

## LOCAL GOVERNMENT DEFICIT IN POLAND UNDER CYCLICAL ECONOMIC FLUCTUATIONS

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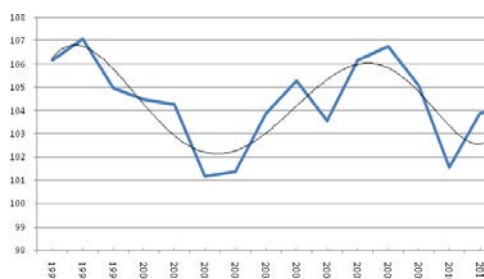
Abstract: Cyclical fluctuations in GDP growth have a significant impact on the vast majority of economic indicators. Past surveys showed that economic fluctuations are reflected in the amount of revenue generated by local governments. The present article discusses the problem of economic impact of cyclical fluctuations on the results of local government budgets.

Keywords: deficit, budget, cyclical economic fluctuations

### 1 Introduction

Cyclical economic fluctuations exert a considerable impact on the majority of phenomena occurring in modern economy, what can be proved by the swings in major macroeconomic indicators. The changeability of GDP dynamics is presented in Chart 1.

**Chart 1. GDP dynamics (year on year) in fixed prices between 1997 and 2011**



Source: own work based on Central Statistical Office's data [www.stat.gov.pl](http://www.stat.gov.pl)

Changes in value of respective macroeconomic indicators resulting from cyclical business fluctuations have an impact on budgets of local government units with respect to both revenue and expenditure what, in turn, affects the budgetary deficit<sup>1</sup>. As far as budgetary revenues of local government units are concerned, we can observe a serious decrease in the growth dynamics. It is due to the fact that the Law on Revenues of Local Government Units, in force since 2004<sup>2</sup>, brought about the fall in proportion of external transfers in financing local government units' operations<sup>3</sup>. The external transfers proved to be less sensitive towards cyclical fluctuations than own source revenues<sup>4</sup>. The highest sensitivity towards business fluctuations among own source revenues was detected in Personal and Corporate Income Taxes (PIT and CIT). These are the kinds of revenues over which local government authorities have practically no influence<sup>5</sup>. The current system of financing local government units in Poland is seriously handicapped by its close dependence on business cycles and by the lack of safeguards against drops in the revenue level<sup>6</sup>. The deficits which accumulate in consecutive years contribute to the public debt of local government units, in this way economic fluctuations are also reflected in the amount of this debt.

Economic indexes show three different kinds of dependence on the dynamics of GDP changes: pro-cyclicality, anti-cyclicality

and acyclicity. The majority of primary macroeconomic measures<sup>7</sup> can be classified as pro-cyclical with considerably high correlation with GDP<sup>8</sup>. The anti-cyclical measures concern, among others, unemployment rate and added value in agriculture<sup>9</sup>. Not only can we speak of directional correlation but also about the shift in time in the course of value of macroeconomic measures in relation to GDP dynamics and about diversified amplitude of fluctuations towards GDP dynamics. An additional factor influencing the sum of liabilities of local government units is surprisingly high pro-cyclicality of public consumption<sup>10</sup>.

Apart from fluctuations in revenues and expenditure which result from cyclical economic fluctuations, budgets of local government units are subject to many other factors which determine their balance. The most important ones are: firstly, the change in the method of setting the maximum level of budgetary deficit, this change was brought about by the amendment to the Act on Public Finance<sup>11</sup>, and secondly, increased demand for loan funds for projects co-financed by EU within Financial Perspective 2007-2013<sup>12</sup>. Another factor which may affect the results of the local government sector is the policy of central administration which imposes on local governments execution of new tasks and projects but without ensuring appropriate financial resources for their realization<sup>13</sup>.

There are many different factors which are sensitive towards business fluctuations and which influence the sum of liabilities of local government units, that it is impossible to discuss them all. That is why, the research presented in this article only focuses on the analysis of changes in the sum of liabilities of local government units caused by economic fluctuations.

### 2 Results of budgets of local governments units

A positive difference between public revenue and public expenditure, set for a settlement period, constitutes the surplus of the public finance sector, and a negative difference is the deficit of public finance sector<sup>14</sup>. These concepts may, of course, be aggregated to different levels. They may be divided into deficit/surplus of public sector, local government sector, insurance sector, or further down, results of gminas (communes), poviats (counties) and voivodeships. The results of particular units of public finance sector are shown in Chart2.

<sup>1</sup> See also: P. Mrowiec, Założenia do projektu budżetu Gminy Czechowice –Dziedzice na 2012 rok w kontekście deficytu sektora finansów publicznych oraz innych uwarunkowań, Zeszyty Naukowe 4/2011, Published by Bielsko-Biała School of Finance and Law, Bielsko –Biała 2011.

<sup>2</sup> Act of 13 November 2003, on Revenues of Local Government Units, Journal of Laws 2003, No 203, item 1966

<sup>3</sup> Kosek-Wojnar M., Surówka K., Sytuacja finansowa JST w Polsce w warunkach kryzysu sektora finansów publicznych [w:] Nowe zarządzanie finansami publicznymi w warunkach kryzysu, Owsiak S. [red.], PWE, Warsaw, 2011, p. 365

<sup>4</sup> More in: Żabka A., Wpływ cyklicznych wahań koniunktury na dochody JST [w:] Polityka rozwoju regionu. Koncepcja – procedury administracyjne – Finansowanie Malik K. [red.], Published by: Wydawnictwo Naukowe „Akapit”, Opole 2010,

<sup>5</sup> Kosek-Wojnar M., Surówka K., Sytuacja finansowa JST w Polsce... op. cit. p. 365

<sup>6</sup> Ibidem s. 365

<sup>7</sup>These include: private consumption, governmental expenditure, import, GDP deflator, CPI, employment rate, real M3, 3M WIBOR and real 3M WIBOR, investments, export, industrial processing, M3, unemployment rate based on: Skrzypezyński P., Metody spektralne w analizie cyklu koniunkturalnego gospodarki polskiej, Materiały i Studia, zeszyt nr 252, Published by: NBP, Warsaw 2010, p.158 and further on

<sup>8</sup>Gradzewicz M., Growiec J., Hagemeyer J., Popowski P., Cykl koniunkturalny w Polsce- wnioski z analizy spektralnej, Bank i Kredyt 41 (5), 2010, p. 53

<sup>9</sup> Ibidem p.55

<sup>10</sup> Ibidem p. 53

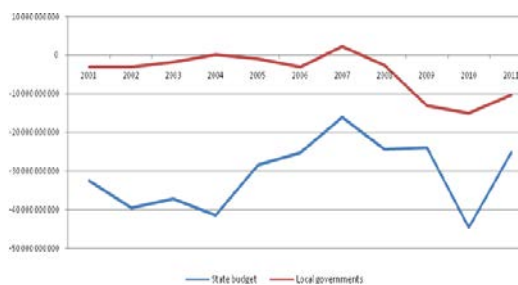
<sup>11</sup> Act of 27th August 2009 on Public Finance, Journal of Laws 2009 no 157, item 1240 with effect for local government units' deficit starting from 2014. Por. Korolewska M., Marchewka-Bartkowiak K., Local government debt [in:] Polish debt, Surveys conducted by Bureau of Research, Chancellery of the Sejm, 4(28) 2011

<sup>12</sup>Cf. Widera A., Jeśli samorząd bierze kredyt, to raczej przez spółkę, [www.portalsamorzadowy.pl](http://www.portalsamorzadowy.pl) z dnia 12.03.2012; Prospects of Local Government Sector in Poland in 2012 Fitch Ratings report (in Polish); December 2012; [www.fitchratings.com](http://www.fitchratings.com)

<sup>13</sup> Perspektywy sektora... op. cit.2

<sup>14</sup> Act on Public Finance, Journal of Laws 2009 no 157 item 1240; article 7 point 1

**Chart 2. The result of state budget and local government units in 2001-2011**



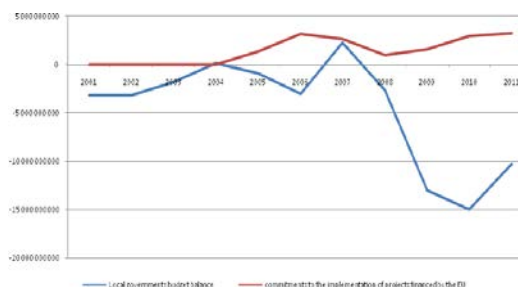
Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 ([www.mf.gov.pl](http://www.mf.gov.pl)) and data from Central Statistical Office ([www.stat.gov.pl](http://www.stat.gov.pl))

The flow of the chart which pictures the level of state budget deficit shows a visible convergence with the concurrent business cycle in Poland. Together with an economic upturn of 2004, the budget deficit was falling down systematically. When the Polish economy entered into the recession phase, the deficit grew bigger year by year. The reduction in the state deficit in 2011 should however, be attributed to the fear of exceeding the 55% threshold of relation between public debt and GDP, rather than to factors related to a given economic cycle.

As far as local government deficit is concerned, until 2007 there was no convergence with the concurrent business cycle. After 2007 the deficit increased considerably and the question was why? If the increase in the deficit was caused by slower economy, why the changing business cycles had not affected the budgets of local government units in the previous years? The reason may be the change in the structure of local government units' revenue, initiated by passing of the act on local government revenues. This act raised the proportion of own source revenues in the structure of budgets of local government units. Own source revenues seem to be more sensitive towards economic fluctuations than external transfers which flow into budgets of local government units<sup>15</sup>.

Another reason may be increased demand for financial resources to cover local governments' own contributions of ventures co-financed by EU programmes. The relation of results of budgets of local government units to liabilities incurred to implement projects and ventures financed in part by EU funds is presented in Chart 3.

**Chart 3. Relation of results of budgets of local government units to liabilities incurred to implement projects and ventures financed in part by EU funds for the period of 2001-2012**



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012, [www.mf.gov.pl](http://www.mf.gov.pl)

The visibly higher growth dynamics of liabilities for financing EU projects and programmes can be seen in the following periods: 2004-2006 and 2008-2011. In both periods the deficit of local government units' rose, however in 2008-2011 this rise was radically inadequate to the rise in liabilities for financing projects and programmes co-financed by EU funds. This leads to the conclusion, that the time convergence of rise in the deficit

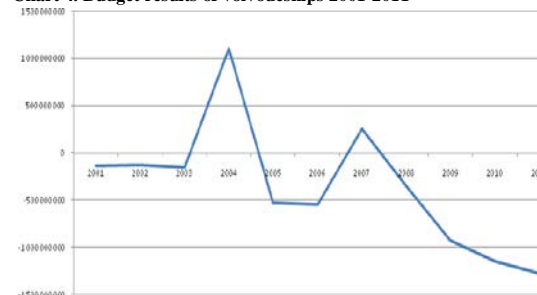
<sup>15</sup> Cf. Żabka A., Wpływ cyklicznych wahań koniunktury... op. cit. p.209

and economic slowdown was not coincidental. This proves that economic fluctuations directly affect the results of local government units' budgets. This phenomenon remained unnoticed until 2007 because the sources of income of local government units were different before and after that year. The new Act on Revenues of Local Government Units<sup>16</sup>, increased the proportion of own source revenues in budgets of local government units, and this particularly concerns PIT and CIT taxes. These two sources are particularly susceptible towards economic fluctuations because tax revenues of the national budget show high positive correlation with GDP in current prices as well as visible positive correlation with wage level in corporate sector and gross average monthly wage<sup>17</sup>.

### 3 Budget results of voivodeships

The characteristic feature of voivodeships' budgets is high proportion of own source revenues in the whole structure of the budget. In contrast to the budget structure of gminas (communes), the structure of voivodeships' budget is characterized by very low diversification of income sources. The predominant constituent in the own sources portfolio are revenues from income tax from legal entities. This source, unfortunately, shows great sensitivity towards business fluctuations<sup>18</sup>.

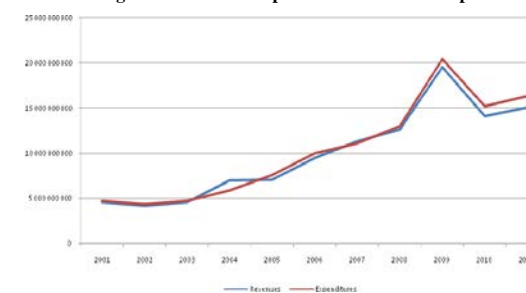
**Chart 4. Budget results of voivodeships 2001-2011**



Source: own work based on Government Budget Reports (In Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 ([www.mf.gov.pl](http://www.mf.gov.pl))

The analysis of budget results of voivodeships lets us assume that the strong response to cyclical economic fluctuations occurred between 2008 and 2011. In this period the drop in GDP growth dynamics is clearly visible which, in turn, is reflected in the value of voivodeships' budgets. In 2008 the increased expenditure of voivodeships (Chart 7) was satisfied thanks to higher level of EU grants for local government units in this period<sup>19</sup>. Budget revenues and expenditure of voivodeships are presented in Chart 5.

**Chart 5. Budget revenues and expenditure of voivodeships 2001-2011**



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 ([www.mf.gov.pl](http://www.mf.gov.pl))

<sup>16</sup> Act of 13 November 2003, on Incomes of Local Self-Government Units, Journal of Laws 2003, No 203, item 1966. This act replaced a previous act on financing gminas (communes).

<sup>17</sup> Cf. Owsiak S., Planowanie budżetowe a alokacja zasobów, PWE, Warsaw 2008, p. 137

<sup>18</sup> Cf. Żabka A., Wpływ cyklicznych wahań koniunktury... op. cit. p. 221

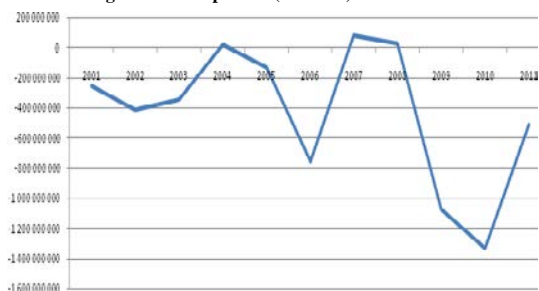
<sup>19</sup> Żabka A., Wpływ cyklicznych wahań koniunktury... op. cit. p.207

In 2004 there was a considerable budget surplus which is also visible in Chart 6. Starting from 2009 we can observe a certain imbalance between revenues and expenditures in the budgets of voivodeships. This imbalance is also visible in Chart 5 which shows results of voivodeships. We can assume then, that budget results of voivodeships are sensitive towards cyclical business fluctuations, especially after 2008.

#### 4 Budget results of poviats (counties)

Differentiation of revenue sources of respective local government units causes their different sensitivity towards cyclical business fluctuations<sup>20</sup>. We should therefore examine the correlation of current economic phase with the deficit in particular local government units. The lowest sensitivity can be detected in the poviats' budgets, because of the highest proportion of external transfers in their revenues. Chart 6 presents the results of budgets of poviats (counties) in the period of 2001-2011.

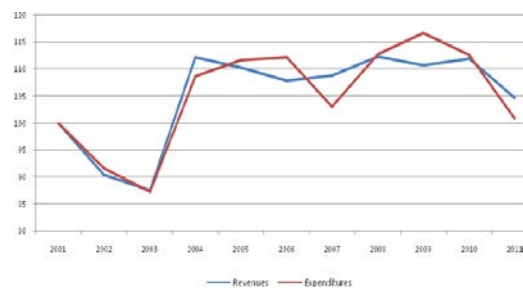
Chart 6. Budget results of poviats (counties) 2001-2011



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 (www.mf.gov.pl)

The budget deficit on poviat level shows response towards cyclical business fluctuations. The first, smoother part of the line in the trend corresponds with the line for GDP dynamics (see Chart 1). The considerable rise of budget deficit in 2006 is compatible with the fluctuation of GDP growth dynamics in this year (see Chart 1). The reason for this is fall of the revenues dynamics between 2004 and 2006, which can be clearly visible in Chart 7.

Chart 7. Revenues and expenditure dynamics (year on year) of poviats (counties) budgets 2001-2011



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 (www.mf.gov.pl)

The analysis of data presented in the chart proves that the main cause of budgetary imbalance which rises together with deepening economic downturn, is the rise in expenditure. The dynamics of expenditure growth, especially in the period of 2007-2009 were higher than the dynamics of revenue growth. A considerable decrease of expenditure dynamics in 2010 and 2011 may have at least three reasons:

- the fall in GDP growth dynamics,
- the national policy on regulating the level of public debt resulting from announcement of the relation of Public National Debt to GDP on the level close to 55%,

- development of new regulations on permissible budget deficit level of local government units, which will enter into force in 2014.

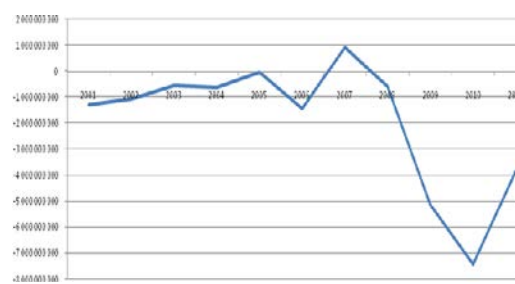
Thus, it should be clearly stated that budget results of poviats (counties) are highly sensitive towards business fluctuations.

#### 5 Budget results of gminas (communes)

The basic units of local government are gminas (communes)<sup>21</sup>. Gminas enjoy the widest scope of competences for delivering public services on local level. The extent to which these services are rendered is determined by gminas' ability to pool revenues. The legislator provided gminas with a number of budget revenue sources. Wide scope of tasks together with wide spectrum of revenue sources at gminas' disposal makes gminas the most interesting subject of this research.

The budget results of gminas (communes) are presented in Chart 8.

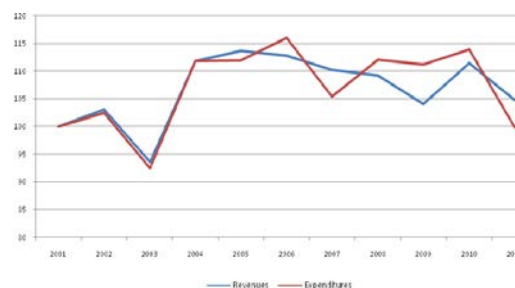
Chart 8. Budget results of gminas (communes) 2001-2011



Source: own work based on Government Budget Reports (in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 (www.mf.gov.pl)

In 2004, when the new Act on Revenues of Local Government Units came into force, the proportion of own source revenues in the structure of gminas' budget was increased. Since that we can observe higher sensitivity of gminas' budget results towards cyclical economic fluctuations. The budgetary surplus is explicitly outlined in the peak year of economic upturn and then follows the rise in the budgetary deficit of gminas brought about by the changed economic cycle. The reduction in the deficit which occurred in 2010 may be attributed to the already mentioned premises: the fall in GDP growth dynamics, the national policy on regulating the level of public debt resulting from announcement of the relation of Public National Debt to GDP on the level close to 55% as well as development of new regulations on permissible budget deficit level of local government units, which will enter into force in 2014. Any doubts concerning the reasons for the deficit reduction between 2010 and 2011 may be resolved by the analysis of relations between revenues and expenditures conducted in Chart 9.

Chart 9. Dynamics (year on year) of revenues and expenditures of gminas (communes) in 2001-2011



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 (www.mf.gov.pl)

The reason for a smaller budget deficit in 2011 was a major fall in the expenditure growth dynamics. The years 2005-2009 saw

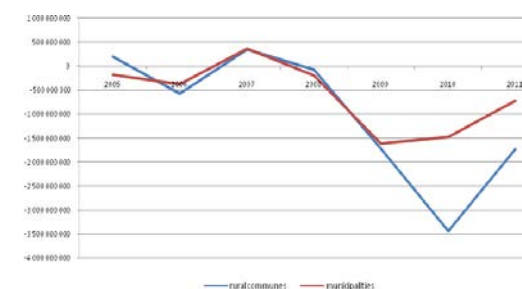
<sup>20</sup> Cf. Żabka A., Wpływ cyklicznych wahań koniunktury... op. cit. p. 224

<sup>21</sup> Constitution of Poland of 2 April 1997, article 164, point 1

a visible slowdown of revenues growth dynamics. The largest slowdown of revenues dynamics was noted down in 2011. In the same year even greater fall was observed on the side of expenditure dynamics what caused a considerable reduction of the deficit. A different situation took place in 2008 – 2009. In 2008 a slight fall in the revenues dynamics was accompanied by a major increase in the expenditure dynamics. In 2009, while the level of the expenditure growth dynamics remained stable, the revenues dynamics fell considerably. Both situations brought about the increase in the budgetary deficit seen in Chart 9.

When we consider the situation of gminas (communes) we need to take into account that gminas constitute the most numerous group in the structure of Polish local government and that each gmina may have a different nature and character. The next part of this article presents an analysis of the situation of municipalities (urban gminas) and rural communes (rural gminas) The budget results of urban and rural gminas are presented in Chart 10.

**Chart 10. Budget results of municipalities and rural communes 2001-2011**



Source: own work based on Government Budget Reports (published in Polish): Information on Local Government Budget Execution, Warsaw 2002-2012 ([www.mf.gov.pl](http://www.mf.gov.pl))

Worsening economic situation exerts a much bigger impact on rural communes. We must also bear in mind that there are much more rural gminas in Poland than urban ones (what until 2009 did not find reflection in the amount of budget deficit). Thus the dynamics of changes in budget deficit in rural gminas are much higher than in case of municipalities. There is also another phenomenon of delayed reaction towards change in the relation of revenues to expenditure. Both phenomena may be derivatives of the structures of rural and urban budgets. Rural gminas rely more on external transfers of financial resources into their budgets, and this kind of revenue is less sensitive towards economic fluctuations. Own source revenues which are the basis of urban budgets, and especially the revenues from PIT, are much more sensitive towards business fluctuations<sup>22</sup>, so the authorities of urban gminas are forced to instantly react to changing economic situation. Another factor which may help explain the late reaction of rural gminas is the way of setting the basic amount of the compensatory part of the general subvention for local government units. The amount of the compensatory part is determined on the basis of budgetary reports from the year preceding the base year<sup>23</sup>, so it depends on the situation of the gmina as it was two years before. In case of 2010 the basis for the calculation of the subvention were indicators from 2008. Back then these indicators were quite high which means relatively smaller transfers from this source. Moreover, bad demographic situation influenced the sums of educational part of general subvention, what in many cases meant the necessity to finance education from own resources.

## 6 Conclusions

The conducted analysis clearly shows that cyclical economic fluctuations have a direct impact on budgets of local government units. The slowing GDP dynamics was reflected in the budget deficit on each level of local government.

The articles also proves wrong the thesis that bigger deficit of local government units budget results from their incurring liabilities to cover own contributions for ventures co-financed by EU funds. Such liabilities did not increase in the period when the budget results deteriorated. What's more, it must be said that during the period when the deficit was growing, all ventures realized with contributions from EU funds were in the final phase of realization, and the liabilities to finance them had been incurred in previous periods.

The cyclical business fluctuations affect budgets of local government units in many different ways. The factor which determines the scope of this influence is the structure of revenues. The budgets of gminas (communes) which consist mainly of own source revenues, suffered much more when GDP dynamics fell down, than budgets of poviats (counties) and voivodeships.

## Legal acts

1. Constitution of Poland of 2 April 1997,
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3. Act on Public Finance (Journal of Laws 2009 no 157, item 1240)

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## Primary Paper Section: A

## Secondary Paper Section: AE, AH

<sup>22</sup> Cf. Żabka A., *Wpływ cyklicznych wahań koniunktury...* op. cit. p. 209

<sup>23</sup> Act of 13 November 2003, on Incomes of Local Self-Government Units, Journal of Laws 2003, No 203, item 1966, article 20 point 4