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**Budget Deficit in Poland – the Sources of Growth\***

**Abstract**

*Highly imbalanced public finances are indicated as one of the major problems in the Polish economy. This paper is an attempt of a case study dealing with the fiscal policy evolution in Poland between 1995 and 2004. It aims at examining the course of the budget deficit and its determinants, paying special attention to the analysis of the factors that contributed to the considerable growth of budgetary deficit in the years 2001-2002.*

*The analysis discusses several stylized facts characterizing the national budget development in Poland in the period 1995-2004. Throughout the examined period budget revenue almost did not change in real terms, excluding the years 1999 and 2003, when it grew. In real terms the growth totaled 10.7%. Expenditures showed a similar stability until the year 2001 being the first year of their strong growth. As a result, the 2004 expenditures were more than 20.4% larger than in 1995. In addition, in the time span 1995-2004 both revenue and expenditure dropped in relation to GDP, by 3.9% of GDP and 2.3% of GDP, respectively. In the analyzed period expenditures clearly expanded in three sections, which explains over 88% of the total expenditure increase in real terms. These sections are social insurance, education and healthcare.*

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## 1. Introduction

Highly imbalanced public finances are indicated as one of the major problems in the Polish economy. Moreover, the available research indicates that budget deficit in Poland has mainly structural character.

A vast pool of knowledge is available today, which explains the possible causes of the frequent and long-lasting presence of budget deficits in the democratic countries. The problem is tackled by at least two research schools – public choice and new political economy. While the first emphasizes analyses of mechanisms underlying the fiscal decisionmaking, the other deals with the economic consequences of these mechanisms.

At the same time, empirical investigations into the discussed issue, although quite numerous, are relatively general. They constitute two groups. One covers the econometric research based on large panels of countries and aims at the identification of factors that determine the balance of a national budget or public finances. This type of research incorporates the most recent works by Brender and Drazen [2004] and Woo [2006]. The studies confirm (however not for all groups of countries) the role played in the shaping of fiscal variables by factors such as forthcoming elections (political budget cycles), characteristics of the political system (majoritarian or proportional), institutional features of the budgetary process (e.g. the degree of its centralization, or the number of ministers participating in budget drafting), transparency of the fiscal policy or, last but not least, the quality and stability of democratic institutions. However, conclusions drawn from such research entails also problems.

Firstly, the observed relationships are statistical correlations and in many cases doubts can be raised about direction of relationships. It is also possible for variables (e.g. budget deficit and a political system) to be strongly correlated with each other, because of their having a common determinant (such as unobservable characteristics of the distribution of preferences concerning the consumption of various public goods). The instrumental methods rarely solve the problem, because in most cases the validity of the instruments is difficult to assess.

Another problem arising from this type of research is due to its use of large data panels for various countries. Despite the efforts of institutions gathering the macro economic data, the methodologies employed to compose appropriate aggregates can frequently differ between countries and vary in time, which, as a rule, is not (and usually cannot be) accounted for in the analysis. In addition, there are analytical problems with taking into account determinants such as demographic processes, one-off incomes and public expenditures, or, finally, structural changes. Since the processes frequently are not white noise, they can

seriously affect the properties of the applied estimators and lead to incorrect conclusions.

Because of these shortcomings, an important part of analysis are case studies. Unlike the first type of research, they allow the evaluation of factors determining the course of fiscal policy in a given country, while fully accounting for the country's specificity and using possibly full information on the political and institutional processes that affect economic policy. However, the downside of such analyses is often the inability to make a quantitative, statistical verification of the derived conclusions, particularly for countries where the available time series are short.

This paper is an attempt of a case study dealing with the fiscal policy evolution in Poland between 1995 and 2004<sup>1</sup>. It aims at examining the course of the budget deficit and its determinants, paying special attention to the analysis of the factors that contributed to the considerable growth of budgetary deficit in the years 2001–2002.

## **2. State budget's deficit, years 1995–2004**

The analysis concentrates on the central state budget, because of several reasons. It constitutes the basic element of the public finance sector, it immediately depends on government's policy and it is passed as a uniform Budgetary Act. Due to limited transparency of Polish public finance, also the data available for all other entities of general government (mainly extrabudgetary funds and local governments) are in many cases not comparable across the whole sector or, in some cases also not available. Considering much higher availability of data in various classifications, the next sections of the study will focus on the budget deficit.

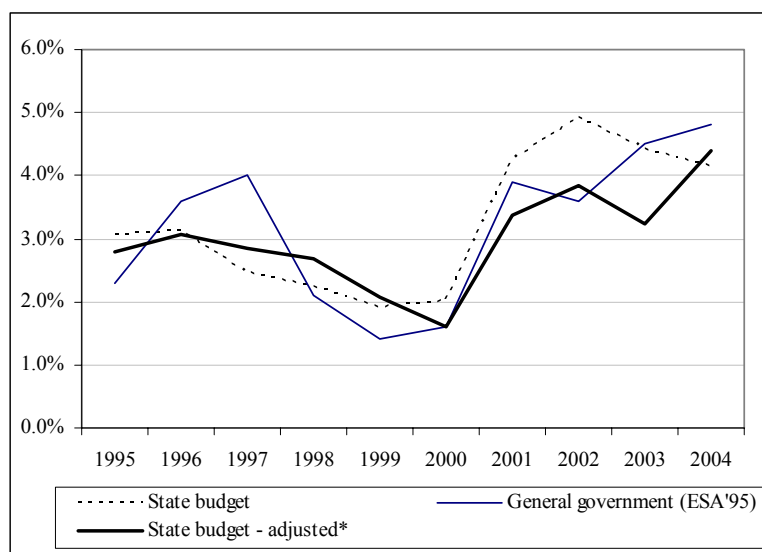
Since 1991, budgetary expenditures in Poland has invariably exceeded the revenues. At first, the deficit could be attributed to the transition process in the country and the related decline in output accompanied by profound redefinition of State's tasks. In 1992, the reported deficit reached the level of 6.7% of GDP<sup>2</sup>,

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<sup>1</sup> The omission of the first several years of transition results from the intention to analyze a possibly homogeneous period, when the economy was already established and the public finance sector reached a stable shape that did not substantially change at a later time. An exception was the public sector reforms of 1999 that somewhat changed the distribution of revenues and expenditures and introduced new institutions. The reforms' effects on fiscal policy are discussed in the paper.

<sup>2</sup> Amount of deficit after revenues from privatization have been deducted. Until 1997 privatization incomes were included among the budget's revenue, then the method of calculating

but started shrinking in the next year. The gradual fiscal consolidation continued until the period 1999–2000, when the budget deficit's share in GDP rose slightly again. The process was ultimately broken in 2001, when the deficit rocketed. In 2001, it went up from 2.0% to 4.2% of GDP. This upward trend continued also in the next year – the deficit reached then the level of 4.9% of GDP, falling somewhat afterwards.



**Graph 1. State budget and general government deficit (% of GDP)**

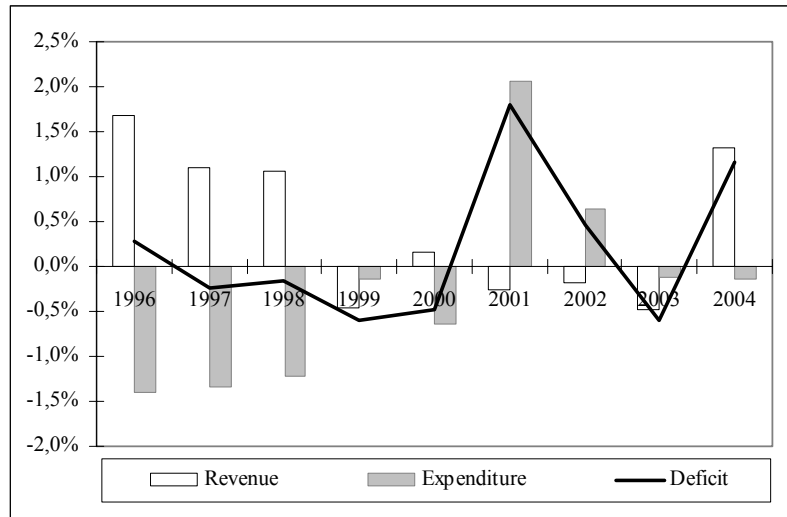
Source: Ministry of Finance, European Commission.

\* applied corrections are described further in the paper.

According to Graph 1, the main deficit indicators showed similar tendencies. Although the dynamics of the changes slightly varied between individual years, the order of magnitude as well as behavior of the budget's deficit and public finance sector were similar both according to the Polish definition and under ESA'95 methodology. For that reason, considering much higher availability of data in various classifications, the next sections of the study will focus on the budget's deficit.

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the budget's deficit was altered – the new approach excluded privatization incomes from the budget's revenue.



**Graph 2. Changes of the main fiscal variables, expressed as % of GDP**

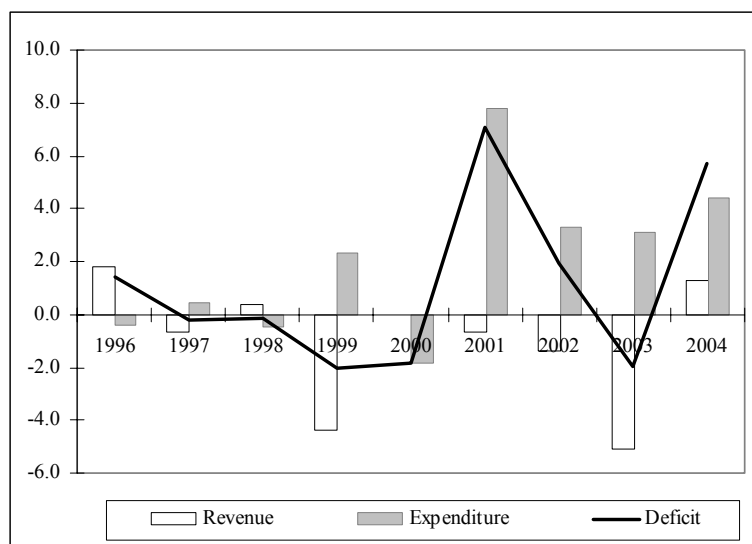
Source: Ministry of Finance

Graph 2 presents changes of fiscal measures expressed as per cent of GDP. As shown, the relatively stable deficit between 1995 and 2000 was connected with the concurrent and relatively fast decline in budget revenues and expenditures in relation to GDP. In years 2001–2003, the decline in revenues in relation to GDP was halted, however expenditures in relation to GDP expanded considerably at the same time, which rapidly increased the deficit. In the last analyzed year, both revenues and expenditures dropped in relation to GDP, with the level of deficit remaining almost unchanged.

In the case we discuss, it is much easier to analyze the dynamics of the observed processes, when changes in real values are taken into account (see Graph 3). Amounts of revenues, expenditures and deficit in fixed prices indicate that between 1995 and 2000 the examined values almost did not change in real terms. An exception was the year 1999, when simultaneous, almost offsetting increases in expenditures and revenues took place<sup>3</sup>. In 2001, a considerable growth of expenditure could be observed, while the level of revenues remained largely the same, which had to expand the deficit. The same tendency continued also in 2002, but it was much weaker then. The deficit slightly dropped in real

<sup>3</sup> The primary reason for the change, i.e. the healthcare financing reform, is discussed in the next sections.

terms next year, as a consequence of a stronger growth of revenues in real terms observed for the first time in the examined period.



**Graph 3. Changes of the main fiscal variables, in constant 1995 prices, bn PLN**

Source: Ministry of Finance

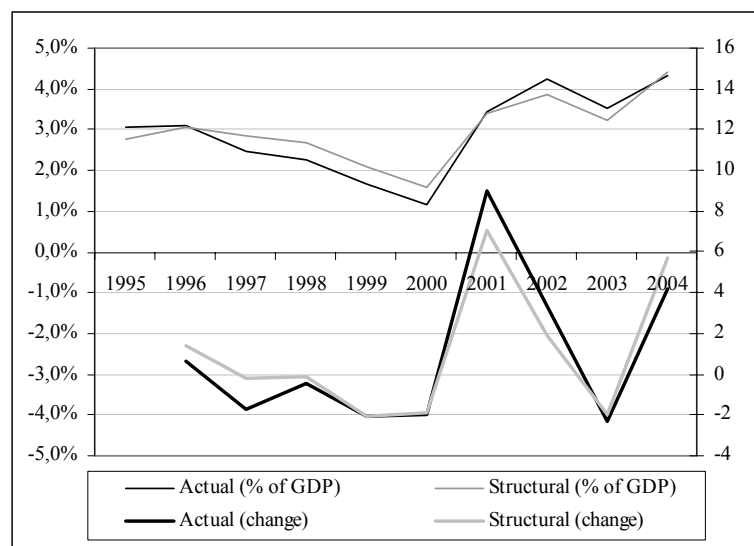
### 3. Budget deficit and the economic cycle

In the examined period, the Polish economy showed considerable cyclical fluctuations, going through a full economic cycle whose expansion phase fell on the years 1996–2000, followed by a considerable deceleration in the period 2001–2004. Output gaps reaching then 2.5% of GDP could not leave the state of public finances unaffected.

A building-up budget imbalance can have either structural or cycle-related roots. The cyclical component of the deficit is a measure of influence that business cycle fluctuations exert on the level of the budget deficit. In the period of recession, budget revenues are falling together with declining production, employment, as well as personal and corporate incomes. On the other hand, the amount of public expenditures due to unemployment is growing then. Consequently, if the stance of fiscal policy remains unchanged, the budget deficit goes up in recession and down in the period of recovery. The structural

deficit is a hypothetical value indicating what the possible amount of deficit might be, if real production matched potential production. The structural deficit separates, therefore, the influence of cyclic factors on the amount of deficit.

The most popular method for calculating the structural deficit is „gap plus elasticity” that calculates the cyclical component of deficit as a product of the estimated output gap and budget deficit’s sensitivity to variations of output. This method was also used to decompose the real deficit into its structural and cyclic components. A more detailed description of the method can be found in *Indicators of Structural Budget Balances* [1999].



**Graph 4. Actual and structural deficit, as % of GDP and as change in constant prices, in bn PLN**

Source: Ministry of Finance, authors’ calculations

The results of calculations are presented in Graph 4. As shown, the structural deficit in the period in question was slightly more stable than the cyclical deficit, which essentially meets the normative postulate dominating in the theoretical literature today that recommends the pursuance of a passive fiscal policy, in which deficit fluctuations reflect only the effects of automatic stabilizers. An observable exception from the rule was the year 2001 – even though the structural deficit growth was evidently lower than the increase in the real deficit, it anyway accounted for over 65% of the total deficit growth. Another finding is that deficit changes in the next years were mainly cyclical in character.

A worth noting fact is that the structural deficit decrease fell almost exclusively on the years 1998–99, i.e. a period when the main cause of lower deficit was the downscaled real level of expenditures (see Graph 3). This corresponds to the opinion that changes in expenditure are predominantly structural in character, whereas cyclical variations constitute an important component of revenue fluctuations.

#### **4. Evolution of the budget's spending**

According to budget classification in force in 2004, budgetary expenditure are subdivided into 33 sections<sup>4</sup>. Amounts of expenditures allocated to particular sections show considerable variations. In certain budget sections, expenditures are insignificant in macroeconomic terms, below 0.1% of GDP. To keep the analysis clear, this study concentrates only on the major items, covered in Table 1. Throughout the analyzed period, the proportion of amounts expended under the above categories totaled almost 80% of budget's expenditure.

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<sup>4</sup> According to the report on the 2004 budget execution, national budget's expenditures are broken down into the following sections: Agriculture and hunting; Forestry; Fishery and fish farming; Mining and quarrying; Industrial manufacturing; Manufacture and supply of electricity, gas and water; Trade; Hotels and restaurants; Transport and telecommunication; Tourism; Housing economy; Services; IT; Science; Public administration; Offices of the main bodies of central government, control and enforcement authorities, as well as justice; National defense; Obligatory social insurance; Public security and fire protection; Justice; Incomes from legal persons, natural persons and other entities without legal personality and expenses of their collection; Public debt service; Miscellaneous settlements; Education and upbringing; Higher education; Healthcare; Social aid; Other tasks related to social policy; Educational day care; Municipal economy and environmental protection; Culture and protection of national heritage; Botanic and zoological gardens, as well as Natural areas and protected nature sites; Physical culture and sports.

**Table 1. Expenditures in selected budgetary sections**

	2004	Average 1995–2004
Social security	21.3%	18.9%
Social aid	7.5%	7.9%
Healthcare	16.0%	15.5%
National Defense	4.8%	5.4%
Public security	4.0%	4.0%
Public administration	3.1%	3.6%
Justice	2.8%	2.4%
Higher education	3.4%	3.2%
Science	1.3%	1.6%
Agriculture	1.6%	1.6%
Transport and telecommunication	2.3%	2.0%
Public debt service	11.6%	13.5%
Others	20.2%	20.5%

Source: Ministry of Finance, authors' calculations.

### Adjustments

In the analyzed period a couple of systemic changes took place that are likely to blur the evolution of budget's spending. The most important of them was the pension system reform involving a partial transition to a capital pension system. The new solution required the Social Insurance Fund (SIF) to start transferring a portion of contributions it received to the Open Pension Funds (OPFs)<sup>5</sup>. Considering the structure of the Polish public finance system, the arising shortage of SIF's income had to be compensated for by larger budget's subsidies that expanded expenditures in that section. At the same time, however, the deficit increase produced by contribution transfers to the Open Pension Funds is economically neutral (at least in the short run), because it does not deplete domestic savings. For that reason, it was decided to adjust available data on this item by calculating expenditures from 1999 onwards in a way comparable with the pre-reform period.

<sup>5</sup> Transition from a pay-as-you-go system to a capital system marks the appearance of an interim period, when public expenditures on social insurance grow considerably. The reason is that part of social insurance contributions paid by individuals is forwarded now to the pension funds, while the old age pensions still have to be paid out to the retirees. Consequently, in the first period of the reform the cost of transition to the capital system corresponds to the amount of contributions forwarded to OPFs as long as the first pensioners appear, whose pensions are funded by contributions accumulated by the pension funds.

Another change connected with contributions paid to the OPFs was the introduction of a new method of keeping expenditure accounts in 2004. The modified accounting rules provide that the transfers should be artificially treated as outflows and not expenditures. At the same time, because the economic content of the expenditures remained unaffected, our further analysis takes advantage of data calculated according to rules operated until 2003.

In 1999, the healthcare financing reform was launched that primarily established special Health Authority (followed afterwards by the National Health Fund) that took over the responsibility for financing most of healthcare using funds from an especially apportioned part of budget revenue provided by the personal income tax. As a consequence, expenditures in the section „Healthcare” plunged, accompanied by a corresponding drop in budgetary revenues. The analyzed data were made comparable with the circumstances before the year 1999.

### Social insurance

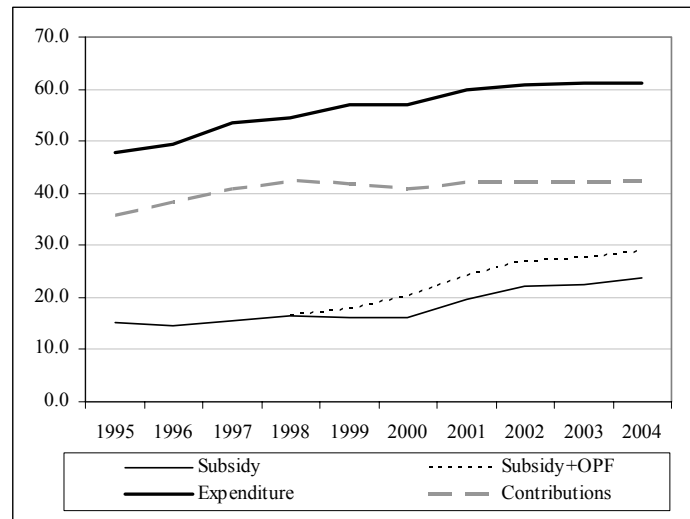
The most substantial item among budget’s expenditures is social insurance. It is almost exclusively composed of two subsidies enhancing the expenditures of two institutions: the Social Insurance Fund responsible for financing social insurance outside agriculture and the Old Age and Disability Pension Fund for Farmers (OADPFF). Because of very limited contributions, the latter actually has no incomes of its own and so the government reimburses almost all benefits it pays out.

0 shows how the social insurance expenditures (fixed prices of 1995) developed. In real terms, they remained at a roughly similar level until the year 2000, when their fast escalation started. Some part of the growth can be attributed to the reform of 1999. With its commencement, a law has become effective, according to which annual incomes exceeding 30 times the monthly salary are exempted from most SIF contributions. It diminished the Fund’s revenue by some 0.3% of GDP (i.e. 1.5bn PLN in 2000, fixed prices). As in the case of contributions transferred to the OPFs, the loss is reimbursed by the budget. Therefore, the drop in ZUS (Social Insurance Administration) incomes triggered by the reform expanded budget’s expenditures and resulted, because of larger budget deficit, in a heavier deficit of the public finance sector.<sup>6</sup>

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<sup>6</sup> The reform costs in Poland can be compared with Hungary’s experience. In 1997 Hungary was the first CEE country to reform its social insurance system. A departure from the pay-as-you-go system toward the capital system entailed, like in Poland, an additional burden on the budget. The Hungarian costs of reformed social insurance were similar to those in Poland (see Vajda [1999]). The social insurance reform in Poland can also be compared to reforms implemented in

The reasons for augmenting expenditures necessary to make up for financial shortages in the social insurance funds are discussed more in detail in the next sections of the study.



**Graph 5. Social Insurance Fund and Old Age and Disability Pension Fund for Farmers – main items (bn PLN, constant 1995 prices)**

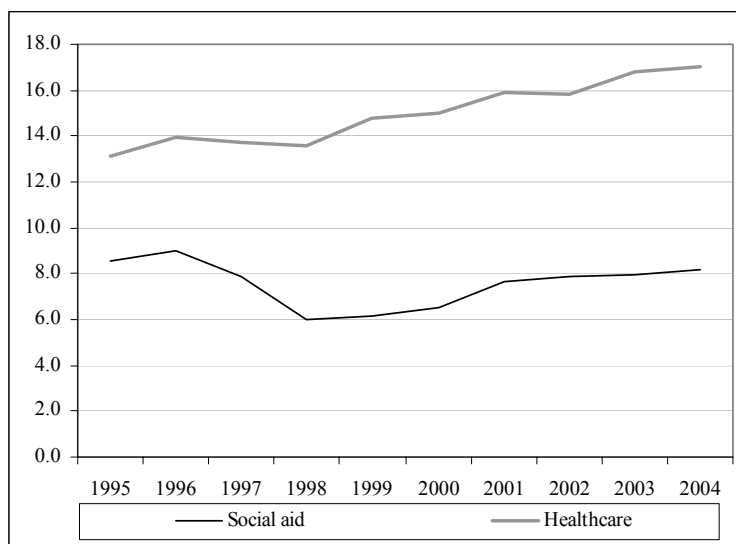
Source: Ministry of Finance, authors' calculations

### Healthcare and social aid

Another significant item is healthcare expenditures. Until 1998, their level did not change much (see Graph 6), but from 1999 onwards they showed a steady upward trend that between 1998 and 2004 made them grow by 25% in real terms.

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Latin America countries that switched in the 1990s from the pay-as-you-go system to the capital system. Such reforms were launched in Chile (1981), Peru (1993), Argentina (1994), Columbia (1994) and Mexico (1997). Calculations done for the Mexican economy indicate that the costs of the social insurance reform were relatively lower in Mexico than in Poland (see Grandolini, Cerda [1998]).



**Graph 6. Expenditures on healthcare and social aid (bn PLN, constant 1995 prices)**

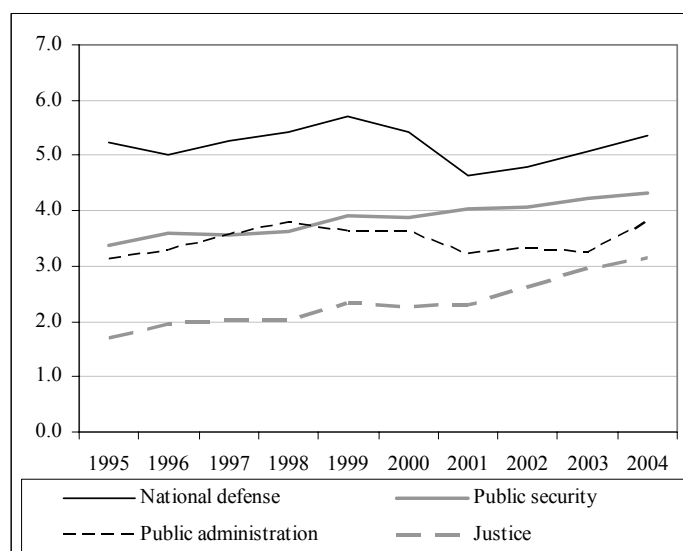
Source: Ministry of Finance, authors' calculations

Graph 6 additionally illustrates the course of social aid expenditures. In real terms, they were alike at the beginning and at the end of the analyzed period, but between 1997 and 2001 their amount was much lower. It has to be noted that those years were marked in Poland by a considerable and positive output gap and the period 2001–2003 is considered a period of very strong recession. Therefore, the observed fluctuation of expenditures can be supposed to be largely cyclical in character, arising from a lower number of persons taking advantage of social aid services during the boom and its considerable increase in recession. Another observation on the social aid expenditures between 2000 and 2004 is that the real payments exceeded amounts prescribed in successive Budgetary Acts. In the period in question, amounts actually expended on social aid were on average over 10% higher than those indicated in the Budgetary Acts were.

#### Primary functions of the State and other large groups of expenditures

Expenditures that showed an upward trend throughout the period were allocated to the primary functions of the State (sections: national defense, public security, public administration, justice). Their development in real terms is illustrated in Graph 7.

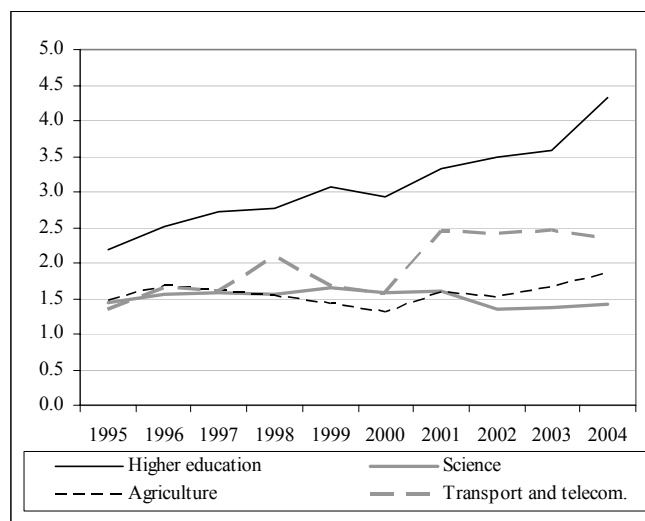
Among the four sections, allocations to public security and justice were steadily growing – their growth totaled 2.4bn PLN (fixed prices). Expenditures on the other two sections – public administration and national defense – exhibited some fluctuations and slightly grew in the period.



**Graph 7. Expenditure on primary functions of state (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations

Among the other four distinguished sections, allocations to higher education grew strongly and steadily in the period in question, in total by 2.1bn PLN. Expenditures on the sector „Transport and telecommunication” expanded by 1bn PLN and almost all the growth took place in 2001, i.e. when the total expenditure increased the most. In the other two sections, expenditures on science and agriculture were relatively low and stable (see Graph 8).

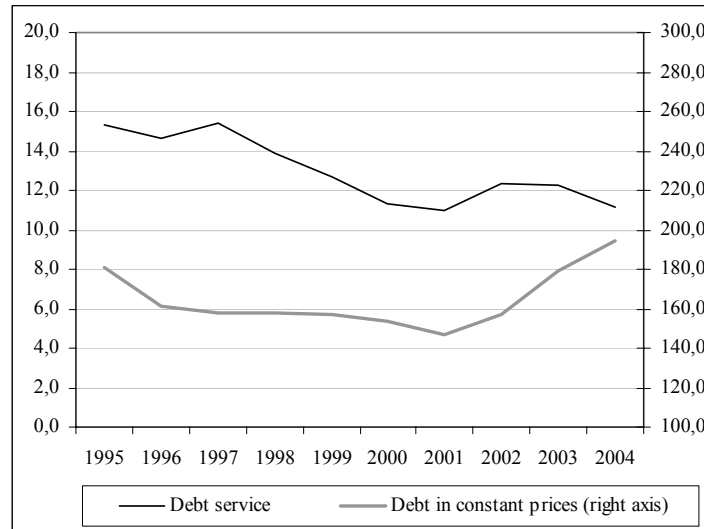


**Graph 8. Expenditures in selected other sections (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations

### Public debt service

Although in the period in question it was characteristic of the aforementioned sections to exceed allocations they were provided in the Budgetary Act, the actual amounts spent each year on the public debt service were lower than those laid down in the Budgetary Acts were. Between 2003 and 2004, expenditures on the public debt service were already over 20% lower than in the Act. The situation was due to faster than expected decline in the cost of the public debt service caused by surprisingly swift disinflation and shrinking amount of the debt in real terms, despite the persisting deficit. From 2002 the downward trend of the public debt reversed, temporarily increasing its service costs, but as soon as the next year expenditures in that budget's section dropped again (see Graph 9).



**Graph 9. Expenditure on debt service (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations.

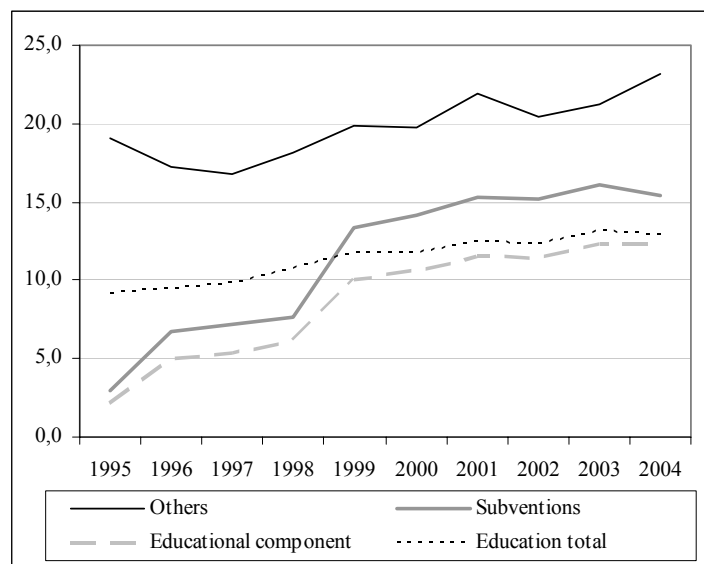
### Other expenditure

Among government expenditures (other than under the sections discussed above) accounting for ca. 25% of total spending, the largest item was a subvention for local governments (see Graph 9). It comprises several parts and since 1999 the educational component serving the enhancement of funding allocated by local governments to primary and secondary schools has been definitely the largest (almost 80% of the total in 2004).

After some initial fluctuations, other expenditure showed a relatively strong upward trend starting from 1998. The growth somewhat decelerated in the year 2000, to speed up evidently in the next year. Between 1995 and 2004, the total growth of other expenditure in fixed prices (of 1995) was 4.2bn PLN, with a large part of the growth being attributable to larger allocations to education.

Educational services were initially paid for mainly by the State budget, but in time, as a result of successive systemic changes, their indirect financing was becoming more and more common, i.e. expenditures made by local governments were reimbursed by the budget through the educational component of the subvention. Despite the modified structure of financing (shown in Graph 10 as an increase in all subventions), the educational expenditures exhibited a relatively smooth path of growth. Throughout the investigated

period, they increased by 3.7bn PLN, which almost completely explains the strong growth of the entire category of other expenditure.



**Graph 10. Other expenditures, of which subventions for local governments, of which educational component (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations.

Wages represent the major part of expenditures on educational services,<sup>7</sup> so they should be deemed the reason for higher spending on education. Employment in the primary and secondary schools grew rather insignificantly in the period, by around 16%. The GDP share of educational expenditures grew correspondingly,<sup>8</sup> which suggests that the main factor behind larger expenditures in the discussed section, i.e. pay rises, grew at a rate approximately equal to the growth rate in the economy.

Table 2 presents total growth of individual categories of expenditures in fixed prices. In addition to the real-life data, also data adjusted for impacts of the

<sup>7</sup> For instance, in 2003 total labor costs made up 84% of all local governments' expenditure in section „Education” (source: Central Statistical Office (CENTRAL STATISTICAL OFFICE)).

<sup>8</sup> The number of teachers in primary and secondary schools went up from 446,900 in 1995 to 518,200 in 2003 (2004-2005 data was not available when the analysis was being prepared; source: CENTRAL STATISTICAL OFFICE). In the same period, the GDP share of educational expenditures increased from 2.8% to 3.2%.

two large systemic changes, i.e. the pension system reform and the healthcare financing reform, are presented.

**Table 2. Growth of selected budgetary sections 1995-2004 (bn PLN, constant 1995 prices)**

	bn PLN	% of total growth
Total	18,6	100,0
Social security	8,4	45,3
Social aid	-0,3	-1,9
Healthcare	3,9	20,8
National defense	0,1	0,7
Public security	0,9	5,0
Public administration	0,7	3,6
Justice	1,4	7,7
Higher education	2,1	11,5
Science	0,0	-0,1
Agriculture	0,4	2,2
Transport and telecommunication	1,0	5,4
Public debt service	-4,2	-22,5
Others	4,2	22,4

Source: Ministry of Finance, authors' calculations.

Based on the presented data, three items can be singled out where expenditures grew the largest: social insurance, other expenditure and healthcare. As for other expenditure, the main growth factor was increased allocations to primary and secondary education (3.7bn PLN) mainly arising from increases in teachers' real earnings. Some additional influence was exerted by larger expenditures on social aid and higher education.

## 5. Developments of budgetary revenues

The main sources of budget's revenues are the following:

- indirect taxes: value-added tax and excise tax,
- direct taxes: corporate income tax and personal income tax,
- payments from profits of National Bank of Poland,
- customs duties.

Inputs of individual income categories to total budget's revenue are presented in Graph 3.

**Table 3. Structure of budgetary revenues**

	2004	Everage 1995–2004
VAT	39.9%	35.4%
Excise tax	24.3%	19.3%
CIT	8.3%	10.7%
PIT	13.7%	21.1%
Profits of NBP	2.6%	1.8%
Customs duties	1.5%	4.3%
Others	9.7%	7.3%

Source: Ministry of Finance, authors' calculations.

### Adjustments

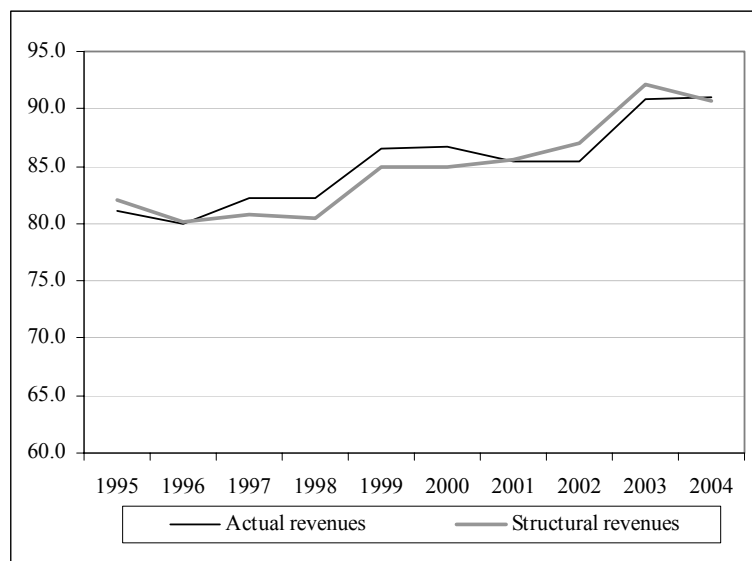
According to data derived directly from budget statements, the 1999 incomes declined considerably, i.e. by 8% of the total revenue. The main reason was the healthcare reform, under which a large portion of means derived from the personal income tax started to be used to finance the National Health Fund. For the sake of data comparability, we added NHF's contribution incomes to the existing data on incomes from the PIT starting from the year 2000 onwards.

### Incomes and the business cycle

Considering that the macro economic situation significantly affects the development of tax revenues, to separate the effects of fiscal policy decisions, which are the main subject of the study, the structural component was filtered out from individual revenues. Graph 11 presents the evolution of actual budget revenues and their structural level.

According to Graph 11, in the examined period the structural level of revenues almost paralleled real revenues. The largest deviation estimated at 1.7bn PLN, i.e. 2.1% of total revenue, could be observed in 1998. For a larger part of the period, real budget's revenue exceeded the structural level. This situation made it easier to keep a relatively low budget deficit. In 2001, real revenues dropped below the structural level together with a considerable deceleration of economic growth. Because macro economic forecasts that were available when the 2001 Budgetary Act was drafted did not suggest any considerable slowdown of economic growth, the 2001 budget overlooked the possibility of real revenue falling below the structural level. This turned out to be one of the reasons for the increased budget imbalance in 2001 (see World Bank [2003]). At a later time, real revenues maintained below the structural level, as a consequence of the comparatively serious deceleration in the

economy. The new equalization of structural and real revenues in 2004 should be treated with some cautiousness, because procedures used to calculate the potential GDP that make the basis for assessing the structural level of budget variables tend to understate the output gap at the beginning and end of the sample. In this given case, however, also the relatively high growth rate of real GDP between 2003 and 2004 makes it probable that the output gap could really close around the year 2004.



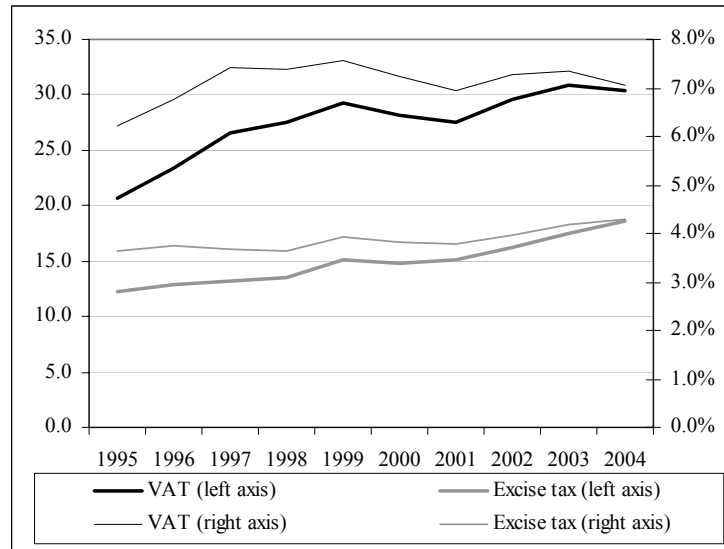
**Graph 11. Actual and structural revenues (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations

### Indirect taxes

The most important for the budget are indirect taxes that account for more than half of its revenue. The amounts that the budget derives from the taxes are provided in Graph 12.

Incomes coming from both types of indirect taxes grew almost incessantly throughout the period. VAT incomes somewhat dropped in the years 2000-2001, but then their previous trend returned. VAT rates did not change throughout the examined period; however, as suggested by the course of VAT incomes in relation to GDP, the increase in incomes should be mainly attributed to the real income growth. A similar regularity can be observed with reference to budget incomes from the excise tax.



**Graph 12. Indirect taxes, structural component (bn PLN constant 1995 prices – left axis, and as % of potential GDP – right axis)**

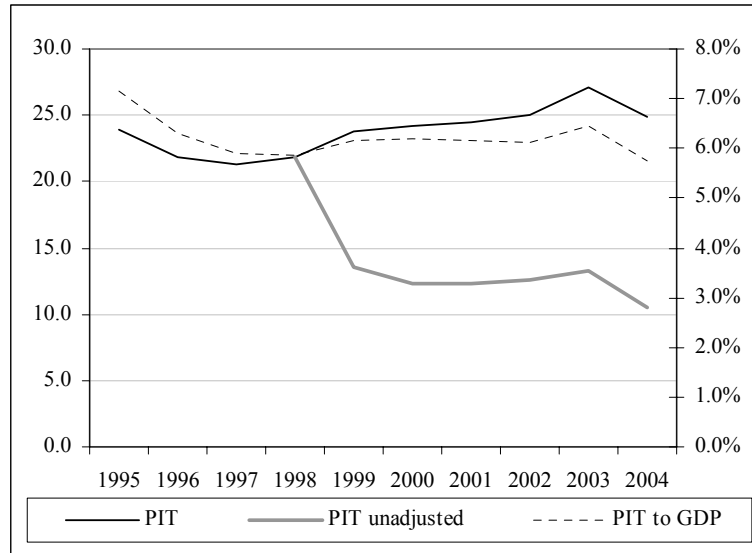
Source: Ministry of Finance, authors' calculations.

#### Direct taxes and other sources of revenue

Another important source of budget revenue is the personal income tax. Until the year 1998, it contributed over 25% of the total revenue, but then its share dropped to approx. 13% because of the aforementioned healthcare reform. Graph 13 illustrates the evolution of incomes from the tax in the period in question.

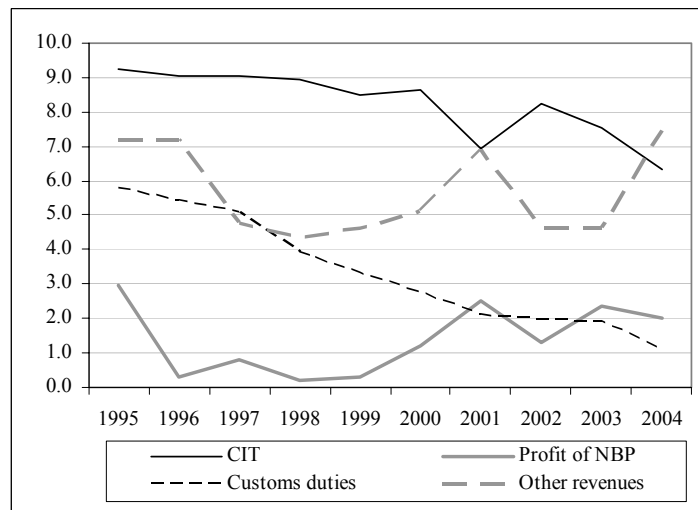
As we can see, PIT incomes stayed at roughly the same level, both in real terms and in relation to the potential GDP. An exception was the initial period of the sample, when PIT incomes declined as a result of the tax rate adjustments (in 1997 and 1998 the rates were reduced from the initial 21, 33 and 45% to 19, 30 and 40%, respectively).

Among other sources of revenue two exhibit certain regularity: the corporate income tax and customs duties. The first slightly declined, primarily due to consistent reductions of its rates from the initial 40% in 1996 to 19% w in 2004. The additional decline in CIT incomes in 2001 may have stemmed from the unexpected appearance of recession that dramatically undercut enterprises'



**Graph 13. Personal income tax, structural component (bn PLN constant 1995 prices – left axis, and as % of potential GDP – right axis)**

Source: Ministry of Finance, authors' calculations.



**Graph 14. Other revenues, structural component (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations.

incomes, accompanied by delayed adjustments of the quantities and prices of the utilized production factors<sup>9</sup>. Besides, the year 2001 was the time when the collected CIT made up only 80% of the expected amount, whereas in almost all other years the collected amounts considerably exceeded the targets. The fall of incomes was a temporary phenomenon that disappeared as soon as the next budget year.

As for customs duties, incomes showed a distinct downward trend, which was obviously caused by the opening of the Polish market in that period and by the abolishment of customs duties on transactions with the main trading partners in the Community. For this reason, the trend should be deemed permanent and incomes derived from customs duties will probably not make a considerable source of budget revenue any longer. The last two items – payments from NBP's profits and all other revenue – show considerable fluctuations without a more distinguishable upward or downward trend.

## **6. Finances of the social insurance funds**

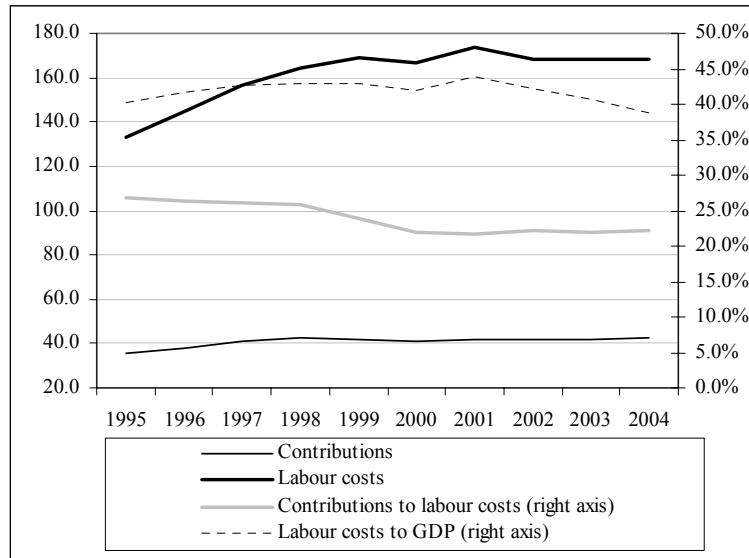
Because the amount of subsidies transferred to the SIF and OADPFF is a residual value determined by contributions received and expenditures made by the two Funds, their evolution is worth analyzing (see Graph 5). Payments from both Funds on old age and disability pensions kept growing almost steadily throughout the sample period, but their level in relation to GDP was roughly the same (growth from 12.7% of GDP in 1995 to 12.9% in 2003). Considering that the number of beneficiaries<sup>10</sup> almost did not change, this means that an average pension (old age and disability benefit) grew in that period at a pace similar to the GDP growth.

In the long run, the phenomenon of expenditures on old age and disability pensions growing at a rate similar to the GDP rate of growth seems quite natural, as it results from the established mechanism that links old age pensions with an average wage in the economy. Surprisingly, however, the Funds' incomes from contributions almost stopped increasing from 1998.

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<sup>9</sup> It can be noted that the presented data refers to the structural level of revenue, so principally the emergence of recession should produce no effect. However, in the case of CIT amount, which is determined by very volatile corporate profits, the methods for calculating the cyclical adjustment turn out unreliable.

<sup>10</sup> In 1995 the number of persons drawing old age and disability pensions was 9 million, but in 2003 it amounted to 9.2 million (Central Statistical Office).



**Graph 15. Contributions to social insurance funds and total labour costs (bn PLN, constant 1995 prices)**

Source: Ministry of Finance, authors' calculations.

According to Graph 15, there were two reasons for the halted growth of incomes of the social insurance funds. Firstly, the real labor costs stopped expanding from the year 2000, excluding a fluctuation between 2000 and 2001. As a result, between 1999 and 2004 the costs' share in GDP dropped from 42.9% to 38.9%.

From 1999 (being the first year of the pension system reform) this phenomenon coincided with a considerably reduced amount of average contribution paid to social insurance, calculated as a relation of total contributions to total employment costs. Its rate dropped from 25.8% in 1998 to 21.6% three years later and then stabilized at the level of around 22%. It is quite surprising, considering that the pension system reform was designed to be neutral to the budget and the only exception was the rule exempting annual incomes larger than 30 times the average monthly salaries from most contributions. But the rule's effects are estimated to be less than 1bn PLN (1995 prices), that is over five times as low as the total growth of subventions paid to the Funds. It seems a natural conclusion, therefore, that the incorrectly designed income part of the pension system reform together with declining employment costs in relation to GDP considerably inflated the insurance funds' deficits, which consequently necessitated their reimbursement from the budget.

According to Table 2, the growth of expenditures was the main engine of the total increase in budget's spending in the period in question, especially between 2001 and 2003.

## **7. Summary and conclusions**

The above analysis discusses several stylized facts characterizing the national budget development in Poland in the period 1995-2004. It is beyond the question that the most important of them was the abruptly increasing budget deficit (by 2.2% of GDP) between 2001 and 2002. The process took place after a period of gradual consolidation in the years 1995-2000, during which the deficit was reduced from 2.8 to 1.6% of GDP.

Throughout the examined period budget revenue almost did not change in real terms, excluding the years 1999 and 2003, when it grew. In real terms the growth totaled 10.7%. Expenditures showed a similar stability until the year 2001 being the first year of their strong growth. As a result, the 2004 expenditures were more than 20.4% larger than in 1995. In addition, in the time span 1995-2004 both revenue and expenditure dropped in relation to GDP, by 3.9% of GDP and 2.3% of GDP, respectively.

In the analyzed period expenditures clearly expanded in three sections, which explains over 88% of the total expenditure increase in real terms. These sections are social insurance (accounting for 45% of the total increase), education (22%) and healthcare (21%). The main reason for larger allocations to social insurance was the lack of growth of the public pension funds' incomes that was accompanied by steadily swelling expenditures. The relative drop in contribution income was produced by the coincidence of two events, i.e. falling employment costs' share in GDP and declining average contribution rate. The first phenomenon was able to exert its negative influence, because contributions are imposed almost exclusively on earned incomes. The other resulted from the incorrectly designed pension system reform implemented in 1999. Years 2002-2004 illustrate that both the changes show high probability of being permanent and a new reduction in the social insurance expenditures would require considerable system modifications.

In the other two sections that contributed the most to expenditure growth (education and healthcare), the main expenditure item is wages paid to large groups in the society: teachers and the medical personnel. Both the groups are relatively homogeneous and strongly defended by their trade unions and similar organizations, hence they managed to force larger allocations in the appropriate

sections<sup>11</sup>. A parallel situation took place in the section “Higher education” (the fourth largest source of expenditure growth) that accounted for 11% of the total growth. The situation of academic teachers is comparable with that characterizing personnel in the education system, although their degree of unionization is much lower.

The question could be asked why other groups in the society, likewise dependent on the public sector payments, did not succeed in attaining a similar growth of expenditures in appropriate budget sections. The point is that the main body of the other employees is persons helping the State fulfill its primary tasks – working for the administration, justice and external and internal security agencies. These employees are much more subordinated to the regime of their service than, for instance, personnel in education and in many cases they cannot effectively threaten to stage a strike, because of the nature of their work.

Recapitulating, we need to conclude that fiscal policy in Poland seems exposed to actions launched by interest groups that are able to compel heavier expenditures in some budget sections. But the main reason for the permanent increase in the budget deficit that occurred between 2001 and 2003 was the insufficient growth of incomes from social insurance contributions caused by the reduced tax base and lower average contribution arising from the social insurance reform. Thus produced shortage had to be reimbursed by the budget, which brought about the observed permanent growth of budget deficit.

## References

Alesina A., Roubini N., Cohen G. D., 1997, *Political Cycles and the Macroeconomy*, MIT Press, Cambridge MA

Brender A., Drazen A., 2004, *Political Budget Cycles In New Versus Established Democracies*, National Bureau Of Economic Research, Working Paper 10539

Coricelli F., Ercolani V., 2002, *Cyclical and Structural Deficits on the Road to Accession: Fiscal Rules for an Enlarged European Union*, Centre for Economic Policy Research, London, Discussion Paper No 3672

Drazen A., 2000, *The Political Business Cycle After 25 Years*, Princeton University Press, Princeton, MA

European Commission, 2004, *2003 Pre-accession Economic Programmes of Acceding and Other Candidate Countries: Overview and Assessment*, European Commission Enlargement Papers

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<sup>11</sup> It cannot be denied here that the granted increases in wages and in other expenditures could be justified by the quality of provided services.

*Fiscal Rules*, 2001, proceedings from Banca d'Italia conference, Banca d'Italia, Rome

Grandolini G., Cerda L., 1998, *The 1997 Pension Reform in Mexico: Genesis and Design Features*, World Bank Working Paper nr 1933

*Indicators of Structural Budget Balances*, 1999, proceedings from Banca d'Italia conference, Banca d'Italia, Rome

Vajda Z., 1999, *The Macroeconomic Implications of a Pension Reform*, Center for Social and Economic Research, report no. 20, Warsaw

Woo J., 2006, *The Political Economy of Fiscal Policy: Public Deficits, Volatility, and Growth*, Springer, Berlin; New York. (Lecture Notes in Economics and Mathematical Systems series, Vol. 570)

World Bank, 2003, *Poland. Toward a Fiscal Framework for Growth*, Report No. 25033-POL