

Financial sustainability of local authorities in England and Spain: a comparative empirical study

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Abstract

In recent years, the financial sustainability (FS) of local governments has been recognised as a concept of crucial importance in ensuring that public services may continue to be delivered to future generations. Although many European countries have implemented programmes to enhance their FS, local authorities (LAs) are characterised by differing administrative traditions and achieve diverse outcomes in response to the reforms made. Taking a comparative approach, the present study identifies institutional, macroeconomic and microeconomic factors which might influence local authorities FS in England and Spain, in order to determine and explain similarities and differences in the drivers and risk factors for FS in local authorities' provision of public services.

Keywords

Financial sustainability; Local authorities; Intergenerational equity

1 Introduction

The global financial and economic crisis and the resulting search for greater efficiency, accountability and local democracy in public administrations have highlighted the

importance of financial sustainability (FS) in public sector management (Rodríguez et al., 2014). This concept is especially significant in local authorities (LAs) which manage large budgets, high volumes of deficit and debt (Muñoz-Cañavate and Hípola, 2011) and provide a wide variety of public services. To enhance FS in local authorities, countries such as the UK and Spain have implemented reforms based on the New Public Management (NPM) model (Laffin, 2016). However, these countries have differing administrative and organisational traditions, and this factor could influence the policy changes applied in search of sustainability (Dasí et al., 2013). In this respect, practice in the UK model is based on the Anglo-Saxon (managerial) tradition, while LAs in Spain is characterised by the Southern European/Continental (bureaucratic) culture.

We examined and compared the FS of local authorities in Spain and England (municipalities in Scotland, N. Ireland and Wales were excluded from this analysis). This inter-country comparison reflected differences in their implementation of NPM, in the devolution of competences to LAs (HM Treasury, 2015b), in the public services provided and in the budget cuts applied (Randma-Liiv and Kickert, 2017). Although sustainability programmes are expected to produce convergence towards an isomorphic equilibrium among EU members, previous studies have failed to explain why LAs in different countries obtain contrasting outcomes in the presence of similar changes to their administrative practices (Liguori, 2012).

The identification of factors that influence municipal FS could clarify what policymakers might have done to prevent the crisis, what they should do to prevent similar failures in the future (Randma-Liiv and Kickert, 2017) and how the long-term provision of public services may be ensured. This information would enable policymakers and public managers to strengthen the factors promoting FS (drivers) and to reduce the negative effects of risk factors, by reducing costs, increasing revenues or making use of reserves, among other measures (EU, 2012), avoiding subsequent painful readjustments.

The analysis presented in this paper is based on three major theories related to the institutional, macroeconomic and microeconomic factors determining FS: agency theory, neo-institutional theory and stakeholder theory. Agency theory assumes compliance-oriented self-regulation models in which the public entity must conform to a set of behaviour patterns imposed by external actors, such as citizens, third-party evaluators or accreditation organisations (Bies, 2010). Both neo-institutional theory and agency theory seek to explain how and why innovations are adopted (Carpenter and Feroz, 2001), arguing that organisations respond to external pressures by adopting structures and practices that are considered legitimate and socially acceptable, thus producing homogeneous practices and structures (Coase, 1984). Stakeholder theory is based on the understanding that a stakeholder is any group or individual who may affect or be affected by an organisation's efforts to achieve its goals (Freeman, 1984).

In this field of research, most of the studies conducted have been normative (Rodríguez et al., 2014) or focused on the FS of specific countries (Navarro-Galera et al., 2016).

However, very few comparative studies have been undertaken to analyse the FS of local authorities in different countries.

The aim of the present paper is to address this perceived research gap. To do so, we examine the similarities and differences in the main factors that impact on the FS of local authorities in England and Spain.

2 The different contexts facing local authorities in England and Spain and their influence on financial sustainability

Agency theory explains how institutional and macroeconomic variables lead policymakers and public managers to conform with the requirements of external actors by establishing compliance-oriented models of self-regulation (Bies, 2010) and how the relationship between agents and principals can best be exploited to enable the institution to achieve its goals (Eisenhardt, 1985). Despite the commonly-observed context of asymmetric information about the FS of local authorities, taxpayers expect to receive high-quality public services, delivered appropriately, effectively and efficiently. The macroeconomic variables could be considered a useful means for citizens to monitor and respond to policymakers' and public managers' success in providing high-quality public services.

The question of FS has come to the forefront of government attention, in response to external factors (Hoffman, 2001), to calls for greater transparency in public functions and to the need to ensure the long-term provision of public services. In this regard, neo-institutional theory argues that organisations adopt structures and practices that are considered legitimate and socially acceptable, thus creating homogeneous practices and structures (Coase, 1984). Therefore, the analysis of institutional and macroeconomic factors that influence FS would help identify and characterise practices and policies applied in this respect.

According to agency and neo-institutional theories, the differing institutional and macroeconomic contexts in which English and Spanish LAs provide public services could account for the differences observed in their respective levels of FS. While the institutional setting concerns the structural variables that characterise a municipality (administrative culture, competences, funding scheme and political control), the macroeconomic setting involves the external short-term variables that could influence FS. The first research question considered in this study is:

RQ1. Do institutional and macroeconomic factors influence the FS of local authorities?

The institutional setting is a crucial aspect of our analysis, as the diverse administrative traditions and organisational cultures within which LAs operate in England and Spain could strongly influence the factors affecting FS. In the Anglo-Saxon administrative culture, the public sector is characterised by the decentralisation of public services and the use of private management models. Southern European countries, in contrast, tend to adopt a hierarchical, bureaucratic public administration, whereby the central government establishes general rules for public services and receives the majority of tax revenues (Ortiz-Rodriguez et al., 2015). Under the agency theory, this difference in administrative and organisational settings is reflected in relationships between principals and agents, and so LAs English and Spanish LAs will manage their FS in different ways. Indeed, as the practices considered legitimate and socially acceptable in each country may differ, the English authorities will tend to act in ways that are similar to each other, but different from those of Spanish

. Therefore, the first hypothesis of this paper is:

H.1 Different administrative cultures influence the FS of Spanish and English LAs in different ways.

Another relevant consideration is that the legal competences for delivering public services differ between English and Spanish municipalities. Accordingly, the requirements of principals and the relationships between principals and agents will also vary (in accordance with agency theory), thus producing a knock-on effect on FS. For example, whereas LAs in England provide public health and education services, those in Spain do not, because the regional governments are required to deliver these services (Figure 1). However, the cost of the public health is totally funded by the revenues received to cover it (0% of the total net cost). The education service is almost funded by the revenues received to support it (28% of the total of net cost) (Figure 1).

Similarly, LAs' funding schemes vary considerably between the UK and Spain. The main sources of income for English municipalities are government grants (58%, 2014), council taxes (15%, 2013-2014) and redistributed business rates (7%, 2014) (LGA, 2017), while Spanish LAs rely on local taxes (42%, 2014) and state and regional government grants (33%, 2014) (MHAP, 2017) (Figure 1).

Moreover, English municipalities receive income from returns on loans and investments, interest payments, capital receipts, sales, fees and charges and council rents (20%), whereas their Spanish equivalents are funded by interest payments on heritage assets, investments, sales, fees and charges (25%) (Figure 1).

Figure 1. Basic characteristics of LAs in England and Spain

As a result of these differences in the legal competences assigned to LAs, and in accordance with neo-institutional theory, the legitimate and socially acceptable policies adopted in response to the financial and economic crisis were different in the two countries. Thus, in England, municipal budgets were reduced by about 28% (NAO, 2014), forcing managers to cut spending on certain non-protected public services (Randma-Liiv and Kickert, 2017) such as social care (for adults and children) and environmental and regulatory services (NAO, 2014), to increase council taxes within the margin allowed (2%) and to reduce the spending dependent on public sector net borrowing by 1.1% of GDP per year (HM Treasury, 2015a).

In Spain, on the other hand, municipalities increased local taxes (including property taxes and indirect taxes) in order to meet targets for debt (4% of GDP), deficit and spending (reduce computable spending by 1.5%) (*Organic Act 2/2012 of 27 April 2012 on Fiscal Stability and Financial Sustainability, 2012*) (Randma-Liiv and Kickert, 2017).

Therefore, our second study hypothesis is:

H.2 Legal competences and funding schemes affect FS in different ways in Spain and England.

Finally, the political structure of LAs is similar in the UK and Spain. In both countries, a municipal leader is elected by members of the council, and is responsible for the direction and management of the authority. This leader is supported by a cabinet. According to neo-institutional theory, the policies adopted regarding sustainability and austerity would be expected to differ between English and Spanish LAs, since while Spanish LAs were

mainly headed by right-wing parties, the majority of municipalities in the UK were governed by left-wing politicians (Randma-Liiv and Kickert, 2017), which are more reluctant than right-wing ones to cut public spending on investment and employment, and are more likely to increase municipal debt (Rodríguez-Bolívar et al., 2018), thus jeopardizing FS. In consequence, left-wing municipalities might be considered more likely to jeopardise FS. In this respect, we propose the following study hypothesis:

H.3. The type of political control exerted influences FS in Spanish and English LAs, in response to the different public policies followed by left and right-wing parties.

In addition, agency theory and neo-institutional theory recommend performing an analysis of the macroeconomic setting, since the knowledge of macroeconomic variables can help stakeholders monitor the performance of public managers with respect to expectations (agency theory) and highlight the structure and practices of LAs, thus reflecting their achievement or otherwise of the macroeconomic indicators considered to be socially acceptable (neo-institutional theory).

The above theories also note that macroeconomic variables may influence the FS of local authorities. These variables could be considered as indicators of the situation and credibility of the national economy.

In fact, previous research has concluded that the *risk premium*, i.e. the difference between the domestic Treasury bond rate and that of a reference economy, is a significant variable, associated with the stress imposed on government finances (Mackey, 2014). An unfavourable risk premium will have a negative impact on the provision of externally-sourced investments (Navarro-Galera et al., 2015), on the national economy and on the FS of public agencies. Thus, we hypothesise that:

H.4 An increase in the credit risk premium will reduce FS.

A fall in economic activity is expected to raise levels of financial default, and hence reduce municipal FS (Navarro-Galera et al., 2015). This relationship is reflected in the following hypothesis:

H.5 An increase in the growth rate of the national economy will increase FS.

Blazy et al. (2013), among others, highlighted the need for studies of governmental finances to include variables related to the functioning of the national legal and institutional system. Accordingly, we examined five systemic variables of institutional quality and legality as identified by the World Bank.

Political stability is highly relevant to investment decisions, since a destabilised or overthrown by unconstitutional means governments makes difficult to maintain a predictable regulatory framework (Daude and Stein, 2007). A lack of political stability would be expected to have a negative influence on foreign direct investment, and could damage municipal FS. However, prior research observed no significant influence of this variable on foreign direct investment (Daude and Stein, 2007). To address this question, we examine whether the absence of political stability would hamper the ability of LAs to deliver public services, due to a possible negative effect on foreign direct investment.

This question is addressed in the following hypothesis:

H.6 Political stability has a positive influence on FS.

According to prior research, the government effectiveness has a positive and significant association with foreign direct investment (Daude and Stein, 2007), meaning that an effective government would be expected to have greater access to funds, and thus greater support for public services. Government effectiveness also reflects how citizens perceive the delivery of public services. The higher the value of this variable, the higher the level of public funds available and the greater the satisfaction of citizens with the public services provided. Naturally, these questions are relevant to the FS of the municipality. Accordingly, the next study hypothesis is this:

H.7 A low level of government effectiveness has a negative influence on FS.

Following Daude and Stein (2007), higher values of regulatory quality are positively associated with foreign direct investment (Daude and Stein, 2007), and hence with FS. This influence is reflected in the assumption that by promoting the private sector, policymakers could increase public revenues through direct and indirect taxes. In view of these considerations, we propose the following hypothesis:

H.8 Regulatory quality is positively associated with FS.

Prior research has shown that the quality of the rule of law is positively associated with the receipt of foreign direct investment (Daude and Stein, 2007). A possible consequence of this relationship is that higher values of this variable could benefit FS, since this would mean that external investors trusted the government's intentions and actions, expecting them to contribute to social stability and the appropriate use of public resources. In this respect, we propose the following hypothesis:

H.9 The quality of the rule of law is positively associated with FS.

Finally, considering the variable *control of corruption*, we assume that stricter control of corruption will promote foreign investment and enable more resources to be dedicated to public services and requirement, thus benefiting FS. However, prior research has found no significant effect of this variable on foreign direct investment (Daude and Stein, 2007). We consider the following hypothesis:

H. 10 A stricter control of corruption has a positive effect on FS.

3 The microeconomic variables influencing the financial sustainability of local authorities

International organisations have highlighted the importance of financial statements, in informing citizens about the actions of policymakers and public managers (Mack and Ryan, 2006) and in facilitating the evaluation of the government's FS, defined as its ability to deliver services in the present without compromising the ability to do so in the future (EU, 2012; IFAC, 2013). The three main dimensions of public finances – revenue, services and debt – should be detailed in the income statement (IFAC, 2013). Attention should also be paid to information such as the influence of microeconomic factors (demographic and socioeconomic variables) on the FS (IFAC, 2013; EU, 2015). In this context, the population structure is one of the external factors that most strongly affect public finances and hence the achievement of local FS (EU, 2015; IFAC, 2012).

The greater or lesser presence of certain population groups, such as dependents, immigrants/tourists or the unemployed, could produce a demand for the application of specific public policies for their benefit (according to stakeholder theory) and would have a corresponding impact on FS. Moreover, such population groups would demand greater information disclosure in order to determine how well the government is fulfilling its obligations towards them (in accordance with agency theory) (Eisenhardt, 1985) and whether the measures taken with respect to disadvantaged groups of citizens are generally and socially acceptable (in accordance with neo-institutional theory).

The analysis of microeconomic factors relevant to the FS of local authorities can provide policymakers and managers with the information and instruments necessary for them to take appropriate decisions in terms of financial balance (Rodríguez et al., 2014)

Consequently, we propose the following research questions and acknowledge previous work in this field:

RQ.2 Is FS influenced by microeconomic factors?

RQ.2.1 Is FS influenced by demographic factors?

The main demographic factors usually analysed in studies of public finance are population size, population density, dependency ratio and immigration. *Population size* is expected to be inversely associated with public spending (Choi et al., 2010) and public debt (Guillamón et al., 2011), since a growing population normally increases the demand for resources and services (Conard, 2013). On the other hand, it has been suggested that population increase might enable large LAs to achieve economies of scale and hence greater FS (Andrews, 2015). In consequence, the effect of population size on the state of public finances is still unclear. To address this question, considering that prior research has demonstrated that influence negatively on two dimensions of the FS of LAs, we propose the following hypothesis:

H.11 Population size is inversely associated with FS.

Research findings on *population density* are also contradictory. While some authors have observed a negative influence on public spending (Choi et al., 2010) and others have observed no significant results regarding public debt (Guillamón et al., 2011). So, we consider it useful to attempt to determine the influence of population density on FS in local authorities. Taking into account that an increase in population density could enable economies of scale, which would benefit FS, we propose the following hypothesis:

H.12 Population density is positively associated with FS.

In line with the theoretical background to our study – stakeholder, agency and neo-institutional theories – the dependency ratio (i.e. the proportion of the population aged under 16 years and over 65 years) is another factor that could influence the FS of local authorities (EU, 2012; IFAC, 2012). In many municipalities throughout Europe, the elderly are the fastest-growing segment of the population and this changing population balance could influence FS (Eurostat, 2015; IFAC, 2012). Studies have shown that the size of the dependent population is inversely related to government revenues and directly related to spending. Moreover, it has a negative influence on fiscal distress (Kloha et al.,

2005), (on per capita spending and taxation and, therefore, on the budget balance (Choi et al., 2010). Accordingly, we propose the following hypotheses:

H.13 The size of the dependent population aged under 16 years is inversely associated with FS.

H.14 The size of the dependent population aged over 65 years is inversely associated with FS.

Finally, migration flows tend to raise the level of accumulated debt (Guillamón et al., 2011) and public spending (Choi et al., 2010), although it has been argued that immigration could alleviate the negative impact of a sharp increase in the elderly population on FS, by maintaining the population balance and hence the sustainability of the pensions system (Eurostat, 2015). Nonetheless, prior research has demonstrated that it may affect two dimensions of the FS, and therefore we consider the following hypothesis:

H.15 The size of the immigrant population is inversely associated with FS.

RQ.2.2 Is FS influenced by socio-economic factors?

In this context, the most commonly studied socio-economic factors are the unemployment rate and the business count. According to the EU (2012), and under stakeholder theory, agency theory and neo-institutional theory, rising unemployment would be expected to have a negative impact on productivity and public revenues. Social spending would be cut, due to the need to provide unemployment allowances (Guillamón et al., 2011), tax revenues would fall (Kloha et al., 2005) and government debt would increase (Guillamón et al., 2011). Therefore, the following hypothesis is proposed:

H.16 The unemployment rate is inversely associated with FS.

Finally, the business count could be a positive factor for local authority FS, since a greater concentration of companies would normally increase the number of jobs available, thus lowering the unemployment rate, reducing the need for public spending on social welfare (Sutaria and Hicks, 2004) and increasing tax revenues (Rogers et al., 1978). Therefore, we propose the following hypothesis:

H.17 The business count is positively associated with FS.

4 Empirical research

4.1 Sample selection

The concept of FS is of crucial importance to LAs, which in many cases are expected to maintain the volume and quality of public services despite the significant budget reductions they have been obliged to make in response to the financial and economic crisis (NAO, 2014). LAs are closest to society, and local policymakers are well placed to be aware of citizens' information needs (Watt, 2004).

This paper focuses on comparable LAs in England and Spain, seeking to determine whether FS, in each case, is influenced by the same factors. In Spain, we selected municipalities with relatively large populations (Rodríguez et al., 2014), and for England,

we analysed unitary authorities, which have a similar population size to the Spanish LAs and provide comparable public services. Accordingly, our initial sample was composed of 148 Spanish municipalities and of 55 unitary authorities in England. However, we wished to study only those municipalities for which complete data were available for at least two of the years within our study period (2006-2014). The final sample, therefore, was composed of 138 Spanish municipalities and 55 unitary authorities in England.

4.2 Variables

The dependent variable in our analysis is FS, which, as defined by the EU (2012) and IFAC (2012,2013), should consider revenues, expenses and debt. So, our data source is the income statements published by LAs which provide the fundamental information needed (EC, 2016; IFAC, 2012, 2013). They reflect all the revenue and expense items corresponding to the fiscal period in question (accrual basis) (Dasí et al., 2013), so it is associated with the notion of intergenerational equity (Brundtland, 1987), or inter-period equity (IFAC, 2012).

Although there is no consensus about how to measure FS we prefer to emphasise the concept of inter-period equity of governmental policies, assuming the income statement to be a representative indicator of FS, i.e. that it reflects a LA's capacity to continue providing at least the same volume of public goods and services, and also the level of resources that will be needed for this purpose in the future (IFAC, 2012). In addition, inter-period equity has a predictive capacity (Drew and Dollery, 2014), which helps public managers and other stakeholders to make appropriate decisions regarding public finances.

Despite the importance of the income statement, it is not wholly appropriate as a basis for assessing the FS of local authorities (Rodríguez et al., 2014) because it includes extraordinary items which are not expected to be repeated within the environment in which the entity operates. Therefore, a correction factor was applied to exclude these extraordinary revenues and expenses from the income statement, in line with the recommendations of international organisations (EU, 2012; IFAC, 2012, 2013) (Figure 2).

Figure 2. Financial sustainability

Finally, taking into account that the English and Spanish LAs examined provide different public services, the corresponding income statements were adjusted to ensure their comparability and uniformity. So, as both accounting systems are structured on an accrual basis (Dasí et al., 2013), we also removed the revenue and expense items referring to the services only provided by the English unitary authorities (public health, education and services for children and pensioners), since the net cost of these services is close to zero.

The definitions and measures of the dependent and independent variables addressed in the research questions and hypotheses are summarised in Figure 3.

Figure 3. Variables

4.3 Statistical model and methodology

Taking into account the nature of our study sample, the research aim was addressed using two methods. First, we analysed the relationships among the institutional and macroeconomic variables at the national level and the FS of the local authorities, for each country, using Pearson's matrix of correlations. This method is widely used in statistical analysis (Bastida and Benito, 2017) and is considered an excellent means of measuring the linear relationship between two random quantitative variables (Wooldridge, 2009). This analysis enabled us to distinguish a subset of variables that can be used to differentiate the English and Spanish LAs according to their social, economic and institutional characteristics. In addition, we obtained the variance inflation factor for the multicollinearity of the LAs considered.

Then, a panel data technique was applied to assess the influence of the microeconomic (demographic and socioeconomic) variables on the FS of the local authorities in each country. This technique increases the number of observations that can be considered, by pooling different time series (Zhu, 2013), and enables us to detect the unobservable and constant heterogeneity, i.e. the characteristics specific to each local authority, since all of these variables are at the local level. Moreover, it reduces multicollinearity and improves the efficiency of the model (Roodman, 2009; Wooldridge, 2009). In other words, we have a vector of variables for N units (LAs) over T periods of time (9): x_{it} for $i=1\dots N$ and $t=1\dots T$. The models shown in Figure 4 represent the influence of the microeconomic (demographic and socioeconomic) variables on the FS of the local authorities in each country.

Figure 4. The models (2)

The overall error (u_{it}) is composed of e_{it} (the error term) and α_i (the unobservable heterogeneity).

The generalised method of moments (GMM) estimator was used to detect possible endogeneity within the dependent and independent variables (Wooldridge, 2009), since factors which influence the country's development, such as FS, could present a dependent trajectory, describing a cumulative process. This estimator uses the lagged levels of the endogenous regressors as instrumental variables and combines the moment conditions for the equations in first-order differences, with additional moment conditions implied for the equations in each level in order to improve efficiency. We also applied a two-step estimation with Windmeijer's correction, which is asymptotically efficient and robust to patterns of heteroscedasticity and cross-correlation (Roodman, 2009; Windmeijer, 2005). The results of the Arellano-Bond and Hansen tests (Figure 5) confirmed the consistency and robustness of our four models, thus supporting the findings presented and controlling for possible endogeneity among the variables (Hansen, 1982).

Figure 5. Statistical tests

5 Descriptive analysis of results

Figure 6 shows that the mean value for FS in the English LAs was negative, whereas that of their Spanish counterparts was positive. However, the impact of the economic crisis meant that the behaviour of the FS in each country presented a common turning point. In other words, this variable was more homogeneous between different LAs than within each one during the overall study period. By contrast, for the remaining study variables, the behaviour of each authority during the study period was more homogeneous than between authorities.

Our descriptive analysis of the institutional and macroeconomic variables (see Figure 6) shows that the economic level was the most heterogeneous variable in both countries, although the mean values and standard deviations in this respect were lower and more homogeneous in Spain than in England. In addition, the credit risk premium score was lower and much more homogeneous in England than in Spain, possibly because the economic and financial crisis affected Spain more severely and led to this premium rising very sharply.

With respect to competences, the mean cost of public services in the English LAs was higher but less homogeneous than in the Spanish ones (see Figure 6). In addition, while in Spain the highest percentage of public revenues was derived from local taxes, in England government grants were the main source of local authority revenue.

Regarding political control, Figure 6 shows that more LAs in Spain were led by right-wing parties (57.44%) than in England (48.89%). This factor could affect the policies adopted on FS. Furthermore, the political stability in the Spanish LAs was much weaker than in the English ones (as reflected by the negative mean value for this variable).

Finally, governmental effectiveness, regulatory quality, the rule of the law and the control of corruption are all stronger and more homogeneous in the English authorities than in the Spanish ones, since these have higher standard deviations.

Among the microeconomic variables, population density was the most heterogeneous, whereas population size and the dependent population aged under 16 years were the most homogeneous. Although the mean population size was higher in the English LAs, the mean population density was greater in Spain. Moreover, the mean value for the foreign population in the Spanish authorities was considerably greater than in the English ones. By contrast, the mean size of the dependent population aged under 16 years and over 65 years was slightly higher in England than in Spain. Finally, regarding the socio-economic variables, the mean values for economic level and unemployment were higher in Spain, but the mean business count was lower (Figure 6).

Figure 6. Descriptive statistics

6 Results from the study models

6.1 Results for the institutional and macroeconomic variables (RQ1)

Figure 7 shows the results obtained in response to the first research question. *Administrative culture* (H1 -accepted-), *competences* and *funding schemes* (H2 -accepted) and *economic level* (H5 -accepted) all present a possible linear relationship with FS, in both countries. Although the economic level presents a positive relationship in the Spanish and English LAs, the influence of the other variables differs between the two countries. Similarly, *political control* (H3 -accepted for the Spanish authorities), the *credit risk premium* (H4 -accepted for the Spanish authorities), *political stability* (H6 -accepted for the English authorities), *government effectiveness* (H7 -accepted for the Spanish authorities) and the *control of corruption* (H10 -accepted for the Spanish authorities) only had a significant influence in one of the countries. These findings lead us to conclude that the English and Spanish LAs operate within different institutional and macroeconomic contexts and that this affects their FS.

These results extend those reported by Ortiz-Rodríguez et al. (2015), by showing that the administrative culture prevailing within a country affects the FS of local authorities in that country. Moreover, these results are consistent with agency theory and neo-institutional theory, in that the relationship between principal and agent could differ between the two countries analysed.

With respect to local authority competences and funding schemes, the *competence* variable has a negative influence on the English LAs but a positive one in Spain. Government grants are the largest sources of revenue for the English authorities, and this circumstance could increase their dependence and thus produce a negative impact on FS. By contrast, government grants play a less significant role in the financing of Spanish LAs. These results are consistent with neo-institutional theory and with agency theory. The positive influence of the proportions of other sources of funding on FS in the English LAs could be due to the returns obtained on loans and investments. By contrast, the 'other' revenues obtained by the Spanish authorities are interest payments on heritage assets, investment sales, fees and charges. These are not considered to be ordinary financial resources, because they depend on the economic and financial situation, which could exert a negative influence on FS.

The variable *political control* is associated with FS in the Spanish LAs but not in the English ones. We explain this in terms of neo-institutional theory, in that although the authorities analysed have similar types of political control, they might conform to differing standards in England and Spain as to what is generally and socially acceptable. The *credit risk premium* might be considered to have a particularly negative impact on LAs in Spain due to this country's greater exposure to the financial and economic crisis. For the same reason, *political stability* has a positive influence on the FS of English authorities. In this respect, our results extend those of previous research; although this variable had no effect on foreign direct investment (Daude and Stein, 2007), it did influence the FS of local authorities in England, thus corroborating our conclusion that political stability is positively associated with FS.

According to our results, *government effectiveness* is inversely associated with FS in local authorities in Spain. Although previous research showed this variable had a positive effect on foreign direct investment, our results go further, revealing that it has a negative effect on FS in Spanish LAs. Finally, our results seem to confirm that in Spain, greater control of corruption tends to make more resources available to LAs and thus increases

their FS. This is a novel finding; previous research in this field did not observe any significant effect of this variable on foreign direct investment (Daude and Stein, 2007).

Figure 7. Institutional and macroeconomic models

6.2 Results for the microeconomic (demographic and socioeconomic) variables (RQ2)

Our results show that in the LAs considered, FS was influenced by certain demographic factors, such as *population size* (H.11-accepted) and the *population aged under 16 years* (H.13-accepted). However, the *size of the immigrant population* (H.15) only affected LAs in Spain, while the variables *population density* (H.12) and *population aged over 65 years* (H.14) were not significant in either country (see Fig. 8).

Unemployment (H.16-accepted) was significantly associated with FS, in both countries, but business count (H.17) cannot be considered as a generally influential factor, as it only had a significant influence on English LAs. In both England and Spain, FS lagged by one period had a positive influence.

With respect to population size, although larger authorities might obtain economies of scale (Andrews, 2015) and more strongly control the actions of policymakers and managers (agency theory), the greater demand for public services in these municipalities (Conard, 2013) (stakeholder theory) would lead to increased public spending (Choi et al., 2010) and debt (Guillamón et al., 2011), and thus be prejudicial to FS, both in England and in Spain.

According to our results, FS was not influenced by population density in either country, which is in contrast to previous research findings (Choi et al., 2010).

Our results show that the dependent population aged under 16 years was inversely associated with FS. On the other hand, no significant relation was observed for the dependent population aged over 65 years, and therefore these two populations should be considered as differentiated groups of stakeholders. Similarly, the size of the immigrant population was inversely associated with FS in Spain, but not in England, possibly due to differing needs among the two groups (stakeholder theory).

The unemployment rate was found to be negatively associated with FS, which is in line with stakeholder theory and extends previous research findings (Guillamón et al., 2011). Finally, the business count was inversely associated with the FS of English LAs, but no significant influence in this respect was observed for the Spanish authorities, which is contrary to previous reports (Sutaria and Hicks, 2004).

Figure 8. The models

7 Discussion and conclusions

This paper investigates the drivers and risk factors for FS among representative LAs in England and Spain, in a comparative analysis framework.

Our findings indicate that LAs in these two countries should be considered as two clearly-differentiated groups because they operate within different administrative cultures, which affects their FS. Moreover, the competences assigned to these bodies and the funding schemes applicable influence FS in different ways in each country.

We find that the cost of public services and the sources and uses made of public revenues influence how these revenues are managed. Furthermore, the variables *political control*, *credit risk premium*, *government effectiveness* and *control of corruption* only affect the FS of municipalities in Spain, while *political stability* is only a significant factor among the English LAs. Those in Spain usually have less unbalanced financial positions (only 6% of Spanish authorities present a financial deficit, vs. 68% of those in England), suggesting that the above institutional and macroeconomic variables affect the financial context of each country, and hence the policies adopted to preserve FS.

Some microeconomic variables affected the FS in both countries alike, while others were only significant in one or the other. Thus, the demographic variables *population size* and *population aged under 16 years* and the socio-economic one *unemployment rate* are risk factors for FS in the local authorities in both England and Spain. These findings confirm that the postulates of agency theory are consistent with the FS observed in these LAs.

Another question of interest is the “free rider” problem, which is more apparent in large municipalities (Ratto and Burgess, 2003). The higher the rate of unemployment, the smaller the proportion of the population contributing to public revenues via taxation, and the greater the use made of public services such as social spending. The influence of these factors is comparable in the local authorities in England and Spain, probably because both countries provide public services regardless of individuals’ incomes, based solely on cultural values. This would be in line with the tenets of institutional theory, according to which support is given to practices considered legitimate and socially acceptable (Coase 1984). Therefore, local policymakers should foster employment in order to create sustainable conditions.

Our findings also show that the business unit count (for the English authorities) and the immigrant/tourist population (for the Spanish ones) are risk factors for FS. The contrasting results between the English and Spanish authorities regarding the significance of the business count might arise from differences in their respective funding schemes; the English unitary authorities were able to raise the tax rate in this respect during the crisis period, and so their FS may have benefited from an increase in the business count. The difference observed between the English and Spanish authorities as regards the influence of the foreign population could be explained by the type of population considered. Whereas many foreigners in Spain are only resident for a short period (reflecting the country’s importance as a destination for tourists), those in the UK are normally seeking employment and long-term residence. The FS of many Spanish LAs is adversely affected by the presence of a significant foreign population because, to be socially acceptable, they must provide services to large numbers of people who do not contribute to the costs incurred (institutional theory).

Finally, our results indicate, contrary to previous reports, that the factors *population density* and *dependent population aged over 65 years* do not influence FS. Further research is needed to clarify this contradictory finding.

In summary, our research shows that demographic variables best explain the FS of local authorities. Although we have identified some macroeconomic factors which are beyond the control of local policymakers, it is important to consider the microeconomic variables that may usefully be addressed. New models of funding for public administrations, new models of governance and new public policies in the economic area might be considered as possible solutions to the problem of unbalanced public finances. To extend the results presented in this paper, future research should address other contexts in which the factors influencing FS might be identified.

The present study has limitations that should be recognised and which suggest pointers for future research. Thus, our analysis does not consider in detail the differences in FS according to the funding schemes in each local authority, nor do we address the internal attributes that might influence FS, such as the government structure, governance models or the level of employee training. Moreover, our analysis could also be performed using other statistical tools, to obtain complementary findings.

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