New Public Management principles, and stimulate further transformation in this respect, both in value systems and economic particulars of a client, as well as in the way local policy is effected. Such is the most advisable long-term perspective that should result in notable benefits of not only local communities, but also of banks themselves – in line with the slogan: like client, like bank.

Subject literature discusses tendencies in functioning of local governments in three aspects (economics, politics and management techniques);<sup>8</sup> banks can try to transpose this approach to fit with their policy of client selection and cooperation. In this context, a desirable client – from the standpoint of long-term interests and banks' ancillary role – is a self-governmental entity that displays certain features (apart from good financial standing), such as:

a) in the economic dimension:

- growing interest in supporting local socio-economic development, and not only a provider of required services,
- regard and emphasis for new localization factors, in particular: workforce quality and qualifications (and not cost), environmental care and quality of life in the area of investment,
- transformation of economic instruments, with preference for indirect instruments based on public-private partnership and gradual elimination of direct (usually more expensive) instruments; in effect, local governments in their economic policy are more interested in supply of public good (fresh air, natural environment, cultural conditions that improve life quality) instead of traditional attention on private interest (such as tax relief for individual entrepreneurs);

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<sup>8</sup> D. Osborne, T. Gaebler, *Rządzić inaczej*, Media Rodzina, Poznań 1992; T.N. Clark, *Old and new paradigms for urban research*, "Urban Affairs Review" 2000, Vol. 36, No. 1.

b) in the political dimension:

- preference for pragmatism in place of ideology; with resulting departure from local politics based on antagonisms between parties and ideologies,
- implementation of personalized management; for example, mayor's expressed responsibility before voters for proper town management or preference for strong local leaders that clearly express personal involvement of local government,
- departure from client-based politics, with sanctioned bureaucracy and disregard for social needs,
- local government power perceived not in terms of hierarchic structure for enforcing decisions, but in terms of clear-cut goals to be reached;

c) in the style of management:

- the most important point of reference is the private sector; market economy as a remedy for both traditional deficiencies of the welfare state model and the degeneration of public administration,
- employment of methods typically associated with private sector (such as strategic management, selected financial planning techniques, goal-based management),
- aspiration for clear separation between administrative responsibility for services rendered and their actual implementation,
- proper attention for extending the choice of administrative services for local consumers,
- distinct transformation of organizational culture, local communities no longer treated as mere supplicants,
- proper attention on formal management quality certificates for local administration authorities (such as ISO),
- self-government entity employs public service effectiveness indexes, indispensable for such purposes as subcontracting tasks to external institutions,
- building and developing cooperation with partners outside public administration structures; contracts with public sector entities (including the classic form of public-private partnership) and non-governmental organizations,
- flattening of traditionally complex management hierarchies; introducing horizontal partnership networks.

It seems that self-governmental bodies have already made their impression of reliable and desirable clients in the course of EU support acquisition. Research done by the Association of Polish Local Government Units has articulated and published a set of best practices in this respect. The research<sup>9</sup> had shown new

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<sup>9</sup> Związek Powiatów Polskich (Association of Polish Local Government Units), based on agreement with Ministry for Regional Development, implemented a program „Powiaty i gminy otwarte na fundusze strukturalne” [Local administration units open for structural support]. The program was aimed at propagation of EU fund support among self-governmental institution, as well as promo-

tendencies in local administration activities, as well as positive changes in their approach to common tasks. In this perspective, it is essential for banks to support the transformations using the standard banking arsenal of activities – through cognisant choice of clients (with resulting indirect influence, as detailed in previous sections of this paper).

In the context of banking influence on building the socio-economic order and satisfying corporate social responsibility postulates, it is essential for banks to show involvement in social exclusion issues: supporting entrepreneurship through financing the SMB sector and extending the range of services for retail clients of the lowest income range (to date, typically outside the main sphere of banking interest). By involvement in the EU fund acquisition processes addressed to SMB sector, Polish banks have made the initial effort towards improving their influence on entrepreneurship and SMB development. On the other hand, extending the service offer for the economically challenged seems far-fetched, especially in regard to financing this group of clients. The sector of commercial banking will probably remain off-limits for the poorest, as economically unprofitable. Banking activities may, however, concentrate on charity, sponsorship and education. It seems that the best-suited area for banking expansion is the impact on local administration entities, through careful client selection and preference for socially beneficial projects. To a degree, this has already been accomplished, especially in respect to legal and regulatory environment of banking operation (preferential treatment of retail customers secured in the binding regulations is also profitable for banks). This applies also to the potential for local government units to obtain low-interest credits in line with EU regional policy. Special mention must be made here on National Strategy for Social Integration, the document obliges local governments to prepare and implement strategies addressing social problems with the purpose of integrating individuals and groups that face social exclusion. Local administrations make it clear that such programs (emphasizing family problems, unemployment, disability and addiction) will be implemented insofar as the local budget and external funding sources allow. In this respect, banks' ancillary role is twofold. On the one hand, they should intensify banking support in this area (advisory services, potential financing through e.g. financial engineering). On the other hand, they should stimulate proper approach of local authorities towards limiting social exclusion, through careful assessment and selection of self-government clients. In other words, banks should favour those local government bodies that display authentic effort in addressing social exclusion. It must be noted that, due to scarcity of financial resources that can be directed to limiting social exclusion problems,

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tion of units and individuals active in the field of external support acquisition. Within the project, ZPP provided a wide range of activities, of advisory, informational, educational and promotional character.

it is logical to postulate and promote public-private partnership activities, in line with the ideas of social economy and social entrepreneurship, since development of social economy institutions may be supported within the EU regional policy (Human Capital Operational Program). Banks can manifest their preference for self-governmental units that display involvement in implementation and employment of social economy institutions. Such banking attitudes should be perceived as proof of authentic desire to stimulate local authorities to fight social exclusion problems. This is important, since program policy anticipates cooperation with local non-governmental institutions in the fight against social exclusion, but, at the same time, displays formalistic approach by insisting on preparation of program documentation, as a result of typical disregard for strategic management (local authorities assume that the need to address social exclusion is principally a responsibility of the central government), as well as typical lack of vertical links in this respect.

## **Conclusions**

The task of building socio-economic order in line with the principles of sustainable development applies also to social and private sector (commercial banks). In the light of enormous transformations resulting from globalization processes (in economic, political and social dimension) and challenges faced by various social and economic entities, there is a strong need for redefining banks' ancillary role (especially that of commercial banking institutions). Banking sector, consisting primarily of commercial banks – as a core of the whole financial system – has a major impact on all forms of socio-economic life. It seems that traditional perception of this role, and narrowing the concept (on the part of banks, especially) to 'pure' financial intermediation based on economic calculation is no longer sufficient. The advisable, and postulated in this article, perception should focus on stimulating clients to undertake activities that are appropriate from the viewpoint of economic theories. Banking attitude to date may be characterized as passive, with preference for unhurried adaptation to client environment and sporadic adjustment to changing competition. It is essential for banks to radically modify this attitude, aiming to anticipate and stimulate client activities, in order to better cope with dangers of globalization and utilize its potential benefits. It is by no means a question of replacing diverse institutions responsible for sustainable development on local and regional scale (and building local socio-economic order). The postulated change should involve the system of values and financial/economic system of banks, to encompass the idea of social responsibility and strive for its implementation; to make it on par with principles of economic calculation. Every banking role, as defined in economic theories – the so-called fragmentary mac-

roeconomic functions of the financial system – may potentially be transformed to encompass the idea of social responsibility. The essence of banking ancillary role remains constant, aiming to support the clients in manipulating their financial flows. The types of influence (i.e. of direct and indirect character) upon the economy as a whole and the society also remain the same. What needs redesigning and constant improving – to common and individual benefit in the face of global changes – is the detailed scope of both direct and indirect influence wielded by banks. Such modifications of individual solutions should be propagated as best practices in the redefined ancillary role, especially in the light of banks being typically perceived as lacking in the area of social responsibility.

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## Formy wpływu banków na rozwój zrównoważony w skali lokalnej i regionalnej

**Streszczenie.** W artykule określono potencjalne formy wnoszenia przez banki (sektor bankowy) wkładu do lokalnego i regionalnego rozwoju zrównoważonego. Przedstawiono w nim również możliwości zwiększenia roli banków w zapewnieniu rozwoju społeczno-gospodarczego w skali lokalnej/regionalnej, dotychczas ograniczonej ze względu na odrywanie się sfery finansowej od sfery realnej gospodarki.

**Słowa kluczowe:** banki w regionie, rola banków





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## **Foreign aid budget of the European Union and the investment potential of local government in Poland between 2014-2020**

***Abstract.** Local government entities are the greatest investors in Poland since entering into the EU. In the years 2007-2013, they spent PLN 259.4 billion altogether on investment activity. This was possible, mainly, due to the support of EU non-repayable aid. It is expected that in the programming period of 2014-2020 that is starting now, LSEs will also constitute one of the main groups of beneficiaries of this aid. Funds from the EU will significantly increase the investment potential of LSEs in a given period. It is estimated that the funds that the LSEs in Poland could invest on their own equal the average annual operational surplus from the last 7 years, and amount to PLN 170 billion. EU aid will constitute about 36% of the funds LSEs will be able to designate for investment activity. The remaining problem is, however, that not all LSEs will be able to make use of this aid because of their indebtedness, which, in turn, will result in a lack of possibility to incur new debt, and thus, the inability to ensure their own contribution to European projects at the same time.*

***Keywords:** investment potential, self-government, European funds*

### **Introduction**

Local self-government entities (LSE) were brought to life to fulfil certain functions – to deliver goods and public services. Their activity should be focussed not only on current tasks, but also on the improving of both living conditions and carrying out economic activity. This is connected, however, with the necessity of ensuring the availability of funds for their development activity. LSEs, by acquiring revenues that are laid down by law, at first have to carry out current tasks,

and only after they have been completed, can they allocate funds for investment. Their investment potential depends, on one hand, on the amount and structure of revenues, on the other hand, however, on the scope of tasks that are assigned for them for realization and reflected in their expenditures. In recent years, the investment potential of LSEs has depended on the amount of funds received from EU non-repayable aid. This aid made it possible for self-governments both to develop and modernize technical and social infrastructure and to undertake other activities to enhance their development.

On the eve of the aid fund release of the 2014-2020 financial perspective, a question arises as to the extent to which these funds will contribute to the increase of the investment potential of LSEs within this time period. Thus the aim of this article is to present the current investment potential of SGEs in Poland and the predicted influence of the European funds on it in the years 2014-2020. To achieve such an aim, you have to carry out analysis of the data concerning the financial situation of LSEs, the scope, conditions, and the amount of funds granted to Poland in the 2014-2020 perspective.

## **1. Investment potential of local self-government and the ways of measuring it**

Local self-government, apart from carrying out current tasks, is responsible for undertaking investment activity. Significant disparities are noticeable in the scope of these activities.<sup>1</sup> Local self-government investment is characterised by a wide range of positive effects on local communities and on the entire local economy (including entrepreneurs carrying out their activity within LSE territory) as well.

To carry out such activity, LSEs have to have a certain investment potential.<sup>2</sup> This can be defined as the entity's capability to carry out development investment. The potential depends on many factors, including the amount of funds that can be allocated for this type of activity.<sup>3</sup> From the financial angle, investment potential is the entity's capability to generate or to obtain funds to finance investment activity. The possibility of designation of funds for LSE investment activity depends

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<sup>1</sup> J. Czempas, *Inwestycje gminne – znaczenie i pomiar*, in: *I Forum Samorządowe. Polska samorządność w integrującej się Europie*, Fundacja na rzecz Uniwersytetu Szczecińskiego, Szczecin 2004, p. 86 ff.

<sup>2</sup> T. Kaczor, M. Tomalak, *Potencjał inwestycyjny jednostek samorządu terytorialnego*, Instytut Badań nad Gospodarką Rynkową, Warszawa 2000, p. 9 ff.; T. Lubińska, M. Będzieszak, *Własny potencjał inwestycyjny jako miara pozycji wydatkowej gmin*, in: *Budżet państwa i samorządów, decentralizacja – oświata*, ed. T. Lubińska, Difin, Warszawa 2005, p. 61 ff.

<sup>3</sup> Investment potential can be seen as a human phenomenon, an organizational-technical, a legal, or a financial one. This work analyses solely the financial one.

mainly on the revenues and expenditures on current tasks and also on the availability of the external sources of investment activity financing.

Those funds which can be generated by the entity itself constitute its own potential. It can be defined as the amount of money that a self-government entity can, in a given time, designate from received revenues to finance development expenditures, which are in this work understood as investment expenditures.<sup>4</sup> To evaluate its own potential, LSE needs to take into consideration not only its own revenues, but also transfer revenues (subsidies and grants from the state budget, grants from extra-budgetary state governments). The fact that transfer revenues have been included here stems from the fact that these funds either complement or constitute funds designated for investment activity. Without them, a significant group of LSEs would have a negative own potential, which does not mean that these entities do not have the ability to bear development expenses. What is more, a part of transfer revenues (grants-in-aid) is in reality designated solely for investment.

The own potential can be increased by the external funds.<sup>5</sup> They can be repayable funds from loans and issues of securities. As a matter of fact, these funds do not increase in a significant way the LSE potential measured in longer periods, but they let them accelerate the realization of development ventures at a given time. However, they bring out the limits on the investment potential at the time of repaying the debt. It should be remembered, however, that there are legal restrictions on the indebtedness of entities. Therefore, investment potential is the sum of the entity's own potential and the planned amount of indebtedness in a given time, minus the payments of debt with interests.

Since the accession of Poland to the EU, the investment potential of LSEs has increased also, due to funds from Structural Funds (ERDF – European Regional Development Fund, ESF – European Social Fund) and from Cohesion Funds (CFs). It is the funds from ERDF and from CF that have made it possible for the LSEs to carry out investment activity on a much greater scale in recent years.<sup>6</sup>

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<sup>4</sup> *Ocena potencjału finansowego jednostek samorządu terytorialnego województwa pomorskiego do realizacji projektów w ramach RPO Województwa Pomorskiego 2014-2020*, ed. W. Misiąg, Wyższa Szkoła Informatyki i Zarządzania, Rzeszów 2012. Development expenses are understood as all capital expenditures (excluding replacement investment) and running expenditures for ventures beyond obligatory tasks of LSE that are carried out constantly.

<sup>5</sup> J. Szolno-Koguc, *Wybrane wskaźniki kondycji finansowej jednostek samorządu terytorialnego*, in: *Samorząd terytorialny w zintegrowanej Europie*, eds. B. Filipiak, A. Szewczuk, Vol. 2, Wyd. Naukowe Uniwersytetu Szczecińskiego, Szczecin 2006, p. 271 ff.; M. Jastrzębska, *Polityka budżetowa jednostek samorządu terytorialnego*, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2005, p. 95 ff.

<sup>6</sup> In 2007-2013 LSEs spent 259.4 billion PLN on investment, and in 2003-2006 nearly 70 billion PLN.

Basic measures used to assess investment potential of LSE include:

- the index of the share of own revenues in total revenues, which shows which part of LSE revenues enables them to use their discretionary power and to implement their own expenditure policy including the investment one;
- operational surplus, which shows if a LSE is able to cover running expenditures from current revenues;
- the index of the share of operational surplus in total revenues, which shows the extent in which a LSE can spend on capital expenditures or incur liabilities in relation to revenues;
- the index of covering total expenditures from revenues, which shows the extent in which an entity can finance its expenses without using the repayable sources of financing;
- the index of the share of own revenues in total expenditures, which shows which part of the expenditures is affected by a LSE most;
- the index of covering investment expenditures from own revenues, which shows which part of investment expenditures can be financed from own revenues;
- the index of covering investment expenditures from available funds, which shows the LSE ability to finance investment from own revenues.<sup>7</sup>

In this work, the investment potential of LSE is measured with the following indices: covering current expenditures from current revenues (operational surplus –  $S_o$ ), share of operational surplus in total revenues ( $S_{s/r}$ ) and with covering total expenditures with revenues ( $C_{e/r}$ ). The values of these indices are presented in Table 1.

Data in Table 1 shows that in the years 2007-2013 all LSEs generated the total operational surplus of 97.3 billion PLN. Half of this sum was generated by communities. However, the financial situation of each LSE differs significantly. Not all entities of self-government generate an operational surplus.<sup>8</sup> For example, in 2010 a deficit in current activity was recorded in 473 entities (20.4% LSE), in 2012 in 102 entities (3.8% LSE). Taking into consideration current legal regulations concerning the possibility of incurring debt by local self-government, it can be stated that these entities do not possess investment potential in terms of finance.

The limited investment potential of LSEs is also visible from the values presented in other indices in the Table. The average share of operational surplus in the revenues constituted 9%. It was higher during the first years of the given period. At the analyzed time, LSEs were not able to cover their expenditures with revenues, which resulted in the accumulation of debt, although LSEs have limited

<sup>7</sup> It is calculated as the share of operational surplus and the revenue from selling the property in capital expenditures. See also: P. Galiński, *Możliwości finansowania inwestycji przez gminy w Polsce w latach 2010-2012*, "Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki Finansowe, Ubezpieczenia" 2014, No. 65, p. 4.

<sup>8</sup> The exception are voivodships which, in a given period, generated operational surplus.

Table 1. Investment potential of local self-government entities in Poland in the years 2007-2013 (in million PLN)

Year	2007	2008	2009	2010	2011	2012	2013
Communities							
$S_o$ (million PLN)	7195	8075	6191	4687	9113	6241	7341
$S_{s/r}$ (%)	12.6	13.0	9.5	6.5	12.0	8.0	9.2
$C_{e/r}$ (%)	101.6	99.1	92.7	90.7	95.2	99.9	100.8
Cities with county status							
$S_o$ (million PLN)	6794	5760	2982	2503	2788	2572	4152
$S_{s/r}$ (%)	14.5	11.6	5.9	4.6	4.9	4.2	6.5
$C_{e/r}$ (%)	102.2	96.6	89.6	91.4	92.4	96.1	98.9
Counties							
$S_o$ (million PLN)	976	1099	883	780	1267	1092	1256
$S_{s/r}$ (%)	6.0	6.1	4.4	3.5	5.4	4.8	5.4
$C_{e/r}$ (%)	100.5	100.2	94.9	94.4	97.9	100.2	100.7
Voivodships							
$S_o$ (million PLN)	2753	2804	1903	1314	1513	1721	1588
$S_{s/r}$ (%)	24.3	22.1	9.7	9.3	10.0	11.3	9.9
$C_{e/r}$ (%)	102.3	97.4	95.5	92.5	92.2	96.7	97.5
LSEs							
$S_o$ (million PLN)	17718	17738	11959	9284	14681	11626	14337
$S_{s/r}$ (%)	13.5	12.4	7.7	5.7	8.6	6.6	7.8
$C_{e/r}$ (%)	101.7	98.2	92.3	91.6	94.3	98.3	99.8

Source: own elaboration on the basis of the data from the Ministry of Finance: [www.mf.gov.pl/ministerstwo-finansow/dzialalnosc/finanse-publiczne/budzety-jednostek-samorzadu-terytorialnego/sprawozdania-budzetowe](http://www.mf.gov.pl/ministerstwo-finansow/dzialalnosc/finanse-publiczne/budzety-jednostek-samorzadu-terytorialnego/sprawozdania-budzetowe) [5.08.2014].

their capital expenditures in the last years. It will have a negative effect on the investment potential in the years to come (the necessity to repay the interest and principal). At the same time, it can be a serious obstacle for LSEs to attain EU funds due to the need to ensure co-financing of European projects.<sup>9</sup>

## 2. EU aid funds for local self-government entities and the role of these funds in the formation of the investment potential of these entities in the years 2014-2020

In accordance with the Multiannual Financial Framework for the years 2014-2020, which was passed by the European Parliament on 19 November 2013, the

<sup>9</sup> J. Sierak, M. Bitner, A. Gałązka, R. Górka, *Oszacowanie środków niezbędnych do zapewnienia krajowego wkładu publicznego do projektów realizowanych w ramach średniookresowych ram finansowych 2014-2020*, Warszawa 2013.

total allocation for Poland will be 85.5 billion EUR, of which 8.6 billion EUR will be designated to carry out activity within the framework of Rural Development Programme.<sup>10</sup> The allocation of funds for the given operational programmes is presented in Table 2.

Table 2. Allocation of EU funds by operational programmes in the years 2014-2020 (in million EUR)

Operational programme	Allocation	Share in % in total allocation
Intelligent Development	8 613,9	10.1
Infrastructure and Environment	27 413,0	32.1
Knowledge, Education and Development	4 436,8	5.2
The Operational Programme for the Digital Development – Digital Poland	2 172,5	2.5
The Operational Programme of Technical Assistance – Technical Assistance	700,1	0.8
The Operational Programme for the Eastern Poland	2 000,0	2.3
The Operational Programme for Rural Development	8 598,3	10.1
Youth Employment Initiative	252,4	0.3
Regional Operational Programmes	31 276,9	36.6
Total	85 463,9	100.0

Source: own elaboration on the basis: Programowanie perspektywy finansowej na lata 2014-2020 – umowa partnerstwa [Programming the financial perspective for the years 2014-2020 – Partnership Agreement], Ministerstwo Infrastruktury i Rozwoju, Warszawa 2014, p. 158.

In the programming period starting now, it is the voivodship self-governments that will manage about 40% of cohesion policy funds (31.28 billion EUR). They will allocate them within two-fund – ERDF, ESF – regional operational programmes. The allocation of EU funds for regional programmes is presented in Table 3.

It should be stressed that LSEs will be able to attain funds from all enumerated OPs. The most important source of self-government investment financing, just like in the passing programming period, will be regional operational programmes. Assuming that that LSEs use these funds on a similar scale like in the years 2007-2013, we can also predict that they will attain almost 23 billion EUR (96.6 billion PLN).<sup>11</sup> According to the estimations commissioned by the Ministry of Regional Development, LSEs can use as much as 107.2 billion PLN<sup>12</sup>.

<sup>10</sup> Programowanie perspektywy finansowej na lata 2014-2020 – umowa partnerstwa [Programming the financial perspective for the years 2014-2020 – Partnership Agreement], Ministerstwo Infrastruktury i Rozwoju, Warszawa 2014.

<sup>11</sup> This constitutes 30% of allocation excluding funds for OP ID and Youth Employment Initiative. At the assumed exchange rate of 1 euro – 4.2 PLN.

<sup>12</sup> J. Sierak, M. Bitner, A. Gałązka, R. Górka, op. cit., p. 9.

Table 3. Allocation of funds within ROP in the years 2014-2020 (in million EUR)

Voivodship	Total allocation	Voivodship	Total allocation
Lower Silesian	2 252,5	Pomerania	1 864,8
Kuyavian-Pomeranian	1 903,5	Silesian	3 476,9
Lublin	2 231,0	Świętokrzyskie	1 364,5
Lubusz	906,9	Warmian-Masurian	1 728,3
Łódź	2 256,1	Greater Poland	2 450,2
Lesser Poland	2 878,2	West Pomerania	1 601,2
Opole	945,0	Total 15	29 187,1
Subcarpathian	2 114,2	Masovian	2 089,8
Podlasie	1 213,6	Total 16	31 276,9

Source: personal elaboration on the basis: Programowanie perspektywy finansowej..., p. 168.

In the programming period starting now, the territorial perspective takes on a special meaning, which will be reflected in, among others, the support for urban functional areas of voivodship centres and their sustainable development with the use of the new instrument, i.e. Integrated Territorial Investment.<sup>13</sup> ITI of urban functional areas (UFAs) of voivodship centres will be financed obligatorily from ROP allocation. On the level of all ROPs, the allocation designated for this purpose in total, in comparison with the entire allocation of all funds for Poland, will amount to at least 5.2% ERDF allocation and 2.4% ESF allocation.<sup>14</sup> The sums of ITI allocation in given voivodships are presented in Table 4.

Table 4. ITI allocation within ROP in the years 2014-2020 (in million EUR)

Voivodship	Allocation	Voivodship	Allocation
Lower Silesian	173,0	Pomerania	215,8
Kuyavian-Pomeranian	153,8	Silesian	484,0
Lublin	105,4	Świętokrzyskie	62,3
Lubusz	66,6	Warmian-Masurian	45,2
Łódź	203,5	Greater Poland	178,6
Lesser Poland	229,9	West Pomerania	109,1
Opole	46,0	Total 15	2 220,0
Subcarpathian	70,8	Masovian	164,8
Podlasie	75,8	Total 16	2 384,9

Source: own elaboration on the basis: Programowanie perspektywy finansowej..., p. 213.

Amounts of funds shown in the Table are minimum sums; the governments of voivodships can decide to designate greater sums of funds for UFAs of voivod-

<sup>13</sup> Apart from this instrument, there will also be available a new territorial development instrument for rural areas: Community-Led Local Development.

<sup>14</sup> Programowanie perspektywy finansowej..., p. 213.

ship centres to use. They can also decide about designating funds for other UFAs, e.g. subregional ones. In the case of a lack of interest in this instrument, funds for this purpose will be lost. It should be stressed that it is up to the UFAs in consultation with the governments of voivodships to decide on the use of these funds; therefore, these funds will not be a reason for rivalry between LSEs and other beneficiaries.

Taking all these points into consideration, it can be stated that LSEs will be able to increase their investment potential in the next years by using EU funds. At the assessment of the influence of these funds on the investment potential of LSEs in the upcoming programming period, EU funds should be compared to the sums which LSEs will be able to generate on their own, as it is known that the use of EU aid is connected with the need to co-finance the projects for realisation. We can assume that LSEs will be able to generate an operational surplus similar to the one generated within the last 7 years (about 170 billion PLN), although this is quite an optimistic assumption.<sup>15</sup> The greatest share in the generated surplus will probably belong to the communities – about 50 billion PLN; the smallest – to counties – about 7 billion PLN. While comparing these sums with the sums which LSEs will be able to attain in the years to come, it can be stated that the sums of non-repayable EU aid will still have a great influence on the investment potential of local governments in Poland. We can expect that they will constitute about 35% of the funds designated for investment. A matter of concern is the situation of investment potential of Polish local governments when the inflow of EU aid is stopped. In such a case, the investment potential of LSEs in Poland will go back to the level similar to the one of the years 2003-2006 and will reach 15-25 billion PLN a year, unless a significant change in the system of LSE revenues is introduced and the increase in the sources and amounts of revenue of LSEs is not accompanied by the further decentralisation of public tasks.

## Conclusions

Self-government entities have been the greatest investors in Poland since accession to the EU. In the years 2007-2013 they spent 259.4 billion PLN altogether on investment activity. This was possible mainly due to the support from EU non-repayable aid. It is expected that in the programming period of 2014-2020 that is starting now, LSEs will also constitute one of the main groups of beneficiaries

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<sup>15</sup> In the last years, an increase in current expenditures has been observed, which is caused by, among others, the increase in the cost of maintaining and modernising technical and social infrastructure. A significant group of LSEs will also cover the costs of servicing the debt incurred in recent years. A far less optimistic prediction is shown in e.g.: J. Sierak, M. Bitner, A. Gałązka, R. Górka, *op. cit.*



of this aid. According to various estimates, LSEs can attain funds amounting to 96-107 billion PLN. Taking into consideration the sum of the generated operational surplus of the years 2007-2013, it can be estimated that LSEs in the 7 years onwards will be able to generate about 170 billion PLN, which could be spent on investment. Therefore, it can be stated that EU funds, amounting to about 100 billion PLN, to be used by LSEs will have a great influence on the increase of investment potential of LSEs in a given period.

However, not all LSEs will be able to make use of this help. Those ones which do not generate an operational surplus or ones which have run into serious debt in recent years will not have the possibility to incur new debt and, at the same time, ensure co-financing of European projects. This will lead to widening the gap between both the infrastructural background of LSEs and the scope and the quality of public services. The solution to the problem could be a change in legal regulations connected with the limits on incurring debt by LSEs or with the preparation of instruments of financial support for these LSEs so that they could also make use of EU aid.

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## **Środki pomocowe Unii Europejskiej a potencjał inwestycyjny jednostek samorządu terytorialnego w Polsce w latach 2014-2020**

***Streszczenie.** Jednostki samorządu terytorialnego od momentu wstąpienia Polski do UE są największym inwestorem w naszym kraju. W latach 2007-2013 wydatkowały w sumie 259,4 mld zł na działalność inwestycyjną. Było to możliwe dzięki wsparciu środkami bezzwrotnej pomocy z UE. Przewiduje się także, że w okresie programowania 2014-2020 JST będą stanowiły jedną z głównych grup odbiorców tej pomocy. Środki pozyskane z UE przyczynią się istotnie do zwiększenia potencjału inwestycyjnego JST w analizowanym okresie. Szacując środki, które samodzielnie mogłyby zainwestować JST w Polsce na poziomie średniorocznej nadwyżki operacyjnej z ostatnich 7 lat – 170 mld zł, pomoc unijna będzie stanowić ok. 36% funduszy, które będą przeznaczana na działalność inwestycyjną. Problemem jest jednak to, że nie wszystkie JST będą mogły z tej pomocy skorzystać ze względu na poziom ich zadłużenia, skutkujący brakiem możliwości zaciągania nowych zobowiązań, a tym samym zapewnienia wkładu własnego do projektów europejskich.*

***Słowa kluczowe:** potencjał inwestycyjny, samorząd terytorialny, fundusze unijne*

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## **Security challenges in the regional policy of the Lower Silesian Voivodship\***

***Abstract.** In the modern economy, regions must become more and more flexible in terms of adjustments to changing conditions. The Lower Silesian Voivodship adopted a strategic approach to security in regional policy pursuant to the Act on the rules of conducting development policy. This action allows direct changes to take place in the economy of the region, determine the level of implementation of intended objectives, and diagnose risk signals through ongoing monitoring of the strategy objectives. The purpose of the article is to demonstrate the perception of security in the regional policy of the Lower Silesian Voivodship.*

***Keywords:** security, regional policy, Lower Silesian Voivodship*

### **Introduction**

The regional policy should contribute to the expansion and improvement of the quality of the productive potential of the economy to ensure the increase of the competitiveness of the region. The area of its implementation is both country (interregional strategy) as well as individual regions (intraregional policy).

Polish regional policy adopted the solutions of European cohesion policy related to programming, management, financing tasks, ongoing monitoring, strategy

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evaluation. A decentralized model has also been adopted to manage the allocation of funds at the level of voivodships.

The Act of 6 December 2006 on the principles of conducting development policy introduced a new approach to development planning by introducing three types of documents, i.e.<sup>1</sup> the long-term national strategy, the medium-term national strategy and medium-term sectoral, domain, spatial strategies, the so-called „other development strategies.” They are implemented through operational programmes co-financed by the European funds and development programs financed mainly by public funds.

The issue of a strategic approach to the security of the Republic of Poland and its regions has taken on a new meaning upon the adoption by the Council of Ministers Long-term National Development Strategy. Poland 2030. Third Wave of Modernity<sup>2</sup> and National Spatial Management Concept.<sup>3</sup> These are horizontal documents which clearly define the objective of the authorities' activities, which is to ensure the survival and development of the state, the nation and communities and to achieve the established national interests and coherence with the strategy of the European Union expressed in the strategy Europe 2020: A strategy for smart, sustainable and inclusive growth.<sup>4</sup> These documents are very comprehensive in nature and analyse the situation in the country on several levels (social, economic, spatial and environmental) taking into account the circumstances resulting from the Polish membership in the European Union.

The next document in the programme is the medium-term National Development Strategy 2020,<sup>5</sup> that has a horizontal and comprehensive nature. It specifies the objectives and directions of the development of the country across economic, environmental, territorial domain, taking into account the findings set out in Long-term National Development Strategy. Poland 2030. Third Wave of

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<sup>1</sup> Art. 4 ustawy z dnia 6 grudnia 2006 r. o zasadach prowadzenia polityki rozwoju, Dz.U. Nr 227, poz. 1658 ze zm. [Art. 4 Act of 6 December 2006 on the principles of conducting development policy, Journal of Laws No. 227, item 1658, as amended].

<sup>2</sup> Uchwała Nr 16 Rady Ministrów z dnia 5 lutego 2013 r. w sprawie przyjęcia Długookresowej Strategii Rozwoju Kraju. Polska 2030. Trzecia Fala Nowoczesności, Monitor Polski Nr 121 [Resolution No. 16 of the Council of Ministers of 5 February 2013 on the adoption of Long-term National Development Strategy. Poland 2030. Third Wave of Modernity, Monitor Polski, item 121].

<sup>3</sup> Uchwała Nr 239 Rady Ministrów z dnia 13 grudnia 2011 r. w sprawie przyjęcia Koncepcji Przestrzennego Zagospodarowania Kraju 2030, Monitor Polski 2012, poz. 252 [Resolution No. 239 of the Council of Ministers of 13 December 2011 on the adoption of National Spatial Management Concept 2030, Monitor Polski 2012, item 252].

<sup>4</sup> Europe 2020: A strategy for smart, sustainable and inclusive growth, COM(2010) 2020, final version, Brussels, 3.03.2010.

<sup>5</sup> Uchwała Nr 157 Rady Ministrów z dnia 25 września 2012 r. w sprawie przyjęcia Strategii Rozwoju Kraju 2020, Monitor Polski, poz. 882 [Resolution No. 157 of the Council of Ministers of 25 September 2012 on the adoption of National Development Strategy 2020, Monitor Polski, item 882].

Modernity. This strategy shall coordinate the development policy in Poland due to the assessment of compliance of priorities of all government strategies and programmes with the objectives contained in it. Consistent with these documents are nine sectoral strategies that were focused on the following elements: innovation and economic efficiency,<sup>6</sup> development of transport,<sup>7</sup> energy security and the environment,<sup>8</sup> regional development,<sup>9</sup> human capital development,<sup>10</sup> development of social capital,<sup>11</sup> sustainable development in the sector of countryside, agriculture and fishing,<sup>12</sup> efficient state,<sup>13</sup> and the development of national security sys-

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<sup>6</sup> Uchwała Nr 7 Rady Ministrów z dnia 15 stycznia 2013 r. w sprawie Strategii Innowacyjności i Efektywności Gospodarki „Dynamiczna Polska 2020”, Monitor Polski, poz. 73 [Resolution No. 7 of the Council of Ministers of 15 January 2013 on Innovation Strategy and the Efficiency of the Economy “Dynamic Poland 2020,” Monitor Polski, item 73].

<sup>7</sup> Uchwała Nr 6 Rady Ministrów z dnia 22 stycznia 2013 r. w sprawie Strategii Rozwoju Transportu do 2020 r. (z perspektywą do 2030 r.), Monitor Polski, poz. 75 [Resolution No. 6 of the Council of Ministers of 22 January 2013 on Transport Development Strategy by 2020 (with perspective by 2030), Monitor Polski, item 75].

<sup>8</sup> Uchwała Nr 58 Rady Ministrów z dnia 15 kwietnia 2014 r. w sprawie przyjęcia Strategii „Bezpieczeństwo Energetyczne i Środowisko – perspektywa do 2020 r.”, Monitor Polski, poz. 469 [Resolution No. 58 of the Council of Ministers of 15 April 2014 on the adoption of the Strategy “Energy Security and Environment – perspective by 2020,” Monitor Polski, item 469].

<sup>9</sup> Krajowa strategia rozwoju regionalnego 2010-2020. Regiony, miasta, obszary wiejskie, Monitor Polski, 2010, Nr 36, poz. 423 [National regional development strategy 2010-2020. Regions, cities and rural areas, Monitor Polski 2010, No. 36, item 423]; uchwała Nr 60 Rady Ministrów z dnia 30 kwietnia 2014 r. w sprawie przyjęcia „Strategii Rozwoju Polski Zachodniej do roku 2020, Monitor Polski, poz. 452 [Resolution No. 60 of the Council of Ministers of 30 April 2014 on the adoption of “Development Strategy of Western Poland by 2020,” Monitor Polski, item 452]; uchwała Nr 3 Rady Ministrów z dnia 8 stycznia 2014 r. w sprawie przyjęcia „Strategii Rozwoju Polski Południowej do roku 2020”, Monitor Polski, poz. 152 [Resolution No. 3 of the Council of Ministers of 8 January 2014 on the adoption of “Development Strategy of Southern Poland by 2020,” Monitor Polski, item 152].

<sup>10</sup> Uchwała Nr 104 Rady Ministrów z dnia 18 czerwca 2013 r. w sprawie przyjęcia Strategii Rozwoju Kapitału Ludzkiego 2020, Monitor Polski, poz. 640 [Resolution No. 104 of the Council of Ministers of 18 June 2013 on the adoption of Strategy of Human Capital Development by 2020, Monitor Polski, item 640].

<sup>11</sup> Uchwała Nr 61 Rady Ministrów z dnia 26 marca 2013 r. w sprawie przyjęcia „Strategii Rozwoju Kapitału Społecznego 2020”, Monitor Polski, poz. 378 [Resolution No. 61 of the Council of Ministers of 26 March 2013 on the adoption of “Strategy of Social Capital Development 2020,” Monitor Polski, item 378].

<sup>12</sup> Uchwała Nr 17 Rady Ministrów z dnia 12 lutego 2013 r. w sprawie przyjęcia strategii “Sprawne Państwo 2020”, Monitor Polski, poz. 136 [Resolution No. 17 of the Council of Ministers of 12 February 2013 on the adoption of the strategy “Efficient State 2020,” Monitor Polski, item 136].

<sup>13</sup> Uchwała Nr 67 Rady Ministrów z dnia 9 kwietnia 2013 r. w sprawie przyjęcia „Strategii rozwoju systemu bezpieczeństwa narodowego Rzeczypospolitej Polskiej 2022”, Monitor Polski, poz. 377 [Resolution No. 67 of the Council of Ministers of 9 April 2013 on the adoption of “National security development strategy of the Republic of Poland 2022,” Monitor Polski, item 377].

tem of the Republic of Poland.<sup>14</sup> In this way, the need for a comprehensive approach to maintain consistency of planned objectives was expressed, which forced the occurrence of the phenomenon of synergies of various phenomena and spatial, social, economic and political problems.

The purpose of the article is to demonstrate the perception of security in the regional policy of the Lower Silesia Voivodship.

## **1. Perceptions of economic security in selected country strategy papers**

There is a significant change in a strategic approach to the national security of the Republic of Poland. Today, it is characterized as the ability “of the state and its society to ensure the conditions for its existence and development, territorial integrity, political independence, inner stability and quality of life. This ability is shaped through actions which involve using opportunities, taking challenges, reducing risk and eliminating external and internal threats, which ensures the continuance, identity, functioning and freedom of development of the state and the nation (society).”<sup>15</sup> It is therefore necessary to increase the involvement of local authorities in creating the conditions for taking the challenges of political, military, social and economic nature as well as creating a sustainable grounds for economic and social development.

One of the objectives of Long-term National Development Strategy. Poland 2030. Third Wave of Modernity is balancing the development potential of Poland through, among others, the use of existing developmental forces and creating a potential for growth in the perspective by 2030. It was also underlined that due to the large territorial diversity of the country and disparities in development opportunities, it is necessary, in the long-term, to support the regional policy with national funds and from the European Union. These actions will be aimed, among other things, at ensuring equal opportunities through the use of developmental potentials. However, National security development strategy of the Republic of Poland 2022 pointed out the need to integrate it with other developmental strategies relating to economic, environmental, civil or social security, etc. Despite the fact that it focuses mainly on providing external security, it also includes the connections with the entities responsible for internal security. In addition, this strategy

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<sup>14</sup> Uchwała Nr 163 Rady Ministrów z dnia 25 kwietnia 2012 r. w sprawie przyjęcia „Strategii zrównoważonego rozwoju wsi, rolnictwa i rybactwa” na lata 2012-2020, Monitor Polski, poz. 839 [Resolution No. 163 of the Council of Ministers of 25 April 2012 on the adoption of “Strategy for sustainable development in the sector of countryside, agriculture and fishing” for the years 2012-2020, Monitor Polski, item 839].

<sup>15</sup> Uchwała Nr 67 Rady Ministrów..., p. 4.

highlighted the need for spatial planning at national and regional level to reduce the occurrence of spatial conflicts.<sup>16</sup>

On the other hand, the amended Act on voivodship local government stipulated that the strategy of the voivodship development should include the objectives of medium-term national development strategy, the national regional development strategy and the relevant supra-regional strategies and be consistent with the land consolidation plan of the voivodship.<sup>17</sup> In this way, the legislature tried to restore the time sequence in strategic programmes drawn up in Poland for various levels and horizons to allow for the increase in the coordination of development policy.

The ensuring of region security requires defining the vision of its social, economic and spatial future based on long-term development strategy in accordance with Art. 11(1) of The Act of 5 June 1998 on voivodship local government. The law stipulated the objectives, which should be included by the voivodship local government in strategic planning, such as: the cultivation of the Polish identity and the development of national, civic and cultural awareness of residents as well as the cultivation and development of local identity; the stimulation of economic activity; raising the level of competitiveness and innovativeness of the voivodship economy; maintenance of value of cultural and natural environment, taking into account the needs of future generations; development and maintenance of spatial order.<sup>18</sup>

In view of the changes that have taken place in Poland in recent years, it was necessary to update the Development Strategy of the Lower Silesian Voivodship 2020 to the current socio-economic situation and the needs arising from the new programming period.<sup>19</sup> The document was adopted on 28 February 2013. The document included strategic balance of the region and noted a number of important strengths and growth opportunities as well as weaknesses and threats to the voivodship also relating to security issues (Table 1).

A strategic approach to regional development while ensuring its security allows to adopt changes in the economy, society and space and determine the degree of implementation of the targets.

In accordance with the provisions of the strategy, development capabilities should be better targeted to create the safety grounds of the region and to remove emerging threats. The development goals of the voivodship should be subordi-

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<sup>16</sup> Uchwała Nr 239 Rady Ministrów...

<sup>17</sup> Art. 11(1) ustawa z dnia 5 czerwca 1998 r. o samorządzie województwa, Dz.U. 2001, Nr 142, poz. 1590, ze zm. [Art. 11(1) The Act of 5 June 1998 on voivodship local government, Journal of Laws 2001, No. 142, item 1590, as amended].

<sup>18</sup> Ibidem.

<sup>19</sup> Uchwała Nr XXXII/932/13 z dnia 28 lutego 2013 r. w sprawie przyjęcia Strategii Rozwoju Województwa Dolnośląskiego 2020 [Resolution No. XXXII/932/13 of 28 February 2013 on the adoption of the Development Strategy of the Lower Silesian Voivodship 2020].

Table 1. Strategic balance of the region including the main security aspects of the Lower Silesian Voivodship

Strengths	Weaknesses
<p>Good links with the European transport system</p> <p>Rich hydrographic network and topography favouring the retention of water and improvement of flood protection.</p> <p>Growing area of sewerage land and the percentage of inhabitants benefiting from the sewerage system.</p> <p>The significant production of electricity on the basis of region's resources.</p> <p>Polycentric structure of settlement network, emerging metropolitan center, large subregional centers and a significant number of smaller towns.</p> <p>The position of the region in the cross-border area.</p> <p>A high, as compared to the country, level of economic development and high dynamics of development of the region.</p> <p>A high level of entrepreneurship of the inhabitants of the region – varied by area.</p> <p>High investment attractiveness, the occurrence of favorable areas for business investment and job creation.</p> <p>The existence of a variety of raw materials deposits of mineral resources reserves and favourable soil and climatic conditions for diversified agricultural production.</p>	<p>Insufficient capacity of transport infrastructure networks as a result of growing needs and a significant degradation of the existing network.</p> <p>Poor use of transport capacity of the River Odra – de-capitalised shipping infrastructure, overexploited quays and port facilities of the Odra River Waterway.</p> <p>Bad technical condition of flood protection infrastructure and built-up flood plains.</p> <p>Insufficient number and capacity of reservoirs and the surface of the flood plains, fragmentary regulation of rivers and streams.</p> <p>Unsatisfactory status of low-voltage transmission network and a small share of electricity production from renewable energy sources.</p> <p>Low level of general security – high crime rate, low level of crime detection.</p> <p>Low level of social trust and trust in public institutions.</p> <p>Lack of an integrated approach to solving social problems and insufficient social welfare infrastructure.</p> <p>Low level of rehabilitation and use of post-mining land and old industrial areas.</p> <p>Degradation of natural terrain caused by economic activity.</p>



Opportunities	Threats
<p>Development of international transport links, improvement of infra-national links and increase of the importance of region for transit use.</p> <p>Modernisation of the Odra River Waterway to class IV navigability.</p> <p>Execution of large investments in the field of flood prevention infrastructure and the implementation of the Program for the Odra River 2006.</p> <p>Effective integration of the crisis management system, in co-operation with regions and neighbouring countries.</p> <p>Development of new warning technology against threats.</p> <p>The use of energy resources of the region – renewable and non-renewable.</p> <p>The implementation of the European requirements for waste management.</p> <p>Balancing the demographic loss through repatriations of people of Polish origin.</p> <p>Increase of local and regional identity.</p> <p>Increase of the outer attractiveness of the towns of the Lower Silesian Voivodship.</p>	<p>Insufficient attention paid to transport needs of a region in the national transport policy (road, rail, waterborne and inland watert transport).</p> <p>Marginalisation of the Odra River transport and lack of consistent implementation of the Programme for the Odra River.</p> <p>Delays in the implementation of measures aimed to improve retention.</p> <p>Insufficient investment in the system protection against floods and droughts and their effects.</p> <p>Unfinished construction of the integrated alarm system (112) and information system (about threats).</p> <p>Insufficient level of funds for revitalisation, restoration, rehabilitation of the environment.</p> <p>A growing energy deficit in the metropolitan area of Wrocław and the voivodship.</p> <p>Insufficient protection against potential consequences of industrial accidents.</p> <p>Permanent migration and the outflow of skilled personnel from the region, especially of young people.</p> <p>An increase in unemployment caused by the possible end of activities of Special Economic Zones.</p> <p>Social marginalisation in rural and old industrial areas.</p>

Source: compiled on the basis of Resolution No. XXXII/932/13 of 28 February 2013 on the adoption of the Development Strategy of the Lower Silesian Voivodship 2020, pp. 15-21.

nated to the creation of an integrated regional community, the building of a competitive, consistent, open and dynamic region.

The document sets out the objectives and directions of region development based on a two-pillar development model. On the one hand, the development of industry based on the most modern technologies and modern services was assumed, and, on the other hand, the use of internal capacity, for example, nature's, spa and cultural resources, taking into account the need to maintain the quality of technical infrastructure.

The strategy clearly indicated that the purpose of the units of local government is to ensure the survival and development of communities and to achieve the established national interests. The achievement of the strategic objectives should be accompanied by maintaining the security of the development of units of local government. It is therefore necessary to currently analyse the factors generating threats and to take measures aimed at effective countering such situations.

The successful implementation of the objectives should contribute to the growth of social awareness concerning the level of security in the region and actual and potential threats. A very important effect of the strategy should be equipment reinforcement, for example, of services and fire service as well as other units that have an impact on risk prevention, and those involved in fighting them and removing their effects. In order to do this, it seems necessary to improve cooperation between these units.

Building the security system in the Lower Silesian Voivodeship requires implementation of the tasks arising from the acts and other regulations concerning the operation of the voivodship, county and municipal government and non-governmental organisations operating in this area, while taking into account the role of the Governor of the Lower Silesian Voivodship in relation to entities implementing the tasks regarding safety, i.e. services, inspection and fire service and other organizations.

In the European Union, the intensification of civil initiatives is a particular area of emphasis. To achieve this, the local government of the Lower Silesian Voivodship could co-ordinate and monitor such activities and create opportunities for promoting active citizenship.

## **2. Security of the Lower Silesian Voivodship in the new programming period**

Within the cohesion policy for the years 2014-2020 Poland will receive 82.5 billion EUR, including 76.9 billion EUR within the operational programmes, approximately 700 million EUR within the European Territorial Co-operation, approximately 473 million EUR from the Fund for European Aid to the Most De-

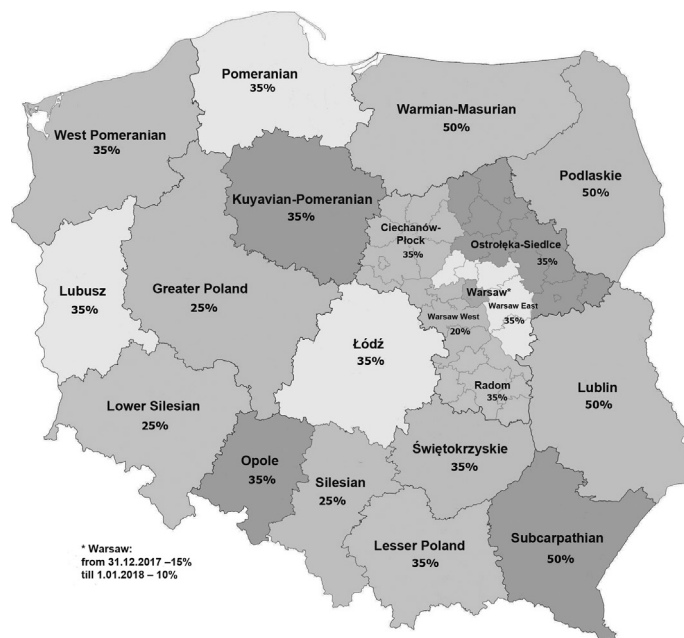


Figure 1. Regional aid from the European Union for individual voivodships in Poland for the years 2014-2020

Source: *State aid: The Commission approves the map of regional aid for the period 2014-2020 for Poland*, [http://europa.eu/rapid/press-release\\_IP-14-180\\_pl.htm](http://europa.eu/rapid/press-release_IP-14-180_pl.htm) [15.08.2014].

prived, approximately 287 million EUR for technical aid, approximately 71 million EUR for the activities related to development of urban areas.

The funds received from the European Union are to contribute both to the achievement of the objectives of regional policy and cohesion policy so as to allow the implementation of the strategy Europe 2020. The main objectives will be investments in the development and employment in the Member States and the regions as well as the European territorial cooperation.

Programming the financial perspective for the years 2014-2020 – Partnership Agreement was signed on 23 May 2014.<sup>20</sup> According to this document the European funds are intended, among other things, for increasing the competitiveness of the economy, the improvement of social and territorial cohesion of the country, raising the efficiency and effectiveness of the state.<sup>21</sup> Further investments are

<sup>20</sup> Programowanie perspektywy finansowej na lata 2014-2020 – umowa partnerstwa [Programming the financial perspective for the years 2014-2020 – Partnership Agreement], Ministerstwo Infrastruktury i Rozwoju, Warszawa 2014, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Programowanie\\_2014\\_2020/Umowa\\_partnerstwa/Documents/UP\\_pl.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Programowanie_2014_2020/Umowa_partnerstwa/Documents/UP_pl.pdf) [30.08.2014].

<sup>21</sup> European Funds 2014-2020 – general information, [www.mir.gov.pl/fundusze/fundusze\\_europejskie\\_2014\\_2020/strony/start.aspx](http://www.mir.gov.pl/fundusze/fundusze_europejskie_2014_2020/strony/start.aspx) [30.08.2014].

Table 2. Distribution of EU funds for national and regional programmes (in EUR)

National and regional programmes	EU funds
Programme Infrastructure and Environment 2014-2020 <sup>a</sup>	27 410 000
Programme Smart Growth 2014-2020 <sup>b</sup>	8 610 000
Programme Digital Poland 2014-2020 <sup>c</sup>	2 170 000
Programme Knowledge Education Development 2014-2020 <sup>d</sup>	4 690 000
Programme Eastern Poland 2014-2020 <sup>e</sup>	2 000 000
Programme Technical Aid 2014-2020 <sup>f</sup>	700 120 000
Regional Operational Programme for the Lower Silesian Voivodeship*	2 252 546 589
Regional Operational Programme for the Kuyavian-Pomeranian Voivodeship*	1 903 540 287
Regional Operational Programme for the Lublin Voivodeship*	2 230 958 174
Regional Operational Programme for the Lubusz Voivodeship*	906 929 693
Regional Operational Programme for the Łódź Voivodeship*	2 256 049 115
Regional Operational Programme for the Lesser Poland Voivodeship*	2 878 215 972
Regional Operational Programme for the Opole Voivodeship*	944 967 792
Regional Operational Programme for the Subcarpathian Voivodeship*	2 114 243 760
Regional Operational Programme for the Podlaskie Voivodeship*	1 213 595 877
Regional Operational Programme for the Pomeranian Voivodeship*	1 864 811 698
Regional Operational Programme for the Silesian Voivodeship*	3 476 937 134
Regional Operational Programme for the Świętokrzyskie Voivodeship*	1 364 543 593
Regional Operational Programme for the Warmian-Masurian Voivodeship*	1 728 272 095
Regional Operational Programme for the Greater Poland Voivodeship*	2 450 206 417
Regional Operational Programme for the West Pomeranian Voivodeship*	1 601 239 216
Regional Operational Programme for the Masovian Voivodeship*	2 089 840 138

<sup>a</sup> Programme Infrastructure and Environment 2014-2020, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Documents/POIS\\_2014\\_2020\\_08012014.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Documents/POIS_2014_2020_08012014.pdf) [30.08.2014]; <sup>b</sup> Programme Smart Growth 2014-2020, [www.mg.gov.pl/files/upload/21776/POIR\\_do\\_KE\\_10012014.pdf](http://www.mg.gov.pl/files/upload/21776/POIR_do_KE_10012014.pdf) [30.08.2014]; <sup>c</sup> Program Digital Poland 2014-2020, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Documents/POPC\\_4\\_0\\_8\\_01\\_14\\_ost\\_10012014.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Documents/POPC_4_0_8_01_14_ost_10012014.pdf) [30.08.2014]; <sup>d</sup> Programme Knowledge Education Development 2014-2020, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Documents/PO\\_WER\\_08012014.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Documents/PO_WER_08012014.pdf) [30.08.2014]; <sup>e</sup> Programme Eastern Poland 2014-2020, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Documents/POPW\\_po\\_RM\\_8\\_01\\_14.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Documents/POPW_po_RM_8_01_14.pdf) [30.08.2014]; <sup>f</sup> Programme Technical Aid 2014-2020, [www.mir.gov.pl/fundusze/Fundusze\\_Europejskie\\_2014\\_2020/Documents/POPT\\_2014-2020\\_ver\\_40\\_10012014.pdf](http://www.mir.gov.pl/fundusze/Fundusze_Europejskie_2014_2020/Documents/POPT_2014-2020_ver_40_10012014.pdf) [30.08.2014]; \* The amounts result from the division based on the methodology used by the European Commission. Their components are additional funds from the division of the programme reserve, i.e. funds for Integrated Territorial Investments and other Strategic Areas of intervention.

Source: compiled on the basis of European Funds 2014-2020 – general information, [www.mir.gov.pl/fundusze/fundusze\\_europejskie\\_2014\\_2020/strony/start.aspx](http://www.mir.gov.pl/fundusze/fundusze_europejskie_2014_2020/strony/start.aspx) [30.08.2014].

planned in the development of transport infrastructure as well as spending for increased innovation and business support. The legal instrument allowing for the execution of Partnership Agreement was introduced by the Act on the principles of cohesion policy programmes financed in the financial perspective 2014-2020, called the Implementation Act, which entered into force on 13 September 2014.<sup>22</sup>

<sup>22</sup> Ustawa z dnia 11 lipca 2014 r. o zasadach realizacji programów w zakresie polityki spójności finansowanych w perspektywie finansowej 2014-2020, Dz.U. poz. 1146 [The Act of 11 July 2014

The European Commission approved the possible division of funds for regional development in different voivodships in Poland in the years 2014-2020. The grounds for the decision are the new guidelines on regional aid, adopted by the Commission in June 2013,<sup>23</sup> whose purpose is to stimulate economic growth and enhance the coherence of the single market. The decision defined Polish regions eligible for national regional investment aid under EU state aid rules in the next seven years. In addition, the maximum levels of aid for businesses eligible in the regions were indicated. On this basis, on 1 July 2014, the Resolution of the Council of Ministers of 30 June 2014 on the regional aid map for the period 2014-2020 entered into force.<sup>24</sup> The investment aid is to guarantee the continuity of the regional policy in Poland and contribute to regional development as a basis for ensuring the national security of the Republic of Poland and its regions.

Regional aid map (see Figure below) in force since 1 July 2014 to 31 December 2020. It presents the areas in which GDP per capita is less than 75% of the EU average. They are home to 86.3% of the population of Poland. These areas are eligible for maximum regional investment aid, i.e. from 25% to 50% of eligible costs of appropriate investment projects.

The regional aid from the European Union will have to mainly stimulate the economic growth and employment, which is consistent with the objectives of creating opportunities for economic development of the country and ensuring national security. As can be seen on the map of material aid, the Masovian Voivodship has exceeded the threshold of 75% of the EU average GDP per capita, and therefore the aid will comprise a maximum of 10-35%, because it should be used by the least-favoured regions of the European Union. The Lower Silesian Voivodship, however, will receive aid amounting to 25%.

The new programming period is intended to bring increasing pressure on the use of the endogenous potential of the regions and their territorial specialisation. Due to a greater decentralisation of the implementation of the European funds the Lower Silesian Voivodship will be able to take greater responsibility for taking measures. The complementarity between government intervention and the voivodship shall be guaranteed by the territorial contract.

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on the rules for implementing the programs within the cohesion policy financed in the financial perspective 2014-2020, Journal of Laws, item 1146].

<sup>23</sup> Communications of the institutions, bodies, offices and agencies of the European Union, the European Commission. Approval of the state aid program in accordance with Art. 107 and 108 TFEU Cases, for which the Commission raises no objections (text with EEA relevance) (2014/C 210/01), SA.37485 Regional aid maps for Poland (2014-2020), "Official Journal of the European Union" C 210/6, 4.07.2014.

<sup>24</sup> Rozporządzenie Rady Ministrów z dnia 30 czerwca 2014 r. w sprawie ustalenia mapy pomocy regionalnej na lata 2014-2020, Dz.U. poz. 878 [Resolution of the Council of Ministers of 30 June 2014 on the regional aid map for the period 2014-2020, Journal of Laws, item 878].

Resources from the European funds will be used within, currently negotiated with the European Commission, national operational programmes adopted by the Council of Ministers on 8 January 2014.

Currently, regional programmes prepared by voivodship local governments, forwarded in April 2014 and evaluated by the Ministry of Infrastructure and Development, are negotiated with the European Commission. Funds for the Lower Silesian Voivodship within the regional operational programme will come from the European Regional Development Fund and the European Social Fund.

## **Conclusions**

State security means the ability of the Republic of Poland to neutralize threats from the environment or internal threats. In order to maintain the security it is necessary to take responsibility for the safety of the region and take into account its individual levels in the regional policy of the Lower Silesian Voivodship.

The Lower Silesian Voivodship is one of the richest and fastest growing regions in Poland, in which a problem arises of space polarization and growing stratification of society, which poses a serious threat to the further development of the region. Previous changes taking place in the Lower Silesian Voivodship have resulted in updating the vision of the future. In accordance with Strategy for the development of the Lower Silesian Voivodship 2020 the authorities will seek to create a competitive, cohesive, open, dynamic region, and an integrated regional community. The possibilities of achieving the objectives will largely depend on the level of security in the region.

The current policy is intended to increase its regional security by taking measures aimed at countering diagnosed and potential threats. Their scale is different in various counties of the voivodship due to the territorial diversity of the region. For this purpose, the potential of the region along with the national funds and resources from the European funds will be used.

Regional aid for the Lower Silesian Voivodship from European funds will be mainly aimed at stimulating economic growth and employment, using internal potential of the region, and hence ensuring regional security. It will also allow to guarantee the continuity of the regional policy in Poland and contribute to regional development as a basis for ensuring the national security of the Republic of Poland and its regions.

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- Wyzwania dla bezpieczeństwa w polityce regionalnej województwa dolnośląskiego.



## Wyzwania dla bezpieczeństwa w polityce regionalnej województwa dolnośląskiego

**Streszczenie.** *We współczesnej gospodarce regiony muszą wykazywać coraz większą elastyczność w zakresie dostosowań do zmieniających się warunków. W województwie dolnośląskim przyjęto strategiczne podejście do bezpieczeństwa w polityce regionalnej zgodnie z ustawą o zasadach prowadzenia polityki rozwoju. Działanie to pozwala ukierunkować zmiany zachodzące w gospodarce regionu i określić poziom realizacji założonych celów oraz dostrzec sygnały zagrożenia poprzez bieżący monitoring założeń strategii. Celem artykułu jest przedstawienie sposobu postrzegania bezpieczeństwa w polityce regionalnej województwa dolnośląskiego.*

**Słowa kluczowe:** *bezpieczeństwo, polityka regionalna, województwo dolnośląskie.*



## **The use of EU funds**



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## **The involvement of banks and microfinance institutions in options of EU fund absorption between 2014-2020\***

***Abstract.** This article focuses on the problems of EU spending in the new perspective of 2014-2020, within the framework of the cohesion policy, and with regard to the Europe 2020 strategy. It is a strategy for smart, sustainable, and socio-economic development of favorable social inclusion and aligning development disparities. The article stresses that one of the essential elements in the whole process of the absorption of EU funds in the new perspective of funding is the involvement of financial institutions. Therefore, the main objective of the article was to identify areas and financial instruments, which are at the disposal of the financial institutions, such as banks and microfinance institutions, which are possible to use in order to improve the efficiency of absorption of EU funds in the years 2014-2020.*

***Keywords:** European funds, financial institutions, new perspective 2014-2020*

### **Introduction**

Smooth and effective application of financial funds designated for Poland within European Union program on years 2014-2020 requires coordination of many preparation initiatives and application actions, involvement of public and private institutions and accepting priorities and targets set in programs and types of investment activities.

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Actions undertaken on country level should be coherent with requirements and objectives defined on European Union level. In perspective 2014-2020 usage of funds in frames of coherence policy began subordinated towards objectives achievements within strategy Europe 2020. It is the strategy of intelligent and balanced socio-economic development serving social inclusion and compensation of development disproportion.

One of fundamental element in whole realization of absorption EU funds in new perspective of EU financing is participation and involvement of possibly the largest number of institutions, businesses and people undertaking initiatives on development of Poland. Among these institutions significant function and importance belongs to financial institutions. Most of them are banks and non-banking financial institutions that could and should play important role in absorption of EU funds on coming years.

The objective of this paper is to point out areas and financial instruments, being under disposal of financial institutions like banks and microfinance institutions, possible to be used in order to enhance effectiveness of absorption of EU funds in 2014-2020. Among the main areas of financial institutions involvement one could distinguish following:

- co-financing of infrastructural projects in terms of credit, loans and bonds issue,
- financial advisory and consulting,
- warranties and guarantees.

Every possibility of involvement area of financial institutions in absorption of EU funds requires individual analysis and risk calculation, which is, from the point of view of financial institution, the most important element of effective and result driven co-operation with beneficiaries of EU funds.

## **1. General characteristics of EU supportive programs in years 2014-2020**

In years 2014-2020 around 94% of the whole EU budget, that is 955.7 billion EUR will be scheduled on realization of particular EU policies. For majority of EU countries membership contribution come back in forms of approved operational programs. Remaining 6% that is 61 billion EUR will be allocated on EU current cost that is administration costs, payroll, IT services. Approved budget on year 2014-2020 proves, that Poland will be one of the biggest beneficiary of EU funds and collect within seven coming years 106 billion EUR. Financial funds of EU will be allocated on scientific researches and its commercialization, key road connections, business development, green transportation (railway, public transport), digitalization of the country, social inclusion, vocational activation.

Table 1. Allocation of EU funds among regions in Poland in 2014-2020 (EFRR)

Regions/Voivodeship	Total allocation on RPO (current prices in EUR)
Lower Silesian	2 252 546 589
Kuyavian-Pomeranian	1 903 540 287
Lublin	2 230 958 174
Lubusz	906 929 693
Łódź	2 256 049 115
Lesser Poland	2 878 215 972
Masovian	2 089 840 138
Opole	944 967 792
Subcarpathian	2 114 243 760
Podlasie	1 213 595 877
Pomerania	1 864 811 698
Silesian	3 476 937 134
Świętokrzyskie	1 364 543 593
Warmian-Masurian	1 728 272 095
Greater Poland	2 450 206 417
West Pomerania	1 601 239 216
Total	31 276 897 550

Source: Programowanie perspektywy finansowej 2014-2020 – umowa partnerstwa [Programming the financial perspective 2014-2020 – The Partnership Agreement], Ministerstwo Rozwoju i Infrastruktury, Warszawa 2014, p. 165.

Additionally Poland can apply for 252 billion EUR for supporting unemployed youth. Apart Coherence Fund, there were financial funds scheduled on Common Agricultural Policy on 32.1 billion EUR. For comparison EU funds allocated for Poland in frames of direct payments and development of rural areas in year 2007-2013 were amounted to 28.6 billion EUR.<sup>1</sup> European Union approved for Poland significant part of funds allocated on supporting agriculture.

In financial perspective 2014-2020 within funds allocated for Poland, 60% of funds will be transferred on 6 country operational programs, including one inter-regional fund for regions of Eastern Poland. These are following programs:

- Infrastructure and environment – 115 billion PLN (27.4 bln EUR),
- Intelligent development – 36 billion PLN (8,6 bln EUR),
- Knowledge, Education, Development – 18 billion PLN (4,7 bln EUR),
- Digital Poland – 9.4 billion PLN (2 bln EUR),
- Eastern Poland – 8.8 billion PLN (2.2 bln EUR)
- Technical Support – 2.9 billion PLN (0.7 bln EUR),

<sup>1</sup> Council Regulation 1782/2003 and 73/2009; Funds on rural areas development – decision of European Commission on 27 of April 2010, 2010/236/EU.

– Regional Operational Program (RPO) – 31.3 billion EUR.

Due to entries in the Partnership Agreement there were 31 247 billion EUR allocated on Regional Operational Program in year 2014-2020, split into 22 571.6 billion EUR on EFRR (72,2%) and 8 675.4 billion EUR (27,8%) on EFS. The biggest amounts of funds from both parts EFRR and EFS had been allocated on following regions:

- Silesian (3473.7 million EUR),
- Lesser Poland (2875.4 million EUR),
- Greater Poland (2447.9 million EUR),

From the other hand the least funds had been allocated to following regions: Lubusz (906.1 million EUR) and Opole (944.10 million EUR).

Apart funds from EU designated on regional operational programs, Regions can apply for financial funds coming from national programs. Moreover, European Commission additionally allocate app. 5% of EFRR funds on urban development of every member country. It will be no separated program on urban revitalization, so one can apply for financial funds on that activity from different approved programs.

## **2. Peculiarity of financing the infrastructural investment – financial assembly of investment ventures**

Capital raising on certain investment is one of the essential challenges, appearing in front of the management board of the company. In order to make the correct choice it is necessary to consider various factors and make consolidated balancing. Currently financial market offers many possibilities of obtaining financial funds. One can consider bank credit or bonds issue. Investments, co-financed from European Union due to concept of regional specialization triggered by European Commission, are to stimulate the regional growth, originated from inside, resulted on funds concentration on selected priorities. General legal regulation, concerning instruments of financial engineering are enclosed in the decree 1083/2006. Only paragraph 44 describes the instruments of financial engineering. Legislation is quite well detailed in the regulation 1828/200623 in section 8, focused exclusively on instruments of financial engineering (Art. 43-46).<sup>2</sup> Current legislation regulates first of all:

– minimal scope of concluded agreement on financing ( necessity of submitting investment strategy, rules of monitoring, policy of exiting from instrument of financial engineering and also rules of its potential liquidation),

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<sup>2</sup> *Rola instrumentów inżynierii finansowej w zaspokajaniu potrzeb przedsiębiorstw w województwie podkarpackim*, PAG Uniconsult, Warszawa 2011, p. 41.



- maximal thresholds of management cost, that could be covered by funds handed over within operational program, according to funds type (from 2% in surety funds to 4% in microloan funds),
- financing principles in so called trust funds (ex. within initiative JEREMIE), offering different types of support,
- limitation of support by instruments of financial engineering exclusively for companies on their start up phase, early stage and development phase.

Peculiarity of conducting investment activity includes preparation of appropriate financial assembly. In a group of financial engineering instruments, special attention is focused on instruments, activated by external financing with debt character. That is the group of instruments, creating the surety funds and non-banking loan funds. First of these instruments acts indirectly, enabling access to existing surety sources, that is first of all credits, offered by banks and loans, offered by non-banking loan funds.

### **3. Role of banks and microfinance institutions in providing servicing of financial funds from EU programs**

Banking sektor fulfil important role in financing EU programs (in 2007-2013 value of programs 200 billion PLN). Due to estimation, until year 2020 the role of banks in absorption EU funds will be enhanced by significant function of providing financial instruments having repayable character to beneficiaries. According to results of researches conducted in Poland almost half of financial agents, involved in process of co-financing of projects carried out with EU funds, are private owners of non-banking financial institutions.<sup>3</sup>

As far as distribution of instruments supporting credit quality is obvious source of benefis for agent, in case of surety instruments it is difficult to make an assumption that market players ( in smaller range it concerns public players as well) work as non-profit, accepting on their own the risk, related to certain incorrectness. Assumption can be made that in case of loan instruments, they can generate profits in another way, for example by cross-selling or incentive system within initiative JEREMIE.<sup>4</sup> Agents can also expect similar solution already approved in SPO WKP after completion of Project, that funds will be used to increase capitals of these players, what would be significant encouragement into

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<sup>3</sup> A. Alińska, M. Wajda, *Absorbcja funduszy strukturalnych przez niebankowe instytucje mikrofinansowe*, in: *Fundusze europejskie w polityce spójności*, red. A. Augustyn, H. Ostapowicz, Wyd. Uniwersytetu w Białymstoku, Białystok 2013, p. 174.

<sup>4</sup> P. Tamowicz, B. Lepczyński, M. Liszewska, *Inicjatywa JEREMIE w Polsce. Nowy mechanizm interwencji publicznej. Pierwsze doświadczenia z wdrażania Inicjatywy JEREMIE w województwie pomorskim i pozostałych regionach Polski*, Pomorskie Studia Regionalne, Gdańsk 2013, p. 95.

implementation of surety instruments. Important instrument of support seems to be guarantee or warranty. In practice, guarantees focus, first of all on stimulation of crediting actions of banking sector. This is due to the fact that bank credit still remain the predominant source of financing the economic needs.

Issues related to the financing of investment activity is particularly important in the case of evaluating the activities of loan and surety funds, providing its support in the areas where there is limited ability to use any other external financing sources and applied security of the credit. For these financial institutions unacceptable barrier may prove to be a difficulty in estimating the risk associated with the activities of business entities present on the market as the beneficiaries of EU aid.

According to the research results in the field, the value of guarantees for circulatory loans/credits in the portfolio of guarantee funds in Poland, in volume and value terms is running at the level of 70-80%.<sup>5</sup>

Initial delays in implementation might have been rooted then in problems arising from qualification of circulatory loans/credits. It does not however concern only the past situation as potential exclusion of part of circulatory guarantees with qualification of expenditure at projects clearing stage may bring serious consequences for the stability and expansions of guarantee funds.

In case of active guarantees it would become necessary to move them to own funds account line. Despite relatively small scale of guarantee initiative (ca 1 billion PLN) is not in the position to destabilize banking system, it is important to underline weaknesses of this system, which was used by more than 10<sup>th</sup> business entities until year end 2013 (only thanks to RPO funds). Future increase of utilization of financial instruments, will analogically bring, as in previous years, the increase of resources being managed by funds. Absence of security norms, risk diversification or funds management supervision requires the implementation of changes, which will secure the stability of this unregulated sector in Poland.<sup>6</sup> The assumption that lack of need for funds supervision results from relatively small share of this sector's assets in all financial sector assets seems to be the wrong standpoint. Dynamic assets increase over recent years and large amount of businesses using them, as well as plans for further increase of guarantee and loan fund capitalization in 2014-2020 perspective, justify implementation of appropriate regulations securing the stability of this system. However, the analysis of guarantee funds system in Poland indicates weaknesses of current system in Poland: fragmented capital, lack of re-guarantees system, lack of adjustment of funds' offer to specifics of banks' activity (each fund offers different terms, banks are

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<sup>5</sup> *Analiza stanu rynku funduszy poręczeń kredytowych w Polsce. Ocena i perspektywy rozwoju*, PAG Uniconsult, Związek Banków Polskich, Warszawa 2014, p. 68.

<sup>6</sup> Recent rating of Polish guarantee funds cannot be synonymous with fulfillment of this requirement, because of the necessity to focus on the risk generated as the result of EU funds implementation.

forced into individual evaluation of each case and are not in the position to offer the credit with fund guarantee as the standard banking product).

It results in low demand for funds guarantees, smaller access to financing for small and medium enterprises, lower effectiveness of public funds involved in comparison with other EU countries.<sup>7</sup> The consequence of this specific market situation is the necessity to analyze the role of guarantee funds in wider context, which involves at least three basic factors:

- first, real interest presented by financial institutions in making debt financing available (readiness to offer debt products),
- second, debt financing access conditions, which can present positive or negative factor to use this source of financing,
- third, susceptibility of entrepreneurs to fulfill their financial needs based on debt financing.<sup>8</sup>

The issue of under-control or over-control of the market related to EU funds distribution and the definition of financial institutions role as intermediaries and advisors in effective distribution of EU funds becomes ever so important, especially when the analysis of financing sources used by medium/small enterprises and households is done. It is estimated that the portfolio of lending companies amounts to appx. 4 billion PLN. In banking sector, consumer credits sum up to 150 billion PLN, and with mortgages included, it exceeds 500 billion PLN. Comparison of these numbers gives a fraction, but taking into account only low value credits, which are below 4 thousand PLN, it amounts to 30-40% of banks portfolio – and that is not a margin any more.<sup>9</sup>

Another important factor that needs focused attention when evaluating EU funds implementation efficacy in next funding stage (2014-2020) is the perspective of the value of costs, fees, commissions etc. In line with Art. 78 point d European Council (WE) Regulation nr 108/2006, dated: July 11, 2006, setting general regulations regarding European Fund for Regional Development and Cohesion Fund and repealing European Council (WE) Regulation nr 1260/1999, resources from European Fund for Regional Development can cover qualified expenditure for management or management fees.<sup>10</sup> This regulation is being detailed in Art. 43, EU Council Regulation nr 1828/2006, dated: December 8, 2006, setting detailed acceptable means of compliance of EU Council Regulation nr 1083/2006 setting general regulations regarding European Fund for Regional Development, European Social Fund and Cohesion Fund and European Parliament and Council

<sup>7</sup> *Analiza stanu rynku...*

<sup>8</sup> *Rola instrumentów inżynierii finansowej...*, p. 41.

<sup>9</sup> G. Krekora, Blog Alebank: [www.alebank.pl/index.php?option=com\\_content&view=article&id=48490:jablko-nie-gruszka-kredyt-nie-pozyczka&catid=709&Itemid=196](http://www.alebank.pl/index.php?option=com_content&view=article&id=48490:jablko-nie-gruszka-kredyt-nie-pozyczka&catid=709&Itemid=196) [20.12.2014].

<sup>10</sup> Due to the limited application of management fee in Poland, it will be analyzed only the case of the cost refund for management.

Regulation nr 1080/2006 regarding European Regional Fund, which states that: management costs cannot exceed, yearly average, during the term of funding program, the below stated limits, unless, the bid conducted proves the necessity to increase these limits, according to current rules:

- 2% of the capital provided by the fund program to trust fund or capital provided by fund program or trust fund to guarantee funds;
- 3% of capital provided by the fund program or trust fund to financial engineering instrument in all remaining cases, excluding micro crediting instruments designated for micro enterprises;
- 4% of capital provided by the fund program or trust fund to micro crediting instruments designated for micro enterprises.

Issues relating to the value of fees are especially important from the point of view of EU funds beneficiaries. It is important that these values do not significantly exceed the level of financial investment especially those by financial institutions. It is to remember that EU funding is aimed at serving beneficiaries and not to multiply financial intermediaries' profits.

Another form of support of financial institutions in EU funds implementation, are guarantees and warranties. It is an example of financial product offered by banks as well as non-banking financial institutions. Popularity of this product results first of all from the intention to decrease risk exposure by banks and micro financing institutions. It constitutes one of basic forms of warranty, eagerly used by consumer clients as well as by micro, small and medium entrepreneurs, who contrary to big corporate clients do not provide appropriate financial indices, confirming their creditworthiness. These instruments constitute the group of products aimed at improvement of credit quality. Because of ease of funds leveraging, this instrument was also used to distribute European funds in 2007-2013 perspective. It was used to pass the capital into management (most often by warranty funds) with aim to provide individual warranties as well as guarantees for guarantee funds and in the form of portfolio guarantees implemented among others by banks.<sup>11</sup>

In case of guarantee funds the indicator of value of active guarantees in relation to capital owned amounted to only 125% in 2013, while in most European countries it is many times higher.

- according to experts, such a situation is the result of three factors, namely,
- absence of instruments forcing guarantee funds to undertake higher risk (in most cases, unfortunately mechanisms the role of which would be to allocate new public funds in those guarantee funds which enjoyed the highest capital usage),
- constant inflow of public funds as the result of subsequent EU programs and resulting from this – constant increase of denominator of the fraction, describ-

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<sup>11</sup> M. Wajda, *Analiza wdrażania instrumentów wsparcia jakości kredytowej współfinansowanych ze środków europejskich w latach 2007-2013 na podstawie udzielonej pomocy de minimis*, UwB Optimum, Białystok 2014 (in print).

ing the level of engagement of fund's capital and finally fragmentation of guarantee funds sector and its limited attractiveness to banking sector,

- absence of effective re-warranty mechanisms.

In line with adopted assumption in the area of 2014-2010 planning, there will be an increase of usage of returnable instruments, including guarantee instruments. Aimed value of warranty-guarantee portfolio in the next planning period may exceed even 10 billion PLN. It is necessary then to undertake the effectiveness analysis of used guarantee instruments co-financed by European funds, especially in the new distribution phase 2014-2020. Based on the data regarding *de minimis* aid provided as part of guarantee systems worth noting, inter alia, to analysis on the speed of the implementation and benefits for SME under the extended warranty. The results obtained research shows that it is worthwhile to develop this form of support for the development of entrepreneurship.

It is important to also remember that in 2015 will be the end of government *de minimis* program by Bank Gospodarstwa Krajowego. From the perspective of evaluation of public finance condition and country budget conditions, it is clear that EU funds are the only significant source of financing of the development of new warranty-guarantee system.

## Conclusions

Analysis of issues presented in this article illustrates that the system of financial institutions, especially the system of loan - guarantee in Poland was developed when the scale of demand for such external financing sources was limited. However the development of this group of entities and ever increasing demand for this kind of services and products and first of all and inflow of structural funding shows that present solutions might not be sufficient.

It is proved if only by the indicator of average value of funding per one financial intermediary (model without the manager of trust fund) which amounted to ca 15 million PLN.<sup>12</sup>

Additionally the change of system architecture has to include significant increase of loan and guarantee funds capitalization and resulting necessity to implement control regulations and risk management norms, which will assure the stability to its important from the point of view of SME sector.<sup>13</sup> It is necessary then to implement series of institutional and legal changes, new subjects coming

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<sup>12</sup> The average size of a financial intermediary funding for implementing the financial instruments without a trust fund manager.

<sup>13</sup> By the end of 2013. financial instruments supported 27 thousand companies. See: Wdrażanie Regionalnych Programów Operacyjnych, 31.01.2014, [www.funduszeuropejskie.gov.pl/Analizy-RaportyPodsumowania/poziom/Strony/RPO\\_stan\\_wdrazania\\_310114.aspx](http://www.funduszeuropejskie.gov.pl/Analizy-RaportyPodsumowania/poziom/Strony/RPO_stan_wdrazania_310114.aspx) [14.07.2014].

to stage and setting development supporting objectives before the new phase of EU funds distribution in order to secure not only appropriate speed of funds usage but also to improve effectiveness of their usage. It seems that at present, the most significant challenge in front of financial institutions is to actively join and work for the improvement of usage of available EU financial funds.

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## Możliwości absorpcji funduszy UE w latach 2014-2020 z perspektywy zaangażowania banków i instytucji mikrofinansowych

**Streszczenie.** Artykuł koncentruje się na problemach wydatkowania środków UE w nowej perspektywie 2014-2020 w ramach polityki spójności z uwzględnieniem strategii Europa 2020. Jest to strategia na rzecz inteligentnego i zrównoważonego rozwoju społeczno-gospodarczego, sprzyjająca inkluzji społecznej i wyrównywaniu dysproporcji rozwojowych. Jednym z zasadniczych elementów realizacji procesu absorpcji środków UE w nowej perspektywie finansowania UE jest udział i zaangażowanie instytucji finansowych. Dlatego też wskazano obszary i instrumenty finansowe, będące w dyspozycji instytucji finansowych, jakimi są banki i instytucje mikrofinansowe, możliwe do wykorzystania w celu poprawy efektywności absorpcji środków funduszy UE w latach 2014-2020.

**Słowa kluczowe:** fundusze europejskie, instytucje finansowe, nowa perspektywa 2014-2020

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## **Major trends in the financing of sub-central governments between 1999-2013 and their impact on fiscal sustainability**

***Abstract.** The main purpose of this article is the identification of the desired attributes of the financial system of sub-central governments in Poland, in the context of ensuring fiscal sustainability and the appraisal of real structure and fluctuations in local revenues between 1999-2012. The key conclusion of the paper is that an ongoing process of progressive dependency of local budgets on external transfers from the State budget may be a menace to the fiscal sustainability of local authorities. State grants and subsidies do not correspond with the adequacy principle. In addition, they are not flexible and durable enough, and react very strongly to economic fluctuations. It is therefore possible to pass on to the local budgets a substantial part of the central government debt by arbitrarily reducing the amount of grants in terms of deterioration in the fiscal stance of the State budget. Another drawback of that system is very limited fiscal autonomy of local authorities which constrict their instruments to stimulate future economic growth.*

***Keywords:** fiscal sustainability, sub-central government revenues*

### **Introduction**

The ongoing economic downturn, as well as the effects of the adverse demographic changes, have a significant impact on the growth of expenditure of sub-central governments primarily in areas such as social welfare, education or health care. The phenomenon of crisis also affects a reduction in the level of local revenues which are strongly linked to the economic fluctuations. Both these trends result in an increase in budget deficits and public debt of the sub-central governments.

Such conditions require a new look at the issue of fiscal sustainability which may not be identified merely with the government's ability to service its debt obligations without explicitly defaulting on them.<sup>1</sup> In the conditions of crisis, it is particularly important to ensure that the sustainability of the sub-central governments finance is not achieved by the weakening of the development opportunities of local units because local investments by multiplier effects can significantly contribute to economy stimulation. Fiscal consolidations should not also lead to restricting the range and quality of social services provided to the local community, as the demand for such services is inversely proportional to the macroeconomic conditions and it usually strongly increases during the economic downturn.

An adequate system of financial resources plays an important role in the process of achieving fiscal sustainability by local governments. The purpose of this article is on the one hand to indicate the desired attributes of that system in the context of ensuring fiscal sustainability and on the other hand to appraise the real structure and fluctuations in local revenues in 1999-2012 from that point of view.

## **1. Fiscal sustainability of sub-central governments and an optimum model of the local financial resources system**

As already mentioned, the modern understanding of the term "fiscal sustainability" goes far beyond the issues of local self-government's solvency (which means the ability to meet its financial obligations). In theory of finance it is indicated that the essential components of fiscal sustainability – apart from maintaining the safe level of sub-central public debt – should be ensuring the fiscal performance of local revenues and efficient provision of local public service as well as supporting economic and social development.<sup>2</sup>

Therefore one of the most important requirements to achieve the so-defined fiscal sustainability seems to be a properly constructed system of financial resources which should have at least a few desirable features.

The first one is *adequacy* which means entitlement to adequate financial resources commensurated with the responsibilities provided for self-governments by the constitution and the law.<sup>3</sup> It should be noted that the local revenues should be based on diversified resources with different power of local units to determine

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<sup>1</sup> Ch. Wypłosz, *Debt sustainability assessment: The IMF approach and alternatives*, in: *Compendium on Debt Sustainability and Development*, United Nations Conference on Trade and Development, IMF, Washington 2002.

<sup>2</sup> C. Burnside, *Theoretical Prerequisites for Fiscal Sustainability Analysis*, in: *Fiscal Sustainability in Theory and Practice: A Handbook*, ed. C. Burnside, The World Bank, Washington 2005.

<sup>3</sup> That principle comes from Polish constitution (Konstytucja RP z 2 kwietnia 1997 r.) as well as European Charter of Local Self-government of 15 October 1985, Dz.U. 1994, Nr 124, poz. 607 [Journal of Laws 1994, No. 124, item 607].



their structure.<sup>4</sup> It is important that this principle does not refer to specific solutions but stresses the need for such a shape of a financial resources system, that will enable local authorities to execute their tasks. The biggest problem for the assessment of fulfilling the principle of adequacy in practice is to find the optimal way to value the level of revenues that could be objectively considered sufficient to the functions which have been assigned to self-governments.<sup>5</sup> It is difficult to conclusively determine that a symptom of lack of adequacy in the redistribution of public resources is the presence of deficits in the local budgets, because the poor financial situation may occur even if an appropriate level of public revenue is kept.

Secondly, regardless of the applied method of allocation of public revenue between tiers of government, local financial resources should be characterized by *fiscal efficiency, flexibility and stability* to enable self-governments to provide local public services best matching the preferences of the local people. From the fiscal sustainability point of view, fiscal efficiency means not so much maximizing the importance of a specific source of funding, for example own revenues, but searching for the balance of the whole local financial system which will guarantee sustainable local development.<sup>6</sup> It indicates, on the one hand, the need of financial equalization of the procedures designed to correct the effects of the unequal distribution of potential sources of finance, and on the other hand, providing access to the national capital market to use, if necessary, debt instruments. *Flexibility of revenues*, in turn, is their capacity to adapt to changes “in economic conditions, relating to the sources from which they come.”<sup>7</sup> The *stability* of local funding resources means that their legal structure remains relatively constant in time.<sup>8</sup> In the context of fiscal sustainability the main advantages of flexible and stable revenue system is its predictability which makes it possible for local authorities to foresee their financial policy in the long term.<sup>9</sup>

Thirdly – the optimal sub-central revenue system should be based on diversified financial resources with different sensitivity to economic fluctuations. This could minimize the impact of the economic downturn on local financial condition. The business income sub-central tax share will respond most strongly to

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<sup>4</sup> E. Kornberger-Sokołowska, *Realizacja zasady adekwatności w procesach decentralizacji finansów publicznych*, “Samorząd Terytorialny” 2001, No. 3.

<sup>5</sup> Ibidem.

<sup>6</sup> A. Borodo, E. Drgas, *Podatki w systemie dochodów władz lokalnych*, “Acta Universitatis Lodziensis: Folia Iuridica” 1992, No. 54.

<sup>7</sup> E. Denek, *Stabilność i elastyczność dochodów samorządu terytorialnego w okresie kryzysu (wybrane zagadnienia)*, in: *W poszukiwaniu efektywności finansów publicznych*, eds. S. Wieteska, M. Wypych, Wyd. Uniwersytetu Łódzkiego, Łódź 2009.

<sup>8</sup> Ibidem.

<sup>9</sup> W.J. McCluskey, *Comparative Property Tax Systems*, Department of Surveying University of Ulster, Avebury 1991, p. 3

the recession phenomena, as the profits which are tax basis are more than proportionately susceptible to changes in production.<sup>10</sup> In turn, the sensitivity of the personal income tax shares to economy fluctuations is dependent on whether the tax is progressive or linear, with the tax progression functioning as an automatic stabilizer which in case of a crisis will result in a stronger decline in revenues. As far as the revenues from local taxes such a property tax or forest tax, they are usually the least sensitive to the crisis phenomena, though, obviously, it depends on the individual solutions in the field of its tax bases. When it comes to inter-governmental grants, their vulnerability to changes in the economic conditions is largely dependent on its formulae, more pro-cyclical are earmarked grants than non-earmarked subsidies.

Fourthly, sub-central revenue system should ensure an appropriate proportion between the need to ensure self-government fiscal autonomy and the principle of equal access to local public services by people living in different local communities. Fiscal autonomy relates to the ability of the local jurisdiction both to raise enough revenues from the local economy and to determine how to spend those revenues.<sup>11</sup> High range of financial independence is conducive to high self-government responsibility for financial management. It enforces the rationalization of public expenditure, and also serves to better adjustment of fiscal policy to local preferences. Negative consequences of high fiscal autonomy may be the growth of income disparity between rich and poor regions. Excessive scope of the local financial autonomy may lead to loosening fiscal policy by some sub-central governments and as a consequence of that to claiming for transfers from the state budget. It may have a negative impact on the fiscal sustainability of the general government.

## **2. The main determinants of the current design of self-government income system in Poland**

To characterize the current structure of the local financial system in Poland it is important to realize that it was formed by at least a few circumstances.

Firstly, at the beginning of the 1990s the distribution of financial resources between the central and the local government were based on the assumption of clear privilege of the state budget which was fuelled by a major stream of public

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<sup>10</sup> *New and updated budgetary sensitivities for the EU budgetary surveillance. Information note for the Economic Policy Committee, Directorate General Economic and Financial Affairs, European Commission, Brussels, 30.09.2005, ECFIN/b/6 (2005) REP54508.*

<sup>11</sup> E. Ruśkowski, *Finanse lokalne w dobie akcesji*, Dom Wydawniczy ABC, Warszawa 2004, p. 28

funds coming primarily from the most efficient taxes.<sup>12</sup> At the same time for self-governments (basically for communities, because neither counties nor regions do not have their own taxes) received only a few types of taxes which are characterized by low fiscal performance and outdated, inflexible and quantitative tax bases (for example, property tax, agriculture tax and forestry tax). Thus, at the time of the creation of two additional tiers of self-governments in 1999, it was prejudged that they would be based mainly on the transfers from the central government.

Such distribution of public revenues between the central and self-governments was criticized in doctrine, as unfair and inappropriate to the scope of tasks performed by local authorities. Communities privilege of having their own tax revenue is the result of the fact that until 1998 they were the only tier of the local government and subsequent to that they had received all local taxes in the early 1990s. So that after the introduction in 1999 of the new tiers of self-governments: counties and regions, it was decided to leave communities all their existing revenues.<sup>13</sup> Maintaining the financial resource system of communities has resulted in the fact that the only significant source of own revenues for counties and regions are shared tax revenues.

Secondly, the current local revenues system was created rather through trial and error than as a result of the deliberate and comprehensive reform concept. The manifestation of this is the instability of its legal basis. It was primarily seen in the period of 1999-2003, when the lack of immutable legal regulations of sub-central financial system was even called a “permanent – temporary arrangements”. Unfortunately, even after the introducing of the long-awaited Act of 13 November 2003 on revenues of local units.<sup>14</sup> The endless process of improving the sub-central financial system has been still continuing. The mode of introduction of the latest changes in the financial law through the Act of 29 August 2009 on Public Finance<sup>15</sup> also didn't help to stabilize the financial situation of local authorities. Some of the provisions of this act have been already in force since 1 January 2010, and some of them just shall enter into force later under the Act of 29 August

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<sup>12</sup> A. Pomorska, *System dochodów gmin i potrzeba jego racjonalizacji*, in: *Księga jubileuszowa profesora dr. Leona Kurowskiego*, eds. E. Chojna-Duch, W. Goronowski, Wyd. Konieczny i Kruszeński, Warszawa 1998, p. 128.

<sup>13</sup> Ustawa z dnia 5 czerwca 1998 r. o samorządzie powiatowym, Dz.U. 2001, Nr 142, poz. 1592 [Act of 5 June 1998 on county government, Journal of Laws 2001, No. 142, item 1592]; ustawa z dnia 5 czerwca 1998 r. o samorządzie województwa, Dz.U. 2001, Nr 142, poz. 1590 [Law of 5 June 1998 on the regional (voivodship) government, Journal of Laws 2001, No. 142, item 1590].

<sup>14</sup> Ustawa z dnia 13 listopada 2003 r. o dochodach jednostek samorządu terytorialnego, Dz.U. Nr 203, poz. 1966 [Act of 13 November 2003 on revenues of local units, Journal of Laws, No. 203, item 1966].

<sup>15</sup> Ustawa z dnia 27 sierpnia 2009 r. o finansach publicznych, Dz.U. Nr 157, poz. 1240 [Act of 27 August 2009 on Public Finance, Journal of Laws, No. 157, item 1240].

2009 – the act of applying of public finances regulations.<sup>16</sup> These new solutions have a significant impact on the sub-central revenue system because they concern, inter alia, the obligation to estimate revenues in multi-year financial forecasts, the requirement of a balance between current income and current expenditure, as well as new self-government debt rule based on the individual debt ratio (in which the amount of total local revenues including particularly current receipts and revenues from the sale of property play an important role).

Thirdly, the process of creation of the subnational public finance in Poland was under the influence of basically reasonable assumptions about the need to increase fiscal performance of their own revenues. Apparently, this idea seems right because a significant weight of that source of financing in local budgets is a symptom of their financial independence. In practice, however, this was done mainly through the increase of the portion of shared taxes redistributed to subnational authorities, which under the Constitution of the Republic of Poland<sup>17</sup> as well as the Act of 13 November 2003 on revenues of local units are classified as their own financial resources, although the theory of finance is clearly opposed to that. Most authors describe own revenues as only those which were passed for an unlimited time to subnational governments in entirety and which are connected with the local economic base, as well as the autonomy of local authorities to create their structure (first of all local taxes and fees and property incomes).<sup>18</sup> The above controversy significantly affects the assessment of the scope of the revenue independence of local units.

### **3. The main changes in subnational revenues in Poland in the context of the fiscal sustainability**

The analysis of the trends in the subnational financial resources in Poland in the context of their fiscal sustainability should be started from evaluating the changes in local budget balances which could emphasize the adequacy between revenues and expenditures of self-governments.

Since the introduction of three tiers of subnational governments in 1999 local budget deficits have increased meaningfully (Table 1).

Over the period of 1999-2013 the budget surplus has occurred only twice, in 2004 and in 2007. It was a result of the growth of subnational revenues caused by

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<sup>16</sup> Ustawa z dnia 27 sierpnia 2009 r. Przepisy wprowadzające ustawę o finansach publicznych, Dz.U. Nr 157, poz. 1241 [Act of 27 August 2009 – the act of applying of public finances regulations, Journal of Laws 2009, No. 157, item 1241].

<sup>17</sup> Konstytucja RP z dnia 2 kwietnia 1997 r., Dz.U. Nr 78, poz. 483 [Constitution of the Republic of Poland, Journal of Laws No. 78, item 483].

<sup>18</sup> P. Swianiewicz, *Finanse lokalne. Teoria i praktyka*, Minicipium, Warszawa 2004, p. 23.

Table 1. Budget balances of local governments in Poland in 1999-2013 (in million PLN)

Year	Self-governments	Communities	City counties	Counties	Regions (Voivodeships)
1999	-968	-481	-573	63	24
2000	-3 137	-1 627	-1 318	-110	-83
2001	-3 140	-1 281	-1 469	-252	-138
2002	-3 148	-1 075	-1 539	-412	-122
2003	-1 814	-549	-780	-338	-147
2004	117	-633	-383	27	1 107
2005	-895	-24	-221	-128	-522
2006	-2 998	-1 455	-251	-1 749	-542
2007	2 267	929	996	85	257
2008	-2 614	-575	-1 729	32	-342
2009	-12 984	-5 120	-5 873	-1 071	-920
2010	-14 970	-7 430	-5 069	-1 330	-1 141
2012	-19 560	-7 776	-7 975	-1 531	-2 278
2012	-11 432	-3 862	-5 392	-801	-1 376
2013	-8 822	-3 290	-3 317	-775	-1 439

Source: Reports on the state budget execution in 1999-2013, Ministry of Finance, [www.mf.gov.pl](http://www.mf.gov.pl) [15.11.2014].

legislative amendments introduced by the Act of 13 November 2003 on revenues of local units as well as a very good economic situation in 2007. In contrast the strongest increase in budget deficit was recorded in 2000 (compared to 1999) and in 2009 (compared to 2008). In the first situation it was primarily the result of passing the financial consequences of increasing the teachers' salaries on local units through the reform of the Act – Charter of Teacher.<sup>19</sup> In turn, in the second case the growth of budget deficit was caused by the drop in own revenues including mostly income tax shares (due to reductions of income tax rates for individuals), and also was a consequence of the economic downturn. In addition, over the whole considered period the largest local deficits in all types of subnational governments was in 2012, but the next year it began to slow down. High levels of subnational budget deficits in the context of fiscal sustainability may be an evidence of the lack of adequacy between local revenues and expenditures, although the fiscal imbalances may arise not only from too low incomes in relation to the local tasks, but they can also be a consequence of excessive increases in expenditure for example by exploding local investment activity (which could be seen in 2012, when the local investments boosted both because of the absorption of European

<sup>19</sup> Ustawa z dnia 26 stycznia 1982 r. Karta Nauczyciela, Dz.U. Nr 3, poz. 19 [Act of 26 January 1982 Charter of Teacher, Journal of Laws, No. 3, item 19].

Table 2. Revenues structure of three tiers of subnational governments in Poland in 1999-2013 (%)

Year	1999	2003	2004	2006	2007	2008	2009	2010	2011	2012	2013
Subnational governments											
Own revenues	44.0	43.5	51.5	53.7	56.4	55.0	48.8	48.4	48.9	49.1	50.0
Non-earmarked subsidies	34.0	40.1	34.2	29.5	28.0	28.4	29.1	28.8	28.2	28.6	27.9
Earmarked grants	22.0	16.4	14.3	16.8	15.6	16.7	22.1	22.8	22.9	22.4	22.0
Communities											
Own revenues	54.0	47.3	48.2	47.4	49.5	49.3	46.3	48.4	45.5	46.6	48.2
Non-earmarked subsidies	34.0	42.2	39.3	32.6	31.3	32.0	33.9	28.8	30.7	31.4	31.0
Earmarked grants	12.0	10.5	12.5	20.0	19.2	18.8	19.8	22.8	23.8	22.0	20.9
City counties											
Own revenues	49.0	52.7	60.3	63.1	66.1	65.2	61.9	60.1	59.7	57.9	58.7
Non-earmarked subsidies	30.0	34.7	27.7	24.3	22.6	23.3	24.7	23.9	24.5	24.1	23.3
Earmarked grants	21.0	12.6	12.0	12.6	11.3	11.5	13.3	16.0	15.8	18.0	18.0
Counties											
Own revenues	6.0	15.9	59.1	30.8	32.2	32.4	28.8	28.5	28.0	29.4	29.9
Non-earmarked subsidies	45.0	56.1	50.8	46.1	46.1	44.5	45.5	43.0	42.9	45.4	44.5
Earmarked grants	49.0	32.6	24.3	23.1	21.7	23.2	25.8	28.5	29.2	25.3	25.6
Voivodeships											
Own revenues	18.0	15.9	59.1	63.8	68.3	58.5	32.4	40.6	44.4	43.0	39.1
Non-earmarked subsidies	44.5	35.8	33.1	19.1	21.9	18.6	17.9	14.2	20.7	16.6	16.4
Earmarked grants	47.0	51.0	22.4	14.2	13.1	23.5	53.4	38.7	39.0	40.6	44.5

Source: RIO (Regionalne Izby Obrachunkowe) activity reports 1999- 2013, KRRIO, Warszawa 2000-2014.

funds in ending programming period for 2007-2013, as well as the perspective of setting a new local debt rule in 2014).

Therefore, in the context of fiscal sustainability, it is necessary to examine the fiscal capacity of the different types of subnational financial resources, especially in terms of its flexibility, sensitivity to economic fluctuation, as well as from the perspective of the scope of financial autonomy.

The data in Table 1 indicates that after steadily increasing the fiscal capacity of revenues between 2003 and 2007, as a result of which they reached 56.4% of the total subnational revenues, this trend has been reversed in 2008 and from 2009, the main source of local financing have been grants and subsidies transferred by the State budget. However, there is some variation between different tiers of sub-central governments, because this phenomenon affects primarily the

budgets of districts and provinces, in which budget transfer reached about 70% of total revenues, while in the case of city counties and communities, own revenue remained predominant. The appraisal of such structure of local financial resources in the aspect of fiscal sustainability requires a more intensified evaluation of the nature of the main category of “own” and “external” local revenues. More in-depth analysis of own financial resources fluctuations indicates that in all types of self-governments in Poland, their main category remained income tax shares which predominantly determined the evolution of this kind of revenues (Table 2).

This trend has to be appraised negatively for at least three reasons.<sup>20</sup>

The first one is that the increase in tax shares does not imply the growth of fiscal autonomy of local governments because local units cannot manoeuvre on tax rates and bases in State income taxes (personal income tax-PIT and corporate income tax-CIT). Subnational units are only entitled to percentage fraction of these national taxes, but they cannot use them to affect the behavior of taxpayers (households and companies) and to create future territorial development, which is an essential component of a sustainable fiscal policy. The construction of tax shares is similar to discretionary and pro-cyclical transfers from the State budget (such as grants and subsidies) and so that income tax shares shouldn't be rated among “own revenues.”

The second reason is that the design of income tax shares is very unstable and arbitrary and sometimes allows central governments to pass on the financial consequences of income tax reduction to local authorities. For example, since 2004 tax rates in CIT have been reduced from 27% to 19%) and 19% flat rate tax for the income obtained from non-agricultural business activity of natural persons have been introduced. In 2007 child tax credits in PIT have been adopted, while in 2009, PIT rates have been cut (from 19%, 30% and 40% to 18% and 32%). The above decisions taken by Parliament significantly affected the fiscal capacity of sub-central government's tax shares and limited the fiscal sustainability of local authorities.

The third cause is that local tax shares are strongly depended on economic cycles. It was manifested by a significant reduction of income shared taxes in subnational budgets after the outbreak of the economic crisis in 2008. Particularly, the budgets of the districts and provinces have been hit the hardest by this phenomenon. This is all the more important as tax shares comprise the only source of own revenues in these budgets. And significantly, the fiscal capacity of tax shares, despite improving economy after 2010, has not yet reached the level recorded before the crisis.

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<sup>20</sup> K. Surówka, M. Kosek-Wojnar, *Dylematy racjonalizacji wydatków publicznych JST*, in: *Ekonomiczne i prawne problemy racjonalizacji wydatków publicznych*, eds. J. Głuchowski, A. Pomorska, J. Szolno-Koguc, Wyd. UMCS, Lublin 2005, p. 182.

Table 3. Share of the main categories of own revenues in total incomes of local governments in Poland in 2003-2013 (in %)

Year	2003	2004	2007	2009	2011	2013
Sub-central governments						
Own revenues, including:	43.5	53.3	56.4	48.8	48.9	50.0
income shared taxes	13.0	22.1	25.3	21.7	21.2	21.1
local taxes and charges	17.6	15.5	14.2	12.6	12.6	13.3
property incomes	4.2	4.2	4.3	3.7	3.8	3.8
Communities						
Own revenues, including:	47.3	48.7	49.5	46.3	45.5	48.2
income shared taxes	11.7	14.7	17.4	16.3	16.0	16.9
local taxes and charges	23.3	21.1	19.1	18.3	17.3	19.1
property incomes	4.2	3.5	4.8	3.7	3.4	3.4
City counties						
Own revenues, including:	52.7	61.5	66.1	61.9	59.7	58.7
income shared taxes	17.2	25.7	28.5	27.1	25.2	23.6
local taxes and charges	20.0	17.7	16.3	15.4	15.0	14.6
property incomes	6.4	6.2	6.4	5.5	5.6	5.5
Districts						
Own revenues, including:	15.9	29.2	32.2	28.8	28.0	29.9
income shared taxes	1.3	13.8	17.1	14.4	14.0	15.9
local taxes and charges						
property incomes	1.6	1.5	1.7	1.3	1.4	1.5
Voivodeships						
Own revenues, including:	15.9	64.9	68.3	32.4	44.4	39.1
income shared taxes	12.0	55.7	52.0	25.9	35.8	31.7
local taxes and charges						
property incomes	1.1	0.9	0.9	0.4	1.1	1.0

Source: like in Table 2.

As a consequence of basing local own revenues primarily on shared taxes, the fiscal importance of local taxes and charges (which are assigned only to the budgets of two tiers of local governments, i. e. communities and city counties) and property incomes continues to decrease very significantly year after year. The share of local taxes and charges in total incomes decreased from 17.6% in 2009 to 13.3% in 2013, and the revenue of property from 4.2% to 3.8%.

The assessment of these trends in the context of fiscal sustainability is not clear. On the one hand, a high proportion of own revenues in local budgets means that self-governments are financially independent and they could have an influence on the future social and economic development by shaping the structure of this kind of revenues. In addition, the design of the tax base of the main local taxes, such as: property tax, agricultural tax, forestry tax or tax levied on means of transport refers to the quantitative criteria, making them very stable and at the



same time resistant to economic fluctuations. On the other hand, the subnational budgets relying largely on local taxes and charges might adversely affect the fiscal sustainability of those local units which would not be able to accumulate adequate funds to perform their tasks due to their location, the number of inhabitants, the level of wealth or their infrastructure facilities. A negative impact on the fiscal sustainability can be also associated with possible loosening of local fiscal policy by using tax reliefs and exemptions which could not be always granted on economic grounds, but also as a consequence of political pressure from local “lobbies.”

From the fiscal sustainability perspective, in order to evaluate the development of State budget transfers as resources of local governments, it is necessary to consider non-earmarked subsidies and earmarked grants separately.

The share of non-earmarked subsidies in the local budgets fluctuated significantly during the period of 1999-2013. After the initial increase from 34% in 1999 to over 40% in 2003, it has been systematically declining since 2004 to approx. 27.9% in 2013. However, throughout the whole period, the subsidies have remained the main category of self-governments external revenues.

In the context of fiscal sustainability, the main advantage of the non-earmarked subsidies is that they are determined on objective criteria laid down in the Act of 13 November 2003 on revenues of local units so they remain relatively stable. The amount of subsidies fixed in State budget should be the basis for any claims of local authorities in the cases of failure or incomplete passing on this kind of revenues. Another advantage of subsidies is that there are no legal regulations which determine how to use them and local entities are free to choose how they spend that money. Such spending autonomy may have a beneficial influence on the flexibility of the fiscal policy. It is also extremely important as far as the fiscal sustainability is concerned that the subsidies have an inbuilt vertical equalization mechanism which is a financial support from the State budget for the local units with the lowest revenues and a horizontal equalization system for those self-governments whose expenditures, due to objective factors, are higher than average.

When it comes to the shortcomings of non-earmarked subsidies, the main problem is that they could be determined arbitrarily by the State government depending on the current economic performance (with the exception of those cases in which the minimal amount of that transfer is guaranteed by the law). This can result in the lowering of the sum of subsidies passing on to the local authorities in the conditions of economic downturn when the State budget deficit and public debt typically increase. Non-earmarking of that kind of subsidies might in practice turn out to be quite apparent, as their essential part (almost 80%) is the educational subsidy which is strictly assigned to cover the costs of education services provided by local governments. Besides, local spending autonomy is limited by the fact that educational subsidies do not meet current expenditure for education

Table 4. Educational subsidies in relations to local education expenditure in 2012-2013

Type of self-government	Current education expenditure (in thousand PLN)*		Educational subsidies (in thousand PLN)		Current education expenditure to educational subsidies (in %)	
	2012	2013	2012	2013	2012	2013
Communities including:	27 847 303,2	28 321 250,5	18 100 847,3	18 114 714,6	153.8	156.3
cities	5 922 167,5	5 992 066,8	3 336 101,2	3 329 370,9	177.5	180.0
urban-rural communities	9 365 940,6	9 551 249,2	5 897 234,2	5 901 759,5	158.8	161.8
rural gminas	12 559 195,1	12 777 934,6	8 867 511,9	8 883 584,2	141.6	143.8
City counties	17 574 370,1	17 994 472,3	12 295 700,7	12 590 497,9	142.9	142.9
Counties	6 862 976,6	6 890 579,6	7 992 558,4	8 024 325,9	85.9	85.9
Voivodeships	8 567 24,7	8 640 87,7	7 71 988,5	7 79 656,6	111.0	110.8

\* Only current expenditures are taken into consideration, because the amount of the educational subsidy does not take into account the capital outlay.

Source: own calculations based on data from: Local Data Bank, Central Statistical Office, [www.stat.gov.pl](http://www.stat.gov.pl) [15.11.2014].

incurred by local units and requires funding from other (than subsidies) resources, the level of which in the years 2012-2013 significantly exceeded the amount of subsidies (Table 4).

Another disadvantage of the non-earmarked subsidies is also connected with their horizontal equalization mechanism included in their formulae. It is faulted because of excessive interference in local financial autonomy, as well as the fact that it is a kind of “penalty” for good financial stance, so it discourages self-governments from improving the fiscal capacity of their own revenues.<sup>21</sup> In addition, that mechanism considers only the potential revenue disparities among local units, and completely ignores the diversification of their expenditure needs. Also, to evaluate the fiscal performance of local entities in the current fiscal year, the data from two preceding years should be taken into account, which seems particularly unfavourable in terms of economic crisis and rapid changes in the fiscal condition of subnational budgets.

When it comes to trends in the evolution of earmarked grants, their share in local budgets has fluctuated considerably over the period of 1999-2013. In 1999-2004 in all self-governments it has been declined from 22% to over 14%, and then it increased to nearly 22% in 2009 to stabilize at that level. The reduction

<sup>21</sup> M. Poniatowicz, *O tym jak kryzys finansowy podważył idee redystrybucji poziomej dochodów sektorze samorządowym*, “Zeszyty Naukowe Polskiego Towarzystwa Ekonomicznego” 2011, No. 10.

in earmarked grants in 2002-2003 has been felt more keenly by counties and city counties. It is connected with the limitation of the scope of commissioned tasks assigned to these local entities. A sudden increase in earmarked grants in 2009 was the result of changing the way of financing by voivodeships the costs of discounts in bus tickets, which were earlier covered by their own incomes.

To appraise the earmarked grants trends in the context of fiscal sustainability, it should be noted that State government bailout for subnational governments is generally necessary, because it helps local units to fulfill their tasks and therefore to stabilize their fiscal performance. However, despite its benefits, this form of financing has its drawbacks, too. First of all, the high proportion of earmarked grants in sub-central budgets limits their fiscal autonomy, restricts fiscal policy latitude and could hamper the development of fiscal decentralization. It also makes it more difficult to adjust fiscal policy to local preferences and leads to the limitation of responsibility of local politicians to their voters. Transfers from State budget discourages local authorities to stimulate economic growth and to make efforts to improve the fiscal capacity of their own revenues which may have a negative impact on their fiscal sustainability in the long terms. Another drawback of the current system of granting is a lack of objective legal criteria for the distribution of grants, as well as the dispersion of the legal basis for it in many different legal acts as well as executive decrees. Legal measures which guarantee that the amounts of grants proposed in the State budget correspond to the real costs of performing public tasks assigned to local units are practically non-existent (there is an exception of commissioned tasks related to government administration). This lack has an extremely negative impact on the sustainable fiscal policy. In particular, there were no clear rules relating to co-financing local own tasks by earmarked grants, including their minimum level.

## **Conclusions**

The assessment of the main trends in financing sub-central governments in Poland in 1999-2013 shows that we have to deal with an ongoing process of progressive dependency of local budgets on external transfers from the State budget, as a result of which more than 70% of subnational revenues comes from grants and subsidies. This phenomenon most affects counties and voivodeships, in which this percentage exceeds 90%.

The appraisal of that fact in the context of fiscal sustainability is negative, because as it has been pointed out, the reliance of local authorities on bailout from central governments does not correspond with the adequacy principle. External transfer, especially earmarked grants, are also not flexible and durable enough, and they react very strongly to economic fluctuations. It is therefore possible to

pass on to the local budgets a substantial part of the central government debt by arbitrary reducing the amount of grants in terms of deterioration in the fiscal stance of the State budget. This is happening because only a small part of external transfers have a legally guaranteed minimum level. Another drawback of that system is very limited fiscal autonomy of local authorities which constrict their instruments to stimulate the future economic growth.

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## **Główne źródła finansowania jednostek samorządu terytorialnego w latach 1999-2013 i ich wpływ na stabilność fiskalną**

**Streszczenie.** *Celem artykułu jest ukazanie pożądaných w obliczu potrzeby zapewnienia stabilności fiskalnej atrybutów systemu zasilania finansowego JST w Polsce, a także ocena rzeczywistych zmian w kształtowaniu dochodów samorządowych w latach 1999-2013 na tle zaproponowanych rozwiązań modelowych. Głównym wnioskiem płynącym z przeprowadzonej analizy jest to, że postępujące uzależnienie JST od środków zewnętrznych z budżetu państwa może stanowić zagrożenie dla ich stabilności fiskalnej przede wszystkim z uwagi na to, że transfery te nie zapewniają realizacji reguły adekwatności, nie są także odpowiednio elastyczne i trwałe oraz silnie reagują na wahania cyklu gospodarczego. Oparcie systemu dochodów samorządowych na dochodach zewnętrznych pozwala również na dość swobodne przerzucanie na samorzady znaczącej części zadłużenia w sektorze rządowym, poprzez arbitralne zaniżanie ich wielkości w sytuacji pogorszenia się kondycji fiskalnej budżetu państwa. Ich wadą jest także brak samodzielności jednostek samorządowych w odniesieniu do możliwości kształtowania ich konstrukcji, a w konsekwencji oddziaływania na stan przyszłego rozwoju społeczno-ekonomicznego.*

**Słowa kluczowe:** *stabilność finansowa, dochody JST*



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## **Contribution of cultural and creative industries to the sustainable development of European regions and cities**

***Abstract.** Cultural and creative industries can contribute to smart, sustainable, and inclusive growth in all of the European Union regions and cities. They fully comply with the Europe 2020 Strategy, which is the European Union's growth strategy for the coming decade. The objective of this paper is to analyze the contribution of this new, fast growing, sector of the economy to the sustainable development of regions and cities.*

***Keywords:** cultural and creative industries, sustainable development*

### **Introduction**

Nowadays, the turnover of the cultural and creative sector are in strategic position to promote smart, sustainable and inclusive growth in all European Union regions and cities, and thus contribute fully to the Europe 2020 Strategy, which is the EU's growth strategy for coming decade. Cultural and creative sector grows faster than the general economy and therefore it is a vital driver for development in Europe. At the same time, employment in this sector grows faster than total employment in EU.

In 2003, the turnover of cultural and creative sector in Europe amounted to 654 billion EUR. In terms of value added to the European economy as a whole, it represented 2.6% of Europe's GDP. The relative importance of the culture and creative sector becomes more apparent when its value added is compared with

other industries. For instance, real estate activities (including the development, buying, selling and letting of real estate), one of the driving sectors of the European economy in the last year, accounts for 2.1% of Europe's GDP. At the same time, the economic contribution of food, beverages and tobacco manufacturing (1.9%) and the chemicals, rubber and plastic products industry (2,3%) is lower than cultural and creative sector. In 2004, a minimum of 4.714 million people worked in the cultural and creative sector, which is an equivalent to 2.5% of active employed population in the EU-25. Additionally 1.171 million were employed in the sector of cultural tourism.<sup>1</sup>

Moreover, it is important to stress that the cultural and creative industries contribute to sustainable development of the cities and regions. It is becoming increasingly recognized that the concept of "sustainability" has a larger scope beyond simply its application to the environment. The tangible and intangible cultural capital of a community, a nation or a region of the world is something that must be preserved for future generation just as natural resources and ecosystems need to be safeguarded to ensure continuation of human life on the planet. Cultural sustainability implies a development process that maintains all types of cultural assets, from minority languages and traditional rituals to artworks, artefacts and heritage buildings. They are the creative industries that provide the services and the investments necessary for culturally sustainable development path to be followed.

The creative industries are environmentally friendly, because the primary input for creative activities is creativity rather than natural resources as in the case of mining or land in the case of agriculture and the production of creative products are usually less dependent on heavy industrial infrastructure, policies for enhancing creative capacities are in principle compatible with objectives of environmental protection.

## **1. How can we understand the cultural and creative industries?**

Creative industries are considered as „those activities which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.”<sup>2</sup>

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<sup>1</sup> *How can culture and creative industries contribute to economic transformation through smart specialisation? Policy handbook on How to strategically use the EU support programmes, including Structural Funds, to Foster the potential of culture for local, regional and national development and the spill-over on the wider economy?* European Agenda for Culture, Work Plan 2011-2014, 2012, p. 6.

<sup>2</sup> Green Paper of the potential of cultural and creative industries; COM(2010) 183 final; <http://europa.eu> [9.06.2014].



The term “creative industries” originated in the mid-to-late 1990s and was first taken up at the national level by the UK’s government. The concept was an attempt to change the terms of the debate about the value of arts and culture. While the arts were mostly supported by governments’ subsidies, they tend to be seen as marginal to economy of cities and regions. The specially built up Department for Culture, Media and Sport (DCMS) changed the narrow view of the role of arts and culture for the economy. They argued that the industries with their roots in culture and creativity were important and growing sources of jobs and wealth creation. It was calculated in 1998, that industries accounted for almost a million jobs and 4% of GDP in Britain and earned £7,5 billions from exports. It also showed that the sector was polarised between a myriad of very small firms and sole traders and a handful of very large, often multinational companies.<sup>3</sup> The one of the first systematic attempt to define and measure the creative industries is shown in the Table below (Table 1).

The idea of the creative industries as set out by the DCMS was quickly embraced not just by Britain’s national government, cities and regions, but other European and Asian countries.<sup>4</sup> Especially the growing role in economy of the creative industries stresses European Commission in the Green Paper on the potential of cultural and creative industries.<sup>5</sup> In this document the cultural industries and the creative industries were described. The first of them are understood as industries producing and distributing goods or services that at the time they are developed are considered to have specific attribute, use or purpose that embodies or conveys cultural expressions, irrespective of the commercial value they may have. Besides the traditional arts sectors, they include film, DVD and video, television and radio, video games, new media, music, books, press. While the creative industries use culture as an input and have a cultural dimension, although their outputs are mainly functional. They include architecture and design, which integrate creative elements into wider processes as well as subsectors such as graphic design, fashion design or advertising.<sup>6</sup> This approach is widely used by many institutions which are involved in public discussion on the requirements of a creative environment in which could unlock their potential to better contribute in European Union’s development and competitiveness.

It is worth to stress, that the idea of cultural and creative industries (CCIs) has been applied specifically to the economy of cities, leading to the emergence of the concept of a “creative city.” This term describes an urban complex where cultural

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<sup>3</sup> *Mapping the creative industries: A toolkit*. Creative and Cultural Economy series/2, British Council, London 2010, s. 15.

<sup>4</sup> M. Pięta-Kanurska, *Wpływ sektora kreatywnego na kształtowanie się polskich metropolii*, Wyd. Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013, pp. 58-67.

<sup>5</sup> Green Paper of the potential...

<sup>6</sup> *Ibidem*.

Table 1. Creative industries according to British Department for Culture, Olympics, Media and Sport (previously DCMS)

Sub-sector	Characteristic	Revenue (in billion £)	Employment (in thousands)	Export (in million £)
Software and Computer Service	The biggest creative industry of all in the UK. It covers the creation, production and supply tools and applications and software products, including web design. The large majority of employment in this sub-sector is based outside London. American multi-nationals tends to dominate in this field, but some British companies do well in niche markets, including Autonomy and Sage in business software.	36.4	550	2761
Design	This sub-sector is hard to assess as much of it is hidden within other industries. The DCMS therefore looked at design consultancies and designers working in industry. It found that 70% of British design companies were active abroad. London in particular has a strong reputation in this field, based on its excellent design schools.	26.7	76	1
Publishing	The publishing of books, newspapers, magazines and electric information is one of the largest employers among the creative industries. The widespread use of English internationally means that book publishing in particular is a globally connected industry.	18.5	141	1654
Television and radio	This sub-sector covers all public service, commercial, cable and satellite TV and radio, including the production and broadcasting of programmes. The BBC dominates the British market, but many independent companies have devised formats which have been successfully sold abroad (for example Celador)	12.1	102	440
Music	This includes both live and recorded music, music publishing and the administration of music copyright. Britain excels in most forms of music, from rock and pop to classical, and its consumers spend more per head on music than any other country. EMI, one of the music industry's "majors" is based in London.	4.6	122	1300

Film and video	This sub-sector includes film production, distribution and exhibition. Although the UK has a number of successful home-grown producers, such as Working Title, the Hollywood studios dominate the British market. The number of films produced in Britain fluctuates considerably from year to year.	3.6	45	653
Art and antiques market	This sub-sector includes dealers and auctioneers of antique jewellery, paintings, sculpture, furniture, maps, drawing and prints. In Britain, most such businesses are small but some, notably Sotheby's and Christie's are internationally important.	3.5	37	629
Advertising	In Britain, employment in advertising, which includes marketing and some public relations activities, is dominated by multinational agencies, is and strongly centred on London (the London – based communications group, WPP is the world's largest by revenue, employing almost 140 000 people in more than 100 countries).	3.0	93	774
Architecture	This sub-sector is made up of a handful of big firms and very large number of small ones. A number of British architects have achieved international reputations, including N. Foster, R. Rogers and D. Chipperfield.	1.7	21	68
Interactive leisure software	This sub-sector principally consists of computer and video games, but also includes some educational and reference material. British gaming firms have a reputation for innovation, but many of the games they develop are sold by foreign-owned software publisher.	1.0	21	503
Designer Fashion	Fashion design is a relatively small sub-sector, but is highly integrated into the international market – even small fashion business look to export their products.	0.6	12	350
Performing Arts	Theatre, dance, ballet, musicals and opera performances all fall into this category.	0.5	74	80
Crafts	The DCMS includes textiles, ceramics, wood, metal, glass, graphic and leather crafts in this category. Businesses in this field are mostly tiny: 75% are sole traders.	0.4	24	40

Source: *Mapping the creative industries: A toolkit*, Creative and Cultural Economy series 2, British Council 2010, p. 16-17; Creative Industries Mapping Document: [http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/reference\\_library/publications/4632.aspx](http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/reference_library/publications/4632.aspx), p. 10-12 [4.09.2014].

activities of various sorts are an integral component of the city's economic and function. Such cities tend to be built upon a strong social and cultural infrastructure, to have relatively high concentrations of creative employment, and to be attractive to inward investment because of their well-established cultural facilities. For example, Helsinki can be called creative city – there 9% of business turnover is from the creative sector, one of the fast growing in the city.<sup>7</sup> Charles Landry in his seminal work on the concept of the creative city, argues that cities have one crucial resource: their people. Creativity is replacing location, natural resources and market access as a principal key to urban dynamism. He indicates: “Today many of the world's cities face periods of transition largely brought about by the vigour of renewed globalization. These transitions vary from region to region. In such area such as Asia, cities are growing, while in others, such as Europe, old industries are disappearing and the value added in cities is created less through what is manufactured and more through intellectual capital applied to products, processes and services.”<sup>8</sup> This statement allow confirms that nowadays CCIs can contribute to sustainable development of economy of cities and regions, and it can be called as “culture-based development.”

## **2. Creative industries contribution to the Europe 2020 Strategy**

The culture-based development has relevancies to regions and cities in all stages of development. Even in the “convergence” regions, where support for infrastructural development may continue to be needed, but also in both convergence and “competitiveness” regions where the infrastructure and other local resources can be exploited to enhance the comparative advantages of the local economy and to stimulate creativity and enterprise. Creative activities often generate positive externalities in the areas where they are located, their openness and interaction with other activities give rise to agglomeration and cluster effects and they tend to generate a high proportion of total value added locally.<sup>9</sup>

Especially it should be stressed, that culture based development is an essential feature of post-industrial economy. A company needs more than efficient manufacturing process, cost-control and a good technological base to remain competitive. It also requires a strong brand, motivated staff and a management that respects creativity and understands its process. It also needs the development of products and services that meet citizens' expectations or create these expectations.

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<sup>7</sup> Building a Digital Economy: The Importance of Saving Jobs in the EU's Creative Industries, 2010, [www.droit-technologie.org/upload/dossier/doc/219-1.pdf](http://www.droit-technologie.org/upload/dossier/doc/219-1.pdf) [7.09.2014].

<sup>8</sup> Ch. Landry, *The Creative City. A Toolkit for Urban Innovators*, Routledge, London 2008.

<sup>9</sup> *How can culture...*, p. 7.

Very important in creative industries – the digital technologies play an important role in this intangible economy as they provide new forms of social exchanges and contribute significantly to new expressions of creativity. Of course cultural production (such a music, publishing and movies) makes new technology more relevant to consumers, enables the development of new markets and contributes to digital literacy.<sup>10</sup> It therefore become an imperative for industry to meet and to create new kinds of demand that are not based merely on the functionality of a product but instead rooted in individual and collective aspiration. In this new paradigm, marketing and services are as important as production. This requires creative skills and thoughts as productivity gains at manufacturing level are no longer sufficient to establish a competitive advantage.

Culture-based creativity also helps to promote social cohesion in regions and cities. Social cohesion can be defined as a set of shared norms and values for society which also encompasses the diversity of people's different backgrounds and helps to ensure that those from different backgrounds have similar life opportunities. It is the ability of cultural activities to help express specific cultures, while also developing strong and positive relationships between people from different backgrounds in the workplace, in schools, and within neighbourhoods.<sup>11</sup>

It is also important to state that the CCI's fit to the Europe 2020 Strategy,<sup>12</sup> adopted by the European Council on 17 June 2010. This is the EU's new ten-year strategy for growth and jobs. It puts forward three mutually reinforcing priorities to make Europe a smarter, more sustainable and more inclusive place to live:

- it envisions the transitions of the smart growth through the development of an economy based on knowledge, research and innovation,
- the sustainable growth objectives realizes to the promotion of more resource-efficient, greener and competitive markets,
- the inclusive growth priority encompasses policies aimed at fostering job creation and poverty reduction.

Under the three priority areas, the EU adopted five headline targets on employment, research and development (R&D) and innovation, climate change and energy, education, and poverty and social exclusion. The strategy objectives and targets are further supported by seven thematic flagship initiatives (Table 2).

Cultural and creative industries are playing a key role in delivering Europe 2020's three objectives, especially:

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<sup>10</sup> The Impact of Culture on Creativity, 2009, KEA European Affairs, <http://ec.europa.eu> [6.09.2014].

<sup>11</sup> The Impact of Culture to the rest of economy, innovation and social well-being, KEA Affair 2009.

<sup>12</sup> Europe 2020: A strategy for smart, sustainable and inclusive growth, COM (2010) 2020, final version, Brussels, 3.03.2010.

Table 2. The Europe 2020 Strategy's key priorities, headline targets and flagship initiatives

	Targets	Flagship initiatives
Smart growth	<ul style="list-style-type: none"> <li>– 3% of GDP to be invested in the research and development (R&amp;D) sector</li> <li>– reduce the rates of early school leaving to below 10% and at least 40% of 30 to 34 year olds to have completed tertiary or equivalent education</li> </ul>	<ul style="list-style-type: none"> <li>– innovation Union</li> <li>– youth on the move</li> <li>– a digital agenda for Europe</li> </ul>
Sustainable development	<ul style="list-style-type: none"> <li>– reduce greenhouse gas emissions by 20% compared to 1990 levels</li> <li>– increase the share of renewables in final energy consumption to 20%</li> <li>– 20% increase in energy efficiency</li> </ul>	<ul style="list-style-type: none"> <li>– resource efficient Europe</li> <li>– an industrial policy for the globalisation era</li> </ul>
Inclusive growth	<ul style="list-style-type: none"> <li>– 75% of 20 to 64 year old men and women to be employed</li> <li>– reduce poverty by lifting at least 20 million people out of the risk of poverty and social exclusion</li> </ul>	<ul style="list-style-type: none"> <li>– an agenda for new skills and jobs</li> <li>– European platform against poverty and social exclusion</li> </ul>

Source: Sustainable development in the European Union, 2013 monitoring report of the EU sustainable development strategy, Eurostat 2013, p. 35.

– smart growth: creativity leads to innovation, culture and creativity are part of education and training;

– sustainable growth: cultural and creative industries drive European sustainable competitiveness, while culture drives the preservation of heritage and adds to the offer in terms of tourism, especially in urban areas. This is closely linked to the European model of urban development, which city administrations strive to manage and sustain. This is what makes our cities attractive to many and contribute to Europe's competitive edge;

– inclusive growth: cultural and creative industries are major employers; they also drive urban regeneration and foster intercultural dialogue, as well as citizens' participation in city life<sup>13</sup>.

## Conclusions

Cultural and creative industries use their creative potential for sustainable development process in various ways. Some of their functions interact as nodes for generating cultural experiences for inhabitants and visitors through the cul-

<sup>13</sup> Eurocities response to the Green Paper 'Unlocking the potential of cultural and creative industries'. Towards a European integrated strategy for cultural and creative industries, 2010, www.eurocities.eu, p. 3 [7.09.2014].

tural heritage assets of cities and regions or through their cultural activities in the performanse and visual arts. Some, such as Bayreuth, Edinburg or Salzburg, use festivals that shape the identity of the whole city. Other look to broader cultural and media industries to provide employment and incomes and to act as centres for urban and regional growth. In other cases, a more pervasive role of culture in the creative city rests on the capacity of the arts and culture in to foster urban liveability, social cohesion and cultural identity.

As is shown above, the contribution of the cultural and creative sector to the economic development of cities and regions can be measured in many ways. The economic vitality of cities can be measured in terms of direct contribution of the sector to output, value added, incomes and employment and further through the indirect and induced effects caused, for example, by the expenditures of tourists visiting the city to experience cultural attractions. In addition, cities with an active cultural life can attract inward investment in other industries seeking to locate in centres that will provide an enjoyable, stimulating environment for employees. So, the promotions of CCI's should be one of the most important challenges for national and regional governments in European Union's countries in new programming period 2014-2020 of regional policy.

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## **Wkład sektora kultury i sektora kreatywnego w zrównoważony rozwój europejskich regionów i miast**

***Streszczenie.** Sektor kultury i sektor kreatywny mogą przyczynić się do inteligentnego, zrównoważonego i sprzyjającego włączeniu społecznemu wzrostu gospodarczego we wszystkich regionach i miastach Unii Europejskiej. Sektory te w pełni wpisują się w strategię Europa 2020, która jest strategią rozwoju Unii Europejskiej w nadchodzącej dekadzie. Celem artykułu jest analiza wkładu nowego szybko rozwijającego się kreatywnego sektora gospodarki dla zrównoważonego rozwoju regionów i miast.*

***Słowa kluczowe:** sektor kultury, sektor kreatywny, zrównoważony rozwój*



**Tools and solutions  
for stimulating Regional development  
of enterprises and institutions**



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## **Taxes as a tool to stimulate entrepreneurship and economic efficiency – Selected problems in the area of personal income taxation**

***Abstract.** The importance of taxes is not only in ensuring sufficient financial resources for the implementation of public tasks. Among the major non-fiscal objectives, there are also economic priorities: developing entrepreneurship and improving economic performance at the micro level, reflected in sustainable development at the macro level. The special role in this respect falls to taxes directly incriminating profit companies. The vast majority of businesses, particularly in small and medium-sized companies, are run by solo individuals or in partnership with other individuals. Whether, and to what extent, does the structure of income tax from individuals include preferential arrangements to promote entrepreneurship and economic development? What is their effectiveness? What requires change? This article attempts to assess, from their point of view, income taxation of individuals conducting business activity. Attention has been placed on the issue of the need and direction of change not only in the area of tax preferences, but the whole structure of the Polish PIT, in the context of equal treatment of taxpayers regardless of organizational and legal forms of business, including the advantages and disadvantages of a flat tax.*

***Keywords:** personal income tax, tax preferences, tax relief, flat tax*

### **Introduction**

Tax does not need to be considered as the obstacle to economic activity development and something that deprives the entrepreneur of his or her income. Taking into consideration the fact that it is compulsory, the entrepreneur should concentrate on improving the efficiency of the business in order to maximize the favorable financial result. Additionally, in order to make the business more ef-

efficient, the taxpayer may use some of the instruments designed by the legislator. These instruments make it possible to optimize the tax burden or to pay taxes on more favorable terms. Preferential solutions presented in legal acts are accessible when certain requirements are complied with. However, it is the taxpayer himself/herself who makes the final decision of making use of a particular instrument when it is possible within the legal framework. The scope of possible solutions is described in detail in the regulations concerning income taxation. One should pay special attention to the regulations concerning personal income tax. This is due to the fact that natural persons account for the majority of business entities. The purpose of the following paper is to indicate the most significant preferences addressed to this category of taxpayers together with the attempt of assessing the solutions and possible changes in the context of stimulating entrepreneurship and improvement of economic efficiency of businesses run by natural persons.

## 1. Essence of tax preferences

The state needs financial resources in order to function properly and to realize public purposes. Providing financial resources in order to satisfy the state's fiscal needs should take into consideration maintaining the highest possible economic growth and to provide its citizens with the proper social conditions. By means of shaping the taxation object together with the construction of the taxes themselves, the state is able to stimulate the proper, that is desired behavior of taxpayers. Shaping of economic (for example by means of influencing the structure and form of running a business, its location or taking financial or investment decisions) and social behavior of taxpayers is comprised by non-fiscal function of taxes. One needs to bear in mind that the use of a particular range of solutions of preferential character is tightly connected with the simultaneous deprivation of the state of some income from taxes. From the point of view of the entrepreneurs (including natural persons), on the other hand, tax solutions can determine the very attempt of starting economic activity and its potential success. Economic decisions taken by the entrepreneurs are quite often determined by the legislator's regulations. The fact of introducing or revoking particular financial incentives leads to either encouragement or discouragement as far as particular economic behavior is concerned. This does not mean that the entrepreneur strives for decreasing tax burden only, as his or her objective should be gaining the highest possible income after tax.<sup>1</sup>

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<sup>1</sup> M. Jamróży, *Podatkowe instrumenty wspierania rozwoju przedsiębiorstw*, in: *Wybrane problemy wspierania przedsiębiorstw w Polsce*, Biuro Analiz Sejmowych Kancelarii Sejmu, Warszawa 2010, p. 89 ff.

In order to analyze functioning preferential solutions addressed to entrepreneurs one should, for the sake of the following discussion, verify the essence of tax preference. Generally speaking, tax preference is any departure from the legally binding in a given country standard. The problem is, however, defining the tax standard. In order to do so one needs to determine the major tax principles and solutions used in a particular tax system which from the legal point of view could be considered tax relief but in practice are not seen as tax preference as they are an element of a tax standard.<sup>2</sup>

Tax standard is dependable on the tax type. In case of income tax, tax standard should comply with the following principles:<sup>3</sup>

- universality of taxation, which means that every subject's income is subject to taxation regardless of the area, scope and form of his or her activity,
- comprehensiveness of taxation, which means taxation of all income regardless of its source, taxpayer's category or the purpose of the income,
- taxation of net income that is the income that can be used for consumption or investment,
- taxation of an individual, which means taxation of one subject's income without the possibility of combining that with other subjects' income,
- annual taxation.

Simplified forms of taxation (fixed amount tax, flat rate on registered income) can also be considered part of a standard as their functioning results from the necessity of providing simple, uncomplicated principles and low costs of service in case of small scale business activity and it definitely is not meant to decrease the tax burden.

In the case of the value added tax and excise basic rates should be considered standard. Additional tax standard could be excise exemption of particular home-made alcoholic drinks prepared for one's own use of the subject who produced them and also subject exemptions in the value added tax law concerning the turnover below a certain value (currently 150 thousand PLN). In the case of real estate tax and motor vehicle tax the tax standard would be the rate determined by a given commune within the scope determined by law.

Major preferences of a stimulating character are tax reliefs. According to Tax Ordinance Act of 29 August 1997 tax relief is „provided by tax law exemptions, deductions and reductions, the application of which will result in lowering the tax base or amount of tax<sup>4</sup>. One should bear in mind that not every tax deduction is a departure from the taxation standard. The example could be social insurance

<sup>2</sup> *Preferencje podatkowe w Polsce*, Ministerstwo Finansów, Warszawa 2010, p. 10.

<sup>3</sup> *Ibidem*, pp. 13-15.

<sup>4</sup> Art. 3, poz. 6 ustawy z dnia 29 sierpnia 1997 r. Ordynacja podatkowa, Dz.U. 2012, poz. 749, ze zm. [Art. 3, item 6 of Tax Ordinance Act of 29 August 1997, Journal of Laws 2012, item 749, as amended].

contributions which are actually part of taxation standard. Other solutions, on the other hand, which are not clearly defined as tax reliefs could be viewed as tax preference, for example joint taxation of spouses. It is commonly understood that one of the characteristics of tax preference should be its comprehensibility and abstractiveness, thus, the tax relief given to a particular taxpayer in an individual case cannot be seen as a tax preference as it does not refer to the unlimited number of taxpayers.

## **2. Preferences in personal income tax supporting entrepreneurship**

Some solutions in personal income tax are clearly addressed to natural persons running a business. Enacting these solutions was meant to stimulate entrepreneurship, encouraging undertaking economic activity and as a result of that, increasing efficiency. Some of the preferential solutions are analyzed below.

By virtue of the change of Personal Income Tax Act, Corporate Income Tax Act and Flat-Rate Income Tax Act on some income of natural persons of 30 August 2002<sup>5</sup> the notion of tax credit was introduced. It was designed for people starting a business and it makes it possible to defer the time of tax/tax withholding payment, and the payment of tax due is deferred for the next five years and within this time interest on late payment will not be calculated. This form of assistance is supposed to increase the entrepreneurs' financial liquidity at the initial stages of their business activity, however this solution can be used under very specific circumstances. According to the law:<sup>6</sup>

- in the period prior to the year in which the taxpayer wants to take tax credit he or she needs to have income from his business activity equivalent to minimum 1000 EUR a month on average;
- from the day of starting the business activity to 1 January of the tax year in which the taxpayer begins to use the tax credit, the tax payer needs to be a small entrepreneur in terms of the regulations concerning business activity (that is, to employ fewer than 50 workers on average annually and to have annual net turnover lower than 10 million EUR);

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<sup>5</sup> Ustawa z dnia 30 sierpnia 2002 r. o zmianie ustawy o podatku dochodowym od osób fizycznych, ustawy o podatku dochodowym od osób prawnych oraz zryczałtowanym podatku dochodowym od niektórych przychodów osiąganych przez osoby fizyczne, Dz.U. Nr 169, poz. 1384 [Personal Income Tax Act, Corporate Income Tax Act and Flat-Rate Income Tax Act of 30 August 2002, Journal of Laws No. 169, item 1384].

<sup>6</sup> Art. 44 dział 7c ustawy z dnia 26 lipca 1991 r. o podatku dochodowym od osób fizycznych, Dz.U. 2012, poz. 361 [Art. 44 section 7c of Personal Income Tax of 26 July 1991, Journal of Laws 2012, item 361, as amended].

- in the period prior to the year in which a taxpayer wants to use tax credit he or she needs to employ full time (employment contact) at least five people every month;
- in non-agricultural business activity the taxpayer may not use tangible and intangible assets and other high-value assets made to them available free of charge by persons included in I or II tax group according to the Inheritance and Gift Tax Act, used by these people to run business activity before and being their possession;
- the taxpayer is obliged to present the head of a proper tax office a declaration of the use of tax credit in writing until 31 January of the year in which the taxpayer wants to use this exemption;
- during the year of using this tax exemption the taxpayer must be taxed according to progressive taxation scale.

Although tax credit is a relatively favorable solution for new entrepreneurs it is very seldom used. According to the Ministry of Finance in the years of 2004-2010 only one natural person running a business used this solution (and three companies of legal entity status).<sup>7</sup> The reason for this lack of popularity of tax credit are the mentioned above requirements which need to be jointly complied with and seem to be too strict in practice. A person is starting their economic activity might have problems with achieving the income of one thousand euro, not to mention the obligation of employing at least five people during the period in which the business activity usually brings losses or the profits are small so that employing additional workers is not really possible.<sup>8</sup>

Another solution making it possible to reduce tax burdens levied on entrepreneurs is a new technologies tax relief. It consists in deduction of 50% of expenses incurred on new technologies from the tax base. New technologies are defined as technological knowledge understood as intangible assets, for example research or developmental work results. This knowledge is supposed to enable to produce new or improved products and services and cannot be in use for longer than five years.<sup>9</sup> However, modern machinery or equipment in which new solutions were used are not considered new technologies. This solution can only be used by the taxpayer who is taxed only according to the tax scale. This deduction cannot be used if the business activity was conducted within the boundaries of a special economic zone.<sup>10</sup>

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<sup>7</sup> J. Szlęzak-Matusiewicz, *Superulga podatkowa, ale skorzystały z niej tylko cztery firmy*, [www.bankier.pl](http://www.bankier.pl) [28.06.2011].

<sup>8</sup> Zapytanie poselskie Nr 24145 w sprawie warunków przyznania ulgi zwanej kredytem podatkowym przedsiębiorcom rozpoczynającym prowadzenie działalności gospodarczej, [www.sejm.gov.pl](http://www.sejm.gov.pl) [15.12.2014].

<sup>9</sup> Art. 26c of Personal Income Tax Act.

<sup>10</sup> B. Siwkowska, *Ulga dla inwestujących w nowe technologie*, "Gazeta Podatkowa" 4.06.2012, p. 5.

Similarly to tax credit, the mentioned above solution is not very popular. According to the Ministry of Finance in 2007 the number of natural persons who made use of new technologies tax relief was 117, in 2008 only 11, and in 2009 15 entrepreneurs. There could be multiple reasons for this low popularity. One of them could be the fact that it is only natural persons who are taxed according to the tax scale who can make use of this relief. It is necessary to acquire intangible asset and acquiring a tangible asset functioning on the basis of innovative solutions disqualifies the taxpayer from using the relief. Additionally, it is mandatory to present the opinion of an independent scientific unit that would confirm the innovativeness of this particular technology and the fact that this technology has not been used for more than five years worldwide.<sup>11</sup> Another issue concerning the low popularity of new technologies tax relief is entrepreneurs' lack of knowledge of the possibility to use such a relief, which is confirmed by the survey conducted by the Ministry of Economy. According to this survey almost 50% of the entrepreneurs were not aware of the existence of this solution.<sup>12</sup>

Another tax preference that can be used by natural persons running a business is the possibility of deducting from the income losses from previous years. According to Art. 9 section 2 of Personal Income Tax Act loss is defined as the surplus of tax deductible expenses over the revenues. This loss can be accounted for over the next five tax years and it is the taxpayer's decision which part of this loss will be accounted for in a particular year. However, in one year the entrepreneur can account for maximum half of the loss, which means that the loss can be accounted for no sooner than within two years. The important thing is that the loss can be settled only within the same source of revenue. The possibility to account for the loss from the previous years is granted to the taxpayers who are taxed according to the general principles of the progressive tax scale or according to the flat rate of 19%. In the years 2006-2010 the average value of tax deduction increased from almost 11 thousand PLN to over 15 thousand PLN, which resulted in the benefit for the taxpayer of over 1300 PLN in 2006 and up to 1700 PLN in 2010. The percentage of the taxpayers accounting for losses is stable and it remains at the level of 2.5% of taxpayers taxed according to the progressive tax scale and at the level of 4.5% of the taxpayers taxed according to the flat rate of 19%.<sup>13</sup>

Another possibility for a natural person who runs a business to reduce the income tax is single depreciation deduction. This solution was introduced by the change of the Personal Income Tax Act of 16 November 2006 and changes of

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<sup>11</sup> A. Szyborska-Sutton, *Skomplikowana ulga na nowe technologie?*, [www.podatki.egospodarka.pl](http://www.podatki.egospodarka.pl) [17.03.2011].

<sup>12</sup> *Przedsiębiorczość w Polsce w 2011 r.*, Ministerstwo Gospodarki, [www.mg.gov.pl](http://www.mg.gov.pl) [15.12.2014].

<sup>13</sup> *Preferencje podatkowe w Polsce*, p. 35 ff.



some other acts<sup>14</sup> and it has been functioning since the beginning of 2007. Single depreciation deduction can be used by people starting a business and small taxpayers in the understanding of the Personal Income Tax Act, that is people whose gross revenue in the previous year did not exceed 1.2 million EUR<sup>15</sup>. However, the taxpayer who in the year of starting this business and in the period of two years (from the end of the year prior to the start of the activity) was running a business on his or her own or as partner in a partnership with no legal personality is not entitled to this single deduction. The same obligation is imposed on the taxpayer's spouse if in this period there was joint property between the spouses.<sup>16</sup> Single depreciation deduction can be made from fixed assets from groups 3-8 as defined in the Classification of Fixed Assets,<sup>17</sup> except for passenger cars. The annual limit on single depreciation deduction cannot exceed the equivalent of 50 thousand euro. In this way, in the very first year of using a fixed asset the taxpayer will be able to make a depreciation deduction of even 100% of the value of the acquired asset (if it does not exceed the mentioned limit). In this way the entrepreneur will not have to depreciate the assets for many years and he or she will be able to pay lower tax in the year in which the investment was made. However, one needs to bear in mind that the total amount of depreciation deductions will remain the same as it is the equivalent of the initial value of the acquired fixed asset. The single deduction just moves the income in time. Due to the tax savings the entrepreneur can make other investments or deposit the money in the bank which will lead to so called tax interest effect.<sup>18</sup>

### **3. Necessity and directions of changes in the principles of entrepreneurs' income taxation**

Personal income tax has a wide subject range. It is levied on many various income categories such as income from remunerated employment, pension and non-agricultural business activity, which makes one doubt whether this solution makes sense. It is usually the issue of obtaining income from business activity that is questionable.

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<sup>14</sup> Ustawa z dnia 16 listopada 2006 r. o zmianie ustawy o podatku dochodowym od osób fizycznych oraz o zmianie niektórych innych ustaw, Dz.U. Nr 217, poz. 1588 [Personal Income Tax Act of 16 November 2006, Journal of Laws No. 217, item 1588].

<sup>15</sup> Art. 5a item 20 of Personal Income Act.

<sup>16</sup> Art. 22k section 11 of Personal Income Act.

<sup>17</sup> Rozporządzenie Rady Ministrów z dnia 10 grudnia 2010 r. w sprawie klasyfikacji środków trwałych, Dz.U. Nr 242, poz. 1622 [Ordinance of the Council of Ministers of 10 December 2010 on the Classification of Fixed Assets, Journal of Laws No. 242, item 1622].

<sup>18</sup> M. Jamróży, *op. cit.*, pp. 95-96.

Income derived from remunerated employment and non-agricultural business activity should not be treated in the same way. First of all, entrepreneurs take a much higher risk of obtaining income and running a business requires from them a lot of involvement. Moreover, one needs to have proper capital to start a business. That is why in the literature there are many proposals concerning changes in personal income tax due to running a business activity.

The first concept is the introduction of comprehensive and uniform income tax. The construction of this tax would be based on imposing the same income tax onto natural and legal persons. The tax base would be the revenue reduced by tax deductible expenses. Entrepreneurs would determine these expenses on the basis of real data from their accounts while the taxpayers deriving their income from an employment contract, pensions, etc would apply a flat rate. Tax rates should be differentiated. Flat rate tax could be levied on entrepreneurs or capital gains while progressive tax could be imposed on taxpayers deriving their income from employment contracts, civil law agreements and pensions.<sup>19</sup>

Starting a business activity in Poland is connected with the important decision concerning the organizational and legal form of the company. This choice is essential from the point of view of the tax that the entrepreneur will have to pay. Prospective entrepreneurs need to decide whether they will pay a fixed amount tax, flat rate tax from recorded revenues, personal income tax paid according to the progressive tax scale, 19% tax for entrepreneurs or they will decide to run their business in the form of limited liability company. Taxation in the form of fixed amount tax and flat rate tax from recorded revenues is supposed to simplify running a business on a small scale. Controversies arise when it comes to the remaining forms of taxation. The same type of economic activity, conducted within the same scope, generating the same revenues and tax deductible expenses can be taxed by means of different tax rates depending on its organizational and legal form. Entrepreneurs should choose this legal form of their business activity that is the most suitable from the point of view of its size, type and range of business activity and not from the point of view of tax burdens.<sup>20</sup>

One of the concepts which would enable to introduce tax neutrality in economic activity taxation is the solution according to which all economic entities should be equipped with tax capacity regardless of their organizational form. The legal relationship between the owner and the company would be of the exactly the same character as between limited liability company and its shareholder. In this solution the tax could be collected in the same way as now it is collected from

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<sup>19</sup> W. Modzelewski, *Powszechny podatek dochodowy: zagadnienia koncepcyjne i legislacyjne*, in: *Kierunki reformy polskiego systemu podatkowego*, ed. A. Pomorska, Wyd. UMCS, Lublin 2003, pp. 93-94.

<sup>20</sup> H. Litwińczuk, *Problem neutralności podatkowej ze względu na formę prawną prowadzenia działalności gospodarczej*, in: *Kierunki reformy...*, p. 287 ff.

legal persons. The very first stage of income taxation would be taxation of the overall income of the economic subject. The second stage would be taxation of the profits paid to the owners or shareholders. The result of the described above solution would be lower taxation of income retained in the company when compared to the taxation of the income paid to the owners. Such solution would promote developing business activity.

The described above solution of equipping all economic subjects with tax personality would make it possible to introduce other forms of income tax, for example the taxation of profits only paid to shareholders or company owners. This solution could be compared to the currently existing taxation of partnerships.

One of the simplified forms of taxation of income from economic activity is flat rate tax from recorded revenues. There are opinions in the literature that all economic subjects should be taxed in this way. This would not be income but revenue tax. Tax due would be calculated as a product of tax rate and revenues and the costs of running a business would not be taken into consideration from the taxation perspective. The advantages of this system would be above all the simplification of the tax calculation procedure, the system would become clear and the costs of tax administration would diminish. There would be no need for constant law changes concerning mainly tax deductible expenses, which currently cause serious interpretative problems. The disadvantage of revenue taxation would be the preference of strong economic subjects, which means that the those less profitable could face even more serious financial problems.<sup>21</sup> The introduction of the revenue tax would be currently a far-reaching change and it would require a total restructuring of the tax system, which is why the chances for applying this solution are quite slim.

From among the suggested changes in the income taxation especially as far as natural persons running a business activity are concerned, not all have such a wide range as the ones mentioned above. There are many suggestions concerning slight changes of some regulations concerning, for example, tax reliefs and exemptions. First of all, the introduction of tax preferences for people starting a business are advocated. Currently, there is a described above possibility of the use of so called tax credit, that is the possibility of distributing the personal income tax due over five years. In order to encourage taxpayers to start a business apart from a tax credit a tax relief of 50% of tax due could be introduced, provided they do not use assistance resources for start-ups.

Nowadays, economic development is connected with the development of modern technologies. The use of new modern solutions should be supported and

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<sup>21</sup> J. Marczak, *Powszechny podatek przychodowy*, in: *Podatkowe i niepodatkowe źródła finansowania zadań publicznych*, eds. J. Głuchowski, A. Pomorska, J. Szołno-Koguc, Wyd. KUL, Lublin 2007, pp. 149-158.

that could be done by means of a tax relief on the purchase of new technologies. Unfortunately, as it was mentioned above this kind of tax relief is currently very seldom used, which is due to its legal construction which should definitely be changed. Currently this relief can only be used by the entrepreneurs taxed according to the general principles. Those taxed by means of fixed amount tax, flat rate tax from recorded revenues and according to the flat rate cannot use the relief. The range of entrepreneurs who could make use of this relief should definitely be extended, especially for those taxed by means of a flat tax.

#### 4. Advantages and disadvantages of flat tax

In Poland similarly to other countries in Europe and all over the world the notion of tax scale in personal income tax is widely discussed. Nowadays in Poland progressive tax scale is in use, however, the wider use of flat personal income tax is discussed now and then.

One of the main advantages of flat income tax is stimulating economic growth. Relatively lower taxes for people obtaining the highest income enables them to make savings and then to make larger investments. However, not all people obtaining highest profits are potential entrepreneurs. Among them are doctors, lawyers, artists who do not get engaged in such an activity.<sup>22</sup>

Replacing progressive tax scale with the flat tax definitely influences the situation on the job market. One can find opinions in the literature that flat tax has a favorable effect as it encourages people to raise their professional qualifications. Taxpayers are more inclined to develop. Progressive tax, while “flattening” the income level, results in the lower interest in increasing work efficiency, as the greater involvement in work by wealthy people does not translate into proportional financial benefits from this work. On the other hand, increasing tax burdens imposed on people who do not make much money does not support the fight against unemployment. If the unemployed person might earn very little and the difference between social benefits and potential wages would be small this person would definitely be less willing to get engaged in paid work.<sup>23</sup>

The supporters of tax progression do not agree with the mentioned above arguments and they argue that in the case of people gaining high income the amount of this income itself is not the major incentive motivating them to work. These

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<sup>22</sup> A. Krajewska, *Czy podatek liniowy sprawdzi się w czasie kryzysu*, in: *W poszukiwaniu efektywności finansów publicznych*, eds. M. Wypych, S. Wieteska, Wyd. Uniwersytetu Łódzkiego, Łódź 2009, p. 139.

<sup>23</sup> E. Nojszewska, *Korzystna rzeczywistość czy miraż? Rzecz o podatku liniowym*, in: *Polski system podatkowy. Założenia a praktyka*, ed. A Pomorska, Wyd. UMCS, Lublin 2004, p. 55.

people should get satisfaction from their professional successes not from their income. Low-earning taxpayers are interested in increasing their income, thus, they are more interested in working more efficiently so that they would be able to satisfy their basic needs. The cases in which a wealthy taxpayer loses his or her motivation to work more and to gain more income could be beneficial for the labor market as it increases demand for work.<sup>24</sup> Negative influence of flat tax onto work costs is also used as an argument in favor of progressive personal income tax. Increasing the tax for low-income taxpayers, that is for the majority of them (currently the lowest tax bracket of progressive tax scale is 18% while flat tax is 19%) would result in the increase in the labor costs. Employers would have to decrease net wages of their workers or to shift the labor costs onto the consumers.

Changes in the rates of personal income tax are connected with participation in informal economy. High tax burdens encourage such behavior. The introduction of flat tax and, as a consequence, the increase in tax burdens imposed on low-income taxpayers, increase the risk of hiding income. In the case of progressive tax scale the risk of tax fraud increases in the group of high income taxpayers who exceed the tax bracket (either 18% or 32% rate).

Flat personal income tax does not fulfill its redistributive function well. It might lead to increasing social discrepancies which are already present in Polish society. The experience of highly developed countries and the fact that most of them use progressive tax scale indicate that this solution helps in fulfilling fiscal and non-fiscal tax functions. In Europe flat tax is mostly used in former eastern bloc countries and its introduction was usually connected with the willingness to get away from communist past, popularity of liberal slogans and the attempt of attracting the largest number of potential investors.<sup>25</sup> Nowadays, one can observe large social discrepancies in these countries. The Czech Republic becomes a part of this trend. In this country flat tax is used, however in 2013 an increase in taxes for the highest-income taxpayers was introduced.

In the light of the mentioned above arguments one might assume that the introduction of flat personal income tax would not bring benefits in Poland. One should rather consider the introduction of tax progression that would be of real not of illusory character. The argument that is most often used, namely that the decrease in taxes for the highest-income tax payers would result in increased entrepreneurship is questionable as currently under legally binding regulations it is possible to pay taxes according to the flat rate of 19%.

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<sup>24</sup> J. Żyżyński, *Budżet i polityka podatkowa. Wybrane zagadnienia*, Wyd. Naukowe PWN, Warszawa 2009, pp. 213-215.

<sup>25</sup> A. Krajewska, *op. cit.*, pp. 142-143.

## Conclusions

The basic problem concerning Polish personal income tax is the lack of uniform concept of income taxation. This tax, on one hand includes solutions that are supposed to eliminate the discrepancies in the income level of the society, and on the other hand, it is obvious that these solutions are not efficient. Their inefficiency refers also to the stimulation of entrepreneurship and economic efficiency. Existing tax preferences do not fulfill their functions. The discussion presented in the following paper confirms the necessity of total restructuring of the personal income tax. The legislator should set clear goals of the tax in question and then create mechanism of achieving these goals. Change proposals presented in the following paper are only some of the widely discussed suggestions that are to support the improvement of the construction of this most important nowadays public levy.

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## **Podatki jako narzędzie stymulacji przedsiębiorczości i efektywności gospodarczej – wybrane problemy opodatkowania dochodów osób fizycznych**

**Streszczenie.** *Znaczenie podatków zawiera się nie tylko w zapewnieniu wystarczających środków finansowych dla realizacji zadań publicznych. Wśród istotnych celów pozafiskalnych znajdują się także priorytety gospodarcze: rozwój przedsiębiorczości i poprawa efektywności gospodarczej w skali mikro, przekładająca się na zrównoważony rozwój w skali makro. Szczególna rola w tym zakresie przypada daninom obciążającym w sposób bezpośredni wynik finansowy przedsiębiorstw. Zdecydowana większość podmiotów gospodarczych, zwłaszcza w grupie małych i średnich, to firmy prowadzone przez osoby fizyczne samodzielnie bądź w spółce cywilnej czy osobowej z innymi osobami fizycznymi. Czy i w jakim zakresie konstrukcja podatku dochodowego od osób fizycznych zawiera rozwiązania preferencyjne służące wspieraniu przedsiębiorczości i rozwoju gospodarczego, jaka jest ich skuteczność, co wymaga zmian? Próbie oceny z tego punktu widzenia zasad opodatkowania dochodów osób fizycznych prowadzących działalność gospodarczą poświęcony jest niniejszy artykuł. Rozważaniom poddana została kwestia potrzeby i kierunków zmian nie tylko w obszarze preferencji podatkowych, ale i całej konstrukcji polskiego PIT w kontekście równego traktowania podatników bez względu na formę organizacyjno-prawną prowadzenia działalności gospodarczej, z uwzględnieniem zalet i wad podatku liniowego.*

**Słowa kluczowe:** *podatek dochodowy od osób fizycznych, preferencje podatkowe, ulgi podatkowe, podatek liniowy*





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## **Problems of cost measurement and valuation of public services**

***Abstract.** The search for ways to increase the efficiency of the use of public resources has been the target of research for many years. Polish legal solutions and practices do not indicate the measurement procedure costs of public services. Therefore, the issue of the article focuses on the search for answers to the question about the real problems associated with the measurement and valuation of the costs of providing public services. Thus, the primary objective adopted in the article is to identify the problems related to the measurement and valuation of the costs of public services and what is considered an important element of the basic beginning to develop mechanisms and procedures for measuring the costs of providing public services. The considerations are based on existing legal mechanisms, the available literature on the subject, and previously applied solutions in this area worldwide.*

***Keywords:** public finance, local government finance, public services, method of measuring the cost of public services*

### **Introduction**

Self-government units are seeking new solutions concerning raising quality of the rendered services and on one hand they often rely on outsourcing, while on the other hand they seek new solutions in terms of reducing costs, efficiency and effectiveness of service management. These actions are connected with the increase in the effectiveness of the use of public money resources. The basic problem is finding the real costs of rendering public services. Legal solutions and practice

do not indicate any procedures of measurement of public services costs. Public services costs result from assumed practice – self-government does not count and calculate, it only pays. That is why there are no rational rules or procedures of task valuation, which means it is impossible to price the services as well. In order to manage in the conditions when money is tight it is indispensable to work out mechanisms and procedures of measuring the costs of rendering public services. However, in order to make sure that these mechanisms are efficient it is necessary to find answers to the question about the real problems concerning the measurement and valuation of costs of rendering public services.

The purpose of this paper is to identify the problems concerning the measurement and valuation of costs of rendering public services in order to prepare mechanisms and procedures of cost measurement of providing public services.

## **1. Significance of cost measurement of public services for local self-government unit**

Changes in society expectations are connected with the processes in global economy. Contemporary self-government needs to move away from traditional functional approach. The direction that should be taken should base the local self-government finance on the premises of new public management and on defining particular processes and actions. It is especially the thorough description of processes and actions that is significant with reference to the changes in the possibility of performing public tasks. Public tasks, the result of which are public services, might be realized by means of organizational and legal forms determined in chapter 3 of the Act on Public Finance.<sup>1</sup> These tasks can also be outsourced and performed by private subjects. Thus, it becomes necessary to find out how much a given service should cost. This information should not only be the basis for cost calculation but it should also be the starting point for negotiations with the entities to whom the tasks will be outsourced. Acceptance of cost calculation of realized services may become an important yardstick of the expenditure level which will be later used as an indicator of the effectiveness of the realized tasks together with the criterion mentioned in Art. 44, section 3 of the Act on Public Finance.

To sum it up, the measurement of the costs of the rendered services will make it possible for the local self-government entities not only to determine the expenditure level but also<sup>2</sup>:

<sup>1</sup> Art. 44, ust. 3 ustawy z dnia 27 sierpnia 2009 r. o finansach publicznych, Dz.U. Nr 157, poz. 1240, ze zm. [Article 44, section 3 of Act of 27 August 2009 on Public Finance, Journal of Laws No. 157, item 1240, as amended].

<sup>2</sup> B. Filipiak, *Costs Measurement's Procedure of Public Services – Idea Outline*, "Zeszyt Naukowy Uniwersytetu Szczecińskiego" 2008, No. 482: *Service Management*, vol. II, ed. A. Panasiuk, pp. 41-48.

- to design such changes in services that would satisfy the needs and expectations of the society on one hand, and would allow for the increase in the quality of managing financial resources on the other;
- to analyze the very moment of making qualitative, efficiency, technological changes in the realized services and also the changes in quantity of the services offered;
- to make changes in terms of provided factors of production (changes concerning suppliers and contractors) and also the increase in employees' qualifications;
- to make changes in terms of the subjects realizing the services in the situation of quality disturbances or standards of realized services;
- to make optimal decisions in terms of the structure of offered services, investment, effectiveness of rendering the services and the assessment of society satisfaction level;
- to increase the effectiveness of service distribution by self-government entities.

Entities of the local self-government make use of human and material resources, technologies and capital. However, the actions that they undertake differ in terms of efficiency, effectiveness and costs. The improvement of the efficiency of the processes and actions should become the basic objective for self-government authorities. The lack of effectiveness can result in dissatisfaction on the part of the society and the entrepreneurs who will start seeking more favorable life and business conditions.

With reference to changing needs of the society and creating sustainable growth, the necessity of changes becomes unavoidable, that is the range of the services offered by local self-government entities must be wider. That is why it is so significant to determine the real costs of rendering the services offered so far and analyzing the level of connected expenditure. The other area is estimating the costs resulting from the changes in quality, range and the introduction of new services.

One needs to bear in mind that the lack of service standardization and the lack of the necessity of cost valuation of rendering the services in particular units makes it impossible to compare services offered by different self-government entities. Self-government authorities do not make comparisons of costs incurred when offering the same services and the analysis that is made is extremely superficial. Faced with the scarcity of the financial resources, changes in the consciousness of the society and especially with the necessity of changes in the self-government policy it becomes crucial to describe, standardize and analyze the costs of the provided services.

Thus, the differences in costs of particular kinds of services and the costs of increasing the quality or the range of the services need to be determined. This

approach requires reliable information on the costs involved. Such information is required at every single stage of the process of providing the service (regardless of the fact whether it will be realized by the public financial sector units or outsourced). This information will enable to estimate the real costs connected with the realization of one particular service and to determine the desired moment of change implementation. Effective management of a local self-government entity and its development is not possible without the knowledge about the costs. This knowledge is also necessary to determine the demand for capital and to compete for the citizens and the investors.

## **2. Potential problems concerning the change in approach towards cost calculation of public services**

The basic dilemma that needs to be resolved by the authorities of the local self-government is whether the knowledge of costs of the realization of public services is really necessary and whether they can approach the problem of cost calculation of public services implementation in a reliable way. That is the question about the willingness of determining the real costs of providing services by a given local self-government entity. This dilemma requires taking into consideration the organization of the accounting system (system of recording economic events), organizational possibilities (equipment and computer software) and the implementation of the suitable cost calculation. All that might lead to the problems concerning the measurement itself, such as:

a) decisions concerning spending public resources and the consequences that accompany these decisions, such as:

- occurrence of deadweight cost/loss phenomenon,<sup>3</sup>
- high costs of public administration,<sup>4</sup>
- high costs connected with the changes in the range of public services (both quantitative and qualitative);
- problem with determining the real benefits for both the economy and the society as a result of providing the services in comparison with the costs which need to be incurred to render the services in question,
- problem concerning the measurement of costs and the benefits from the provided services – that is taking into consideration all the factors, effects (posi-

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<sup>3</sup> Described in detail: R. Chetty, *Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance*, "American Economic Journal: Economic Policy" 2009, No. 1(2), pp. 31-52; M. Smart, *Taxation and Deadweight Loss in a System of Intergovernmental Transfers*, "The Canadian Journal of Economics" 1998, Vol. 31, No. 1, pp. 189-206.

<sup>4</sup> Described in detail: M. Wojciechowski, *Koszt władzy publicznej w polskim samorządzie terytorialnym*, Difin, Warszawa 2014.

tive and negative ones), costs and benefits as part of the measurement, that is the problem of the valuation of different types of factors (quite often incomparable in terms of the same measurement units),<sup>5</sup>

- the lack of standard concerning public services.

Apart from the mentioned above problems one needs to take into consideration the problem of government or self-government intervention by means of delivered goods and public services. In modern economies the public choice theory states that politicians' reactions to the electors' preferences or to the pressure groups need to be taken into consideration with the use of the methods and tools of economic analysis, bearing in mind that similarly to producers offering their products to end-users, politicians also compete with each other striving for votes and trying to sell their election programs. However, the decisions of the politicians seldom concern individuals, they usually concern communities.<sup>6</sup>

Another important issue concerning both the choice of services financed with public resources and cost estimation is the problem concerning the fallibility of the efficient market and the role of the state in the process of elimination of this phenomenon. External effects (both negative and the positive ones), different kinds of market fallibility, arguments for and against the broadly understood state intervention (government and self-government authorities) result in approach that „the government should do something”, and that „public decisions should concern a wider pool of public interests not just selected pressure groups.”<sup>7</sup> The described above premises are the reason why public authorities, including self-government authorities are not driven by cost analysis but they want to solve the problems of inefficiency with public resources and tailoring the financing system to the particular services. This has nothing to do with the effectiveness or with well-performed analysis of costs and social benefits.

On the basis of the above mentioned deliberations one might state that the major factors hindering the implementation of cost measurement methods are as follows:

- approach of executive bodies and the workers of organizational units of local self-government in terms of the selection of services (effects and radicalness of the changes) which will be financed with public resources;

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<sup>5</sup> Uniform approach towards the analysis of costs and benefits with reference to public resources described in: *Przewodnik do analizy kosztów i korzyści projektów inwestycyjnych*, ed. M. Florio, final report TRT Trasporti e Territorio and CSIL Centre for Industrial Studies, Komisja Europejska, Dyrekcja Generalna ds. Polityki Regionalnej, Brussels, 16.06.2008; while broad formal approach towards cost and benefit analysis, qualitative analysis costs-benefits, modified analysis costs-benefits, costs-efficiency analysis, multiple-purpose analysis described in: D.L. Weimer, A.R. Vining, *Policy Analysis: Concepts and Practice*, Pearson Prentice Hall, Upper Saddle River 2004, pp. 338-343.

<sup>6</sup> R. Milewski, E. Kwiatkowski, *Podstawy ekonomii*, Wyd. Naukowe PWN, Warszawa 2005, p. 218

<sup>7</sup> J.E. Stiglitz, *Ekonomia sektora publicznego*, Wyd. Naukowe PWN, Warszawa 2004, p. 107.

- accessibility of full data regarding the costs; the pivotal element might be the accounting system itself, especially the limitations stemming from the records and the selected computer accounting system;
- costs of new system implementation, costs connected with errors, mistakes and public employees' resistance towards change;
- problems with implementing cost and benefits calculation, that is identification of actions, action cost objects, irreversible costs and costs of exclusion, including social and political approval of cost and post effective approach which might be contrary to public interventionism;<sup>8</sup>
- problem of creating the system of measurement and the correct isolation of actions (aggregated services) that could be measured; it is indispensable to create measures that would allow for the assessment of the social effect of provided services and also the assessment of one's own organizational and legal forms realizing the service and the subjects the service was outsourced to;
- legal problems – legally binding regulations limit to a large extent the possibility of finding out about the real costs of public services realization. This limitation is conveyed not in enumerative and authoritative way but by means of the existing regulations in the Public Procurement Law, which leads to pathological phenomena such as inflating costs, lack of the effectiveness of the decisions taken or no possibility to change a worse (from the social or economical point of view) variant into the better, more effective one. Existing law introduces the notion of bid bonds which increases the costs of the offer as the entrepreneurs need to incur the costs of freezing resources, which they will try to offload onto the service price. The dominant criterion of selecting tenderers is not the quality but the price only, which is unfavorable for the society in terms of additional outlays on the improvement or restoration of the service standard (for example, more frequent road repairs) and the occurrence of negative external effects. The possibility of lodging a protest against decisions in public procurement protracts the providing of the service, which, in turn leads to technology becoming obsolete, which results in poorer service quality. When the price is a sole criterion, it is so high so that it would allow for inflation (discounting) when the prices rise and the contract does not allow to introduce changes in the terms of the contract. Thus, the society pays for providing services prices which are disproportionately higher than market prices.

Apart from the mentioned above numerous problems the change in approach is reasonable as it allows to estimate the real costs involved in spending public resources. It also makes it possible to undertake activities aimed at rationalization and efficiency of managing public financial resources. Cost measurement may

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<sup>8</sup> Behavior concerning public intervention described by: J.E. Stiglitz, *Ekonomia sektora publicznego*, Wyd. Naukowe PWN, Warszawa 2004, pp. 90-135.

result in the rationalization of the process of rendering services itself and introducing mechanisms of satisfaction level measurement which would define a qualitative model of public services (qualitative standard of public services realization by public and private subjects).

### 3. Problems of approach towards measurement and valuation of public services costs

Problems of measurement and valuation of public services costs are an important and introductory element of creating relevant mechanisms and procedures. This is when one should ask oneself a question about the methods of valuation and cost calculation. Numerous approaches are mentioned in the literature, from budget accounting,<sup>9</sup> simple cost accounting,<sup>10</sup> task approach,<sup>11</sup> accomplishment models,<sup>12</sup> up to complex cost calculation (including activity based costing, balanced scorecard)<sup>13</sup> and cost-benefit analysis.

Cost-benefit analysis is a method of assessing public policy (including realized public services) which exhibits all its effects in the form of monetary units.<sup>14</sup> One might indicate that this analysis exhibits expected cost-benefit balance, including the stated beforehand alternatives and status quo. The role of cost-benefit analysis is to support the decision-making process in terms of quantifying competing policies with regard to their cost-benefit ratio. Thus, it makes it possible to determine whether costs outweigh benefits and to what extent in comparison with other alternative policies. As part of cost-benefit analysis particular measurement of positive and negative consequences of each service, project or task realization are made in order to determine the following:

– effects it will bring for the users or participants (especially the society, selected target groups, particular recipients);

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<sup>9</sup> A. Zysnarska, *Rachunkowość budżetowa w świetle koncepcji prawdziwego i wiernego obrazu*, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2010.

<sup>10</sup> A. Kożuch, *Rachunek kosztów jako instrument zapewniający sprawne zaspokajanie potrzeb publicznych w JST*, "Optimum. Studia Ekonomiczne" 2013, No. 1(61), pp. 93-105.

<sup>11</sup> M. Dylewski, *Ewidencja kosztów zadań publicznych w jednostkach samorządu terytorialnego – wybrane problemy*, "Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu" 2008, No. 14: *Rachunkowość a controlling*, ed. E. Nowak, pp. 114-120; M. Kaczmarek, *Rachunkowość zadaniowa w systemie rachunkowości budżetowej jednostek sektora finansów publicznych*, "Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu" 2008, No. 14: *Rachunkowość a controlling*, op.cit., pp. 127-133.

<sup>12</sup> T. Strąk, *Modele dokonań jednostek sektora finansów publicznych*, Difin, Warszawa 2012.

<sup>13</sup> B. Filipiak, op. cit.; see also: J. Walters, *The Buzz over Balance*, "Governing" 2000, No. 13(3), pp. 56-62.

<sup>14</sup> A.E. Boardman et al., *Cost-Benefit Analysis: Concepts and Practice*, Prentice Hall, Upper Saddle River 2002, p. 2.

- effects it will bring for the people who are neither users nor participants (exclusion problem);
- external effects (influence onto separate local or regional communities and societies);
- additional values or social benefits.

Two basic model approaches towards cost-benefit analysis can be indicated. They differ from each other in terms of the number of steps that need to be taken (the detail of the approach). Approach by William N. Dunn, who assumes that costs and benefits can be defined in a different way and divided into different types according to various criteria. The following divisions are indicated in this approach: internal and external (in terms of a particular target group or area), tangible and intangible (that is measured in the direct or indirect way), direct and indirect (depending on whether the effects of the program are direct or indirect) and finally, into effectiveness and redistributive ones (depending on whether they increase the net benefit or they only change the benefit distribution).<sup>15</sup> The quoted author recommends that the cost-benefit analysis should be performed in the following steps<sup>16</sup>:

1. Problem analysis (public or social problem, which can be resolved by means of public financial resources by a public authority).
2. Detailing objectives that are to be realized by means of a given service.
3. Alternatives (variants) identification by means of which the objectives mentioned in point 2 can be realized.
4. Analytical actions comprising the process of information gathering, analyzing and interpreting.
5. Selection of target groups and beneficiaries.
6. Estimating costs and benefits.
7. Discounting costs and benefits.
8. Estimating risk and uncertainty factors which could influence services realization (connected with the uncertainty of the results of particular future variants).
9. Selection of the decisive criterion.
10. Giving reasons for selecting a particular alternative.

Joseph E. Stiglitz's approach distinguishes four steps in conducting the cost-benefit analysis<sup>17</sup>:

1. Determining sets of possible decisive variants (sets of public services), that is a list of possible main solutions.
2. Determining all the consequences of considered alternatives, especially the outlays and expected results (in quantitative and qualitative terms).

<sup>15</sup> W.N. Dunn, *Public Policy Analysis: An introduction*, Pearson Prentice Hall, Upper Saddle River 2002, p. 239.

<sup>16</sup> *Ibidem*, p. 241.

<sup>17</sup> J.E. Stiglitz, *Ekonomia sektora publicznego*, Wyd. Naukowe PWN, Warszawa 2004, p. 327.



3. Expressing outlays and results in monetary units for all the alternatives under consideration.

4. Summing up all the costs and benefits and making a general assessment of every single alternative against the costs of the remaining variants (opportunity costs).

Cost-benefit analysis needs to be performed with reference to the discounting ratio for all the considered alternatives and their influence on the environment.

In both mentioned above approaches the biggest problem is making cost-benefit calculation as not all the costs and benefits can be calculated according to market prices, as these prices either do not exist or they do not include outermost benefits and costs due to the fallibility of the market. This happens when outlays and effects in question are not subject to market trade and do not have their market prices (for example, clean air, preserving environment in its natural state).<sup>18</sup> Under such circumstances, while dealing with services that cannot be valued with reference to the market prices, depending on the service a constructive method, revealed preference method, valuation based on declared usefulness, or dual prices should be applied.<sup>19</sup> Similarly to W.N. Dunn, J. Stiglitz suggests taking into account risk and uncertainty in cost-benefit analysis.

To sum it up, both approaches take into consideration the most crucial elements of valuation, such as:

- estimating costs which are not easily expressed in market prices,
- risk and uncertainty,
- application of discounting methods.

The most difficult and problematic task is adapting measurement tools, that is accounting tools and document circulation system, so that it is possible to determine the full cost level of public service realization. Here the major problem will concern the service valuation made up from several kinds of costs. However, in this case estimated prices and values should be used (for those services or their parts whose value cannot be expressed in market prices).

## **Conclusions**

The use of cost-benefit analysis seems to be a good approach towards determining the costs of realizing public services. The important argument is taking into consideration both the real cost and the valuation (estimated one) of those services whose value is not easily expressed in market prices. This argument outweighs the other cost approaches suggested in the literature. It is obvious that in

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<sup>18</sup> Ibidem, p. 330.

<sup>19</sup> More broadly in: J.E. Stiglitz, *op. cit.*, pp. 337-340.

case of those costs and benefits that can be expressed in market prices the suggested in the literature approach of estimating costs could be applied. From the point of view of the effectiveness it will always be significant to make comparisons, that is why uniform method of public services valuation should be applied.

One also needs to emphasize that the measurement and valuation of the public services realization will always be a notion addressed by scientists. Will it be important for the practitioners as well? That is difficult to determine as the regulations concerning the measurement and valuation of costs or standardization of public services do not exist. This, in turn is the result of the public choice and formulating political programs. Where politics begins the change in approach is difficult to accomplish, and that is suggested in the following paper. However, more evolutionary, gradual approach that might lead to creating measurement and valuation of public services costs might come into use.

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## **Problemy pomiaru i wyceny kosztów usług publicznych**

**Streszczenie.** *Poszukiwanie dróg zwiększenia efektywności wykorzystania publicznych zasobów pieniądza od wielu lat stanowi cel badań. W warunkach polskich rozwiązania ustawowe oraz praktyka nie wskazują na procedury pomiaru kosztów usług publicznych. Dlatego też problematyka artykułu koncentruje się na poszukiwaniach odpowiedzi na pytanie o rzeczywiste problemy związane z pomiarem i wyceną kosztów świadczenia usług publicznych. W związku z tym jego celem stała się identyfikacja problemów pomiaru i wyceny kosztów usług publicznych rozpatrywanych jako punkt wyjścia do opracowania mechanizmów i procedur pomiaru kosztów świadczenia usług publicznych. Rozważania oparto na obowiązujących mechanizmach prawnych oraz dostępnej literaturze przedmiotu i stosowanych rozwiązaniach w tym zakresie na świecie.*

**Słowa kluczowe:** *finanse publiczne, finanse samorządowe, usługi publiczne, metody pomiaru kosztów usług publicznych*



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## **New measurement of the effectiveness of financial management of local government**

***Abstract.** The purpose of the following paper is to indicate the premises for taking actions aimed at the implementation of an effectiveness measurement of local government entity's financial management, and to determine the limitations of the existing solution in terms of the barriers in effectiveness measurement in an alternative to the existing approach. The article presents the dominant approach to measuring efficiency, as well as, the dilemmas of its measurement.*

***Keywords:** efficiency, local government units, measurement*

### **Introduction**

The notion of effectiveness measurement of self-government entity financial management is a complex problem. On one hand, there is a problem of financial management range, and on the other hand, the problem of methods, approaches or criteria involved. There is a real need to analyze the effectiveness of financial management, as it concerns effective and efficient public financial resources allocation. The existing law does not always meet these needs. Discussion in the literature exhibits various approaches towards the matter. Is it possible to define the target model or the individual approach? What factors hinder the implementation of particular solutions concerning the effectiveness measurement of financial management?

There are many questions concerning financial management measurement and many still arise. Not all of these questions can be answered precisely and some of them require in-depth analyses and decisions. The purpose of the following paper is to indicate the premises for taking actions aimed at implementation of the effectiveness measurement of self-government entities financial management and at determining the limitations of the existing solution in terms of the barriers in effectiveness measurement in an alternative to the existing approach.

## **1. Core issues in self-government entity financial management – terminology discussion in legal and economic terms**

In the literature there are various attitudes towards the notion, range and principles of financial management. The legislator has not attempted to define this notion precisely either. Apart from the wide criticism of this fact in legal and economic literature and numerous demands that have been made the principles of financial management are still regulated in various legal acts, so the matter is divided among many acts and it often undergoes numerous changes.<sup>1</sup>

In legal and financial literature and in administrative judicature and judicial decisions one can find two basic definitions of this basic notion. According to the first concept the notion of financial management should be understood quite broadly and it was defined on the basis of the discussion in the literature.

Jan Szczepański and Lech Szyszko assume that the notion of financial management comprises the activities leading to rational cash flows and their settlement.<sup>2</sup> One needs to bear in mind that each financial allocation by public authorities is connected with “freezing” financial resources. This is connected with economic events recording by the accounting system.

According to Zdzisław Fedorowicz the notion of financial management is broader than the notion of finance. He indicates that it comprises all forms of activities in the scope of financial phenomena. In this perspective financial management comprises the activities concerning<sup>3</sup>:

- preparation of all kinds of financial operations, including their planning,
- realization of these financial operations (in this part financial management comprises the notion of finance according to Z. Fedorowicz),

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<sup>1</sup> A. Drwiłło, J. Gliniecka, *Finanse gmin*, Wyd. Uniwersytetu Gdańskiego, Gdańsk 1995, s. 88; J. Glumińska-Pawlic, *Gospodarka finansowa miasta na prawach powiatu*, Kaga-Druk, Katowice 2013, p. 27.

<sup>2</sup> J. Szczepański, L. Szyszko, *Propedeutyka finansów przedsiębiorstwa*, Wyd. Wyższej Szkoły Ekonomiczno-Informatycznej w Warszawie, Warszawa 1999, p. 9.

<sup>3</sup> Z. Fedorowicz, *Podstawy teorii finansów*, Poltext, Warszawa 1993, p. 10.

– analysis of financial operations in the future in order to draw conclusions concerning further actions in this area.

Financial management is a process in which the preparation and the actual money movement are interrelated. These processes are assessed and controlled in order to increase the effectiveness of public finance management with the use of proper tools in order to satisfy collective needs of the community.

Paweł Motek takes a process approach towards financial management. According to him it is gathering and spending public financial resources and financing deficit and public debt management by self-government authorities on the basis of the approved budget. Three basic elements of financial management refer to: firstly, income, secondly, expenditure, and thirdly, income-expenditure balance.<sup>4</sup>

Action approach towards financial management is also found in the literature. According to this approach financial management comprises all the activities (connected with the recording and analysis) prior to cash flow connected with the realization of financial operations.<sup>5</sup> First group comprises the actions prior to the cash flow, including forecasting, prediction, planning and decision-making with regard to time and accompanying risk. The second group concerns the realization of the actions connected with the previously planned cash flow. The third group concerns the recording of financial operations, that is accounting records of the events that took place in the past, their settlement and analysis. The analysis stage leads to drawing conclusions concerning the causes and consequences of particular phenomena in the past and their influence onto the future. Thus, it is a series of activities streamlining the decision-making process in the material and financial sphere of self-government entity financial and material management.<sup>6</sup>

Therefore it might be stated that SGE financial management in the action approach comprises all the actions connected with the preparation, realization, recording, analysis and control of operations and financial phenomena conducted in the public sector subjects and the actions reflecting the relations and economic events between the public sector subjects and the environment. It is based on the elements of the decision-making process concerning all the action areas comprising financial phenomena and instruments used to prepare, make and realize decisions.<sup>7</sup>

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<sup>4</sup> P. Motek, *Gospodarka finansowa samorządu terytorialnego w województwie wielkopolskim*, Bogucki Wydawnictwo Naukowe, Poznań 2006, p. 19.

<sup>5</sup> J. Szczepański, L. Szyszko, op. cit., p. 10.

<sup>6</sup> *Finanse przedsiębiorstwa*, ed. L. Szyszko, PWE, Warszawa 2000, p. 18.

<sup>7</sup> M. Dylewski, B. Filipiak, M. Gorzałczyńska-Koczkodaj, *Finanse samorządowe. Narzędzia, decyzje, proces*, Wyd. Naukowe PWN, Warszawa 2006, p. 50; B. Filipiak, *Gospodarka finansowa sektora samorządowego – ujęcie metodologiczne*, "Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług" 2007, No. 9, pp. 421-436.

The mentioned above approach allows to analyze and assess each level of the economy with the use of a wide range of various research tools and procedures. Thus, this approach enables to assess all the actions within the conducted financial management and to forecast cause and effect interdependencies together with indicating the trends from the point of view of the decisions taken by self-government entity authorities.

In a narrow perspective, according to the interpretation of Regional Administrative Court in Warsaw, the notion of financial management is used with reference to actions concerning creating financial plans, income and expenses plans, financial reports and to the activities concerning realization of these plans. The notion of financial management does not concern the creation and submission of budget report.<sup>8</sup>

Legal framework for financial management conducted by SGE has been regulated in a number of legal acts, the most important of which are as follows:

- the Constitution of the Republic of Poland,
- the Public Finance Law,
- political legal acts (Commune Self-government Act, District Self-government Act, Act on Voivodship Self-government),
- legal acts defining the SGE sources of finance,
- legal acts regulating the possibility of incurring debts by SGE.

Isolating of SGE financial management has been aimed at satisfying the needs of local and regional community in a better way. One needs to bear in mind that instability of regulations, frequent changes concerning income, expenditure or the principles of conducting financial management are not only against the principles of appropriateness and economy in terms of public resources but also make the realization of sustainable growth impossible.

## **2. Dominant approach towards effectiveness measurement of SGE financial management**

The legislator presents the most classical approach towards the assessment of the effectiveness of SGE financial management. With reference to expenditure the following postulate (Art. 44, section 3 of the Public Finance Law) has been formulated. Public expenditure needs to be done:

- a) in the appropriate and economical way, respecting the principles of:
  - achieving the best results with particular outlays,
  - optimal selection of methods and means to achieve the desired objectives;
- b) in the way enabling task realization according to schedule;

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<sup>8</sup> Wyrok WSA z 26.04.2010, V SA/Wa 103/10 [Judgement of Regional Administrative Court of 26.04.2010, V SA/Wa 103/10].



c) to the extent and within the stated time limit resulting from the previously incurred liabilities.

The problem of SGE income and its effectiveness is connected with the realization of the compatibility principle. Compatibility signifies a balanced finance system of self-government whose creation is connected with the necessity of the proper distribution of financing sources between the state and different levels of the self-government. While applying the constitutional principle of compatibility a wide margin of the assessment needs to be maintained. According to Art. 216 and 217 of the Constitution financial resources for public purposes are gathered and spent in the way described in the act, and the legislator is to impose taxes and other public levies. The regulations mentioned above, on one hand limit the power of SGE in determining the income sources, and on the other hand, they confirm the legislator's competences in creating the system of public finance, which might raise doubts.<sup>9</sup> The first doubt concerns the issue of the efficiency of realized income. Did the legislator ensure not only the proper compatibility but also the efficiency of the realization of income? Bearing in mind the way in which the regulations are presented in the Constitution the answer to this question is negative. Therefore, one needs to share the opinion presented in the literature that „the legislator has introduced the regulations that result in disproportions between the SGE tasks and their income.”<sup>10</sup> As a result, effectiveness cannot be achieved despite the fact that the Constitution enforces balancing of the financial system. On the other hand, no legal act of a lower rank, when compared with the Constitution, refers to effectiveness in revenue collection.

Legally binding system of accounting and recording economic events is a significant element in assessing effectiveness. The significance of this problem results from the fact that accountancy is the process of constant identification, measurement, classification, grouping, recording and presenting information in the form of monetary units for a wide range of informative and control purposes in order to define and plan activities, resources at their disposal and the sources of financing them and preparing various kinds of reports.<sup>11</sup> The existing accounting and recording standard was based on the Accounting Act and Art. 39 and 40 of the

<sup>9</sup> J. Glumińska-Pawlic, op. cit., pp. 33-34.

<sup>10</sup> W. Nykiel, *Rola dochodów w równoważeniu budżetów lokalnych*. Wyd. Uniwersytetu Łódzkiego, Łódź 1993, p. 123; M. Mazurkiewicz, *Zakres finansów lokalnych i ich gwarancje konstytucyjne*, in: *Samorządowy poradnik budżetowy na 1997 r.*, eds. W. Miemieć, W. Cybulski, Municipium, Warszawa 1997, pp. 226-227; J. Glumińska-Pawlic, op. cit., p. 34.

<sup>11</sup> K. Winiarska, *Rachunkowość przedsiębiorstw w procesie integracji z UE*, Wyższa Szkoła Integracji Europejskiej, Szczecin 2000, p. 34; K. Sawicki, *Podstawy rachunkowości*, PWE, Warszawa 2001, p. 18; E.A. Hendriksen, M.F. van Berda, *Teoria rachunkowości*, Wyd. Naukowe PWN, Warszawa 2002, p. 1; M. Wakuła, *Koszty w procesie zarządzania jednostką samorządu terytorialnego*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki Finansowe, Ubezpieczenia” 2013, No. 61, p. 356.

Public Finance Law of 27 August 2009. That was the basis for issuing a directive by the Minister of Finance concerning particular accounting principles and charts of accounts for the state budget, self-government budgets, budget entities, state special purpose funds and state budgetary entities located beyond the borders of the Republic of Poland.<sup>12</sup> The reporting system is also based on the Public Finance Law which was stated in Art. 41 of this act. One also needs to bear in mind that the information from the accounting and reporting systems is of predominant importance in managing any organization, including SGE. This results from the fact that this information reflects work quality, that is realization of tasks at all stages of conducted activity.

Is this activity analyzed? This question is difficult to answer. Taking into consideration the superficial state of matters and the analyses performed the answer should be positive. First of all, time series are prepared on the basis of the reporting system and then published in the system of state statistics and by the Ministry of Finance and the National Council of Regional Accounting Chambers in the form of collective information on financial situation of SGE. Legally binding acts do not refer to the necessity of conducting analyses and accomplishment measurement at the level of SGE (this measurement is mandatory at the government level). However, the legally binding acts impose the obligation of preparing the following information by the executive bodies of SGE resulting from Art. 265, 266, 267, 269 of the Public Finance Law:

- report on the implementation of the SGE budget, financial report, report of financial plan implementation,
- information on SGE's assets.

The mentioned above reports are then assessed by the Audit Committee, SGE's decision making body, regional accounting chamber and finally according to the disclosure principle by the society. It needs to be emphasized that the legislator did not introduce the system of analyses into reporting. The only index is the degree of plan and guidelines execution. Self-government entities and the bodies at the aggregated level (Central Statistical Office, Regional Accounting Chambers) prepare simple analyses based on the system of making comparisons within time. Although the reporting system of SGE is widely developed, these entities do not prepare advanced analyses which would allow to assess the efficiency of the

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<sup>12</sup> Rozporządzenie Ministra Finansów z dnia 5 lipca 2010 r. w sprawie szczególnych zasad rachunkowości oraz planów kont dla budżetu państwa, budżetów jednostek samorządu terytorialnego, jednostek budżetowych, samorządowych zakładów budżetowych, państwowych funduszy celowych oraz państwowych jednostek budżetowych mających siedzibę poza granicami Rzeczypospolitej Polskiej, t.j. Dz.U. 2013, poz. 289 [Directive by the Minister of Finance concerning particular accounting principles and charts of accounts for the state budget, self-government budgets, budget entities, state special purpose funds and state budgetary entities located beyond the borders of the Republic of Poland, of 5 July, Journal of Laws 2013, item 289 (consolidated text).

undertaken actions, to determine the effectiveness of allocated resources and to make a cross section analysis of incurred costs.<sup>13</sup>

The amendment to the Public Finance Law was a step forward as it introduced internal audit and the regulations concerning management control. These elements are the foundations of creating the system of assessment of SGE's financial management effectiveness. This system is obviously far from being complete, but it definitely creates some kind of foundation. Art. 68 of the Public Finance Law indicates that the management control in the entities of the public finance sector, including the self-government level, comprises all the actions undertaken in order to achieve objectives and realize tasks according to law, in the efficient, economical and prompt manner. The legislator faced the management control with ensuring efficiency and effectiveness of undertaken actions and the efficiency and effectiveness of the information flow. Additionally, risk management was made obligatory. These recommendations are the starting point of the actions for assessing the conducted financial management. The question that needs to be asked is the question about the measurement of the effectiveness, accomplishment assessment and the efficiency. As the legislator leaves the choice of the method (however, creating certain standards), it is quite difficult to decide what is effective and what is not.

On one hand, the actions taken by the legislator should be assessed in a positive way, but on the other hand, without the prepared approach, methodology, principles of result interpretation, in-depth analyses prepared *ex officio* and when ordered, it is difficult to indicate the effectiveness not only of a single entity, not to mention all the entities in the way enabling comparison.

### **3. Directions of the effectiveness measurement of the SGE financial management**

Different approach towards the measurement of effectiveness was created in practice, usually by the science cooperating with the practice, taking into consideration its needs and experience. The basis for the practical approach is the measurement. The concept of measurement is constantly evolving, the approaches which have been created are developed and the existing solutions are used by means of modifications. The basic directions of suggested solutions in terms of the measurement of SGE financial management are: measurement of accomplishments, the use of financial analysis tools, mathematical modeling (especially DEA and multi-criteria analyses), and of task budgeting. Practical approach is based on the use of the criteria such as economy, productivity and efficiency. These criteria

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<sup>13</sup> Indicated by the empirical research published in: *Metodyka kompleksowej oceny gospodarki finansowej jednostki samorządu terytorialnego*, ed. B. Filipiak, Difin, Warszawa 2009; M. Wakula, *op. cit.*, p. 356.

are usually indicated in the measurement of accomplishments, that is the approach based on the use of financial analysis tools and task budgeting. In each of the approaches task realization is assessed, that is the assessment of providing goods and public services being a particular product or result of SGE activity.

The use of the economy criterion enforces the proper approach towards estimating the expenditure. Its purpose is to eliminate the cases of irrationality. The questions concerning the creation of the system of measurement of financial management effectiveness are as follows<sup>14</sup>:

1. To what extent are the resources indispensable for performing particular tasks purchased at the most profitable price and to what extent are they the proper resources?

2. What is the proportion of real expenses towards the budget?

3. To what extent are all the resources used?

4. Is the personnel loaded with work to the maximum during the process of task realization?

5. Does a need of employment optimization arise? Can the use of material production factors (task realization) be decreased? Can the process be rationalized and the expenditure decreased?

The use of efficiency criterion is based on the assessment of to what extent the best possible results with the particular use of resources in a particular situation were achieved. This approach makes it possible to optimize the processes used in transforming resources into products (results). Here one needs to address the following questions in particular<sup>15</sup>:

1. Was it possible to realize the tasks in a different way, which would lead to lower costs/expenses?

2. Are the methods used the most rational?

3. Are there any bottlenecks which could be avoided?

4. Do the work duties of different people unnecessarily overlap?

5. Are there any incentives for the staff encouraging them to lower the costs and to work according to schedule?

The approach that uses the efficiency criterion is based on the analysis of the defined objectives concerning particular task and making them specific so that their efficiency could be assessed. It is also important to identify the group of beneficiaries (the recipients of goods and services provided by SGE) the particular task (intervention) is targeted at. It is also important to determine the following<sup>16</sup>:

<sup>14</sup> J. Duda, A. Jeżowski, W. Misiąg, B. Nowak, J. Szlachta, J. Zaleski, *Mierzenie ilości i jakości usług publicznych jako element programu rozwoju instytucjonalnego*, Instytut Badań nad Gospodarką Rynkową, Warszawa 2004, p. 29.

<sup>15</sup> Ibidem, pp. 29-30.

<sup>16</sup> Ibidem, p. 30.

1. Was the objective achieved with the use of the reasonable costs and according to schedule?
2. Was the target group defined properly?
3. Do citizens use the product, the effects of a given task?
4. Are the citizens pleased with the information or product provided?
5. To what extent does the product satisfy the needs of the target group?

The approach that uses the efficiency principle makes it possible to attain defined results or even better and better results by means of providing the products (results) adequate to needs.

The mentioned above approaches are typical of achievement measurement, that is assessing the results of actions undertaken by the self-government. The tasks realized by the self-government can be of either financial or non-financial character. The important thing is for the entity to attain maximum efficiency in task realization and in functioning. The measurement of achievements is based on balanced and adequate set of indices concerning the entity's potential and the achieved results.<sup>17</sup> As it can be found in the literature the basis for measuring the efficiency of achievements is the use of resources,<sup>18</sup> which was slowly developed.<sup>19</sup> The current approach comprises the efficiency of outlays allocation and total technical efficiency which comprises technical efficiency and scale efficiency. The level of efficiency is influenced by economy, effectiveness and productivity.

It is propounded in the literature to use the tools of financial analysis on the basis of a complex financial report in order to measure the effectiveness of financial management of SGE. Within this approach it is possible to use one of two variants: a budgetary one (the assessment is made on the basis of SGE budget) and the complex one (the assessment is made on the basis of a complex report concerning the overall financial management). It is assumed that the analyses are prepared in such a way so as to examine these factors and events that influence the financial management in the significant way and at the introductory level the factors and events that influence the effectiveness need to be verified. Then, the detailed analysis whose aim is to lead to drawing conclusions and postulates is conducted.<sup>20</sup> Measures, similarly as in the achievement measurement, are used to formulate assessments, but the basis for their construction are measurable events

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<sup>17</sup> T. Strąk, *Modele dokonań jednostek sektora finansów publicznych*, Difin, Warszawa 2012, p. 92.

<sup>18</sup> G. Debreu, *The Coefficient of Resource Utilization*, "The Econometric Society" 1951, Vol. 19, No. 3, pp. 273-292.

<sup>19</sup> M.J. Farrel, *The Measurement of Productive Efficiency*, "Journal of the Royal Statistical Society" 1953, series A, CXX, part 3, pp. 253-290; W.W. Cooper, L.M. Seiford, K. Tone, *Data Envelopment Analysis. A Comprehensive Text with Models, Applications, References and DEA-Solver Software*, Springer, New York 2007, pp. 257-259, 262-268; T. Strąk, op. cit., pp. 332-387.

<sup>20</sup> See more: *Metodyka kompleksowej oceny...*

expressed in monetary units for the measurement of which the tools of financial analysis can be used.<sup>21</sup>

Another approach in examining the effectiveness of SGE financial management is the use of mathematical modeling which is based on taxonomic methods (use of measurements of distance from the standard),<sup>22</sup> multidimensional analysis (organizing and classifying of objects characterized by multiple features, making it possible to classify them in a multicriteria manner depending on the characteristics of the objects and the variables used in the analysis).<sup>23</sup> Currently in the international comparative research on effectiveness in the public sector it is the method called Data Envelopment Analysis that is widely used. The assessment of the effectiveness in this method is connected with the notion of productivity. In the productivity analysis of the public sector entities it was assumed that every institution of this sector can be characterized on the basis of its initial resources (outlays, system input), effects (system output) and the transformation processes transforming the resources into effects. The process is characterized by higher productivity if the resources are used more effectively.<sup>24</sup>

Another approach is the implementation of task budgeting. As it is indicated while summarizing this approach „task budget is the instrument of efficient spending of public resources by SGE and it concentrates on provided goods and public services...In the task budget one needs to set objectives that need to be realized and assign tasks to these objectives... one also needs to determine the methods of task costs calculation and determine the measures describing the degree of objectives realization.”<sup>25</sup> But is this effectiveness really attained and can it be assessed by means of task budget measures?

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<sup>21</sup> M. Dylewski, B. Filipiak, M. Gorzałczyńska-Koczkodaj, *Podstawy analizy finansowej w jednostkach samorządu terytorialnego*, Fundacja na rzecz Uniwersytetu Szczecińskiego, Szczecin 2003; M. Dylewski, B. Filipiak, M. Gorzałczyńska-Koczkodaj, *Analiza finansowa w jednostkach samorządu terytorialnego*, Municipium, Warszawa 2004; M. Dylewski, B. Filipiak, M. Gorzałczyńska-Koczkodaj, *Metody analityczne w działalności jednostek podsektora samorządowego*, Difin, Warszawa 2010.

<sup>22</sup> W. Tarczyński, *Metodologia powiązania wskaźników i mierników budżetu zadaniowego ze zintegrowanymi miernikami SRK i KPR*, ekspertyza KPRM, Warszawa 2007.

<sup>23</sup> P. Dziekański, *Wskaźnik syntetyczny w procesie oceny gospodarki finansowej gmin wiejskich*, „*Ekonomia*” 2013, No. 3(24), p. 151.

<sup>24</sup> P. Chalos, J. Cheriau, *An application of Data Envelopment. Analysis to public sector performance measurement and accountability*, „*Journal of Accounting and Public Policy*” 1995, vol. 160, No. 14, pp. 143-160; J. Odeck, *Evaluating target achievements in the public sector: An application of a rare nonparametric DEA and Malmquist indices*, „*Journal of Applied Economics*” 2005, vol. VIII, No. 1, pp. 171-190; J. Nazarko, K. Kuźmicz, E. Szubzdza, J. Urban, *Metoda DEA w badaniu efektywności instytucji sektora publicznego na przykładzie szkół wyższych*, „*Badania Operacyjne i Decyzyjne*” 2008, No. 4, pp. 90-91.

<sup>25</sup> M. Jastrzębska, *Finanse jednostek samorządu terytorialnego*, Wolters Kluwer Polska, Warszawa 2012, p. 66

The reason for taking into consideration task budget is also the fact of low efficiency (extent of objectives realization) and effectiveness assessment, that is the relationship between the expenditure on task realization and the measures of attaining objectives. One of the major factors of low effectiveness of expenditure is its planning (approach, task distribution into specific types) not the logic of financing particular effects. It is also the principles of financing institutions and procedures determined in legal acts describing forms of activity of widely understood public subjects that are problematic. That is why the effectiveness of public spending, whose measure should be progress in resolving identified problems with the use of public resources, seems to be of secondary importance. It is not enough to declare the aspirations for improving effectiveness of expenditure, it is essential to create conditions which would make it possible. Without implementing the principles of task budgeting in the sphere of social policy this is not possible.<sup>26</sup>

#### **4. Obstacles to the effectiveness measurement of SGE financial management**

Unquestionable obstacle concerning the measurement of the effectiveness of SGE financial management is the lack of the recommendation concerning the valuation of task realization (cost estimation of provided goods and services). The fact that task valuation is not obligatory is a significant disadvantage of the existing system of public finance resources management. With no valuation it is impossible to implement the approach determining whether it is the extent of task realization expressed in monetary units or the quality that matters.

The second obstacle are the systems of records. The lack of guidelines concerning the complex approach towards recording of economic events in terms of the overall SGE activity hinders the measurement of effectiveness. And the changes in this area were discussed in the literature long ago.<sup>27</sup> Entrepreneurs share the described above opinion but as it has been indicated the change involves costs (for example, computer software, changes in the accounting policy, organizational changes).

It is also politicians who cyclically exhibit grave interest in the matters of the measurement of the effectiveness of SGE financial management. The period prior

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<sup>26</sup> W. Misiąg, *Koncepcja i wskaźniki budżetu zadaniowego a bilans potrzeb pomocy społecznej*, p. 11, [www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0CEoQFjAH&url=http%3A%2F%2Ffirss.pl%2Fwp-content%2Fuploads%2F2011%2F06%2FKoncepcja\\_i\\_wskazniki\\_budzetu\\_zadaniowego\\_a\\_bilans\\_potrzeb\\_pomocy\\_spolecznej.doc&ei=4RQcVLO2OKj-ygPfjYCgCA&usg=AFQjCNHd9RB7wne1SNrITKQJ70tOIKub9Q](http://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0CEoQFjAH&url=http%3A%2F%2Ffirss.pl%2Fwp-content%2Fuploads%2F2011%2F06%2FKoncepcja_i_wskazniki_budzetu_zadaniowego_a_bilans_potrzeb_pomocy_spolecznej.doc&ei=4RQcVLO2OKj-ygPfjYCgCA&usg=AFQjCNHd9RB7wne1SNrITKQJ70tOIKub9Q) [19.09.2014].

<sup>27</sup> See more: *Metodyka kompleksowej oceny...*

to the elections is always characterized by the low effectiveness actions. Organs of executive power concentrate then on trying to fulfill their political promises, which is not always in line with the effectiveness of the financial management. Opposition tries to enforce the change in approach and tries to assess the effectiveness of financial management in this particular period. After the elections the decisions concerning the change in the analysis of the effectiveness of SGE financial management are not usually taken. The executive organs act according to law and they do not try to change anything. A standard that could be followed by SGE might be self-government sector where the legislator by means of imposing obligatory task approach enforces effectiveness assessment by means of the system of measures. However, even here some flaws (especially in the task approach) of the measurement itself can be noticed.

The disadvantage of the described above task budgeting is the lack of regularity in terms of making analyses and publishing conclusions (concerning the future activities of public authority). This is the most difficult task that one needs to face in the concept of task budgeting as the method of measuring the effectiveness of public resources spending. The second barrier is the lack of freedom in managing public resources, which means that formal demands should be accompanied by more strict demands concerning the openness and clarity of functioning of those who have public resources at their disposal. The third limitation is the construction of the measures themselves. They should be constructed according to SMART principle, but are they really simple, measurable and can they be achieved? Moreover, the measures should be characterized by the following features: they should be “adequate for the objectives that the entity wants to achieve, they need to be clearly and unambiguously defined which makes it possible to acquire data, they need to be accurate, so that the acquired data are useful and reliable, that is precise enough and reacting to changes, comparable with previous periods or with other similar measures, subject to verification, supported with clear documentation so that the processes generating a given measure could be verified, that is discouraging undesirable and wasteful activity.”<sup>28</sup> While constructing these measures one needs to avoid oversimplified relations between the used measures as that might undermine data reliability. Another problem formulating objectives and assessments for more than one organizational unit (in case of performing the same tasks). One also needs to bear in mind that some measures cannot be used on their own by one organizational unit. Here emerges the question of data consolidation and its proper aggregation.

Both the system of gathering and recording data and the set of measures require stability. Frequent changes in the regulations make it impossible to compare data so the principle of measurability cannot be always attained, and that in turn,

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<sup>28</sup> J. Duda, A. Jeżowski, W. Misiąg, B. Nowak, J. Szlachta, J. Zaleski, *op. cit.*, p. 21.



enforces the changes in measures applied. Leaving the task of measures constructions to self-government organs (changes due to every tenure or budget) does not lead to simplicity, comparability and measurability. The possibility of achieving measures when the financing system changes is also questionable.

The crucial element is the shift in the mentality from the legalistic approach (whatever is demanded by the law needs to be performed) to the rational approach (necessity of the measurement results in better efficiency of actions and better use of financial resources). It seems that this barrier is difficult to overcome as in the public sector it is extremely difficult to implement the approach which is not authorized by law and to ensure its stability.

## **Conclusions**

The existing law did not create stable and efficient tools and approaches towards the measurement of the effectiveness of financial management. This is strengthened by the attitudes of self-government organs which are short-sighted. Although they notice the necessity to increase the effectiveness they do not undertake efficient actions aimed at implementing the measurement of the effectiveness of financial management. One also needs to bear in mind that some aspects of financial management are not easily measured. It is necessary to compromise, to combine approaches, to tailor the existing solutions to particular circumstances and to create new ones.

There is a wide availability of approaches towards the measurement. It is not the question concerning the ideal choice, but the choice that is optimal under particular circumstances for the given self-government entity. Science in cooperation with practice has prepared a wide range of approaches towards the measurement of the effectiveness of financial management. However, the existing obstacles limit the implementation of the indicated approaches.

The necessity of moving away from the present approach is not questioned. The existing solutions do not support the real assessment of the effectiveness of financial management. With this respect one needs to implement the solutions created by the cooperation of science and practice, which requires visionary, long-term and gradual actions. This could be defined as taking small steps in the right direction of change in order to achieve desired results.

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## **O nowy pomiar efektywności gospodarki finansowej jednostek samorządu terytorialnego**

**Streszczenie.** *Celem artykułu jest wskazanie przesłanek podjęcia działań na rzecz wdrożenia pomiaru efektywności gospodarki finansowej jednostek samorządu terytorialnego (JST) oraz określenia ograniczeń istniejącego rozwiązania na tle barier dokonywania pomiaru efektywności na podstawie alternatywnych do istniejącego (ustawowego) podejść. W artykule zaprezentowano dominujące podejście do pomiaru efektywności, a także dylematy z nim związane.*

**Słowa kluczowe:** *efektywność, jednostki samorządu terytorialnego, pomiar*



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## **Private Cost of the Capital Model (PCOC)**

***Abstract.** In this paper, the Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Model (APM), i.e. the most widely used models of estimating cost of equity, are presented. In addition, a new model of calculating the private cost of capital is introduced. This model is the Private Cost of Capital Model (PCOC) – a new concept based on the Pepperdine PCOC survey project which was launched in 2007 by J.K. Paglia. It may be worthwhile to conduct a similar survey among private companies in Poland, and other countries, to get direct estimates of the private cost of capital.*

***Keywords:** business valuation, private cost of capital, non-public companies*

### **Introduction**

The cost of capital can be defined as the minimum expected rate of return on a given investment that offsets the risk of investing money in that particular venture. The cost of capital is a function of risk: the higher the risk, the higher the expected return. It is also defined as opportunity cost, which represents the return the investor might earn when investing his or her money in alternative projects of a similar risk profile. As a result, the cost of capital is an opportunity cost or the cost of lost opportunities rather than a classical cost of investing money. It is estimated as the total return that an investor might expect on a similar amount invested in a portfolio of securities (projects) bearing similar risk.

Nearly in all the methodologies for estimating the cost of capital which are known in the theory and applied in practice, expected returns are calculated based on historical data describing the activity of public companies.<sup>1</sup> The differences in these methodologies concern, among others, the average measure used (arithmetic or geometric mean), the size of the sample, time series available, exclusions and other adjustments etc.

The use of stock data is imperfect, however, in its describing listed companies only, and disregarding non-public companies (also known among investors as “private” companies)<sup>2</sup>. In the paper the most important methods of estimating the cost of equity are discussed and a new method for estimating the cost of capital tailored to the specific profile of private (non-public) companies is proposed. It is a so-called the Private Cost of Capital Model (PCOC).

## 1. Methods of estimating the cost of equity

The cost of equity is estimated with a variety of methods. In the United States and other market economies the cost of equity is usually estimated with the following methods and models:

- Capital Asset Pricing Model (CAPM) – a single-factor valuation model,
- Arbitrage Pricing Model (APM) – a multifactor valuation model,
- Approach based on the Dividend Growth Model (DGM) – in this approach valuation is based on the predicted future dividend and its growth rate,
- Discounted Cash Flow Method (DCF method) – in this approach the cost of capital is estimated based on cash flow predictions made by analysts and the current stock prices,
- Fama-French Model – a three-factor valuation model,
- Butler-Pinkerton Model (BPM) – a single-factor valuation model using the so-called total beta, incorporating the company’s total risk, i.e. systematic and company-specific risk,
- Build-up Approach – based on build-up of individual risk components.

There are two methods (also known as models or theories) which are widely recognised in the theory of valuation:

- CAPM – Capital Asset Pricing Model,

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<sup>1</sup> Among other methods, the most popular one is the so-called DCF method (for estimating the cost of capital), which derives the cost of capital as an internal rate of return (IRR) where cash flows predicted by analysts are considered equal with the company’s current market valuation. See e.g. J.J. Siegel, *The Application of the DCF Methodology for Determining the Cost of Equity Capital*, “Financial Management” 1985, Vol. 14, No. 1, pp. 46-53.

<sup>2</sup> In terms of numbers, public companies are in minority practically in all the countries across the world, although they might be very significant to the economy. In the United States as of the end of June 2013 there were 4920 public companies, against 5434 in 2005 and 7194 in 2000.

– APM – Arbitrage Pricing Model, which is a multi-factor asset valuation model.

Combined application of the two models gives rise to many difficulties, particularly complications related to measurement. Nonetheless, both models are correct in theoretical terms as they incorporate risk and expected inflation. Application of CAPM involves estimation of three factors which jointly define the cost of capital:

- risk-free rate of return,
- market risk premium,
- systematic (market) risk.

The CAPM model is a widely applied method used to estimate the cost of capital in developed countries, where the data essential to determine the cost of capital of a given listed company, i.e. the risk-free discount rate, the expected market return and the risk index (beta) of this company, are relatively easily available. With reference to non-public companies, the main problem is to estimate the index risk. The formula of the CAPM model is as follows<sup>3</sup>:

$$k = R_f + \beta(R_m - R_f), \quad (1)$$

where:

- $k$  – after-tax cost of equity,
- $R_f$  – risk-free discount rate,
- $R_m$  – expected rate of return on the market (average return on the stock market),
- $\beta$  – risk index reflecting the volatility of returns for a given company in reaction to changes in returns on the market.

The model is sometimes called a single-factor model as it requires sole estimation of one variable measuring sensitivity of returns (i.e. the beta coefficient). CAPM offers different results depending on the techniques used to estimate individual components of the model. The differences concern the risk-free rate (which, in turn, implies the category of the market premium used), as well as the methods used to estimate the market premium (arithmetic or geometric mean) and the risk index.<sup>4</sup>

<sup>3</sup> This formula may be found in most of the textbooks on finance, financial analysis and management accounting. See e.g. F.R. Kaen, *Corporate Finance*, Blackwell, Cambridge, Mass 1995, p. 294; *Ibbotson Cost of Capital 2009 Yearbook*, Morningstar, Chicago 2009, p. 22.

<sup>4</sup> It should be noted that CAPM is a subject to criticism. For example, P. Fernandez maintains that: “The CAPM is an absurd model because its assumptions and its predictions/conclusions have no basis in the real world. According to the dictionary, a theory is “an idea or set of ideas that is intended to explain facts or events”; and a model is “a set of ideas and numbers that describe the

CAPM is used to estimate the cost of equity capital which under this approach is a function of individual risk index describing given share's sensitivity to the returns yielded by the economy as a whole (usually represented by the stock market index). The APM approach also enables estimation of the cost of equity but unlike the previous model it uses a variety of factors to determine the risk of a given business.<sup>5</sup> The set of these variables can vary with the situation, and the most popular factors include<sup>6</sup>: the difference between interest on long- and short-term bonds, inflation rate, sales growth rate in the manufacturing industry, difference between high- and low-risk returns on corporate bonds. In practice, also other very specific factors may be incorporated (such as commodity price indices for a given industry, income level in certain groups of population, energy price index, oil price index, consumption of certain resources, etc). The APM model is defined as follows:

$$k = R_f + \sum_{i=1}^p \beta_i [E\{R_i\} - R_f] \quad (2)$$

where:

- $k$  – after-tax cost of equity,
- $R_f$  – risk-free discount rate,
- $\beta_i$  – risk index reflecting volatility of returns for a given company in reaction to changes in  $i$ ,

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past, present, or future state of something.” With the vast amount of information and research that we have, it is quite clear that the CAPM does not “explain facts or events,” nor does it “describe the past, present, or future state of something.” The use of CAPM is also a source of litigation: many professors, lawyers... get nice fees because many professionals use CAPM instead of common sense to calculate the required return to equity. Users of the CAPM make many illogical errors valuing companies, accepting/rejecting investment projects, evaluating fund performance, pricing goods and services in regulated markets, calculating value creation... It is important to differentiate between a fact (something that truly exists or happens: something that has actual existence; a true piece of information) and an opinion (what someone thinks about a particular thing). We all should try to explain a portion of “the world as it is”, not of “the world as we model it.” Ricardo Yepes, professor of philosophy of my university, wrote: “Learning means being able to keep perceiving reality as it truly is: complex - and not trying to fit every new experience into a closed and pre-conceived notion or overall scheme.” See: P. Fernandez, *CAPM: an absurd model*, <http://ssrn.com/abstract=2505597> [18.11.2014].

<sup>5</sup> The assumptions of the APM model (sometimes also referred to as APT – *Arbitrage Pricing Theory*) may be found in the majority of textbooks on finance, investment and financial analysis. Cf. e.g. R.A. Haugen, *Modern Investment Theory*, Prentice-Hall, Englewood Cliffs 1993, pp. 260-273.

<sup>6</sup> N.F. Chen, R. Roll, S.A. Ross, *Economic Forces and the Stock Market*, “Journal of Business” 1986, No. 59, pp. 383-403. An interesting attempt to apply the APM to the estimation of the cost of capital in various industries was made 20 years ago by a group of American researchers in their project commissioned by the Institute of Quantitative Research in Finance. Cf. M.A. Berry, E. Burmeister, M.B. McElroy, *Sorting Out Risks Using Known APT Factors*, “Financial Analysts Journal” 1988, March-April, pp. 29-42.



$p$  – number of risk factors in the model,  
 $[E\{R_i\} - R_f]$  – market risk premium for the  $i$ -th factor.

There is no standard, universal APM approach. The set of variables can vary with each economy, industry or group of companies. It can also change over time. On the one hand, it may be considered as the model's weakness but on the other it may be also seen as its strength (better reflection of the reality). Further in the text, estimations of the cost of equity using the two methods, CAPM and APM, in selected US companies are presented. The five-factor APM model used by the Alcar company takes into account the sensitivity of returns of individual stocks to the returns on the following factors<sup>7</sup>:

- short-term inflation (SINF),
- long-term inflation (LINF),
- short-term interest rates (INT),
- bankruptcy risk premium (PREM),
- monthly gross domestic product (GDP).

Both the CAPM and APM models have their limitations, which is why business valuation practitioners are more inclined to apply the build-up approach<sup>8</sup>. Further in the text the author will focus on the methods of estimating the cost of capital in a transborder (international) dimension.

## 2. New method of estimating the cost of capital in private companies

In the end of June 2013, in Poland, there were more than 4 million entities operating in the national economy, of which 364428 were companies. Among those companies there were 303551 limited companies and 10332 joint stock companies<sup>9</sup>. On the other hand, at the beginning of September 2013, there were 890 public companies, including 443 companies listed on the main and secondary markets of the Warsaw Stock Exchange and 447 companies listed on the alternative NewConnect market. These data show that public companies in Poland represent 8.6% of joint stock companies and only 0.24% of all the companies. There is

<sup>7</sup> M. Grinblatt, S. Titman, *Financial Markets and Corporate Strategy*, McGraw-Hill, Boston 1998, p. 374.

<sup>8</sup> D. Zarzecki, *Użyteczność metody składania w szacowaniu kosztu kapitału własnego*, "Przeгляд Organizacji" 2010, No. 2, pp. 36-40. Methods of estimating the cost of equity are also described in: D. Zarzecki, *Metody wyceny przedsiębiorstw*, Fundacja Rozwoju Rachunkowości w Polsce, Warszawa 1999, pp. 147-201, 245-260.

<sup>9</sup> *Zmiany strukturalne grup podmiotów gospodarki narodowej w rejestrze Regon, I półrocze 2013*. GUS, Warszawa 2013, p. 31.

no doubt that business valuation professionals will more often face valuations of private rather than public companies.

The estimation of the cost of capital in non-public companies is usually based on the data and statistics available for public markets (stock markets) with appropriate adjustments tailored to specific characteristics of private companies. The most recognised method used to estimate the cost of equity in valuation of non-public companies is the Build-up approach, which – similarly to other methodological concepts – is based on historical data.<sup>10</sup>

The new method of estimating the cost of capital tailored to the needs of income-based valuation of private companies referred to as PCOC (Private Cost of Capital) was proposed by John Paglia and Robert Slee. The model is based on the results of a research project conducted by the Pepperdine University, which was started in 2007. In the questionnaire survey carried out under the project, expectations concerning returns were gathered for many sectors of private (non-public) capital markets; the questions were asked to various lenders (offering different types of debt or equity capital) who conveyed the details concerning a variety of criteria to be met by investors. Questionnaire surveys are conducted online in semi-annual periods; the surveys are addressed to professional financiers.<sup>11</sup>

The PCOC model is as follow:

$$PCOC = \sum_{i=1}^N [(CAPi + SCAPi) \times MVi/MVT] \quad (3)$$

where:

- $N$  – the number of sources of capital,
- $MVi$  – the market value of all outstanding securities  $i$ ,
- $MVT$  – the total market value of all classes of outstanding securities,
- $CAPi$  – the median expected return for capital type  $i$ ,
- $SCAPi$  – the specific  $CAP$  risk adjustment for capital type  $i$ .

There are four steps to determining PCOC<sup>12</sup>:

1. To determine the appropriate capital types by which to compare, review the credit boxes described in the most current Pepperdine survey (Table 1). Select the appropriate median CAP from the survey results for each qualifying capital type.
2. Determine the market value of each capital type (MVi).

<sup>10</sup> D. Zarzecki, *Użyteczność metody składania...*, pp. 36-40.

<sup>11</sup> G.R. Trugman, *Understanding Business Valuation. A Practical Guide to Valuing Small and Medium Sized Businesses*, AICPA, New York 2012, pp. 483-486; R. Slee, J.K. Paglia, *Private Cost of Equity Capital Model*, "The Value Examiner. A Professional Development Journal for the Consulting Disciplines" 2010, March-April, pp. 23-31.

<sup>12</sup> R. Slee, J.K. Paglia, *op. cit.*, p. 29.

Table 1. PCOC Data (required return – gross annualized rates %)

No.	Source of financing	Description	I Quartile	Median	III Quartile
1.	Bank (Cash Flow Loan)	\$1M loan	5.4	6.5	7.1
2.	Bank (Cash Flow Loan)	\$50M loan	3.8	5.0	6.3
3.	Bank (Cash Flow Loan)	\$100M loan	3.6	4.8	6.1
4.	ABL (Asset-Based Lenders)	\$1M loan	6.5	12.0	18.0
5.	ABL (Asset-Based Lenders)	\$50M loan	3.0	3.3	4.0
6.	ABL (Asset-Based Lenders)	\$100M loan	2.8	3.0	3.5
7.	Mezzanine Funds	\$1M EBITDA	18.0	20.0	22.0
8.	Mezzanine Funds	\$25M EBITDA	17.9	18.5	19.0
9.	Private Equity Group	\$1M EBITDA	25.0	30.0	30.8
10.	Private Equity Group	\$25M EBITDA	25.0	28.0	30.0
11.	Private Equity Group	\$50M EBITDA	22.0	25.0	30.0
12.	Venture Capital	Startup	35.0	40.0	50.0
13.	Venture Capital	Early Stage	30.0	35.0	45.0
14.	Venture Capital	Expansion	20.0	30.0	40.0
15.	Venture Capital	Later Stage	20.0	30.0	35.0
16.	Business Angel	Seed	30.0	50.0	100.0
17.	Business Angel	Startup	30.0	40.0	75.0
18.	Business Angel	Early Stage	25.0	35.0	50.0
19.	Business Angel	Expansion	20.0	30.0	40.0
20.	Business Angel	Later Stage	20.0	30.0	40.0
21.	Factor	\$100K/month	58.5	74.5	88.2
22.	Factor	\$1M/month	35.4	41.2	53.6
23.	Factor	\$5M/month	31.3	32.7	35.4

Source: *Pepperdine Private Capital Markets Project Winter 2011 Report*, December 2010. Quoted in: G.R. Trugman: *Understanding Business Valuation. A Practical Guide to Valuing Small and Medium Sized Businesses*, AICPA, New York 2012, p. 484.

3. Apply a specific *CAP* risk adjustment (*SCAPi – risk adjustments*) to the selected median capital type based on a comparison of subject results to the appropriate credit box. Use first and third quartile returns as a guide to this adjustment.

4. Calculate the percentage of capital structure for each *CAP* ( $MV_i/MV_T$ ). Multiply each weight of capital structure component by its *CAP*. Add individual percentages to derive PCOC.

In mathematical terms, PCOC is in fact the weighted average cost of capital. The major difference between PCOC and WACC is the method used to collect information essential to estimate individual components of the cost of capital. The classical WACC method uses historical data from public markets (cost of equity) and the actual borrowing rate in the credit market adjusted by the so-called tax

shield (cost of debt)<sup>13</sup>. In the PCOC method, on the other hand, all the data comes from the questionnaire survey and refers to the actual current expectations concerning returns for various categories of financing dedicated to private companies.

In a survey conducted in spring 2010 by Maretno Harjoto and John Paglia in the US market (350 correctly filled questionnaires in total), the following findings were made: debt accounted for 25% of total financing in private companies, after-tax cost of capital amounted to 8.4%, cost of equity – to 2%, effective tax rate – 32% and WACC – 16.67%.<sup>14</sup> WACC in private companies turned out to be twice as high as in the case of public companies.<sup>15</sup>

## Conclusions

In the traditional approach to valuation of non-public companies, it is assumed that the cost of capital estimated for public companies is the right reference for estimating the cost of capital also in private companies. The PCOC model, however, is based on a different assumption – that the public and private markets are not similar enough to consider them substitutes. Each of them has its specific, unique types of risk as well as expectations concerning returns. There are also structural differences. PCOC uses also market data on non-public companies (broad investors) which are suitable for private companies.<sup>16</sup>

The application of the PCOC model to estimation of the cost of capital in private companies is a relatively simple, interesting and intuitive method of estimating the cost of capital. It would be valuable to consider conducting a similar survey in Poland and other countries. The results might provide an alternative method to estimate the cost of capital in non-public companies – which represent a vast majority of business entities in any economy.

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<sup>13</sup> The cost of debt is in fact the marginal borrowing rate determined based on the analysis of the existing loan agreements, interviews with lenders and observations of the current market rates used in companies with similar ratings. See: M.L. Zyla, *Fair Value Measurement. Practical Guidance and Implementation*, John Wiley & Sons, Hoboken 2013, p. 298.

<sup>14</sup> M.A. Harjoto, J.K. Paglia, *Cost of Capital and Capital Budgeting for Privately-Held Firms: Evidence from Business Owners Survey*, “Journal of Accounting and Finance” 2012, Vol. 12(5), p. 83.

<sup>15</sup> A. Damodaran, *Cost of Capital by Sector*, NYU Stern School of Business, 2010, [http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/wacc.htm](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.htm) [9.09.2011].

<sup>16</sup> R. Slee, J.K. Paglia, op. cit., p. 31.

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## Koszt kapitału w spółkach prywatnych

**Streszczenie.** W artykule omówiono metody CAPM i APM – najważniejsze metody szacowania kosztu kapitału własnego. Następnie zaprezentowano nową metodę szacowania kosztu kapitału odpowiednią dla spółek prywatnych (niepublicznych). Jest nią model szacowania kosztu kapitału w spółkach prywatnych – Private Cost of Capital Model (PCOC).

**Słowa kluczowe:** wycena przedsiębiorstw, koszt kapitału w spółkach prywatnych, spółki niepubliczne



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## **The relation between the share of agricultural credits in a credit portfolio, the quality of the entire credit portfolio, and profitability of selected cooperative banks' assets**

***Abstract.** The purpose of this study is to show how a chosen group of clients, i.e. farmers, formed their position in the credit portfolio structure and to estimate the influence of changes on the quality of the credit portfolio and banks' profitability, on the basis of selected cooperative banks operating in Poland. Results of the study confirm a decrease in the share of farmer credits in the entire credit portfolio in the years 2007-2014. The second hypothesis which assumes that there is an inverse correlation between the share of farmer credits and the quality of a bank's credit portfolio was also verified positively. A strong inverse correlation has been observed between the variables in the analyzed population of banks. Also, the third hypothesis was positively verified as well. It assumes that there is a positive correlation between the decrease in the agricultural credits share and the deterioration of the profitability of assets, as well as, that this correlation is weaker than in the case of the previous pairs of analyzed variables.*

***Keywords:** share of agricultural credits, quality of credit portfolio, profitability of banks' assets*

### **Introduction**

Credit is one of the most essential sources of companies' external financing including agricultural businesses. A discourse over the factors influencing the choice of a credit in financial decisions made by agricultural businesses has been hold for many years in the professional literature. The scope of research on financing this group of business entities encompasses the following areas:

- connecting agricultural enterprises with institutional environment,

- connecting financial decisions with investment decisions made by farmers,
- credit limits in agriculture, in particular, the discussed problem of information asymmetry concerning the market of agricultural credits,
- taking advantage of credit subsidies,
- the importance of cooperative banks in crediting farmers.<sup>1</sup>

The subject matter of the study covers the first as well as the last research area.

Crediting of agriculture is indispensable for its proper development, building of capital base or effective capital allocation. It performs a number of functions among which the most crucial ones include facilitating the intensification and development of agricultural production as well as the possibility of introducing technical, biological and social achievements in agriculture. The significance of this financing source started to increase when the agriculture sector had to adjust itself to some general processes which were observed in modern economies because the process of accumulating internal revenues was very frequently insufficient to conduct restructuring processes in agriculture.<sup>2</sup> It is worth remembering that bank credits may influence the multiplier effects, particularly, if they are related to financing investments. In recent years a growth in the share of credits and loans for investment in the structure of agricultural credits has been observed, which should be interpreted as a positive signal because these are investment expenses which generate production growth in the future. The support given to farmers thanks to preferential credits subsidized by the European Union and national resources is also responsible for the increase of investment credit values for farmers. In 2011 the total amount of investment credit debt of individual farmers in monetary financial institutions equaled about 14.4 billion PLN, whereas the sum of preferential credits given only in 2011 subsidized by Agency for Restructuring and Modernization of Agriculture (ARiMR) reached 3.8 billion PLN, 82% of which were investment credits.<sup>3</sup> The cost of credit subsidized by ARiMR is lower than the cost of commercial credit, therefore preferential credits predominate when it comes to the source of financing investments. The share of preferential credits in the total balance of credits for agriculture within the years 2003-2009 ran at the level of 76-88%.<sup>4</sup>

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<sup>1</sup> D. Zawadzka, *Kredyt w decyzjach finansowych przedsiębiorstw rolniczych w Polsce (ze szczególnym uwzględnieniem podmiotów z regionu Pomorza Środkowego)*, "Zarządzanie i Finanse" 2013, No. 2(2), p. 620.

<sup>2</sup> T Siudek, *Banki spółdzielcze jako instytucje kredytujące rozwój rolnictwa i obszarów wiejskich w Polsce*, "Zeszyty Naukowe Akademii Rolniczej we Wrocławiu" 2006, No. 540, p. 447.

<sup>3</sup> M. Utzig, *Korzystanie z rynku depozytowo-kredytowego przez rolników w Polsce*, "Roczniki Ekonomii Rolnictwa i Rozwoju Obszarów Wiejskich" 2012, Vol. 99, No. 4, pp. 422-423.

<sup>4</sup> A. Rosa, *Kredyty preferencyjne jako forma finansowania działalności rolniczej w Polsce*, "Zeszyty Naukowe SGGW w Warszawie. Ekonomika i Organizacja Gospodarki Żywnościowej" 2011, No. 91, pp. 99-100.



On the other hand, it has been emphasized that self-financing is the most common element in the capital structure in agriculture worldwide.<sup>5</sup> Similar conclusions may be also drawn from the research carried out in Poland.<sup>6</sup>

From the financial system perspective, it is also extremely important to guarantee farmers free access to this source of financing their farms. It means such crediting conditions which do not discriminate farmers (in comparison to other groups of bank clients) and do not restrict groundlessly the possibility of taking advantage of this type of financing. The key role here has to be assigned to local banks, in particular, cooperative banks which by operating in the immediate surroundings of farms have become a natural farmers' financial partner. Hence, the role of cooperative banks is dominant.<sup>7</sup>

Poland's membership in the UE has guaranteed access to new sources of financing agricultural activities and, simultaneously, has limited credit protectionism especially in terms of operating credits. It has influenced the structure of financing sources and relatively decreased the role of bank credits in financing agriculture. Consequently, cooperative banks, which most often gave credits to farmers, are looking for new groups of clients where they can allocate their capital. Hence, the hypothesis (H1) has been put forward that the share of farmers in the structure of credits given by cooperative banks is decreasing.

Cooperative banking underwent huge structural transformations between 1996 and 2011. Then, cooperative banks changed their profile from the niche level, directed mainly to farmers and agribusiness, into the universal one with a more diversified product offer.<sup>8</sup>

Additionally, these banks, while financing other groups of clients rather than farmers, were entering completely new and unknown or less known markets. Quite often they were not prepared to these processes in terms of organization or staff preparation. This, in turn, could deteriorate the quality of a credit portfolio. Therefore, the second hypothesis (H2) was introduced stating that there exists an inverse relation between the share of credits given to farmers in the total balance of credits and the quality of a bank's credit portfolio measured by the share of bad debts in the total balance of a credit portfolio.

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<sup>5</sup> J. Kulawik, *Kredytowanie i finansowanie rolnictwa w przededniu integracji z Unią Europejską, cz. I*, "Bank i Kredyt" 2003, No. 6, pp. 29-42.

<sup>6</sup> R. Kata, *Przesłanki oraz mikroekonomiczne determinanty korzystania przez rolników z kredytów bankowych*, "Roczniki Ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy" 2012, No. 5, p. 258.

<sup>7</sup> R. Kata, *Znaczenie banków lokalnych w dostępie rolników do kredytów bankowych*, "Roczniki Nauk Rolniczych" 2010, Vol. 97, No. 4, series G, pp. 95-103.

<sup>8</sup> S. Kozak, *Ewolucje strukturalne w sektorze banków spółdzielczych w latach 1996-2011*, "Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach" 2013, No. 96, pp. 126-127.

The search for this new group of clients started by cooperative banks was usually, and still is, connected with the preparation of a wider product offer, generating by the same token income other than the one derived from interests. The drop in the share of crediting farmers and sometimes preferences in credit interest rates decreases interest result. Additionally, it should be remembered that the deterioration of the credit portfolio is assumed, which by the system of reserves will also contribute to the decrease of the net result obtained by cooperative banks. This drop, while extending the offer, should be partially balanced out by other revenues. Nevertheless, it is hard to expect that this loss can be fully balanced. Therefore, the third hypothesis (H3) is introduced claiming that the decrease in the share of credits given to farmers in the total balance of credits in cooperative banks will result in decreased profitability measured by the ROA. Simultaneously, magnitude of this relation is expected to be lower than the magnitude of the relation between the change in agricultural credits share and the quality of a credit portfolio.

## 1. Objective and methodology

The purpose of this study is to show how a chosen group of clients, i.e. farmers formed their position in the credit portfolio structure and to estimate the influence of potential changes on the quality of the credit portfolio and banks' profitability on the basis of selected cooperative banks operating in Poland.

The paper also examines the interrelations between variability of agricultural credits share in the volume of given credits in the total balance of credits and the quality of a bank's credit portfolio as well as the profitability of its assets. In this case, the primary data were used obtained from the cooperative banks which provided the opportunity to conduct an econometric analysis both for the entire group of banks and each bank separately due to significant differences in analyzed variables between particular banks.

In order to determine the magnitude, direction and shape of relations between selected pairs of variables, the analysis of variance was applied together with the calculation of basic descriptive statistic, regression analysis using the method of least squares as well as correlation analysis. The selected methods of analysis are complementary but not substitutive.<sup>9</sup>

The analysis encompasses cooperative banks operating in the Polish banking sector among which two banks – Bank A and B operate in district towns, whereas the remaining banks, i.e. Bank C, D, E and F<sup>10</sup> in urban and rural communes. The study used monthly data starting from December 2007 till June 2014.

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<sup>9</sup> A. Luszczewicz, T. Słaby, *Statystyka. Teoria i zastosowania*, C.H. Beck, Warszawa 2003, p. 196.

<sup>10</sup> In Bank F the data cover the period of 2009-2014.

## 2. Research results

The graph in Figure 1 presents the share of a client group, i.e. farmers as the entire credit portfolio in the analyzed banks.

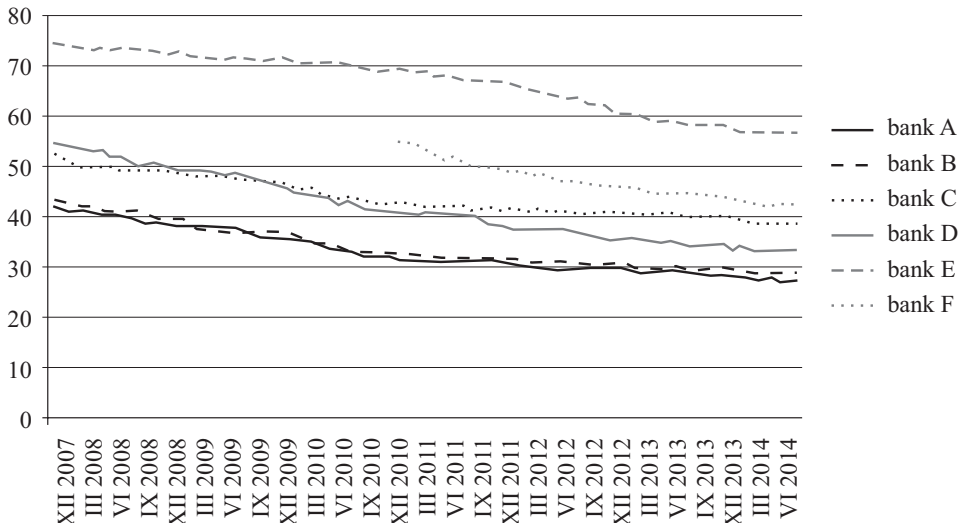


Figure 1. The farmers' share in the credit portfolio of selected cooperative banks between December 2007 and June 2014 (in %)

Source: the author's own study on the basis of the data provided by the banks.

As of 2007 the farmers' share in the portfolio structure exceeded 50% in all the banks which were located in urban and rural communes, i.e. banks C, D, E and F, whereas in the case of the banks operating in district towns this share did not exceed 43%. The difference in the range of agricultural credits share in the banks due to their location results from the fact that higher population as well as a higher number of registered business entities are recorded in district cities and their nearest surroundings, which naturally influences the structure of clients in particular banks. After 2007 a decrease in farmers' share in the volume of given credits was noticed. The highest drop was recorded as of February 2012, which was probably connected with the deadline for the allocation of EU funds for the years 2007-2013. Since January 2014 stabilization has been observed as far as the share of this client group in the structure of a credit portfolio in cooperative banks is concerned.

The observations made in the area of agricultural credits share in the analyzed banks are concurrent with the relations observed in the entire cooperative banks

sector in Poland, which illustrates Table 1. The share of receivables from farmers in the total balance of receivables in the banking sector from December 2007 to June 2014 systematically decreased, though from 2010 the tendency has been much slower.

Table 1. The share of receivables from farmers in receivables of the non-financial sector in cooperative banks in Poland between 2007-2014 and in analyzed banks (in %)

Bank/period	2007	2008	2009	2010	2011	2012	2013	6/2014
Sector of cooperatives banks	43.2	40.0	37.0	32.6	31.5	30.6	29.6	28.7
Bank A	41.9	38.4	35.8	31.7	30.5	29.5	28.3	27.5
Bank B	43.2	39.8	36.8	32.5	31.5	30.6	29.6	28.7
Bank C	52.3	48.9	46.7	42.6	41.5	40.6	39.6	38.7
Bank D	54.5	49.8	46.2	41.1	38.0	35.7	34.0	33.5
Bank E	74.1	72.4	71.3	69.1	66.0	60.1	56.9	56.6
Bank F	b.d.	b.d.	b.d.	54.8	48.9	45.5	43.1	42.4
The average in analyzed banks	53.2	49.9	47.4	45.3	42.8	40.3	38.6	37.9

b.d. – lack of data.

Source: own elaboration on the basis of the data provided by the banks; *Informacja o sytuacji banków spółdzielczych w latach 2007-2013 i I półroczu 2014 r.*, Urząd Komisji Nadzoru Finansowego, Warszawa 2008-2014.

In order to verify the magnitude and direction of the relation between the process of shaping the share of a client group, i.e. farmers in the structure of a credit portfolio and their influence on the quality of this credit portfolio as well as in the second stage of the bank profitability analysis, the econometric analysis was applied using the methods of correlation and regression analyses. Table 2 presents the data concerning the quality of a credit portfolio in the analyzed banks and in the entire sector of cooperative banks in Poland within the years 2007-2014,

Table 2. The share of bad debts in the total balance of receivables in cooperative banks in Poland between 2007-2014 and in the analyzed banks (in %)

Bank/period	2007	2008	2009	2010	2011	2012	2013	6/2014
Sector of cooperatives banks	3.0	2.8	3.4	5.3	5.8	6.3	6.4	6.6
Bank A	2.8	2.7	3.6	5.1	5.7	6.1	6.4	6.4
Bank B	4.2	4.1	4.9	6.6	6.8	7.2	7.0	7.2
Bank C	3.2	3.4	3.7	4.1	4.4	5.0	5.4	5.6
Bank D	3.1	3.3	4.8	5.7	6.1	6.4	6.7	6.8
Bank E	2.2	2.4	3.0	4.1	4.5	4.7	5.4	5.6
Bank F	b.d.	b.d.	b.d.	4.2	4.5	5.3	5.4	5.4
The average in analyzed banks	3.1	3.2	4.0	5.0	5.3	5.8	6.1	6.2

b.d. – lack of data.

Source: like in Table 1.

whereas Table 3 lists the data on the assets profitability of the analyzed banks and respectively the sector of cooperative banks also for the years 2007-2014.

The quality of the credit portfolio in the sector of cooperative banks in Poland decreased in 2010. Since then further deterioration of the quality has been observed, however, the pace of these changes was slower in the following years. Similar relations can be observed in the analyzed cooperative banks. It is worth emphasizing that the share of bad debts is slightly higher than in the banks operating in district towns.

Table 3. The ROA in the analyzed banks in the years 2007-2014 (in %)

Bank/period	2007	2008	2009	2010	2011	2012	2013	6/2014
Bank A	1.4	1.2	1.0	1.1	1.2	1.2	0.8	1.0
Bank B	1.6	1.5	1.2	1.1	1.0	1.3	1.4	1.4
Bank C	1.5	1.5	1.4	1.4	1.2	1.0	1.0	1.2
Bank D	1.4	1.2	1.0	1.1	1.2	1.1	0.8	1.0
Bank E	1.4	1.2	1.0	1.2	1.2	1.2	0.8	0.9
Bank F	b.d.	b.d.	b.d.	1.3	1.2	1.2	0.9	0.9

b.d. – lack of data.

Source: own elaboration on the basis of the data provided by the banks.

The profitability of assets owned by the analyzed cooperative banks decreased if we compare the results from the years 2013 and 2014 with the results from the first years of the analysis, i.e. 2007-2008. Slightly higher profitability was reached by the banks operating in district towns. The observations of the ROA changes in the analyzed population are also concurrent with the changes recorded in the entire sector of cooperative banks in Poland.

In the first phase of the analysis, the Kendall correlation coefficient was calculated between the variables of the farmers' share in the credit portfolio ( $X_1$ ), and the quality of this portfolio ( $Y_1$ ), and next against the variable – assets profitability ROA( $Y_2$ ). Due to the fact that the level of bad debts in the portfolio may be under the influence of other variables not included in the analysis, in order to measure the relation between the variable  $Y_1$  and variable  $X_1$  the correlation coefficient was applied. This measure will allow to distinguish and determine the relation between the selected variables excluding, at the same time, the influence of the remaining variables.<sup>11</sup> Moreover the Kendall method is a nonparametric method, which allows for no assumptions referring to the arrangement of variables in the population. However, to guarantee a correct interpretation, the condition of normal distribution was kept. The value of the Kendall coefficient is included in the range

<sup>11</sup> A. Zielaś, B. Pawelek, S. Wanat, *Metody statystyczne*, PWE, Warszawa 2002, s. 104.

$[-1; 1]$ ; if equal to 1, it means a linear relation between the analyzed variables, whereas if close to 0, it means no relations between variables.

The amount of calculated Kendall coefficients for the banks was presented in Table 4. The significant influence on the portfolio quality had the variable of the farmers' share in the volume of given credits. In all banks it exceeded 0.87. Moreover, the inverse relation was observed between the variables, which means that the increase of one of the variables results in the decrease of another.

The strongest relation between the variables was observed in bank A – the farmers' share in the credit portfolio in the total balance influenced the quality of this portfolio significantly. The value of the coefficient was respectively  $-0.9358$ , which means the inverse relation, namely the deterioration of the portfolio quality (the increased value of the bad debts share) takes place after the decrease in the share of the clients from the segment – farmers, and on the contrary, i.e. together with the increase in farmers' share, the portfolio quality improves (there is a decrease in the share of bad debts). The weakest, but still very strong, relation was observed in Bank B, and it does not matter if it comes to the magnitude of correlation between the variables or if the bank is located in a district town or not.

There is also observed a positive correlation between the share of agricultural credits in the total balance of the credit portfolio and the ROA, i.e. the growth of agricultural credits share is accompanied by the increase in the profitability of assets. Still, it has to be admitted that the magnitude of correlation is considerably weaker than in the case of the earlier discussed variables.

Banks C and F appeared to be interesting cases since they showed a huge influence of variable  $X_1$  on the ROA profitability. The values of the coefficients amounted to respectively 0.7773 in bank C and 0.7756 in bank F. It means that the bigger the farmers' share in the structure of clients is, the greater the profitability of these banks is. Such situation may be the result of the characteristics of cooperative banks operating in urban and rural areas, among which the prevailing both the target group and base group of clients are the people connected with agricultural activity. Obtained results allow to claim that the changes in the size of farmers' share in the volume of given credits influenced considerably the quality of a credit portfolio of these banks as well as they influenced assets profitability, but only in two cases (banks C and F) to a great extent. The positive correlation may result from the fact that farmers to a much greater extent than other client groups apply for preferential credits with higher interest rates (certainly, clients do not experience higher interest rates since their interests are subsidized).

To show how the variable changes, namely the portfolio quality ( $Y_1$ ) and assets profitability ( $Y_2$ ) depending on the changes in the variable of farmers' share in the structure of the credit portfolio ( $X_1$ ), the models of simple regression were applied for each bank. For the enumerated variables  $X$  and  $Y$  the regression function was defined as follows:  $E(Y|X = x) = f(x)$ , where  $E(Y|X = x)$  is the variable mean  $Y$ ,

Table 4. The values of partial correlation coefficients by Kendall for the analyzed variables

Variable	Bank A $X_1$	Bank B $X_1$	Bank C $X_1$	Bank D $X_1$	Bank E $X_1$	Bank F $X_1$
$Y_1$	-0.9358*	-0.8758	-0.9727	-0.9806	-0.9723	-0.8911
$Y_2$	0.3694	0.2368	0.7773	0.3778	0.3894	0.7756

\* marked coefficients are crucial for  $p < 0.05$  (The value for  $p$  was calculated on the basis of a test statistic and compared with  $y$ , the level of statistical significance  $\alpha = 0.05$ : If  $p < \alpha \Rightarrow$  rejects  $H_0$  adopting  $H_1$ ; If  $p > \alpha \Rightarrow$  does not have any grounds to be rejected  $H_0$ ).

Source: own elaboration.

which equal the value of variable  $x_i$ . Hence, the model of linear regression was adopted in the analysis as:  $Y = E(Y|X = x_i) = \beta_0 + \beta_1 x + \varepsilon$ , where  $E(Y|X = x_i)$  means the value of a chosen variable  $Y$  expected on the condition that the variable takes the value  $x$ , whereas  $\varepsilon$  means a random variable. In order to estimate the parameters of the simple regression model, the method of least squares was adopted.

Table 5 presents estimated values of the coefficients together with the assessment for all the banks. All banking institutions recorded a fall in farmers' share, which deteriorated the portfolio quality (the increase in the share of bad debts). Bank A reported a fall of its clients by 1 pp, which caused the greatest changes in the quality of the credit portfolio, i.e. by 0.31 pp on average. The fall of farmers in the structure of credit clients in bank F had the smallest influence on the portfolio quality, where the decrease in the share of the clients from this segment by 1 pp resulted in the drop of the portfolio quality by about 0.11 pp with the mean error of 0.0047 pp. Simultaneously, obtained results were characterized by high quotients  $t$ , which mean by how much the evaluation of the parameter is higher than the estimation error, e.g. in bank D, the evaluation of the parameter with the variable – the share of farmers in the portfolio, is more than sixty times higher than the estimation error. Moreover, in no case there was a condition which would disqualify any of the models due to their higher value of the estimation error ( $S_{b1}$ ) than the quotient  $t$ .

The modification of variables  $X_1$  and  $Y_1$  in the models of simple linear regression made by the adjusted coefficient of determination ( $R^2$ ), which in banks A and B explains the change of the portfolio quality by means of the changes in the share of clients segment, i.e. farmers in about 95%, whereas in bank E – about 97%, in bank F – about 93%. In the case of banks C and E the coefficient  $R^2$  is slightly lower and amounts to respectively 85% and 89%. The standard error of the mean ( $S_e$ ) in the conducted estimations ran at the level of 0.24 pp. The biggest possible deviation in obtained results may be observed in the model for bank E – 0.37 pp, whereas the lowest in the model for bank F – 0.11 pp.

In the case of explaining the profitability of assets ROA (variable  $Y_2$ ) by means of changes in the farmers' share in the volume of given credits, the estimated

Table 5. The results of the simple linear regression model for the explanatory variable  $X_1$  and response variables  $Y_1$  and  $Y_2$ 

Bank	Bank A	Bank B	Bank C	Bank D	Bank E	Bank F
Variable $Y_1$						
$b_0$	15.23*	14.95	12.23	13.24	16.15	10.40
$b_1$	-0.31	-0.26	-0.18	-0.19	-0.18	-0.11
$S_{b_1}^1$	0.0073	0.0065	0.0084	0.0031	0.0072	0.0047
$t(77)^2$	-42.85	-40.58	-21.64	-60.20	-25.31	-24.55
Corr. $R^2$ <sup>3</sup>	0.9592	0.9548	0.8570	0.9789	0.8914	0.9347
$S_e$ <sup>4</sup>	0.2863	0.2511	0.2839	0.1835	0.3722	0.1118
Variable $Y_2$						
$b_0$	0.63	0.52	0.45	0.71	0.1937	-0.41
$b_1$	0.01	0.02	0.04	0.01	0.01	0.03
$S_{b_1}$	0.0026	0.0036	0.0026	0.0016	0.0022	0.0030
$t(77)$	5.2015	6.0804	14.9759	5.3252	6.2325	10.5359
Corr. $R^2$	0.2504	0.3156	0.7411	0.2596	0.3266	0.7236
$S_e$	0.1045	0.1427	0.0883	0.0982	0.1133	0.0730

\* marked coefficients are crucial for  $p < 0.05$  (The value for  $p$  was calculated on the basis of a test statistic and compared with  $y$ , the level of statistical significance  $\alpha = 0.05$ : If  $p < \alpha \Rightarrow$  rejects  $H_0$  adopting  $H_1$ ; If  $p > \alpha \Rightarrow$  does not have any grounds to be rejected  $H_0$ ); <sup>1</sup>  $S_{b_1}$  – the average error of the estimation; <sup>2</sup>  $t = b_1/S_{b_1}$ ; <sup>3</sup> Corr.  $R^2$  – adjusted coefficient of determination; <sup>4</sup>  $S_e$  – standard error of the mean.

Source: own elaboration.

models of simple linear regression were characterized by a significantly lower values than in the case of the previous analysis. Moreover, there was a positive correlation noticed, so the increase in the percentage share of farmers in the credit portfolio caused the increase in profitability of assets of these banks. The biggest increase in ROA due to the percentage fall of farmer clients took place in bank C – by about 0.04 pp with the estimation error of the mean at the level of 0.0026, as well as in bank F – by about 0.03 pp. Simultaneously, these models had the highest factor  $R^2$ , reflecting the explanation of the correlation between these variables amounting to respectively about 74% and 72%. In banks A, C and D the increase in farmers' share in the volume of given credits by 1 pp., consequently, resulted in the increase in ROA by about 0.01 pp on average with the coefficient  $R^2$  run at the level of 25% in banks A and C and 32% in bank D. The standard error of the mean ( $S_e$ ) for the estimated models equaled 0.10 pp, so possible deviations from obtained results may be twice as lower than in the case of the models concerning the first correlation.

In order to verify the correctness of conducted estimations, the significance of model parameters and all partial models as well as to hold the assumptions of the least square method, the analysis of variance was applied. Two hypothesis were



put forward:  $H_0: \beta_i = 0$  and  $H_1: \beta_i \neq 0$ . For the majority of the parameters (except for the parameter  $b_0$  for the variable  $Y_2$  in Bank E) the results of regression analysis turned out to be crucial, hence  $H_0$  about lack of significance for  $H_1$  was rejected, which confirmed previous analyses and conducted discussion.

## Conclusions

Summing up the conducted research discussed in the paper, every hypothesis put forward can be positively verified. The results of the analysis indicate a systematic fall in the share of farmer credits in the entire credit portfolio of cooperative banks in each of the analyzed banks as well as in the entire sector of cooperative banks in the years 2007-2014, which confirms the first hypothesis ( $H_1$ ). It is worth noticing that the pace of this fall clearly slowed down in the last period under analysis, nevertheless, in the entire analyzed period for the sector of cooperative banks the share of agricultural receivables decreased by 14.5 pp, i.e. by 33.6%, from 43.2% in December 2007 to 28.7% in June 2014.

From the banks' perspective, agricultural credits are characterized by certain traits influencing the risk related to them. Farmers often do not have any credit history and most often do not have farming accountancy, which makes it difficult for the banks to evaluate the risk factor connected with this credit category<sup>12</sup>, but still the quality of the credit portfolio of farmers in the banking sector in Poland is better than e.g. entrepreneurs.

The second hypothesis which assumes that there is an inverse correlation between the share of farmer credits in the total balance of credits and the quality of a bank's credit portfolio of was also verified positively. There has been observed a strong inverse correlation between the variables in the analyzed population of banks, which means that the decrease in agricultural credits share in the banks' credit portfolio deteriorates (the increase in share of bad debts) the quality of the entire credit portfolio of the banks.

Also, the third and last hypothesis was positively verified. It assumes that there exists a positive correlation between the decrease in the agricultural credits share and the deterioration of the profitability of assets as well as that this correlation is weaker than in the case of the previous pairs of analyzed variables. It is worth emphasizing that, indeed, the dependence is positive, but only in the case of the two out of six researched banks we can say that the relation is strong.

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<sup>12</sup> E. Stola, *Kredytowanie rolnictwa a poziom ryzyka bankowego*, "Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu" 2009, No. 2, p. 240.

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### Zależność między udziałem kredytów rolniczych w portfelu kredytowym a jakością całego portfela kredytowego i rentownością majątku wybranych banków spółdzielczych

**Streszczenie.** Celem opracowania było ukazanie udziału wybranej grupy klientów – rolników w strukturze portfela kredytowego oraz oszacowania wpływu zmian na jakość portfela kredytowego i rentowność banków na przykładzie wybranych banków spółdzielczych działających w Polsce. Wyniki analizy potwierdzają hipotezę, że udział rolników w strukturze kredytów banków spółdzielczych małał w latach 2007-2014. Drugą hipotezę, która zakłada, że istnieje odwrotna zależność między udziałem kredytów dla rolników w kredytach ogółem a jakością portfela kredytowego banku, również zweryfikowano pozytywnie. Między zmiennymi w badanej grupie banków zaobserwowano silną odwrotną zależność. Również trzecią z postawionych hipotez zweryfikowano pozytywnie. Zakładała ona, że istnieje dodatnia zależność między spadkiem udziału kredytów rolniczych a pogorszeniem rentowności aktywów banków oraz że zależność ta jest słabsza niż w przypadku wcześniej analizowanych zmiennych.

**Słowa kluczowe:** udział kredytów rolniczych, jakość portfela kredytowego, rentowność aktywów banków

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<sup>1</sup> J. Bughin, J. Doogan, O. Vetvik, *A new way to measure word-of-mouth marketing*, "McKinsey Quarterly" 2010, No. 2, p. 113-116.

<sup>2</sup> P. Spenner, K. Freeman, *To keep your customers, keep it simple*, "Harvard Business Review" May 2012, p. 108-114.

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<sup>2</sup> *NBP Portal.pl. Portal wiedzy ekonomicznej* [CD-ROM], edycja Banknot, NBP, Warszawa 2005.

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- materiały internetowe i elektroniczne (w nawiasie pełna data korzystania ze strony WWW)

<sup>1</sup> H. Arndt, *Globalisation*, „Pacific Economic Paper” 1998, nr 27, www.crawford.anu.edu.au/pdf/pep/pep-275.pdf [17.05.2008].

<sup>2</sup> *NBPortal.pl. Portal wiedzy ekonomicznej* [CD-ROM], edycja Banknot, NBP, Warszawa 2005.

- prace niepublikowane

W. Balicki, *Bezrobocie a długookresowa stagnacja transformacyjna* [praca niepublikowana], [b.m.] 2003 [wydruk komputerowy].

- akty prawne

<sup>1</sup> Ustawa z dnia 8 marca 1990 r. o samorządzie gminnym, t.j. Dz.U. z 2001 r., nr 142, poz. 1591.

<sup>2</sup> Ustawa z dnia 19 listopada 1999 r. Prawo działalności gospodarczej, Dz.U. nr 101, poz. 1178 z późn. zm.

### Ilustracje

- edytowalne, wyłącznie czarno-białe,
- rysunki, wykresy i schematy – w plikach źródłowych (\*.xls lub \*.cdr)
- zdjęcia – w plikach źródłowych (najlepiej \*.tif), rozdzielczość min. 300 dpi
- opatrzone numerem oraz źródłem (np. opracowanie własne)
- pozbawione napisów: półgrubych, wersalikami, białych na czarnym tle, czarnych wypełnień, dodatkowych ramek
- z odwołaniem w tekście (np. zob. rys. 1, a nie: zob. rysunek poniżej/powyżej)
- z objaśnieniem użytych skrótów
- z pisemną zgodą na przeniesienie praw autorskich

### Tabele

- ponumerowane, opatrzone tytułem oraz źródłem (np. opracowanie własne)
- z odwołaniem w tekście (np. zob. tab. 1, a nie: zob. tabela poniżej/powyżej)
- każda rubryka wypełniona treścią
- skróty użyte w tabeli – objaśnione pod nią
- z pisemną zgodą na przeniesienie praw autorskich

### Wzory matematyczne

- przygotowane w programie Microsoft Equation 3.0
- poprawnie zapisane potęgą i indeksem
- zmienne – kursywą, liczby i cyfry – pismem prostym
- znak mnożenia to: · lub × (nie gwiazdka czy „iks”)
- pisownia jednostek – według układu SI
- symbole objaśnione pod wzorem

### Bibliografia

- pozbawiona numeracji
- uporządkowana alfabetycznie według nazwisk autorów i tytułów prac zbiorowych