

FINANCIAL SUSTAINABILITY AND EARNINGS MANIPULATION: EVIDENCE FROM SPANISH PROVINCIAL COUNCILS

Francesco Paolo Ricapito *

* Department of Business Administration, University of Bergamo, Bergamo, Italy
Contact details: Department of Business Administration, University of Bergamo, Via dei Caniana 2, 24127 Bergamo, Italy



Abstract

How to cite this paper: Ricapito, F. P. (2024). Financial sustainability and earnings manipulation: Evidence from Spanish provincial councils. *Corporate Governance and Organizational Behavior Review*, 8(3), 8–18. <https://doi.org/10.22495/cgobrv8i3p1>

Copyright © 2024 The Author

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 2521-1889
ISSN Print: 2521-1870

Received: 13.05.2024
Accepted: 26.07.2024

JEL Classification: H72, H83, M41, M48
DOI: 10.22495/cgobrv8i3p1

While earnings manipulation has a broad literature in the private sector, there is a lack of research on this topic in the public sector. This paper aims to explore the level of earnings management in Spanish provincial councils. The use of accrual accounting may be viewed negatively by stakeholders such as the central government, opposition parties, and citizens. The public choice theory highlights the conflicting interests of politicians seeking re-election and citizens aiming to maximize their welfare, leading to potential manipulation of earnings. Discretionary accruals are used as a proxy for earnings management in this study. Additionally, the impact of financial sustainability measures on earnings management is examined. The analysis covers the period from 2017 to 2020 and reveals how certain financial sustainability ratios and pre-election years can influence the extent of earnings manipulation. This paper contributes to the existing literature on earnings management in local governments by examining the connection between financial sustainability indicators and this behavior. Specifically, it focuses on the relationship between budget vulnerability and sustainability, and their influence on the magnitude of discretionary accruals.

Keywords: Earnings Management, Financial Sustainability, Spanish Provincial Councils, Discretionary Accruals, Public Choice Theory

Authors' individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

Declaration of conflicting interests: The Author declares that there is no conflict of interest.

1. INTRODUCTION

In the last decades, many governments have tried to modernize public administrations through public sector financial reforms. Although there has been an initial hostility towards accrual accounting concerning its suitable application in the public sector, it seems to provide a better sequence of information both at qualitative and quantitative levels with respect to cash accounting (Cohen et al., 2019). However, the use of earnings management techniques by public entities carries the risk of how they handle it. This risk is linked to the subjective nature of accrual accounting (Caperchione & Mussari, 2000), which is heavily influenced by managers' behaviors. While earnings

management has been extensively studied in the private sector (Cohen et al., 2008; Xu et al., 2019; Eshleman & Guo, 2020; Windisch, 2021), it has recently gained attention from researchers in the public sector (Capalbo et al., 2014; Ruggiero et al., 2022; Coelho, 2022).

This paper focuses on earnings management behavior in Spanish provincial councils from 2017 to 2020, specifically examining its relationship with financial sustainability indicators. The goal is to identify the factors and conditions that contribute to opportunistic behavior, drawing on the public choice theory. Stakeholders of provincial councils play a crucial role in monitoring whether public administrators align with their interests by assessing financial conditions and sustainability (Pilcher & Van Der Zahn, 2010; Beck, 2018).

This research adds to the existing body of knowledge on accounting and earnings management by showing that indicators of budgetary solvency, such as financial sustainability and vulnerability, can serve as red flags for the presence of accrual-based earnings management practices. The study of the Spanish provincial councils is interesting for several reasons. On the one hand, there are no previous attempts in the literature focused on the analysis of earnings management at the Spanish provincial level. On the other hand, Spanish provincial councils have become a subject of debate and controversy for many years due to several cases of corruption and lack of transparency (Narbón-Perpiñá et al., 2021). In order to investigate these research questions, a two-step methodology is performed. In the first stage, the discretionary accruals as a proxy for earnings management have been used and they have been computed through Jones's (1991) and modified Jones's models (Dechow et al., 1995). In the second stage, a set of financial sustainability indicators as explanatory variables have been chosen and computed in order to gauge discretionary accruals magnitude. In addition, it has been taken into account the effect of the political election period.

The research highlights that certain financial sustainability indicators, such as leverage and size, impact the extent of earnings management. This study's key contribution to the field of earnings management lies in its exploration of the relevance of specific financial sustainability indicators. Local governments use financial statements to demonstrate their financial status and performance. Oversight bodies and stakeholders evaluate these statements using accrual accounting indicators (Donatella et al., 2019; Donatella, 2020) as alternative proxies for sustainability. Those values that are inconsistent with national and supranational regulations foster doubts about provincial councils' sustainability, whereas those in line with the rules are a signal of sustainability assurance (Beck, 2018; Cohen & Malkogianni, 2021). Therefore, sustainability indicators have a strong impact on the outlook of each provincial council which, in turn, affects how public administrators behave in reporting financial performance. Provincial councils that are not capable of pursuing favourable financial sustainability are more boosted to manipulate financial accounts through the adoption of opportunistic behaviours on earnings management to give an apparently better look to their financial accounting.

This paper provides useful suggestions concerning the linkage between discretionary accruals and the indicators used by external stakeholders to assess the financial sustainability of provincial councils. This allows for the possibility of predicting the extent to which earnings are manipulated based on these ratios. The findings of this analysis can be beneficial for policymakers and supervising authorities in understanding the degree to which provincial councils engage in earnings management practices through accruals' manipulation. The evidence presented in this paper is supported by some indicators such as the quick assets ratio, operating cash flows, and net earnings, with an increase in intensity observed during the year before elections.

The rest of the paper is organized as follows. Section 2 provides a literature review on earnings

management in local entities and its connection to financial sustainability, discusses the institutional framework of Spanish provinces, and outlines the theoretical framework and research hypotheses. Section 3 presents the empirical strategy, including the sample, earnings management proxies, and model specification. Section 4 overviews the empirical findings, including descriptive statistics, correlation analysis, and a discussion of regression results. Finally, Section 5 concludes the paper.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In private firms, earnings management is a process where managers opportunistically manipulate information in the financial statements to pursue their own interests and mislead their users (Healy & Wahlen, 1999). In the public sector, the concept is similar, because politicians and managers can behave opportunistically and generate concerns to what extent financial statements are manipulable (Hepworth, 2003; Pilcher & Van Der Zahn, 2010).

2.1. Earnings management in the context of local entities

Earnings management behaviour is relevant in local entities as well as in the private sector, despite being driven by different reasons. Many researchers examined earnings management at a municipal level, but not at a provincial one, through the usage of specific accruals as proxies. In particular, Stalebrink and Sacco (2007) implemented an analysis of Swedish municipalities, finding that small surpluses have been generated by exploiting capital depreciation and asset write-offs. Pilcher and Van Der Zahn (2010) have discovered how local governments prefer to use depreciation in order to obtain higher capital contributions rather than generate higher surpluses. In addition, Pilcher (2011) investigated New South Wales local governments through the distinction between discretionary accruals and specific accruals; according to his findings, the usage of specific accruals to manipulate earnings is strongly influenced by the different political and social factors that, in turns, are driven by the specificities of the local governments.

In a study conducted by Arcas and Marti (2016), depreciation was found to be the most commonly manipulated account in the United Kingdom's local governments. Donatella et al. (2019) and Donatella (2020) discovered that auditors' fees influence the decision to engage in earnings management and that competition between majority and opposition parties affects the financial statements of Swedish municipalities. Anessi-Pessina and Sicilia (2020) investigated earnings manipulation in Italian municipalities and found that the individual characteristics and traits of top managers play a role in the extent of accounting manipulation. They also found that revenue misrepresentation is lower when there are female managers and those with degrees in business administration. Other researchers, such as Ferreira et al. (2013), Beck (2018), and Cohen et al. (2019), have used aggregate models to analyze earnings management practices. Ferreira et al. (2013) focused on Portuguese local governments and found that discretionary accruals tend to increase when

competition is strong to avoid criticism of how public resources are managed. Beck (2018) discovered that discretionary accruals are more commonly used in California municipalities before the issuance of new bonds, and there is a preference for reporting earnings close to zero rather than accounting deficits. Cohen et al. (2019) examined discretionary accruals manipulation in Greek and Italian local governments and found that both entities manipulate financial accounts to present results close to zero, and earnings management is influenced by political factors.

2.2. Earnings management and financial sustainability

The main goal of local entities is to provide goods and services in order to improve social welfare. Hence, they need to be financially healthy; in this sense, financial sustainability is one of the commonly used methods of evaluation (Cabaleiro et al., 2013). In fact, its lack paves the way to adverse effects on people's everyday lives which, in turn, put pressure on politicians who are more boosted by earnings management practices.

In 2013, the International Public Sector Accounting Standards Board (IPSASB) published practice guidelines, according to which long-term sustainability is defined as "the ability of an entity to meet service delivery and financial commitments both now and in the future" (IPSASB, 2013, p. 5). Therefore, the more public sector organizations are capable of financing goods and services both on short-term and long-term horizons, the more they are financially sustainable (Navarro-Galera et al., 2016). Financial sustainability refers to a state of balance between the well-being of citizens and the availability of resources (Zafra-Gómez et al., 2009; Bisogno et al., 2017; Cohen & Malkogianni, 2021).

Various researchers have examined sustainability from different perspectives. Ferreira et al. (2020) suggest that it serves as an indication of politicians maintaining a fair balance between costs and income. Bisogno et al. (2017) argue that sustainability is achieved when public goods and services are provided without increasing debt and taxation levels. Jean-François (2014) outlines the criteria for evaluating financial sustainability, including earnings generation, sufficient liquid assets for solvency, debt repayment, and efficient resource utilization in providing goods and services. Other researchers (Zafra-Gómez et al., 2009; Cabaleiro et al., 2013; Casal et al., 2014; Cuadrado-Ballesteros et al., 2014; Cuadrado-Ballesteros et al., 2019; Zafra-Gómez et al., 2014; Coelho, 2022) assess financial sustainability through indexes' computations based on financial statements accounts, namely income statement and balance sheet. Other studies focused on how social, political and economic factors impact local entities' sustainability like population size and unemployment rate (Brusca et al., 2015; Rodríguez-Bolívar et al., 2014), elections proximity and re-election willingness (García-Sánchez et al., 2014), political competition (Boyne, 1998), budget surplus or deficit (Rodríguez-Bolívar et al., 2016). There is also literature that investigates how politicians' opportunistic behaviours are likely to threaten sustainability. For example, Foucault et al. (2008) focus on election proximity, arguing that

the closer the elections the higher the probability of public expenditure manipulation by politicians. García-Sánchez et al. (2014) argued that local entities with unfavourable financial conditions are more boosted by the opportunistic behaviour of manipulating accounts in order to give a better outlook on financial sustainability. This behaviour is more pronounced during the election period where the intensity of multiple pressures and scrutiny increases.

2.3. The institutional setting of Spanish provinces

According to the new Constitution of 1978, Spain has three levels of government: central, regional (17 autonomous communities or regions) and local, that is to say, 50 provinces and 8124 municipalities. Despite their heterogeneity and territorial diversity, provinces play an important role in providing essential services since they are very close to the citizens. In particular, provincial councils (or regional councils, in case of single provinces regions) intervene in supporting municipalities, particularly the smallest ones, where the latter are not capable of managing and providing even the mandatory facilities and services. Therefore, provinces represent intermediate local government entities that, in the name of economies of scale and cooperation, fulfil goals that municipalities alone are not capable of achieving.

As previously mentioned, the 1978 Spanish Constitution established provinces to be an intermediate body between regional and municipal entities in those regions and islands with more than one province (because, as said before, in regions with only one province the regional government assumes also the provincial powers). In this sense, the Constitution guarantees provincial councils' autonomy; in other words, each province is considered as a local institution endowed with its own legal personality and autonomy in the management of its interests. Provinces still maintain a certain relevance at the local level, despite the autonomous communities (*comunidades autónomas* or regions), introduced during the Spanish transition process to democracy, have absorbed some of their powers. In fact, the central government transfers one-third of the available resources to finance local governments. Furthermore, there have been some important after Francisco Franco's dictatorship, in particular, Law 7/1985 of April 2, Regulating the Bases of the Local Regime and Law 27/2013 of December 27, on Rationalization and Sustainability of the Local Administration, which put into emphasis and strengthen the role of these local institutions, assigning them the responsibility of assuring suitable and financially sustainable local services and facilities throughout all the provincial territory and coordinating institutions within the province, along with regional and central level. Since their territorial diversity, provincial councils operate in a heterogeneous way; therefore, their impact as intermediate local entities varies across the 17 regions. Regional government replaces the provincial councils with their powers and responsibilities in those regions where only one province is present. To this category belong: Asturias, Cantabria, Madrid, Murcia, Navarra, and La Rioja. In the remaining 11 regions, there are

44 provinces. In turn, they are split into 38 common provincial councils (*Diputaciones de Régimen Común*), 3 chartered councils (*Diputaciones de Régimen Foral*) in the Basque Country, 2 *Cabildos* in the Canary Islands and 1 *Consejo Insular* in the Balearic Islands. Therefore, in Spain, there are 50 provinces but only 41 provincial councils, 2 *Cabildos* and 1 *Consejo Insular*, since regional governments incorporate the provincial powers in those regions where only one province is present (Asturias, Cantabria, Madrid, Murcia, Navarra, and La Rioja).

2.4. Public choice theory

Despite managers and politicians exploiting accruals to discretionary manipulate accounting numbers, the reasons underneath deserve further analysis. Public choice theory tries to explain this behaviour; in particular, it assesses the complex linkages in the political domain through the application of economic theory. To evaluate these interactions, it is important to underline that each individual pursues three needs: personal interests, utility maximization and rational decision-taking (Mueller, 1976). As a consequence, the desires of each individual, along with these needs, shape personal interests. According to Boyne (1998), two conditions drive interest satisfaction: the “self-interest axiom” and the “pressure from the competition”. The satisfaction of interests depends on the prevalence of certain conditions, with individuals seeking to satisfy their own affairs (Zimmerman, 1977). Politicians, according to Stalebrink and Sacco (2006), make decisions based on their own interests, such as winning elections, which can impact financial statements. Sørensen (2014) argues that having fewer opponent parties increases the likelihood of lower efficiency. Stakeholders, including voters, creditors, supervising authorities, and bureaucrats, also have their own interests and can exert pressure on politicians. The priority of public interest, such as providing high-quality services and maximizing social welfare, depends on the dissemination of accounting information. Politicians use financial statements to gain political benefits and manipulate public opinion. Conflicts of interest and information asymmetry between politicians and stakeholders drive earnings management manipulation (Boyne & Law, 1991; Guarini, 2016). The financial health of an entity contributes to social welfare, as it allows for better quality public services and local growth.

The public choice theory starts from the assumption that public administrators pursue their own interests instead of public ones, provided that all politicians think only about their satisfaction through opportunistic behaviours regardless of their political party, social and political impact (Stalebrink & Sacco, 2006; Foucault et al., 2008; García-Sánchez et al., 2014; Cohen & Malkogianni, 2021). In this sense, politicians/public administrators are fostered to manipulate earnings to mitigate stakeholders' pressures, to ensure better resource allocation and financial stability, as well as pressures related to their private interests. In other words, local administrators engage in earnings management actions in order to achieve a financial performance capable of fulfilling both their own interests and those of stakeholders.

2.5. Hypotheses development

Previous research has shown that local entities tend to avoid reporting high surpluses or deficits because they are perceived as indicators of excessive taxation or poor performance, respectively (Anthony, 1985; Pilcher & Van Der Zahn, 2010; Pilcher, 2011; Gosling, 2015). As a result, local administrators manipulate earnings figures in order to anticipate the reported surplus or deficit. This manipulation affects the size of discretionary accruals and the extent of earnings management. To investigate this, the study uses the absolute value of discretionary accruals as a proxy, calculated using the aggregate Jones's (1991) and modified Jones's models (Dechow et al., 1995). Additionally, the study computes the absolute pre-managed earnings for both accrual models to examine their relationship with absolute discretionary accruals and determine if there is evidence of reported managed earnings. It is expected a positive and significant association between discretionary accruals and pre-managed earnings due to the use of absolute values for both variables. This choice is crucial as it allows for the detection of the extent of earnings management when Spanish provincial councils aim to report earnings close to zero. Therefore, if there are high pre-managed earnings, positive or negative, it suggests that discretionary accruals are being used to bridge the gap and report earnings around zero. Based on these observations, the first hypothesis is as follows:

H1: The level of pre-managed earnings positively affects the magnitude of earnings management.

Numerous studies have demonstrated that financial statements contain valuable information about sustainability, leading to the development of ratios to assess their impact on reported earnings. Two key ratios used for this purpose are the quick asset ratio, which measures liquidity, and the debt-to-equity (D/E) ratio, which measures indebtedness and leverage. The D/E ratio indicates the percentage of debt used by a local entity to finance its assets and is commonly used to evaluate risk by lenders and creditors. Researchers have highlighted the significant role of leverage in affecting reported earnings, with lower leverage associated with income increases and higher leverage linked to income decreases. Studies by Arcas and Marti (2016) and Nguyen and Soobaroyen (2019) have explored the relationship between leverage and earnings management, with the introduction of a variable called LEV_{it} to assess the impact of D/E ratio on earnings management magnitude. Other researchers, such as Sweeney (1994), Jacoby et al. (2019), and Paiva et al. (2019), have found a connection between abnormal accruals and D/E ratio, suggesting that higher D/E ratios may incentivize municipalities to manipulate their reported earnings. As a result, a positive relationship between the D/E ratio (LEV_{it}) and the absolute value of discretionary accruals is anticipated. Given these observations, the second hypothesis is the following:

H2: The magnitude of earnings management increases with a higher debt-to-equity ratio.

In addition, those provincial councils in trouble in fulfilling their short-term obligations, are expected to undertake earnings management practices that are able to avoid the disclosure of this

shortcoming in the financial statements, especially the value of bad debts. In this research, it has been computed a liquidity ratio, the quick assets ratio ($QA_{i,t}$), which is expected to negatively affect the size of earnings management. Given these observations, the third hypothesis is the following:

H3: The magnitude of earnings management is negatively related to the quick asset ratio.

The empirical model includes several control variables, which are described in subsection 3.3.

3. RESEARCH METHODOLOGY

3.1. Research sample

The choice fell on Spanish provinces both because of the absence of earnings management analysis at the provincial level and because they have been the subject of debate and controversy for many years due to several cases of corruption and lack of transparency (Narbón-Perpiñá et al., 2021). The time period covered in this study is from 2017 to 2020, both because 2017 is the first year when Spanish provincial councils were not obliged to follow the national government directives imposed by the European Stability Mechanism (ESM) and because 2020 is the last year where financial information necessary for the analysis is complete.

The sample takes into account the audited financial statements of 41 provincial councils, 2 *Cabildos* and 1 *Consejo Insular* established by the 1978 new Spanish Constitution. The final sample is panel data extracted from the balance sheet, income and cash flow statements, from where regression models' explanatory variables have been computed. For each province, data have been downloaded from Portal de Rendición de Cuentas¹. Secondly, there have been selected variables that allowed the computations of those ratios, which have been later included in the regression models. Therefore, the final sample of Spanish provincial councils is a balanced panel data consisting of 176 annual financial statements (balance sheet, income statement and cash flow statement).

3.2. Discretionary accruals as a proxy for earnings management

As previously mentioned, accruals are used by managers to discretionarily manipulate earnings for opportunistic purposes. The analysis is divided into two stages. In the first one, there have been used two models to estimate earnings management in order to have two proxies. The first one is Jones's (1991) model. Many researchers agree that it provides an accurate estimation of discretionary accruals (Hribar & Nichols, 2007). In addition, Jones argues that it is preferable to examine the discretionary component of total accruals because it is more precise in detecting earnings management. Firstly, total accruals ($TACC_{i,t}$) are defined as follows:

$$TACC_{i,t} = NE_{i,t} - CFO_{i,t} \quad (1)$$

where, $NE_{i,t}$ and $CFO_{i,t}$ are the net earnings and operating cash flows of firm i at year t , respectively.

In order to estimate the discretionary accrual component, the aggregate Jones's (1991) regression model has been used:

$$\frac{TACC_{i,t}}{TA_{i,t-1}} = \alpha_0 + \alpha_1 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + \alpha_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) + \varepsilon_{i,t} \quad (2)$$

where,

- $TA_{i,t-1}$ — total assets of observation i at year $t - 1$;
- $\Delta REV_{i,t}$ — revenues at year t minus revenues at year $t - 1$ for observation i ;
- $PPE_{i,t}$ — gross property, plant and equipment in year t for observation i ;
- $\varepsilon_{i,t}$ — error term.

The coefficients α_1 , α_2 and α_3 in Eq. (2) are estimated every year from 2017 to 2020 through ordinary least squares (OLS) regression. Property, plant and equipment and changes in revenues have the purpose of controlling for non-discretionary accruals effect due to external conditions (Gujarati, 1995). Secondly, non-discretionary accruals ($NDA_{i,t}$) are estimated for each province as follows:

$$NDA_{i,t} = \alpha_1 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + \alpha_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) \quad (3)$$

The discretionary accruals are the residuals of the model:

$$DA_{i,t} = \hat{\varepsilon}_{i,t} = \left(\frac{TACC_{i,t}}{TA_{i,t-1}} \right) - NDA_{i,t} \quad (4)$$

However, following Dechow et al. (1995), this paper also used a modified version of Jones's model in order to take into account potential biased estimation of discretionary accruals. Dechow et al. (1995) leave the definition of total accruals unchanged but estimate non-discretionary accruals as follows:

$$NDA_{i,t} = \alpha_1 \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} \right) + \alpha_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) \quad (5)$$

where, $REC_{i,t}$ is net receivables, and the remaining variables are defined as in Eq. (3). Following McNichols (2000), the modified Jones's model is used to provide an alternative estimate for discretionary accruals. Also, here the coefficients α_1 , α_2 and α_3 are estimated every year from 2017 to 2020 through OLS regression. Again, the discretionary accruals are the residuals of the model:

$$DA_{i,t} = \hat{\varepsilon}_{i,t} = \left(\frac{TACC_{i,t}}{TA_{i,t-1}} \right) - NDA_{i,t} \quad (6)$$

¹ <https://www.rendiciondecuentas.es/es/consultadeentidadesycuentas/>

3.3. Model specification

In the second stage, the two discretionary accrual proxies obtained from Jones's (1991) and Dechow et al.'s (1995) models become the new dependent

variables; hence, two separate models (one for each proxy) including both income and politically related variables are implemented in order to gauge what are the factors that affect the outcome variable $DA_{i,t}$:

$$|JDA_{i,t}| = \gamma_0 + \gamma_1 |JEBDA_{i,t}| + \gamma_2 LEV_{i,t} + \gamma_3 QA_{i,t} + \gamma_4 size_{i,t} + \gamma_5 dNE_{i,t-1} + \gamma_6 dCFO_{i,t} + \gamma_7 Pr_elec_{i,t} + \gamma_8 EL_year_{i,t} + \gamma_9 Def_compl_{i,t} + \varepsilon_{i,t} \quad (7)$$

$$|MJDA_{i,t}| = \gamma_0 + \gamma_1 |MJEBDA_{i,t}| + \gamma_2 LEV_{i,t} + \gamma_3 QA_{i,t} + \gamma_4 size_{i,t} + \gamma_5 dNE_{i,t-1} + \gamma_6 dCFO_{i,t} + \gamma_7 Pr_elec_{i,t} + \gamma_8 EL_year_{i,t} + \gamma_9 Def_Compl_{i,t} + \varepsilon_{i,t} \quad (8)$$

where,

- $|JDA_{i,t}|$ and $|MJDA_{i,t}|$ are the absolute discretionary accruals obtained from Jones's (1991) and Dechow et al.'s (1995) models, respectively, for province i in year t ;

- $|JEBDA_{i,t}|$ and $|MJEBDA_{i,t}|$ are the absolute values of earnings before discretionary accruals, computed as net earnings minus discretionary accruals of Jones's and Dechow's models, respectively, for province i in year t ;

- $LEV_{i,t}$ is the D/E ratio for province i in year t ;
- $QA_{i,t}$ is the quick assets ratio (defined as current assets minus inventory deflated by current liabilities) for province i in year t ;

- $size_{i,t}$ is defined as the natural logarithm of the current year's total assets;

- $dNE_{i,t-1}$ is the dummy variable of the previous year's reported earnings that takes the value 1 if the reported earnings are positive and 0 otherwise;

- $dCFO_{i,t}$ is the dummy variable of the operating cash flows that takes the value 1 if the operating cash flows of municipality i are positive and 0 otherwise;

- Pr_elec is a dummy variable that takes the value 1 for the year before the elections (i.e., 2018) and 0 otherwise;

- EL_year is a dummy variable that takes the value 1 for the election year (i.e., 2019) and 0 otherwise;

- Def_Compl is a dummy variable that takes the value 1 if provinces comply with the deficit rules and 0 otherwise. Naturally, the time span is always from 2017 to 2020.

4. RESEARCH RESULTS AND DISCUSSION

4.1. Descriptive statistics and correlation analysis

The histogram of Figure 1 shows the features and the frequency distribution of net earnings. According to this graph, the majority of observations are concentrated on the right (above zero); hence, this means that the majority of provinces finally report surpluses rather than deficits. It can be considered as a sign of earnings management because it seems that public administrators (politicians) try to manipulate earnings in order to achieve better performances to report in financial statements.

Figure 1. Histogram of the frequency distribution of net earnings

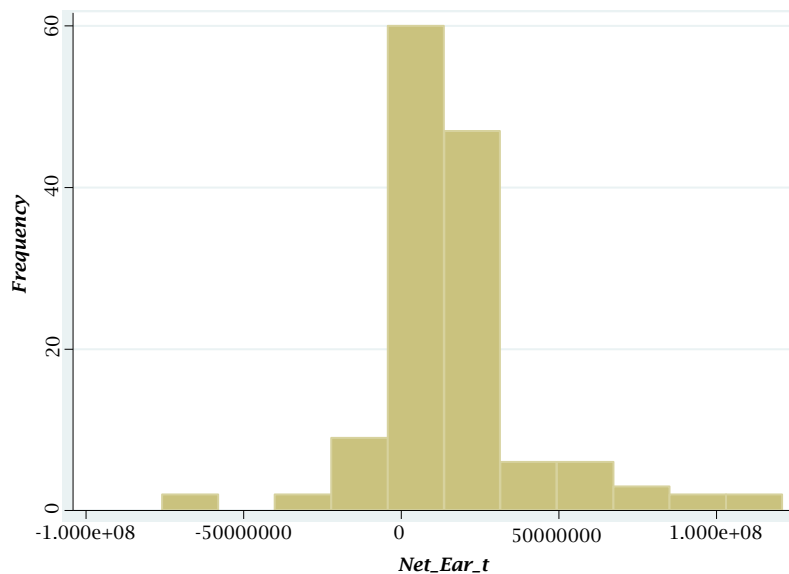


Table 1. Descriptive statistics

Variables	N	Mean	Median	Std. dev.	Q1	Q3	Min	Max
JDA _{it}	176	0.025	0.028	0.210	-0.050	0.121	-0.234	0.416
MJDA _{it}	176	0.021	0.023	0.210	-0.058	0.112	-0.242	0.405
JEBDA _{it}	176	0.032	0.029	0.302	0.005	0.017	-0.526	0.631
MJEBDA _{it}	176	0.030	0.031	0.315	0.007	0.023	-0.572	0.658
LEV _{it}	176	0.146	0.132	0.184	0.102	0.153	0.095	0.208
QA _{it}	176	5.565	3.382	8.71	2.483	7.810	-12.625	19.055
size _{it}	176	19.935	18.812	4.682	1.836	4.829	1.264	21.658
dNE _{it-1}	176	0.675	0.612	0.527	0	1	0	1
dCFO _{it}	176	0.682	0.634	0.563	0	1	0	1
Pr_elec _{it}	176	0.952	0.948	0.002	1	1	0	1
EL_year _{it}	176	0.952	0.948	0.002	1	1	0	1
Def_Compl _{it}	176	0.726	0.705	0.493	1	0	0	1

Table 1 summarizes the descriptive statistics of the models' variables. After having regressed total accruals in both Jones's and Dechow's models, non-discretionary accruals have been predicted. Then discretionary accruals were computed by subtracting non-discretionary accruals from total accruals. Discretionary accruals have been defined in absolute terms (with no sign). Also, earnings before discretionary accruals have been computed in

absolute terms. Leverage, quick assets ratio and size have been extracted from items contained in the balance sheet and income statements. The mean of leverage is 14.6%. More than 50% of provinces respect the deficit compliance rule (mean = 0.726). In addition, almost all provinces vote at the end of their natural legislature term (pre-election and election year mean = 0.952).

Table 2. Correlation matrix

Variables	JDA _{it}	JEBDA _{it}	MJDA _{it}	MJEBDA _{it}	LEV _{it}	QA _{it}	size _{it}	dNE _{it-1}	dCFO _{it}	Pr_elec _{it}	EL_year _{it}	Def_Compl _{it}
JDA _{it}	1											
JEBDA _{it}	0.569***	1										
MJDA _{it}	0.825***	0.753***	1									
MJEBDA _{it}	0.718***	0.782***	0.641***	1								
LEV _{it}	0.258***	0.219***	0.263***	0.197***	1							
QA _{it}	-0.098***	-0.011	-0.084***	-0.019	-0.534***	1						
size _{it}	-0.186***	-0.179***	-0.161***	-0.168***	-0.016	-0.043	1					
dNE _{it-1}	-0.036	-0.053*	-0.022	-0.061*	-0.035	0.205***	0.087***	1				
dCFO _{it}	-0.251***	-0.387***	-0.223***	-0.372***	-0.071***	0.208***	-0.017	-0.103**	1			
Pr_elec _{it}	0.079***	-0.002	0.096***	-0.013	-0.004	-0.022	-0.013	-0.098**	-0.153**	1		
EL_year _{it}	-0.002	-0.019	-0.005	-0.027	-0.022	0.046	-0.013	-0.033	0.026	-0.273***	1	
Def_Compl _{it}	-0.116***	-0.178***	-0.131**	-0.193**	0.078*	0.096*	-0.052	0.192**	0.124**	0.023	0.014	1

Note: *, **, *** are significantly different from zero at the 0.10, 0.05, and 0.01 levels, respectively.

Table 2 presents the correlation matrix of the variables. Many coefficients are statistically significant. Apart from the higher correlations between discretionary accruals and earnings before discretionary accruals of Jones's and modified Jones's models due to their high variables' similarity, all the other correlation coefficients are below ± 0.8 or ± 0.9 , indicating that multicollinearity is absent in the models' estimation, so that they will proxy for the factors taken into account.

4.2. Research findings

The results of the regressions are summarized in Table 3. However, it is important to discuss several diagnostic tests that were conducted separately for both models. Firstly, the Lagrange multiplier (LM) test and Hausman test have been implemented to verify which is the most suitable model to choose in the models' estimation among pooled OLS, random effect (RE) or fixed effect (FE) regressions. The p-values of both tests are lower than 0.01, indicating that FE is the most appropriate regression model to adopt. Secondly, both the Pesaran and modified Wooldridge tests are significant at a level better than 0.01, indicating the presence of cross-sectional dependence and heteroskedasticity in both models. The LM-test for serial correlation is not

significant at 0.1, suggesting no first-order correlation in either model. Based on these findings, the models have been estimated using fixed effects and adjusted the standard errors following Driscoll and Kraay (1998). To check for potential multicollinearity issues, the variance inflation factor (VIF) test has been conducted in the two models; in both cases, its value is below 2, indicating that multicollinearity is absent in the models' estimation (Farrar & Glauber, 1967). The next part of this section discusses the results. In both of them, absolute values of earnings before discretionary accruals, quick assets ratio and the dummies for pre-election, operating cash flows, and lagged net earnings are statistically significant. The magnitude of earnings management practices has a positive relationship with absolute values of earnings before discretionary accruals, quick assets ratio, lagged net earnings and pre-election dummies, whereas it is negatively related to the operating cash flows dummy. Therefore, the elections proximity, higher lagged net earnings, absolute values of earnings before discretionary accruals, quick assets ratio and lower current cash flows from operations enhance the extent of earnings manipulation. As a consequence, H1 is consistent with the regressions' results and is accepted. However, H3 is rejected in both models, since the relationship between discretionary accruals

and quick ratio is significant but positive instead of negative as assumed. Regarding the leverage, the relationship is negative and not statistically significant in both models, in contrast with the results obtained by Cohen et al. (2019) and Cohen and Malkogianni (2021); hence, *H2* is also rejected. As previously mentioned, the quick asset ratio (as a proxy for the liquidity ratio), is negatively related to discretionary accruals. This means that provincial councils with high liquidity indicators tend to manipulate upwards the discretionary accruals, to reach a better financial outlook. The relationship between size and discretionary accruals is negative and not statistically significant, consistent with previous literature (Ge & Kim, 2014; Xu et al., 2019; Coelho, 2022). The pre-election variable shows a positive relationship with discretionary accruals in both models, in line with the results of Cohen et al. (2019), according to which, election proximity positively affects earnings management in Greek municipalities. Hence, in the year preceding elections, politicians frequently engage in the manipulation of financial statements, seeking to bolster their political image among voters. Election year does not affect the magnitude of earnings manipulation. One reason could be that the elections in Spanish provincial councils occur simultaneously, hence creating more pressure on the political scene. The positive significant relationship between discretionary accruals and lagged net earnings is in line with the results of Leone and Van Horn (2005). Moreover, the deficit compliance variable does not have a significant effect on discretionary accruals in both models. To sum up, Spanish provincial councils engage in earnings manipulation practices when absolute values of earnings before discretionary accruals are positive. Therefore, politicians tend to manipulate accrual accounting in order to reach the break-even position or positive surpluses. However, it is likely that the latter comes from higher taxes with respect to the quality of goods and services provided rather than an efficient and effective management of financial resources (Hodges, 2017). Among the political variables used as proxies for public choice theory application, only the pre-election year is significant. Hence, politicians are more prone to let financial statements have a better outlook through earnings manipulation in order to attract electors' consent, to be re-elected for another mandate. However, these intentions may be undermined by the pressuring supervision exercised by supra-national authorities like the European Commission or International Monetary Fund, which have given much aid to Spain, in particular, access to subsidized loans through the ESM in exchange for austerity policies. This clearly represents a serious hurdle to take into account by local public administrators, because they are obliged to pursue both their interests (the re-election) and those imposed by supervising authorities (respect the agreed targeted financial parameters). Finally, the higher the province's financial autonomy, the lower the incentive to manipulate earnings, it demonstrates a better planning capacity with no need to improve its image to voters.

Table 3. Regression results

Independent variable	Jones's model	Modified Jones's model
JEBDA	0.850*** (0.108)	
MJEBDA		0.843*** (0.045)
LEV	-0.045 (0.025)	-0.062 (0.052)
QA	0.002** (0.001)	0.002** (0.001)
size	-0.030 (0.070)	-0.032 (0.041)
dNE	0.045** (0.011)	0.042** (0.006)
dCFO	-0.033** (0.016)	-0.045** (0.013)
Pr_elec	0.015* (0.007)	0.011* (0.004)
EL_year	0.001 (0.005)	0.001 (0.002)
Def_Compl	-0.002 (0.007)	-0.001 (0.005)
Constant	0.373** (0.103)	0.378* (0.121)
Mean VIF	1.07	1.12
LM-poolability test	< 0.01	< 0.01
Hausman test	< 0.01	< 0.01
Pesaran cross-sectional dependence test	< 0.01	< 0.01
Modified Wooldridge test	< 0.01	< 0.01
Serial correlation test	0.18	0.24
F-test for overall significance	< 0.01	< 0.01
N	176	176
R ²	0.432	0.441

Note: *, **, *** are significantly different from zero at the 0.10, 0.05, and 0.01 levels, respectively. Standard errors are presented in parentheses. The p-value for the Breusch-Pagan LM-test is referred to as LM-poolability. The p-value for the Hausman test is simply called Hausman. The p-value for the Pesaran cross-sectional dependence test is known as Pesaran. The modified Wald test's p-value is called modified Wooldridge. The p-value for the LM-test for serial correlation is referred to as serial correlation. The p-value for the F-test, which tests for overall significance, is simply called the F-test. The coefficient of determination for a regression is denoted as R². N represents the number of observations used to estimate the model when fixed effects are employed.

5. CONCLUSION

While most of the literature has examined earnings manipulation practices in the private sector, only a few studies have focused on this issue in the public sector framework. This research gives an academic contribution to this topic by analysing, for the first time, Spanish provincial councils' financial statements along with political factors in earnings manipulation in the context of the public sector where there is a coexistence between personal interests and accounting pressures. The results show how financial data can be manipulated by politicians because of the continuous pressures from stakeholders (for example, media, taxpayers and voters). Hence, this pressure fosters public administrators to manipulate accounting items. In this sense, public choice theory may intervene in trying to explain the potential reasons to manipulate earnings. In particular, among these, there is the need to comply with specific parameter targets imposed by supervising authorities or to reach the break-even point. This study puts into evidence how higher net earnings and quick assets ratio and lower operating cash flows enhance politicians in undertaking creative earnings management practices. The deficit compliance instead has not had

a statistically significant impact on the magnitude of earnings management, probably because reaching a surplus is not the primary goal of the public sector, although it can be a useful tool to exploit by politicians in order to reach their self-interests. As for political factors, the pre-election year has a statistically significant impact on earnings management practices. This, in some ways, is not a surprise because when political elections get closer, politicians undertake policies that both assure financial sustainability and let them appear as reliable people to whom entrust the guidance of the public entity. In addition, earnings manipulation can be boosted by the strong pressures from supervising authorities, citizens, opponent parties and media. Therefore, a policy implication is that the elections incoming and the presence of watchdogs put pressure on politicians who are more oriented to accounting manipulations. The results of this study have important implications, especially for enhancing monitoring practices. By integrating information from both cash and accrual accounting systems, audit authorities can strengthen their monitoring efforts. The proposed model can also be beneficial for non-profit organizations that use cash or modified cash accounting, as it can help detect signs of earnings manipulation. The research findings can be valuable for public sector entities similar to Spanish provinces, as they can aid in identifying potential risks in financial reporting. Additionally, this research can raise awareness among elected officials and stakeholders about the manipulation of earnings in entities that rely on subsidies. Policymakers and legislators should consider the findings of this research when implementing accounting reforms. Moreover, this study can stimulate further research on earnings

manipulation by examining various aspects of budgeting practices. This paper is not without limitations. In this work, discretionary accruals have been computed through two accrual-based models, which are Jones's (1991) and modified Jones's models (Dechow et al., 1995). Future works can ascertain if the main results of this paper remain unchanged if other accounting-based (Kothari et al., 2005; Stubben, 2010) or also real-based methods (Cohen et al., 2008; Roychowdhury, 2006) for detecting earnings management practices are used. Earnings manipulation in the public sector context has received more attention in these years. Many researchers underline how earnings management has to be investigated in the light of accounting reforms as well as financial situations and political factors. In this sense, this paper paves the way for further research on earnings management. Firstly, the linkage between reported accounting items and target values established by the government may be investigated for financial distress tests. Secondly, the relationship between the International Public Sector Accounting Standards (IPSAS) convergence criteria and the magnitude of earnings manipulation could be examined in order to test if international standards implementation mitigates earnings management extent. Thirdly, the association between auditing and earnings management might give useful hints regarding financial reporting quality under different auditing systems. Finally, future research should improve the analysis on which are the factors affecting public sector earnings management practices because, directly or indirectly, politicians' accounting choices will affect our lives in terms of taxes to pay and goods or services quality provided.

REFERENCES

- Anessi-Pessina, E., & Sicilia, M. (2020). Do top managers' individual characteristics affect accounting manipulation in the public sector? *Journal of Public Administration Research and Theory*, 30(3), 465-484. <https://doi.org/10.1093/jopart/muz038>
- Anthony, R. N. (1985). Games government accountants play. *Harvard Business Review*, 63(5), 161-170. <https://linomartins.wordpress.com/wp-content/uploads/2010/11/games-government-accountants-play.pdf>
- Arcas, M. J., & Marti, C. (2016). Financial performance adjustment in English local governments. *Australian Accounting Review*, 26(2), 141-152. <https://doi.org/10.1111/auar.12094>
- Beck, A. W. (2018). Opportunistic financial reporting around municipal bond issues. *Review of Accounting Studies*, 23, 785-826. <https://doi.org/10.1007/s11142-018-9454-2>
- Bisogno, M., Cuadrado-Ballesteros, B., & García-Sánchez, I. M. (2017). Financial sustainability in local governments: Definition, measurement and determinants. In M. P. Rodríguez-Bolívar (Ed.), *Financial sustainability in public administration: Exploring the concept of financial health* (pp. 57-83). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-57962-7_3
- Boyne, G. A. (1998). *Public choice theory and local government: A comparative analysis of the UK and the USA*. Palgrave Macmillan. <https://doi.org/10.1057/9780230373099>
- Boyne, G., & Law, J. (1991). Accountability and local authority annual reports: The case of Welsh district councils. *Financial Accountability & Management*, 7(3), 179-194. <https://doi.org/10.1111/j.1468-0408.1991.tb00349.x>
- Brusca, I., Rossi, F. M., & Aversano, N. (2015). Drivers for the financial condition of local government: A comparative study between Italy and Spain. *Lex Localis — Journal of Local Self-Government*, 13(2), 161-184. [https://doi.org/10.4335/13.2.161-184\(2015\)](https://doi.org/10.4335/13.2.161-184(2015))
- Cabaleiro, R., Buch, E., & Vaamonde, A. (2013). Developing a method to assessing the municipal financial health. *The American Review of Public Administration*, 43(6), 729-751. <https://doi.org/10.1177/0275074012451523>
- Capalbo, F., Frino, A., Mollica, V., & Palumbo, R. (2014). Accrual-based earnings management in state owned companies. *Accounting, Auditing & Accountability Journal*, 27(6), 1026-1040. <https://doi.org/10.1108/AAAJ-06-2014-1744>
- Caperchione, E., & Mussari, R. (2000). *Comparative issues in local government accounting* (1st ed.). Springer. <https://doi.org/10.1007/978-1-4615-4581-1>
- Casal, R. C., Gómez, E. J. B., & Liste, A. V. (2014). Situación financiera y partidos políticos en los gobiernos locales: evidencia empírica en los municipios españoles [Financial situation and political parties in local governments: Empirical evidence in the Spanish municipalities]. *Investigaciones Europeas de Dirección y Economía de la Empresa*, 20(3), 110-121. <https://doi.org/10.1016/j.iedee.2013.11.001>

- Coelho, L. S. (2022). Earnings management in municipal firms: Evidence from Portugal. *Journal of Public Budgeting, Accounting & Financial Management*, 34(4), 512-533. <https://doi.org/10.1108/JPBAFM-02-2022-0026>
- Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley periods. *The Accounting Review*, 83(3), 757-787. <https://doi.org/10.2308/accr.2008.83.3.757>
- Cohen, S., & Malkogianni, I. (2021). Sustainability measures and earnings management: Evidence from Greek municipalities. *Journal of Public Budgeting, Accounting & Financial Management*, 33(4), 365-386. <https://doi.org/10.1108/JPBAFM-10-2020-0171>
- Cohen, S., Bisogno, M., & Malkogianni, I. (2019). Earnings management in local governments: The role of political factors. *Journal of Applied Accounting Research*, 20(3), 331-348. <https://doi.org/10.1108/JAAR-10-2018-0162>
- Cuadrado-Ballesteros, B., Mordàn, N., & García-Sánchez, I.-M. (2014). Is local financial health associated with citizens' quality of life? *Social Indicators Research*, 119, 559-580. <https://doi.org/10.1007/s11205-013-0533-2>
- Cuadrado-Ballesteros, B., Santis, S., Citro, F., & Bisogno, M. (2019). Does financial health influence the re-election of local governments? *Journal of Public Budgeting, Accounting & Financial Management*, 31(3), 345-363. <https://doi.org/10.1108/JPBAFM-10-2018-0114>
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193-225. http://sseriga.free.fr/course/uploads/FA%20-%20PM/Dechow_et_al_1995.pdf
- Donatella, P. (2020). Is political competition a driver of financial performance adjustments? An examination of Swedish municipalities. *Public Money & Management*, 40(2), 122-130. <https://doi.org/10.1080/09540962.2019.1667684>
- Donatella, P., Haraldsson, M., & Tagesson, T. (2019). Do audit firm and audit costs/fees influence earnings management in Swedish municipalities? *International Review of Administrative Sciences*, 85(4), 673-691. <https://doi.org/10.1177/0020852317748730>
- Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *The Review of Economics and Statistics*, 80(4), 549-560. <https://doi.org/10.1162/003465398557825>
- Eshleman, J. D., & Guo, P. (2020). Do seasoned industry specialists provide higher audit quality? A re-examination. *Journal of Accounting and Public Policy*, 39(6), Article 106770. <https://doi.org/10.1016/j.jaccpubpol.2020.106770>
- Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: The problem revisited. *The Review of Economic and Statistics*, 49(1), 92-107. <https://doi.org/10.2307/1937887>
- Ferreira, A., Carvalho, J., & Pinho, F. (2013). Earnings management around zero: A motivation to local politician signalling competence. *Public Management Review*, 15(5), 657-686. <https://doi.org/10.1080/14719037.2012.707679>
- Ferreira, A., Carvalho, J., & Pinho, F. (2020). Political competition as a motivation for earnings management close to zero: The case of Portuguese municipalities. *Journal of Public Budgeting, Accounting & Financial Management*, 32(3), 461-485. <https://doi.org/10.1108/JPBAFM-10-2018-0109>
- Foucault, M., Madies, T., & Paty, S. (2008). Public spending interactions and local politics. Empirical evidence from French municipalities. *Public Choice*, 137, 57-80. <https://doi.org/10.1007/s11127-008-9312-z>
- García-Sánchez, I.-M., Mordàn, N., & Cuadrado-Ballesteros, B. (2014). Do electoral cycles affect local financial health? *Policy Studies*, 35(6), 533-556. <https://doi.org/10.1080/01442872.2014.971727>
- Ge, W., & Kim, J.-B. (2014). Boards, takeover protection, and real earnings management. *Review of Quantitative Finance and Accounting*, 43, 651-682. <https://doi.org/10.1007/s11156-013-0388-2>
- Gosling, J. J. (2015). *Budgetary politics in American governments* (6th ed.). Routledge. <https://doi.org/10.4324/9781315673714>
- Guarini, E. (2016). The day after: Newly-elected politicians and the use of accounting information. *Public Money & Management*, 36(7), 499-506. <https://doi.org/10.1080/09540962.2016.1237135>
- Gujarati, D. N. (1995). *Basic econometrics* (3rd ed.). McGraw-Hill.
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365-383. <https://doi.org/10.2308/acch.1999.13.4.365>
- Hepworth, N. (2003). Preconditions for successful implementation of accrual accounting in central government. *Public Money & Management*, 23(1), 37-44. <https://doi.org/10.1111/1467-9302.00339>
- Hodges, R. (2017, June 8). *Public sector creative accounting: Past reflections and a future research agenda* [Conference presentation]. CIGAR Conference, Porto, Portugal. https://web.ipca.pt/cigar/presentation/2017-06_Creative_Accounting_CIGAR-web-site.pdf
- Hribar, P., & Nichols, C. (2007). The use of unsigned earnings quality measures in tests of earnings management. *Journal of Accounting Research*, 45(5), 1017-1053. <https://doi.org/10.1111/j.1475-679X.2007.00259.x>
- International Public Sector Accounting Standards Board (IPSASB). (2013). *Recommended practice guideline: Reporting on the long-term sustainability of an entity's finances*. International Federation of Accountants (IFAC). <https://www.ipsasb.org/publications/recommended-practice-guideline-1>
- Jacoby, G., Li, J., & Liu, M. (2019). Financial distress, political affiliation and earnings management: The case of politically affiliated private firms. *The European Journal of Finance*, 25(6), 508-523. <https://doi.org/10.1080/1351847X.2016.1233126>
- Jean-François, E. (2014). *Financial sustainability for non-profit organizations*. Springer.
- Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, 29(2), 193-228. <https://doi.org/10.2307/2491047>
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163-197. <https://doi.org/10.1016/j.jacceco.2004.11.002>
- Law 27/2013 of December 27, on Rationalization and Sustainability of the Local Administration. *Boletín Oficial del Estado*, 312. <https://www.boe.es/eli/es/l/2013/12/27/con>
- Law 7/1985 of April 2, Regulating the Bases of the Local Regime. *Boletín Oficial del Estado*, 80. <https://www.boe.es/eli/es/l/1985/04/02/7/con>
- Leone, A. J., & Van Horn, R. L. (2005). How do nonprofit hospitals manage earnings? *Journal of Health Economics*, 24(4), 815-837. <https://doi.org/10.1016/j.jhealeco.2005.01.006>
- McNichols, M. F. (2000). Research design issues in earnings management studies. *Journal of Accounting and Public Policy*, 19(4), 313-345. [https://doi.org/10.1016/S0278-4254\(00\)00018-1](https://doi.org/10.1016/S0278-4254(00)00018-1)

- Mueller, D. C. (1976). Public choice: A survey. *Journal of Economic Literature*, 14(2), 395-433. <https://www.jstor.org/stable/2722461>
- Narbòn-Perpiñá, I., Balaguer-Coll, M. T., Prior, D., & Tortosa-Ausina, E. (2021). Searching for the optimal territorial structure: The case of Spanish provincial councils. *Regional Studies*, 55(4), 645-664. <https://doi.org/10.1080/00343404.2020.1842353>
- Navarro-Galera, A., Rodríguez-Bolívar, M. P., Alcaide-Muñoz, L., & López-Subires, M. D. (2016). Measuring the financial sustainability and its influential factors in local governments. *Applied Economics*, 48(41), 3961-3975. <https://doi.org/10.1080/00036846.2016.1148260>
- Nguyen, T., & Soobaroyen, T. (2019). Earnings management by non-profit organizations: Evidence from UK charities. *Australian Accounting Review*, 29(1), 124-142. <https://doi.org/10.1111/auar.12242>
- Paiva, I. S., Lourenço, I. C., & Dias Curto, J. (2019). Manipulación de resultados en las empresas familiares frente a las no familiares: La influencia de la cobertura de los analistas [Earnings management in family versus non-family firms: The influence of analyst coverage]. *Spanish Journal of Finance and Accounting/Revista Espanola de Financiación y Contabilidad*, 48(2), 113-133. <https://doi.org/10.1080/02102412.2018.1463764>
- Pilcher, R. (2011). Local governmental management of discretionary and specific accruals. *International Journal of Accounting, Auditing and Performance Evaluation*, 7(1), 32-60. <https://doi.org/10.1504/IJAAPE.2011.037725>
- Pilcher, R., & Van Der Zahn, M. (2010). Local governments unexpected depreciation and financial performance adjustment. *Financial Accountability & Management*, 26(3), 299-324. <https://doi.org/10.1111/j.1468-0408.2010.00503.x>
- Rodríguez-Bolívar, M. P., Navarro-Galera, A., & Alcaide-Muñoz, L., (2014). New development: The role of accounting in assessing local government sustainability. *Public Money & Management*, 34(3), 233-236. <https://doi.org/10.1080/09540962.2014.908035>
- Rodríguez-Bolívar, M. P., Navarro-Galera, A., Alcaide-Munoz, L., & López-Subires, M. D. (2016). Risk factors and drivers of financial sustainability in local government: An empirical study. *Local Government Studies*, 42(1), 29-51. <https://doi.org/10.1080/03003930.2015.1061506>
- Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335-370. <https://doi.org/10.1016/j.jacceco.2006.01.002>
- Ruggiero, P., Sorrentino, D., & Mussari, R. (2022). Earnings management in state-owned enterprises: Bringing publicness back in. *Journal of Management and Governance*, 26, 1277-1313. <https://doi.org/10.1007/s10997-021-09589-3>
- Sørensen, R. J. (2014). Political competition, party polarization, and government performance. *Public Choice*, 161, 427-450. <https://doi.org/10.1007/s11127-014-0168-0>
- Stalebrink, O. J., & Sacco, J. F. (2006). Public sector investment failures: Theoretical contributions from new institutional and Austrian economic theory. *Journal of Public Budgeting, Accounting & Financial Management*, 18(3), 351-375. <https://doi.org/10.1108/JPBAFM-18-03-2006-B005>
- Stalebrink, O. J., & Sacco, J. F. (2007). Rationalization of financial statement fraud in government: An Austrian perspective. *Critical Perspectives on Accounting*, 18(4), 489-507. <https://doi.org/10.1016/j.cpa.2006.01.009>
- Stubben, S. R. (2010). Discretionary revenues as a measure of earnings management. *The Accounting Review*, 85(2), 695-717. <https://doi.org/10.2308/accr.2010.85.2.695>
- Sweeney, A. P. (1994). Debt-covenant violations and managers' accounting responses. *Journal of Accounting and Economics*, 17(3), 281-308. [https://doi.org/10.1016/0165-4101\(94\)90030-2](https://doi.org/10.1016/0165-4101(94)90030-2)
- Windisch, D. (2021). Enforcement, managerial discretion, and the informativeness of accruals. *European Accounting Review*, 30(4), 705-732. <https://doi.org/10.1080/09638180.2020.1771393>
- Xu, H., Dao, M., & Wu, J. (2019). The effect of local political corruption on earnings quality. *Review of Quantitative Finance and Accounting*, 53, 551-574. <https://doi.org/10.1007/s11156-018-0758-x>
- Zafra-Gómez, J. L., López-Hernández, A. M., & Hernández-Bastida, A. (2009). Evaluating financial performance in local government: Maximizing the benchmarking value. *International Review of Administrative Sciences*, 75(1), 151-167. <https://doi.org/10.1177/0020852308099510>
- Zafra-Gómez, J. L., Pedauga, L. E., Plata-Díaz, A. M., & López-Hernández, A. M. (2014). ¿Usan los ayuntamientos las formas de gestión de la Nueva Gestión Pública para superar sus crisis financieras? [Do local authorities use NPM delivery forms to overcome problems of fiscal stress?]. *Spanish Journal of Finance and Accounting/Revista Espanola de Financiación y Contabilidad*, 43(1), 21-46. <https://doi.org/10.1080/02102412.2014.890823>
- Zimmerman, J. L. (1977). The municipal accounting maze: An analysis of political incentives. *Journal of Accounting Research*, 15, 107-144. <https://doi.org/10.2307/2490636>