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The political budget cycle in local government finance: a balance sheet approach on the example of cities with poviat rights

Abstract

The aim of this paper is to carry out an empirical verification of the occurrence of the political cycle in cities with poviat rights in Poland. Current challenges of local financial management, previous results of national and international research, and threats associated with various types of risks, including political risks, are the motivation for addressing this topic in the paper. The research was conducted using panel data analysis, and its results indicate the existence of a political budget cycle, the effects of which are reflected in the asset and financial situation of cities. The study used balance sheet data, which significantly distinguishes it from previous studies, both domestic and foreign. The results allow us to conclude that balance sheet information should find wider application in monitoring the security and stability of local government finances in Poland.

Keywords: political budget cycle, investment expenditures, political risk, local government units, asset and liability management
JEL Classification: D72, H72, H79

Introduction

Most of the literature to date provides evidence of a political budget cycle at both national and local government levels. The phenomenon of the political budget cycle refers to the attempt by politicians to influence future decisions of voters with a view to gaining re-election. For example, Nordhaus [1975] focuses in his paper on the links between unemployment and inflation. As a result, he indicates that politicians attempt to manipulate macroeconomic policy, which can contribute to gaining a significant advantage to win the next election. The above observation was confirmed in further work, where it was found that politicians aim to bring about economic improvement and thus can influence the decisions of voters, who are, by definition, irrational [Samuelson, Nordhaus, 2000, p. 311]. The government can also influence future macroeconomic figures, such as the budget deficit or public debt. Thus, when there is a risk of electoral defeat, an attempt is made to prevent the future government from fulfilling its electoral promises. This can be done, for example, by deliberately leaving the debt and deficit high in order to limit expansionary spending policies [Persson, Svensson, 1989, pp. 339–341].

An important element in the consideration of the political budget cycle is society and, more specifically, the views, awareness, and decisions of the population. Inherent in these considerations are economic issues, to which the electoral programmes of political parties are strongly aligned. For this reason, the efforts to win re-election will be different on the side of conservative and liberal parties, or of right-wing and left-wing parties. Right-wing parties will be interested in low inflation and economic expansion at the same time, while left-wing parties will focus more on achieving full employment than on stabilizing inflation [Hibbs, 1997, pp. 1470–1473]. The subject literature also points, among other things, to a competency model of politicians, in which the assumption of a rational voter is made. Thus, the current economic situation as well as past events are analyzed. In this way, the competence of politicians relating to the economic sphere is assessed by voters [Persson, Tabellini, 2003].

The rationality of the voter and the assessment of the competence of politicians has led to the observation that the society is choosing more competent politicians. However, an important limitation is the delay in the information available to voters. This is due, among other things, to the fact that opposition parties do not have such significant opportunities to demonstrate their competence compared to parties in power [Rogoff, Sibert, 1988, p. 2; L.G. Veiga, F.J. Veiga, 2007].

The aim of this paper is to carry out an empirical verification of the occurrence of the political cycle in cities with poviat rights in Poland. In the first part, a review of the literature on the subject will be carried out in the field of the political budget cycle as well as asset and liability management (ALM). On this basis, in the second part, a panel data analysis will be carried out to verify the occurrence of the cycle in the local government sub-sector in Poland.

Theoretical framework of the research

Review of research on the political budget cycle

Most research and studies focus on the political budget cycle at the national level. In contrast, increasing attention is beginning to be paid to how this phenomenon is shaping up at the local level. Among the examples, studies covering European countries dominate, but case studies from other parts of the world (e.g. Canada, Indonesia) can also be found. Most of the research, however, focuses on budget data such as revenue, expenditure, or debt. This is justified, as politicians attempt to influence voter preferences by means of a reduction in the tax burden, a change in the structure of budget expenditure, or new investments to be completed in the year of a government or local election.

The first findings on political budget cycles at the local level date back to the 1990s. At that time, the existence of a cycle was confirmed on the example of Canadian provinces [Blais, Nadaeu, 1992]. However, attempts by the central government to exert influence through the financial transfer system remain an integral part of these processes. An example of this is the redistribution of transferred subsidies to local government units (LGUs) by the central government level. As a general rule, those in government who are not in any way allied to the governing party may receive lower amounts of subsidies as opposed to the representatives of the governing party [Arulampalam et al., 2009]. Government transfers, especially capital transfers, can have a significant impact on the development of urban public services, and thus, on the future decisions of voters. Therefore, the magnitude of government transfers can be a consequence of political factors, including electoral incentives [Khemani, 2004]. In Germany, on the other hand, investment subsidies were increased directly before state or local elections, resulting in a significant increase in capital expenditure [Furdas, Homolkova, Kis-Katos, 2015]. The same is observed for the allocation of EU funds, in which political interest plays an important role [Banaszewska, Bischoff, 2017].

In addition to subjecting only fiscal variables to tests, the occurrence of the cycle was verified based on macroeconomic variables (e.g. the unemployment rate, LGU debt to GDP level, short-term real interest rate). For example, Kneebone and McKenzie [2001] noted that there is a significant relationship between decreases in spending on health, social services, and industrial development during election years and concomitant increases in spending on education, transport, and sports and culture compared to other years. A similar situation was identified at the national level in the case of Colombia, where the nature of the political budget cycle was determined by the change in the structure of expenditure made, rather than the amount of investment expenditure. This is because it was assumed that there is a group of voters with certain preferences, who at the same time are not willing to accept high deficits. Thus, changing the direction of public spending did not result in a significant increase in the deficit [Drazen, Eslava, 2010].

In the case of Portuguese LGUs, on the other hand, the transfer revenues received by municipalities, tax revenues, expenditures, and budget deficits were also taken into account. It was found that directly before and during the election year, total expenditures and budget deficits increased, while the composition of investment expenditures changed [L.G. Veiga, F.J. Veiga, 2007]. The case of Indonesia is also interesting, where an increase in discretionary spending during election years at the expense of social welfare spending was noted. An increase in the deficit similar to that identified by L.G. Veiga and F.J. Veiga was noted. In contrast, the significant impact of election years on the increase in capital expenditure was not confirmed. However, a significant decrease in the size of these expenditures was found before the election year [Setiawan, Rizkiah, 2017]. This may depend, on the one hand, on the administrative structure of the country, but also on cultural conditions, as in the case of Spain and Italy, a clear political cycle was identified, the essential element of which is an increase in capital expenditure during election years. In addition, a decrease in tax revenues and revenues from fines and penalties was identified in election years [Benito, Bastida, Vicente, 2012; Cioffi, Messina, Tommasino, 2012; Ferraresi 2021; Benito, Guillamón, Rios, 2021].

The ruling authorities' interest in the above budget figures was also noted in the case of LGUs in Poland (e.g. Budzeń, 2021; Budzeń, Wiśniewski, 2023; Filipiak, Kluza, 2022; Köppl, et al., 2016; Olejnik, 2022; Swianiewicz, Kurniewicz, 2018; Wyszkowski, Zegarowicz, 2018).

The political budget cycle is undoubtedly associated with political risks, the effects of which are reflected in negative consequences for the financial condition of LGUs. This can be related, among other things, to an increase in liquidity risk during electoral periods, the problem of failing to estimate the financial impact of ongoing projects on future years' budgets, as well as the failure to comply with fiscal rules. Results in this respect are provided, among others, by Bonfatti, Forni [2019], who showed that specific fiscal rules at the national level can act as a constraint on the negative effects of the political budget cycle.

The balance sheet as a source of information on the political budget cycle

As stated above, the political budget cycle is significantly influenced by the fiscal tools used by politicians to influence voters' decisions. Among these there are the size of the tax burden, the direction of spending, the amount of social transfers and, consequently, the budget deficit and public debt. Up to the time of the study, the authors have not identified many studies on this topic that rely on balance sheet data.

Balance sheet data analysis is based on the balance sheet approach and is more widely known as assets and liability management (ALM, balance sheet approach), which was first applied in the second half of the 20th century [Fabozzi, Konishi, 1990]. Primarily aimed at the non-public sector, and in particular the banking sector, ALM has subsequently found application in the public sector as well. An important premise of the concept was to improve coordination between assets and liabilities. Thus, the main objective of this approach was to reduce balance sheet risk by diversifying assets and their sources of financing [Sheng, Cho, 1993]. In the case

of the public sector, which is characterized by different economic objectives than the commercial sector, ALM is understood as an assets and liabilities management strategy [Jajuga, 2015, pp. 358–359]. A lack of coordination can lead to an increase in risk, particularly liquidity risk, indicating that the analysis of balance sheet data should be integrated into the risk management system in the public sector, including the local government subsector [Budzeń, 2023].

Therefore, the structure of assets and liabilities is important and can pose significant challenges to public authorities. This is all the more important because, while public authorities are more likely to be able to plan for current as well as future revenues in the medium term, a significant difficulty relates to expenditure (especially investment) and future debt. This is due to the different nature of the activities of the non-public and public sectors affecting asset-financial decision-making [Biondi, 2016a, p. 90; Biondi, 2016b, p. 208].

From the point of view of this study, it is important to analyze the effects of local government decisions on the LGU's asset and financial condition. The differing nature of the method of recording balance sheet data and budgetary figures associated with the accrual method in the first case and the cash method in the second case posed a challenge in analytical activities. A review of the literature on the subject indicates that balance sheet accounting has already been used in identifying the political budget cycle. The cycle can manifest itself when taking transaction costs into account. Despite the differences between the commercial and public sectors, it is likely that municipal services requiring specific assets are outsourced. Then, those in power do not have to incur expenditure to produce them, and the money thus saved can be used to make new investments aimed at gaining re-election [Brown, Potoski, 2003].

In the case of public service contracting, party affiliation or ideology do not show a significant relationship with the phenomenon under study. In contrast, in the case of Spanish LGUs, a significant relationship was found between the level of service contracting and the potential change in power. Thus, the value of contracted public services increased significantly during election years [de la Higuera Molina et al., 2019].

The analysis of Italian LGUs showed that a significant part of the political budget cycle is evident in the disposal of public assets as well as in loans. In the first case, there was an increase of around 20% in the disposal of assets, and in the second case, an increase of around 34% over the average figures in the pre-election years [Repetto, 2018].

Thus, one of the key areas of financial management is financial risk analysis. Furthermore, according to the authors of this paper, financial risk is inherent in the decisions taken by politicians and, therefore, reflects the effects of political risk. The use of debt instruments by politicians to achieve their own objectives may translate into high levels of indebtedness for these entities, resulting in sudden changes in liquidity and a reduction in the value of assets [OECD, 2013].

The International Monetary Fund [2022] highlighted the deterioration in financial conditions following the crises (including COVID-19). An increase in liquidity risk was observed, resulting in a reduction in financial stability. Thus, rising debt servicing costs and uncertainty have increased the risk of default by public institutions.

Deciding on a deficit budget increases the amount of public debt. Thus, the question of setting a limit to the security of public finances is very important these days [Filipiak, Wyszkowska 2022, p. 20]. These findings become more important in the context of the consequences of politicians' use of fiscal tools to influence voters' decisions. As noted earlier, most studies to date have focused exclusively on fiscal performance, ignoring the issues related to the assessment of the assets and financial situation of public institutions. These observations confirm the need for a broader view of political risk and, more specifically, of the consequences of politicians' decisions on financial risk.

From the point of view of ensuring the sustainability of the public tasks carried out, it is important to assess liquidity, which is feasible using the ALM approach [Cangoz, Boitreaud, Dychala, 2018]. The argument for using the balance sheet approach is the differentiated information found in the budget and financial statements. The former does not report on the assets and financial position, which is the subject of the balance sheet. When the negative effects of political risks materialize, e.g. when the budget is overburdened with debt repayment and servicing, the assets can be a source of repayment of incurred liabilities or a source of financing for new assets (investments). A similar situation occurred in Italian municipalities, where increased activity in selling assets to finance new investments was identified [Repetto, 2018].

On this basis, those in power should also pay attention to liquidity issues, as LGUs have liquid assets, on the one hand, and liabilities incurred, on the other hand, need to be settled. Therefore, financial assets should bridge the imbalance between revenues and expenditures to ensure timely payment of liabilities [Freire, Kopanyi, 2018]. In the public sector, it is very important to analyze the ability to meet debt service and repayment costs in relation to the assets held. This is not provided by information extracted from budget reporting. From the point of view of coordination between assets and debt, it is important to match appropriately the structure of these components, which have similar risk sensitivities [Das et al., 2012; Newberry, 2015]. It should be noted that the issue of the size and structure of debt, as well as the LGUs' ability to service debt, is also linked to market risks, including, in particular, refinancing, interest rate, and currency risks. The debt incurred in connection with the re-election attempt generates the occurrence of these risks in the future. Therefore, it is important to control at least the term and currency structure, as well as the interest rate of the liabilities [Budzeń, 2016; Wiśniewski 2016].

The above literature review indicates that, in the context of research on the political budget cycle, in addition to the common analysis of budget variables, information related to the asset and financial situation may be relevant. This is because the consequence of political risk can be liquidity problems and, therefore, a limited ability to settle obligations on time. Furthermore, decisions by politicians determined by their desire for re-election may result not only in a periodically stronger increase in the value of fixed assets (including investments), but also in an increase in the level of debt financing of assets.

Methodology and data

This paper is an attempt to verify empirically the existence of a political cycle in LGU finances from a balance sheet perspective. All the cities with poviat rights in Poland were examined.[1] The choice of such units was dictated by their relatively highest financial autonomy among other types of units. The study was conducted in the period from 2006 to 2021, which means that four complete election cycles were analyzed: local elections were held in 2006, 2010, 2014, and 2018.

As indicated earlier, in the studies conducted so far their authors have focused on the impact of the political cycle on the finances of units in budgetary terms. This paper intends to examine the dependence of asset and financial variables on the electoral cycle in balance sheet terms. In particular, issues such as the financial liquidity of units, changes in the value of fixed assets, as well as the forms of financing these assets were investigated.

Taking into account the considerable diversity of the population of the cities under study, the variables were expressed in form of indicators (ratios), as well as absolute values per capita (Table 1).

Table 1. Variables describing the asset and financial situation of the cities surveyed to study the impact of the political cycle

Variable symbol	Name of variable (indicator)	Formula
LR3	Current ratio (III degree liquidity ratio)	current assets/current liabilities
LR2	Quick ratio (II degree liquidity ratio)	(current assets – inventories)/current liabilities
LR1	Cash ratio (I degree liquidity ratio)	cash/current liabilities
DFA	Debt financing of assets index	financial liabilities/total assets
FA/TA	Fixed assets in total assets	fixed assets/total assets
FA *per capita*	Fixed assets per capita	fixed assets/population
LNW *per capita*	Local net welfare index per capita	(total assets – financial liabilities)/population

Source: own elaboration based on Budzeń [2023] and Budzeń, Marchewka-Bartkowiak [2022].

From the point of view of carrying out the study using balance sheet data, several important problems had to be pointed out, which disallowed the consideration of single balance sheet elements. Firstly, the authors chose not to analyze individual values such as fixed assets and their components, or particular elements of liabilities. This is because the results obtained could be distorted by, among other things, amortisation deductions made or the different accounting rules (policies) applied in different LGUs. Secondly, the study of balance sheet figures was intended by the authors to complement and continue the results of previous research on the

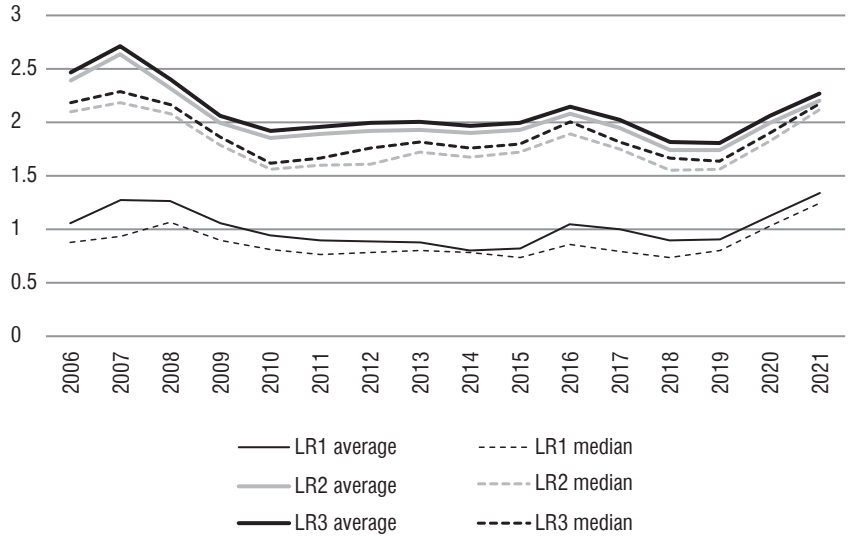
[1] Poland has a three-tier structure of local government: communities, poviats, and voivodships. Cities with poviat rights are the units of LGUs that perform the widest range of public services, i.e. at the level of municipalities and poviats.

political budget cycle, so it was justified to focus on asset and financial indicators. Thirdly, the authors presumed that there was a decline in the level of liquidity, particularly in the election years and the years directly prior to them. At this point, it should be noted that indicators based solely on budgetary values do not describe accurately the LGU's ability to repay and service its liabilities. This is because they do not take into account the state of the assets, which could provide a source of repayment if cash is insufficient. Therefore, it made sense to use liquidity ratios that take into account balance sheet figures. Fourthly, in the literature, attention was repeatedly drawn to cases of 'pushing' public tasks and debts outside the public sector (e.g. to municipal companies). On this basis, it was decided to use data from consolidated balance sheets that also take into account the asset and financial situation of municipal companies and other legal entities under the control of LGUs.

In order to carry out the study, panel data analysis was used – the population formed by the cities (cross-sectional data) was examined over the indicated period (time series). In order to detect the existence of signs of a political cycle, trend models were estimated for the indicated variables (indicators) with fixed effects (it was assumed *a priori* that units differ from each other).

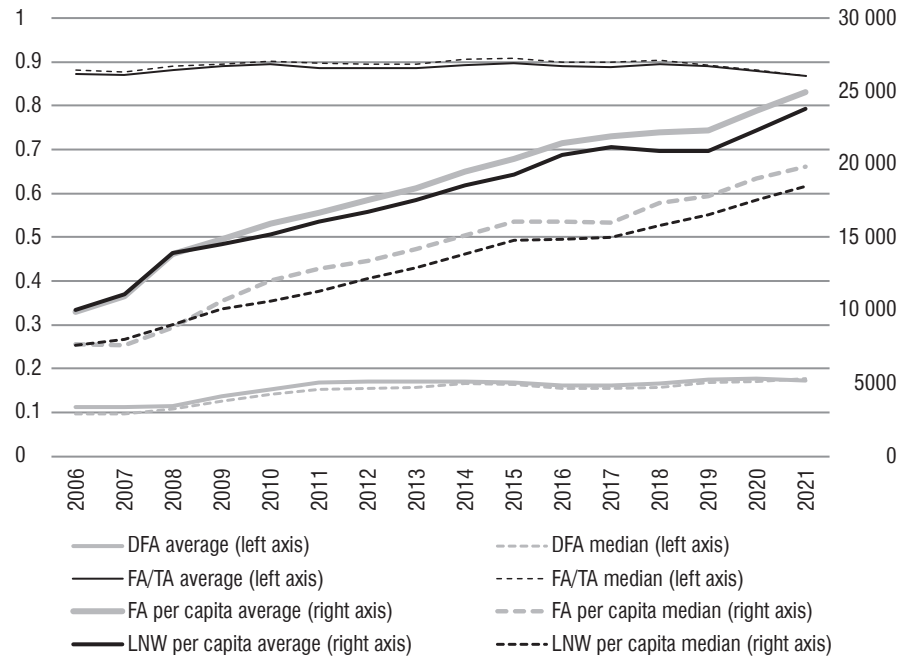
Before the models were constructed, a preliminary review of the statistical material was carried out. Due to the extensiveness of the study, it was not possible to present all the parameters of the distribution of the values of the studied variables. Figures 1 and 2 present the most important ones, i.e. the mean and median values of each of the selected indicators in each year.

Figure 1. Mean and median values of liquidity ratios (LR3, LRP2, LR1) in cities with poviat rights in the years 2006–2021



Source: own study.

Figure 2. Mean and median values of DFA, FA/TA indicators (left axis) and FA per capita and LNW per capita (right axis, in PLN) in cities with poviat rights in the years 2006–2021



Source: own study.

Firstly, it should be noted that in the case of the liquidity ratios and the DFA and FA/TA ratios, it is difficult to observe a long-term trend in the development of their mean and median values, in contrast to the per capita ratios, where clear upward trends are discernible. Secondly, only in the case of the FA/TA indicator a leftward skewness of the distribution of its values in the population under study could be observed (mean < median, negative value of the asymmetry coefficient). For the other indicators, the distribution of their values was right-sided asymmetric (mean > median, positive value of the asymmetry coefficient). Moreover, the asymmetry was the weakest for the DFA and FA/TA indicators, for the other indicators, the skewness of the distribution was relatively stronger. Thirdly, it is worth mentioning that the highest concentration of the distribution (the highest, positive kurtosis value) was found in the liquidity indicators, and the lowest in the DFA and FA/TA indicators. Fourthly, the value of the variation coefficient of the indicators under study (standard deviation/mean) was at a moderate level – mostly in the range of 4–8%; the highest variability was observed in the case of the FA per capita indicator in 2008 (15.9%) and the lowest for the FA/TA indicator in 2010. (0.6%).

The preliminary analysis of the data, especially time series for particular cities, also led to the conclusion that it would be reasonable to construct panel data trend models for each of the indicators separately, which, through the so-called individual effects, would enable the specificity of particular cities to be taken into account. As indicated above, not in every case a strong development trend can be discerned, but it was decided to verify this by estimating

trend models. In addition to the time variable (t), the explanatory variables became Z (binary, dummy variables) corresponding to the individual years of the local government's term in office. In addition, due to the inertia of indicator values, it was decided to add a lagged value of the explained variable to the set of explanatory variables – the value of a given indicator in period t may depend on the value of this indicator in period $t - 1$. The parameters of the panel data models were estimated in Gretl, assuming both fixed and random individual effects and, based on the results of the Hausman test, it was decided that a model with fixed effects would be more appropriate. The general form of the estimated models can, therefore, be written as follows:

$$Y_{i,t} = \beta_t \cdot t + \beta_Y Y_{i,t-1} + \alpha_1 \cdot Z1_{i,t} + \alpha_2 \cdot Z2_{i,t} + \alpha_3 \cdot Z3_{i,t} + \alpha_4 \cdot Z4_{i,t} + \beta_0 + \beta_i + \varepsilon_{i,t}, \quad (1)$$

where:
i – city number, $i = 1, 2, \ldots, 66$,
t – time variable and period numerator, $t = 1$ in 2006, $t = 16$ in 2021,
β_t – trend coefficient of a given indicator for all the cities,
$Y_{i,t}$ – value of the explained variable (indicator) for the i-th city in the t-th period,
β_Y – coefficient indicating the effect of the value of the explained variable (indicator) for the i-th city from period $(t - 1)$ on the value in the t-th period,
$Y_{i,t-1}$ – lagged value of the explained variable (indicator) for the i-th city in period $(t - 1)$,
$\alpha_1, \alpha_2, \alpha_3, \alpha_4$ – parameters representing the deviation of the value of the indicator under study from the long-term trend in each year of the term in office, where in particular α_1 stands for the first year of the term in office and a α_4 for the last year, i.e. the year in which the election takes place,
$Z1_{i,t}, Z2_{i,t}, Z3_{i,t}, Z4_{i,t}$ – dummy variables reflecting particular years of the four-year term (where in particular $Z1_{i,t}$ is the variable corresponding to the first year of the term in office and $Z4_{i,t}$ is the variable referring to the last year, i.e. the one in which the election took place), whose value equals 1 in the relevant year of the term in office and 0 in the other years, respectively,
β_0 – intercept, the average for all the cities of the value of a given indicator in 2005 ($t = 0$),
β_i – individual effect associated with the i-th city,
$\varepsilon_{i,t}$, – random factor associated with the i-th city in t-th period, about which the assumptions of classical linear regression are applied.

Due to the linear dependence of the columns in the general model, three zero-one variables were finally introduced into the model, related to the selected year of each term: $Z1_{i,t}$ – corresponding to the post-election year (1st year of the term), $Z3_{i,t}$ – relating to the pre-election year (3rd year of the term), $Z4_{i,t}$ – representing the election year (4th year of the term). This means that year 2 of the cycle was treated as a baseline variant, and the level of the explained variable during this period is reflected in the intercept of the model. It also means that the parameters next to the other dummy variables express deviations (specific to pre-election, election, and post-election years) from the base year.

Results

The obtained evaluations of the parameters of the trend models of the indicators under study and the assessment of the significance of the variables (Table 2) allow the following general conclusions to be drawn:

- time variable turned out to be significant in the case of the per capita indicators, which was already presumed after an initial examination of the statistical material, but a significant trend was also confirmed for the FA/TA indicator and the LR1 liquidity indicator; no statistically significant trend was identified for the other indicators;
- for each of the variables, the influence of the political cycle on its value was confirmed; in most cases (with the exception of the FA per capita indicator), the strongest influence on the value of the analyzed variables was observed in the election year;
- the strength of the inertia of the values of the analyzed indicators (autocorrelation of indicator values) is also significant and important; the value of the variable for a given city in a particular year is on average 53% to 79% of the value from the preceding year.

Table 2. Results of panel models estimation

Explained variable (Y_t)	Explanatory variables						Model characteristics				
	Estimation of the parameter (relevance of the variable)						Values of indicators			*p*-value	
	t	Y_{t-1}	*Z*1 (post-election year)	*Z*3 (pre-election year)	*Z*4 (election year)	Intercept	LSDV R2	Within-R2	Durbin-Watson Stat	Regression significance test	Test for significance of individual effects
LR3	–	0.5762 (***)	–	–0.0914 (**)	–0.2076 (***)	0.9380 (***)	0.7878	0.3633	1.6962	0.000	0.000
LR2	–	0.5793 (***)	–	–0.0876 (**)	–0.2013 (***)	0.8997 (***)	0.7927	0.3661	1.6948	0.000	0.000
LR1	0.006142 (**)	0.6354 (***)	–0.0651 (*)	–0.0835 (**)	–0.2005 (***)	0.4041 (***)	0.7081	0.4206	1.7436	0.000	0.008
DFA	–	0.7933 (***)	0.0051 (**)	0.0039 (*)	0.0067 (***)	0.0322 (***)	0.8908	0.6670	1.6063	0.000	0.000
FA/TA	–0.000587 (***)	0.6767 (***)	–	–	0.0083 (***)	0.2899 (***)	0.8385	0.5172	1.8597	0.000	0.000
FA *per capita*	215.58 (***)	0.6994 (***)	–547.18 (**)	–	–	4610.01 (***)	0.9602	0.7257	1.6670	0.000	0.000
LNW *per capita*	200.136 (***)	0.6932 (***)	–677.43 (**)	–	–610.81 (**)	4719.85 (***)	0.9546	0.6765	1.6951	0.000	0.000

Source: own work.

The calculated characteristics indicate the correctness of the application of the panel data models, as the individual effects turned out to be statistically significant – this means that

although significant fluctuations related to the political cycle were observed, the average values of the examined indicators in particular cities may have varied. The statistics also indicate that there was no autocorrelation of the random factor of the model, which also means that there were no signs of spurious regression between the studied characteristics.

Further on, it is worth looking in detail at the results of the particular estimations. In the case of the liquidity ratios, it was shown that, on average, their values were about 0.2 lower in the election year than in the base year (the second year of the term in office), and about 0.08–0.09 lower in the pre-election year; in the case of LR1, the value of this indicator was also lower on average in the post-election year. These results clearly show that an event such as an election has a significant impact on the deterioration of the ability of the surveyed cities to settle their obligations.

The joint interpretation of the models parameter assessments for the FA/TA and DFA indicators also provides interesting conclusions. In the case of the first of the indicators, it is confirmed that, on average, the ratio of fixed assets to total assets increases by 0.83 p.p. in an election year. At the same time, the model estimated for the second of the indicators shows that in the election year, on average (relative to the base year), the value of the debt financing ratio increases by 0.67 p.p. Increases in the value of this indicator are also identified in the pre-election year (by 0.39 p.p.) and the post-election year (by 0.51 p.p.). Both models show that in the run-up to an election, local authorities make a number of investments that may support their re-election, but these investments are financed by new debt.

The models estimated for the per capita indicators also provide interesting conclusions. In both cases, upward trends have been recorded, which is related, among other things, to the fact that these are nominal variables and their values increase over time due to economic growth and inflation. However, statistically significant declines in their values in the post-election year are crucial. In the case of the LNW indicator, there was on average a lower per capita value of PLN 677 in the post-election year, which may be related to the increase in financial liabilities, confirmed by the model for the DFA indicator. What is puzzling, however, is the average lower level of fixed assets per capita (by PLN 547) in the post-election year. This could mean that there is a post-election slowdown in investment, new investments initiated by predecessors are abandoned or put on hold (if possible), or decisions are made on multi-year investments that may be scheduled for completion in an election year. Thus, given the long-term upward trend of fixed assets, a decrease in these values in the year after the election is justified.

It is also worth pointing out that studies conducted on the financial situation of cities with poviat rights in Poland from the balance sheet perspective produce results that correspond with those of studies carried out from the budgetary perspective [Budzeń, Wiśniewski, 2023; Filipiak, Kluza, 2022]. The findings obtained by the researchers indicated a statistically significant increase in property expenditures in the election year, which in balance sheet terms translated into an increase in the value of fixed assets. Furthermore, it translated into a decrease in liquidity and an increase in the value of the level of debt financing of assets. On this basis, it can be concluded that the research carried out in this paper additionally showed that the

investments carried out were realised using repayable sources of financing, which played a greater role than in the other years (in which no local elections were held).

The presented results confirm that politicians try to take activities that are visible to the electorate. For this reason, during election periods they are more likely to decide on road investments rather than focus on spending to support the economy, the effects of which are less visible to voters [Olejnik, 2022].

Moreover, the increase in the FA/TA ratio corresponds with the results of studies on the occurrence of the political budget cycle at the local level in Italy and Spain [Benito, Bastida, Vicente, 2012; Coffi, Messina, Tommasino, 2012]. Thus, due to the incidental increase in property expenditure (reflected in the balance sheet indicators), there may have been observed an increase in liquidity risk during election years. In addition, this situation generated higher deficits, which were financed by debt incurred. This is evidenced by the results obtained for the DFA indicator. Hence, this is a reference to the results of L.G. Veiga and F.J. Veiga [2007], who observed an increase in budget deficits in election and pre-election years.

Therefore, the above makes it possible to conclude that there is a political budget cycle in the local government sub-sector in Poland both in terms of budget and balance sheet values. This is because the implemented budget policy has its consequences in the property and financial situation of the examined cities. An interesting example is the community of Ostrowice, which was liquidated on 01.01.2018. The indicators obtained for this community had already indicated a growing financial risk, including liquidity, since 2013. The consequence was the situation in 2016–2017, when total financial liabilities exceeded total assets. Thus, the inclusion of information based on balance sheet data in the risk management system is justified.

Summary

Research on the political budget cycle in local government units confirms that the impact of politics on the property and financial situation of cities with poviat rights is significant. This is consistent with the literature review as well as the own research conducted, the results of which are the subject of this study. Using panel data analysis, trend models were constructed for seven selected indicators describing the balance sheet situation of cities with poviat rights. The research indicated unequivocally a deterioration in the liquidity of units in election years, as well as an increase in the value of fixed assets and an increase in financial liabilities in these very periods.

This article contributes to the broadening of research on the occurrence of the political cycle in local government finance. The results achieved may indicate the need for control measures to be taken to monitor the LGU's financial condition on an ongoing basis, not only in budgetary terms but also in terms of the balance sheet. It is important to carry out ongoing monitoring of the values of the indicators examined in this article that describe liquidity and the relationship between assets and their sources of financing. This may prevent

possible populist, irrational, and dangerous actions taken by local authorities who may seek re-election at all costs.

Thus, the above findings provide an apex for further research into the causes and consequences of the political budget cycle at the local level in Poland. One of the main elements that should be extended in further work is to attempt to analyze the scale of expenditure or debt 'pushed' outside the LGU, i.e. to other entities dependent on the LGU. In Poland, such entities are, for example, hospitals, cultural institutions, or municipal companies. In addition, the above confirms that balance sheet indicators should be permanently included in the assessment of the financial security of LGUs in Poland as a complement to existing methods and analytical models.

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