Poznań University of Economics and Business
Research Papers in Economics and Finance *Vol. 9, No. 2, 2025: xx–xx*
https://ref.ue.poznan.pl *https://doi.org/10.18559/ref.2025.2.2493*

The role of the primary balance in assessing the financial situation of local government

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Abstract

The key aspect of assessing the financial condition of local government units in Poland is compliance with the individual debt repayment and service ratio. Equally important is the budget balance – especially if it is negative, in which case funding sources must be identified. The operating balance – the difference between current revenues and expenditures – also significantly impacts debt service ability and is embedded in the Polish legal-financial framework. Currently, financial assessments focus mainly on the budget and operating balances. However, the authors propose incorporating an additional measure – the primary balance – defined as the difference between total revenues and expenditures, excluding debt servicing. This study aims to apply the primary balance to evaluate the financial condition of all local government units in Poland over the period 2004–2023. The findings confirm the value of using the primary balance as a key indicator of financial stability.

Keywords

- local finance
- financial risk
- stability of local finance
- primary balance

Article received 25 July 2025, accepted 19 November 2025.

Suggested citation: Wiśniewski, M., & Budzeń, D. (2025). The role of the primary balance in assessing the financial situation of local government. *Research Papers in Economics and Finance*, *9*(2), xx–xx. https://doi.org/10.18559/ref.2025.2.2493

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Introduction

The performance of public functions by local government units (LGUs) requires them to have stable sources of funding. The lack of sustainability, continuity and certainty of funding can be viewed through the prism of financial risk. Generally, in finance, risk is understood as both an opportunity and a threat, most often in the context of deviations from planned values. The materialisation of risk can have both positive and negative consequences. It can also be understood as the probability of failing to achieve assumed objectives (Jajuga, 2007, p. 13). However, in the case of public finances – including local government finances – financial risk is perceived mainly in a negative way, as the inability to finance and thus implement public tasks (Wiśniewski, 2011, pp. 85–87). Poniatowicz (2010, p. 326) stresses that risk is defined as the probability of incurring a loss. Liquidity risk is considered to be a crucial risk, the occurrence of which can lead to destabilisation in key areas of the functioning of public entities. Thus, it may not only shake the financial situation of a public entity, but also have an impact on the economic, social and political spheres (Owsiak, 2017, p. 929).

The financial security of public sector entities is generally understood as the ability to finance public functions and, in particular, to repay and service debt in the lack of long-term changes in fiscal policy. If this is not the case, a situation may arise where governments can use debt instruments to finance long-term imbalances (deficits). This can lead to a debt spiral in which debt service costs can increase significantly (Buiter, 1985, p. 15).

Many considerations have been made in assessing the financial health and thus the financial security of LGUs, focusing, among other things, on ensuring liquidity (Groves et al., 1981, p. 6) or ensuring high quality public services, and thus meeting the needs of the population at an appropriate level (Alam et al., 2017, p. 75; Wang et al., 2007). For this reason, the study of the primary balance, which is understood as the difference between the revenues and expenditures of the budget excluding the cost of debt service, becomes more important. On this basis, it is possible to indicate the risks associated with the burden of debt service expenditures on the budget, as well as the sensitivity of the expenditures structure to changes in debt service costs.

In this context, the report of the Supreme Audit Office is significant, as it identified a number of irregularities that not only led to a deterioration of the financial situation but also identified the risk of a decrease in the quality of public services provided. As part of the survey conducted by the Supreme Audit Office, representatives of the LGUs identified the following risks (among others) resulting from the deterioration of the financial situation (Najwyższa Izba Kontroli, 2024):

– the lack of ability to absorb external funds,

– the risk of withdrawing from projects already implemented, especially investment projects.

Therefore, the authors of the article apply one measure – the primary balance – to local government units in Poland. The study was carried out for all units in the years 2004–2023. The results obtained make it possible to highlight the importance of this measure in the study of the financial situation of units, especially from the point of view of the burden of debt servicing costs. In addition, it was possible to highlight discrepancies between different types of units in terms of this characteristic, also in dynamic terms. The results obtained justify the use of the primary balance as an important indicator in assessing the financial situation of local government units.

1. Literature review

The starting point for this discussion is the concept of budgetary balancing, which focused on reducing government intervention in the economy, which, among other things, had the effect of creating long-term deficits and financing them with debt. These issues have been considered in the context of benefits to society as a whole, and in particular the expansion of social welfare. Balancing the budget is one of the main objectives of public finance management. For this process, it is necessary to increase revenues and decrease expenditures. In addition, the budget balance is important for the decision-making process (Rubin, 2020, p. 197). Debt-financed budgetary expenditures shift the burden over time. In addition, the future generation of taxpayers is not represented at the time the debt is incurred, and this may create a temptation for current taxpayers to take on more debt than is actually needed (Barro, 1974, p. 1116; Wagner, 2004, pp. 197–198).

In this context, the discussion about the threat to ongoing private investment posed by the accumulation of public debt is also relevant, as it may be crowded out of the market. Furthermore, such a situation may lead to an excessive increase in the tax burden, which may not be acceptable or understandable for a given generation (Ferguson, 2015, p. 198). Indeed, public debt should only be incurred over a certain period of time and should therefore not lead to a loss of confidence among citizens (Peukert, 2006, pp. 491–495). Roberts (1942, pp. 260–261), on the other hand, also pointed out that excessive tax burdens (as a result of new debt) can drive capital out of the country. Lenders will continue to finance the government's debt if the interest rate is high enough (Stiglitz & Rosengard, 2015, p. 52).

In view of the above-mentioned effects of over-indebtedness and the uncontrolled use of debt instruments by public authorities, the approach to fiscal stabilisation becomes important. First, the coordination of debt and fiscal policy should be a consequence of changes in tax revenues in relation to changes in debt. This is because tax revenues change directly in response to an expenditures shock. This phenomenon is accompanied by a smoothing of tax rates, with the result that only a small part of investment spending is financed by current tax changes. Thus, weaker shocks mean that debt is less responsive to a shock, and government revenues must respond to changes in government debt in a way that is consistent with the rationale for the existence of fiscal restraint (Bhandari et al., 2017, p. 630; Canzoneri et al., 2016, pp. 50–52; Corden, 2010, pp. 44–46; Domar, 1944, pp. 798–827). Second, it should be borne in mind that the "golden rule of public finance" has its justification in deficits to promote investment. Consequently, they can be covered by future revenues, provided there is a broad tax base (Dosi et al., 2022, p. 173; Ostry et al., 2015, p. 9).

For years, various indicators have been used to assess the security of public finances, the values of which are supposed to determine their well-being. The best known and most popular solutions in this respect are the nominal convergence indicators used in the European Union, i.e. indicators representing the ratio of the budget deficit and public debt to a country's GDP (TFEU, 2016, Article 126). At this point, it is worth mentioning a complementary measure of the security of public finances – in this particular case of local governments – which is the primary balance, i.e. the budget balance excluding debt service expenditures. In this context, the fiscal rules applicable to local government units in Poland are relevant, the most important of which is the rule of balancing the current budget, the so-called operating budget (Ustawa, 2009, Article 242). This rule affects the ability of local government units to finance debt repayment and servicing.

On this basis, it is justified to use the primary balance rule as a complement to both the fiscal rules applied and the indicators for assessing the financial sustainability of local government units (Scheme 1).

The concept of using the primary balance as a complementary measure for assessing the financial sustainability of LGUs has its place in the literature. If the level of government debt is stable in the longer term, this implies that the primary surplus should be sufficient to finance all debt burdens. However, the positive rate of change in relation to GDP could represent a dangerous situation for the safety of public finances. In this context, it is necessary to calculate the measure such as the ratio of the primary budget balance to GDP (Džakula & Karalić, 2013 p. 71). This measure is particularly important in a period of high interest rates, as it makes it possible to determine the sensitivity of the budget to a change in interest rates and, on this basis, to estimate the financial potential. Given the purpose of this paper, further considerations and empirical research will focus on the primary balance.

According to Polish fiscal rules, the budget balance is the difference between revenue and expenditure. Debt incurred and its repayment are not taken into ac-

Budget balance (total revenues – total expenditures)	

↓

Operating balance (current revenues – current expenditures)	**Primary balance** (total revenues – total expenditures less debt servicing costs)

↓

Budgetary balance indicators for assessing financial situation (%)	
$\frac{\textit{operating balance}}{\textit{current revenues}} \cdot 100$	$\frac{\textit{primary balance}}{\textit{total revenues}} \cdot 100$
A positive result indicates the potential ability and capacity to repay liabilities and finance investments. It therefore defines the extent to which there is a possibility of incurring new liabilities in relation to current revenues. The higher the value of the indicator, the greater the financial capacity of the local government unit (Ministerstwo Finansów, 2023).	A positive ratio indicates the potential ability to meet debt service and repayment costs. In the longer term, the ratio indicates the extent to which the local government unit is able to finance debt repayment from debt service costs. A negative result indicates the need to finance debt repayment with interest from resources other than budgetary revenues.

Scheme 1. Budget balance as a measure of LGUs financial sustainability

Source: own elaboration.

count. One of the fiscal rules designed to ensure the stability of local government finances is the operating balance.

Debt sustainability is understood as a situation in which the solvency condition is met after taking into account the cost of servicing the debt (International Monetary Fund, 2002, p. 5). In other words, the definition of debt sustainability would have to start from its opposite, i.e. a situation in which the public authorities are unable to pay their liabilities on time. In this context, the link between debt and the primary balance becomes particularly important (Wyplosz, 2005, pp. 2–3). From a debt sustainability perspective, fiscal rules based, inter alia, on different types of budget balances are relevant. Such fiscal rules can cover different subsets of fiscal volumes, including the objective of borrowing exclusively for investment purposes (Kopits & Symansky, 1998, p. 2).

For example, the Australian government, on the other hand, presents the level of the primary balance as part of its analysis of the final budget outturn for 2022–2023 (Commonwealth of Australia, 2023). The debt sustainability is preserved, when the primary budget surplus has positive reactions to the debt burden (Ostry et al., 2015). It is therefore one of the indicators used to assess the state of public finances.

The category of primary balance is the subject of consideration of many scientific studies, in which the relationship between primary balance and phenomena in public finance is proved.

Taking into account the literature on the subject, Table 1 presents selected conclusions from the academic research carried out on the primary balance and its impact on both budget categories.

Table 1. Primary balance in academic research

Author	Main conclusions
Rangarajan & Srivastava, 2003	Debt accumulation can be treated as the result of the cumulation of primary deficits and surpluses weighted by the rate of economic growth.
Qin et al., 2006; Uryszek, 2017)	Using the primary balance to assess fiscal sustainability, including local government.
ECB, 2011	Primary surpluses should be sufficient to finance debt repayment.
European Commission, 2012; Marchewka--Bartkowiak & Wiśniewski, 2015	The primary balance rule should be one of the indicators for assessing the sustainability of a country's public finances. The primary balance indicator would make it possible to assess when a country has entered a path of debt stabilisation, including public finances.
Nerlich & Reuter, 2013	Fiscal rules limiting government expenditures have a positive impact on the primary balance.
Heun, 2014	The absence of a primary deficit as a premise for sustainable public finances.
Artés & Jurado, 2018	Lower primary deficits are a consequence of the ability of majority governments to raise revenues.

Source: own elaboration based on literature.

The studies and their results presented in the table refer to the central level or to the state of public finances in general. As far as the local government sub-sector is concerned, the results of a study of 116 Spanish LGUs are worth mentioning. It was found that the control of financial sustainability can be strengthened through the systematic monitoring of expenditures resulting from commitments (Bolívar et al., 2014, p. 50).

To summarise the existing literature, one of the causes of primary deficits at the central level can be both an increase in the real level of interest rates on debt and a loosening of fiscal discipline. This often leads to the emergence of local deficits. Increases in public debt at the local level can sometimes be the result of fiscal relations between central and local governments. This is particularly evident when transfers from the central government to the lower levels are characterised by a lack of transparent criteria, sometimes also through negotiations or ad hoc topping-up of the occurring deficits (Ter-Minassian & Craig, 1997, p. 156). The statements in the literature concerning the primary balance also apply to local government units.

2. Methods and data sources

The aim of this study is to apply a measure such as the primary balance to assess the financial condition of local government units in Poland. In particular, the authors set out to identify trends in the primary balance over time and by entity, and also attempt to identify the reasons for discrepancies between the primary balance and the budget balance.

As a preliminary step, it is important to define precisely the various financial categories that are the subject of the study. In European statistics, the budget balance in the general government sector is referred to as net lending (+) / net borrowing (–)[3] and is assigned the symbol 'B.9' (according to European system of accounts – ESA, 2010). It is generally defined as the difference between total revenues and expenditures of this sector. If a central or local government spends more than it receives in the form of government revenues, the value of this balance is negative and indicates a deficit; the opposite situation represents a surplus. The value of the balance is also given by general government subsectors (ECB, 2019, pp. 11–12).

In the structure of public expenditures, those related to the ongoing servicing of the public debt (i.e. mainly interest, fees) are distinguished as a priority. Expenditures on debt service costs are referred to as 'interest payable' and are coded 'D.41 U'. The budget balance reduced by debt service costs is referred to as the primary balance, which can take the form of a primary surplus or primary deficit, respectively (ECB, 2014, p. 10). This balance reports the difference between general government budget revenues and 'pure' expenditures, i.e. excluding expenditures incurred on interest costs paid on the debt taken on. The analysis of the primary balance in comparison with the budget balance provides an indication of how much the public budget is burdened by current debt service expenditures. In addition, it makes it possible to see to what extent debt service expenses add to the budget deficit, but also from which 'sources' they are financed. The OECD in its studies adds that the existence of a primary deficit means that the government must borrow money to pay for the everyday public goods and services it provides for citizens, which may not be sustainable. The primary balance is thus a critical indicator of the short-term sustainability of a government's finances (OECD, 2021).

The subject of the study was the values of the primary and budget balance of all local government units in Poland in the years 2004–2023. The source of the data was the units' budget reports published by the Ministry of Finance. Due to the

[3] Following the detailed methodology of ESA, these phrases can also be understood as "net increase in receivables" / "net increase in debt", which should also be regarded as the so-called net borrowing needs (Marchewka-Bartkowiak, 2011, p. 39; Wernik, 2011, p. 79).

significant diversity of the studied group, in order to ensure comparability of the examined financial categories, their values were expressed in a relative way, in relation to total revenues. Local government units are divided into six groups based on their type, because the scope of their public tasks and sources of financing differ.

3. Results

Due to the vastness of the research material, it was necessary to do some aggregation of the results obtained. Firstly, the development of the average value of the primary and budget balance in relation to total revenues for all LGUs is presented (Figure 1).

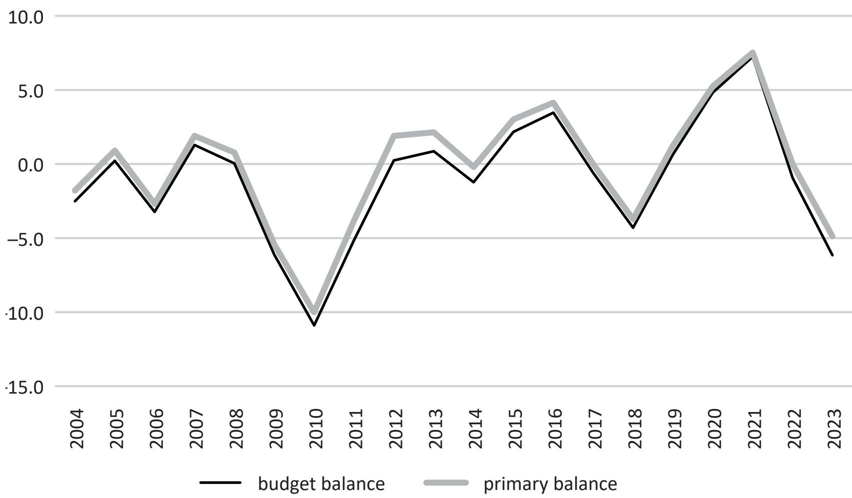

Figure 1. Budget and primary balance in relation to total revenues – average for all LGUs (in %)

Source: own elaboration based on data of the Ministry of Finance (Ministerstwo Finansów, 2025).

The values presented in the above figure make it possible to identify which years in the period under study were, on average, the weakest in terms of the financial health of local government units. In particular, on average, the LGUs' negative budget balances were heaviest in the period of the global financial crisis and the years following it (2009–2011), as well as in the years 2022–2023. From the data presented, it is also possible to note the periods in which the discrepancy between the examined balances was the greatest, i.e. the debt service costs were the highest. The development of the value of costs in relation to total revenues is presented in Figure 2 – as an average for all LGUs and by the type of an LGU.

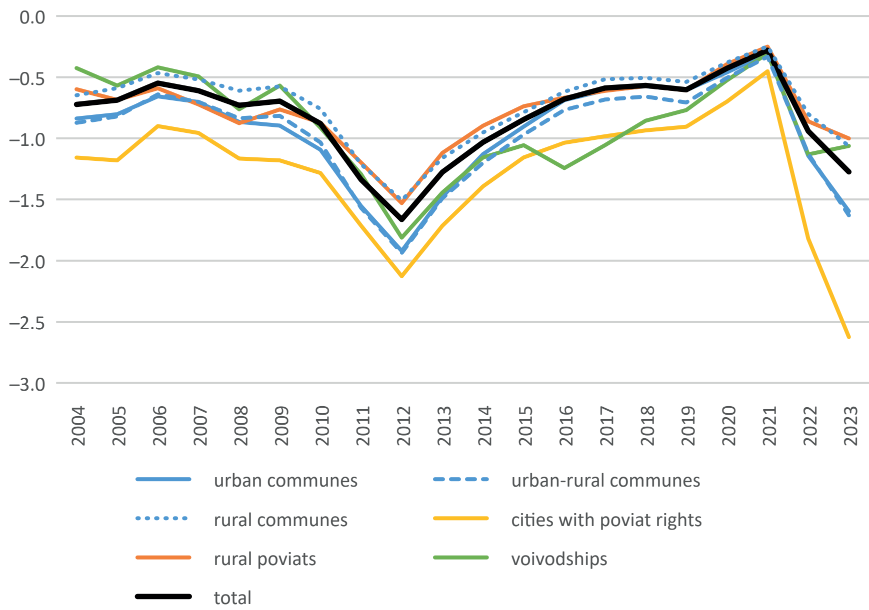

Figure 2. Debt service expenditures in relation to total revenues (in %)

Source: own elaboration based on data from the Ministry of Finance (Ministerstwo Finansów, 2025).

Debt servicing costs are presented as negative values to highlight the fact that they reduce available public resources. A combined analysis of the data presented in Figures 1 and 2 confirms that the highest debt servicing costs occurred in 2011–2015 and in 2022–2023. Thus, in these periods, the gap between the primary and budget balances was usually the largest. In addition, the breakdown of units by their type identified that, on average, the highest debt service costs were carried by cities with poviat rights.

In order to present more synthetically the differences between the primary and budget balances, as well as debt service expenditures, it was decided to divide the study period into sub-periods, distinguished by differences mainly in terms of economic circumstances:

- I sub-period – 2004–2007 – the time before the global financial crisis,
- II sub-period – 2008–2014 – the time of the global financial crisis and recovery,
- III sub-period – 2015–2019 – the time of economic prosperity, the period between the financial crisis and the COVID-19 pandemic; the period of relatively low and stable interest rates (in Poland, from March 2015 to March 2020, the NBP reference rate was 1.5%),
- IV sub-period – 2020–2023 – the time of the COVID-19 pandemic, as well as a period of turbulence related to Russia's invasion of Ukraine, resulting in high-

er spendings by LGUs due to, among other things, increased energy costs and spendings on war refugee aid.

Figure 3 shows, on average, the values of the tested balances and debt service expenditures in relation to total revenues. Debt service expenditures are again shown as negative values, reducing the primary balance into the budget balance.

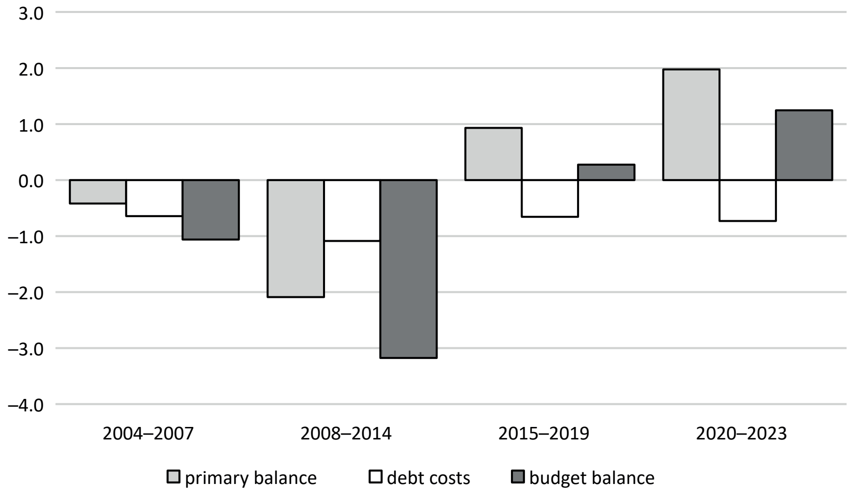

Figure 3. Primary balance, debt service expenditures and budget balance in relation to total revenues – average values for all LGUs in selected time periods (in %)

Source: own elaboration based on data of the Ministry of Finance (Ministerstwo Finansów, 2025).

In the period before the financial crisis, LGUs had, on average, a negative primary balance, meaning that usually, public revenues were insufficient to cover 'pure' public expenditures, and debt service further enlarged the budget deficit. During the crisis, the situation only deteriorated further and, for the most part, the primary deficit was higher than 2% of total revenues and debt service expenditures eventually widened budget deficits to more than 3%. In the second half of the 2010s, the financial situation of LGUs improved and, on average, units were running both primary and budget surpluses. Intriguingly, since the early 2020s – despite the COVID-19 pandemic and the negative effects of the war in Ukraine – the situation of LGUs has mostly improved even more. This situation was influenced, among other things, by the one-off transfer of additional funds from the central budget in 2021–2023. Due to the diversity of tasks performed by different types of local government units, Figure 4 presents the examined indices by LGU type.

As can easily be seen, the worst financial situation concerned cities with poviat rights, in particular in the last of the examined periods. From the mid-2010s onwards, most local government units generally recorded a positive primary bal-

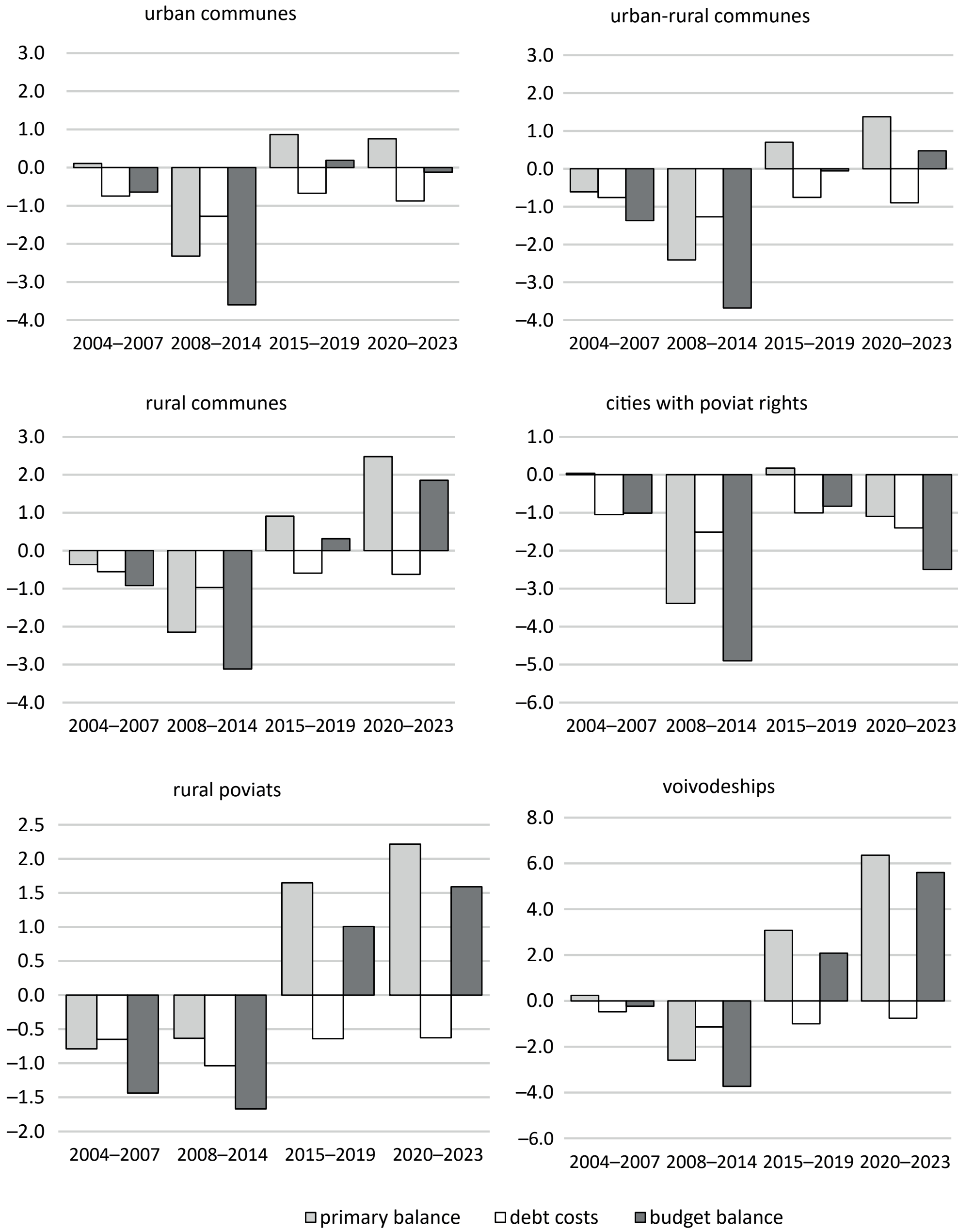

Figure 4. Primary balance, debt service expenditures and budget balance in relation to total revenues – average values for particular types of LGUs in selected time intervals (in %)

Source: own elaboration based on data of the Ministry of Finance (Ministerstwo Finansów, 2025).

ance, with cities showing the lowest values. At the same time, the average budget balance was positive for most units, but remained negative in the case of cities. The early 2020s brought only a deterioration of the financial situation for cities. Generally, in recent years these units have recorded a primary deficit of more than 1% of total revenues and, after taking into account debt service expenditures, have obtained a budget deficit of more than 2% of total revenues on average. Interestingly, other units have fared much better during this period, including primarily voivodeships, but also communes (mainly rural), as well as rural county (poviat) units. Over the twenty-year period under analysis, a clear reversal can be observed: counties (rural poviats) and communes – particularly rural and urban–rural ones – initially exhibited the weakest financial positions, but have achieved a markedly stronger financial standing in more recent years. In addition, it is easy to see that the overall positive evaluation of the recently examined balances presented in Figure 3 is overestimated precisely by rural and urban-rural communes, poviats and voivodeships – the averages were calculated by the number of units and not the value of their budgets.

The results obtained correspond to analyses performed by both local government organisations and the findings of the Supreme Audit Office in 2024. The Association of Polish Cities pointed out the progressive deterioration of the financial situation of LGUs as early as 2020. In particular, attention was drawn to the declining operating surplus (the positive difference between current revenues and current expenditures), which was expected to decrease significantly in subsequent years as a result of, among other things, planned tax changes (ZMP, 2020). It was emphasised that in 2023 cities with poviat rights had an operating deficit of PLN 2.93 billion, which was the largest of all types of LGUs (ZMP, 2024). The worsening of the situation of cities with poviat rights in Poland in 2019–2022 was clearly indicated by the Supreme Audit Office. One of the reasons for the weakening of the stability of local finances was the changes introduced in Poland related to the Polish Deal programme, as well as the discrimination of these LGUs in the distribution of government funds (Najwyższa Izba Kontroli, 2024). The above conclusions and the impact of these actions on the primary balance are in line with the findings of the literature on the relationship between representatives of the central government and the local government sub-sector reflected in the distribution of state budget transfers (Ter-Minassian & Craig, 1997, p. 156).

Next, an attempt was made to diagnose the reasons for the amount of local government expenditures on debt servicing. Among the obvious reasons for the increase in expenditures, it was necessary to examine the growth of the debt, as well as its interest rate, which in Poland is to a large extent variable, and therefore dependent on changes in interest rates and the central bank's monetary policy. Clear evidence of the dependence of expenditure levels on the two identified determinants is provided by Figures 5 and 6. These figures overlay debt service expenditures as a share of total revenues with, respectively, the growth rate of local government debt and the National Bank of Poland's reference rate – the key monetary policy rate, which directly influences interbank interest rates and thereby largely determines the interest rates on both loans contracted by local government units and the securities they issue. The cost of debt is expressed as a percentage of total revenues of the units, while the growth rate of local government debt and the NBP reference rate are expressed as percentages. The value of the NBP reference rate changes throughout the year, sometimes many times, so the values given for a certain year are a weighted average of the months in which the rate was in force.

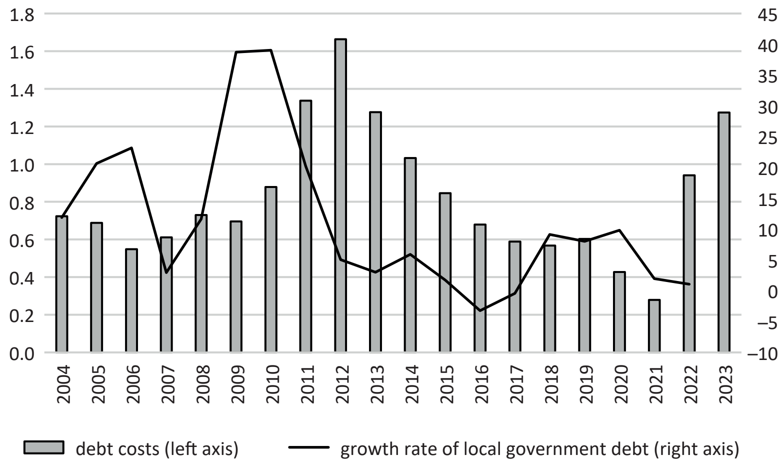

Figure 5. Debt service costs as a percentage of total revenues of LGUs vs growth rate of local government debt (in %)

Source: own elaboration based on data from the Ministry of Finance (Ministerstwo Finansów, 2025).

In the case of the impact of the growth of local government debt on the amount of expenditures incurred for its servicing, a time lag is observable, which seems justified, as liabilities drawn in a given year result in their servicing costs in subsequent years. In the case of the reaction of debt service expenditures to changes in interest rates in the economy, it is possible to speak of an immediate and obviously positive relationship. It can therefore be concluded that the predominant part of local government debt has been contracted at variable interest rates (indexed to market rates).

With reference to the primary balance rule, it is important to establish the relationship between the primary balance of the local government sub-sector and the primary balance of the general government sector. This is because the principle of balancing public finances requires taking comprehensive measures aimed at the outcome of the entire sector. Thus, it will make it possible to limit the risk

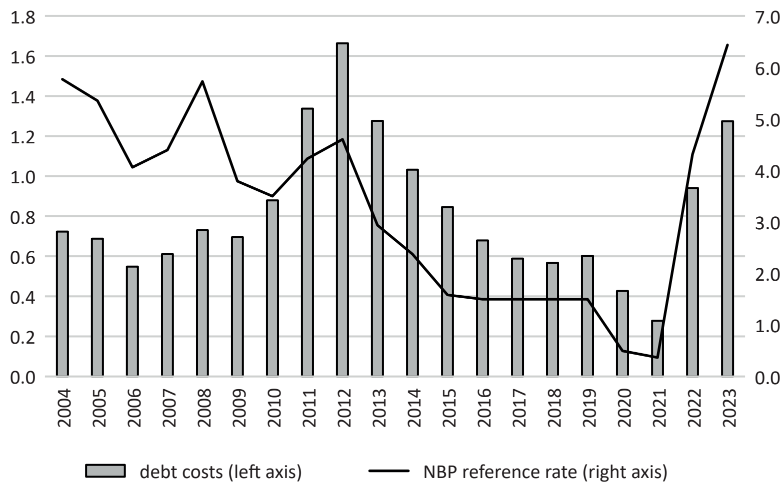

Figure 6. Debt service costs as a percentage of total revenues of LGUs vs the NBP reference rate

Source: own elaboration based on data from the Ministry of Finance (Ministerstwo Finansów, 2025).

of instability of public finances of particular sub-sectors and, consequently, of the whole sector.

Conclusions

The theoretical considerations and empirical research carried out in this article clearly indicate the importance of the primary balance in assessing the financial health of LGUs. The literature review shows that the primary balance indicator should be applied in the assessment of sustainability of local finance. Thus, it can constitute one of the fiscal rules in both the medium and long term.

Empirical studies conducted by the authors have shown that, firstly, the analysis of the value of the primary balance in connection with the budget balance provides important information on the financial stability of units. A situation in which an entity does not generate a positive primary balance and, in addition, the debt service significantly increases the budget deficit, should raise concerns about the state of its finances and trigger supervisory action. For this reason, the authors recommend the inclusion of this measure in the common assessment of LGUs' financial security.

In addition, the research carried out has proved that in recent years the situation of cities with poviat rights has deteriorated markedly. This is observable in particular in comparison with voivodeships (for which the best situation can be observed), rural poviats and communes, mainly rural and urban-rural, whose situation in the perspective of the last two decades has definitely improved. Such a diagnosis requires a detailed analysis of, on the one hand, the tasks that cities perform and the related expenditures and, on the other hand, the local government revenues system. The persistence of such a situation in the long term may lead to a degradation in the quality of the public services provided. The weakening of the finances of cities with poviat rights has already been acknowledged by the Supreme Audit Office, which has strongly emphasised the need for stabilising changes.

Finally, it was also pointed out that debt servicing expenses depend on the level of interest rates as well as, with a lag, on the rate of debt growth. In the light of the results of the study, it is particularly necessary to introduce scenario-based methods in financial planning in LGUs, allowing the resilience of the units to a potential increase in financing costs (caused by an increase in interest rates) to be examined.

Future research could also enrich the analysis of local government financial security by incorporating assessments of gross and net borrowing needs in the context of refinancing risk management. The measures used hereby refer to net needs, but the refinancing of local government debt and the scale of this phenomenon is also relevant, which, in the context of a fluctuating environment, including the volatility of interest rates, may imply potential risks associated with refinancing risk. In addition, the evolution of the primary balance, particularly the occurrence of deficits in election years, offers prospects for using this measure in identifying the political cycle and its effects on the local government subsector.

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