DRIVERS OF CONTRACTING BACK IN LOCAL GOVERNMENTS: ANALYSING EFFICIENCY, OPPORTUNISTIC POLITICAL CYCLES, POLITICAL CORRUPTION AND FINANCIAL FACTORS

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Abstract: The main aim of this paper is to examine the likelihood of local governments remunicipalising public services that were previously contracted out. To do so, we studied a sample of 141 Spanish municipalities with between 20,000 and 50,000 inhabitants, with particular reference to contracting back operations conducted in the period 2014-16, using a random-effects panel logit model. We found that local authorities that contracted back public services were mainly influenced by the wish to achieve higher levels of efficiency, by political behaviour in a pre-electoral year, and by political corruption detected in the previous year.

Key words: Contracting back, Municipal services, Political cycles, Efficiency, Political corruption.

Introduction

In recent years, the issue of municipal public services has received considerable attention due to increasing demand for these services and to the severe budgetary constraints often faced. In response to these pressures, alternative forms of service

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provision have arisen, going beyond the traditional choice between public and private management, giving rise to a complex range of possibilities for local governments, including forms such as inter-municipal cooperation, direct provision, public-private partnerships and contracting out. The latter mechanism is widely adopted and has been extensively studied (Petersen et al., 2018). Nevertheless, many local authorities, worldwide, are now 'contracting back' or remunicipalising public services (Gradus and Budding, 2018; Albalate et al., 2019; Gradus et al., 2019; Voorm et al., 2019; Warner and Aldag, 2019).

Local governments may be motivated by various socioeconomic factors to transfer the provision of public services to the private sector, through mechanisms such as contracting out. In many cases, the main goal is to achieve cost savings, which is assumed to be one of the advantages of contracting out, together with the optimisation of resources (Bel and Fageda, 2006). Furthermore, it has been argued that privatisation can raise service quality (Groves et al., 2003) and increase efficiency (Hodge, 2000; Bel et al., 2010).

However, despite the possible benefits of contracting out, on many occasions local governments have subsequently retaken control of service provision. Various studies have highlighted a trend in countries such as the USA, the UK, New Zealand and Netherlands (all characterised by a strong market orientation) towards contracting back or 'insourcing', i.e., the reinternalisation and control of the management of public services (Warner, 2008; Hall et al., 2013; Gradus and Budding, 2018). This phenomenon can be defined as the return to service provision from a for-profit entity to the local authority that had previously supplied the service (Warner and Aldag, 2019). Countries with a continental tradition, such as France and Germany, have also reflected this trend (Hall et al., 2013). In Spain, however, little research has been conducted into this question.

Accordingly, the main aim of this study is to contribute to our understanding of why municipal services may be contracted back, from private to public delivery, by analysing the factors underlying this decision. The few studies that have examined this question previously have each focused on different countries, presenting diverse social and economic environments, and therefore it is not possible to draw general conclusions from the empirical evidence obtained to date. In addition, most prior research has taken the form of case studies or has analysed very specific services, and so has not sought to identify the drivers of contracting back by local administrations.

Therefore, in our opinion, it is necessary to broaden the scope of the investigation by identifying the factors that may influence public managers' decision to contract back services that had formerly been privatised. Moreover, we believe it useful to examine how and why remunicipalisation is performed in a country such as Spain, with socioeconomic characteristics differing from those considered in previous research. This southern European country has a Weberian administrative tradition (Rhodes et al., 2012), but provides a wide variety of public services, which facilitates comparison with municipal service provision in other contexts such as the Netherlands (Gradus and Budding 2018) or the USA (Warner and Aldag, 2019).

To address this research goal, we examined relevant financial, political and socioeconomic factors in the context of a large dataset of contracting back operations performed during the period 2014-16 in Spanish municipalities with a population of between 20,000 and 50,000 inhabitants, taking into account solely the services specified as being of obligatory provision under Article 26 of the Spanish Local Government Act 7/1985². This analysis was performed using logistic regression with panel data (Bel and Fageda, 2007).

The results obtained show that remunicipalisation is affected by various political and economic factors, the influence of which depends on different time horizons. For example, when efficiency increases (in period t-1) the probability of contracting back also increases (in period t). The existence of opportunistic political behaviour has been detected in the remunicipalisation of public services in years immediately prior to elections, and also when there has been a political change, from a conservative to a progressive government. In these circumstances, there is a heightened probability of remunicipalisation. Our analysis of the variable 'political corruption' reveals a lag of four periods before it affects remunicipalisation (i.e. from period t-4 to period t). With respect

² Article 26 of this Act lists the basic services that all local governments must provide. These vary according to the local population, but typically include street lighting, cemetery and funeral services, waste collection, access to population centres, street cleaning, drains and sewage systems and the maintenance of street infrastructure.

to the government's financial condition, a direct positive relationship with remunicipalisation was only observed for the capital balance of the municipal treasury.

The rest of this article is structured as follows. In the next section, we analyse the factors affecting contracting back. The following sections present the data examined, describe the method applied in the empirical analysis and discuss the results obtained. Finally, we summarise the main conclusions drawn.

Explanatory factors of contracting back

In recent years, due in part to the global economic and financial crisis, many local authorities have sought to achieve cost savings (Bieler and Jordan, 2017; Kim and Warner, 2018), and thus increase efficiency. Numerous studies of this question have been conducted, and many have focused on the contracting out of local public services. This is the most important of the alternatives available for the provision of public services by operators other than the public entity itself (Pallesen, 2004) and has been studied extensively (Bel et al., 2018; Ditillo et al., 2015; Petersen et al., 2018).

However, in the last decade, the reverse process, that of contracting back, has taken place in many countries. Thus, services that were previously contracted out are now being re-internalised (or remunicipalised). This trend has been observed, for example, in waste collection services in countries such as the Netherlands (Gradus and Budding, 2018) and Germany (Demuth et al., 2018), and in municipal water services in France (Hall et al., 2013). The latter services have received most research attention, but they are not alone within this new trend of contracting back (McDonald, 2018). Indeed, in the USA more remunicipalisation than contracting out operations took place in the 1990s, considering all public services (Warner and Hefetz, 2012).

In view of these changing circumstances, various studies have been undertaken to determine the reasons motivating such a change in the provision of public services. In this respect, Warner and Aldag (2019) argue that the choice of management forms varies in a cyclical fashion between private and public management forms, in what they term the Pendulum Theory.

The relationships among the factors associated with local governments' decisions regarding contracting out decisions and their assessments of the outcomes achieved can be viewed as a useful starting point (in the opposite direction) for studying the factors relevant to remunicipalisation.

Various theoretical arguments have been proposed in support of the view that contracting out, spurred by competitive forces, reduces the costs of service delivery and therefore improves the efficiency of local government (Swarts and Warner, 2014). However, according to the Fox paradox, just because an entity is efficient in the production of a good, or in the provision of a service, it is not necessarily efficient in general (Fox, 1999). Therefore, although it has been claimed that contracting out enhances service efficiency, Hansen et al. (2016) observe that outsourcing may not actually raise efficiency in the public sector or achieve any reduction in public spending. In consequence, the overall level of municipal efficiency could be relevant to managers' decision to contract out (or contract in) public services.

One view is that if contracting out operations do not result in greater efficiency, as appears to be the case in some situations, then municipal managers might wish to contract back the public services affected (Pérez-López et al., 2015), regaining control and thus eliminating the costs of monitoring private operators' fulfilment of their contracts, and in this sense at least, increasing the efficiency of the service. Alternatively, when municipalities become more capable of managing their resources efficiently, they will be better placed to contract back their public services.

Although efficiency is a major issue in the public sector in general and underlies contracting out/in decisions in particular, the role played by political considerations in this respect cannot be ignored. On the other hand, it has also been argued that remunicipalisation is often the consequence of operational and non-political issues (Warner and Aldag, 2019). Various studies have examined the question of how politicians may influence decisions on management methods for their own purposes (Hall et al., 2013; De la Higuera-Molina et al., 2018a).

Although there is empirical evidence that conservative parties tend to contract out public services (Bel and Fageda, 2007), while progressive parties are more likely to favour public provision (Tellier, 2006), the literature review in this respect by Bel and Fageda (2017) shows that it is seldom possible to demonstrate the existence of a firm

relationship between ideology and privatisation. Nevertheless, Gradus and Budding (2018), in their study of the influence of political factors on the decision to remunicipalise waste disposal services in the Netherlands, did establish that municipalities with more conservative governments tended to oppose contracting back, while those with a more progressive ideology were equally opposed to new privatisations. In view of these specific findings, we believe it interesting to examine whether it is possible to generalise this relationship between left-wing parties and the decision to retake control of once-privatised services, studying this question in different sectors and countries.

When there is political fragmentation in the local corporation, this can influence decisions about how to manage public services – at the very least, decision making becomes more complex (Warner and Hefetz, 2012), and this situation would also affect the debate on contracting back, since a government based on a coalition among two or more parties might struggle to reach a consensus on the most appropriate policy for the provision of services (Plata-Díaz et al., 2017).

Although considerable research interest has been aroused concerning the influence of political factors on local government processes, little attention has been paid to the role played by opportunistic behaviour in decision making. Changes in how public services are managed and provided are often justified in terms of the general interest, but the influence of public opinion on these decisions is relatively unexplored. Among the few studies conducted in this area, Garrone and Marzano (2015) detected the existence of opportunistic behaviour when public services were contracted out immediately following elections, which is in line with the Opportunistic Political Cycles Theory (Garrone and Marzano, 2015; De la Higuera-Molina, 2018a). Consideration of such theoretical arguments is a useful way to analyse how contracting back decisions are taken, especially when public opinion is generally opposed to this policy (De la Higuera-Molina, 2018b). In pre-election years, public managers may be swayed by the need to obtain public support, and hence votes (Foucault et al., 2008), and so more emphasis would be placed on contracting back privatised services, in a reform often viewed as a positive change.

Various studies have highlighted the influence of politicians' self-interest on the municipal decision-taking process, a relationship which may be reflected in the levels of local government corruption detected. This corruption is more frequent in countries with

lower levels of income (Olken, 2006), where politicians often make use of public services such as water provision to carry out illegal acts for their own interest (Avis et al., 2016). Such forms of corruption usually reflect political connections between private companies and local politicians (Albalate et al., 2017), as has been observed in various cases when municipal services have been contracted out (Hessami, 2012). Although few researchers have considered the relationship between local government corruption and contracting back, we believe it would be of great interest to examine whether, following identification of corruption and action taken by the public prosecutor's office, any services inappropriately contracted out are returned to public control.

Finally, it is widely assumed that a local government's financial situation will be closely associated with its privatisation decisions, but empirical evidence in this respect is lacking. Among the few authors to have considered this question, Zullo (2009) concluded that contracting out is often performed as a means of addressing an unfavourable financial situation, while Pallesen (2004) observed that a good financial situation may also motivate the decision to contract out municipal services.

In view of the above considerations, we believe that if there is a relationship between the financial condition of a local entity and its decisions regarding the privatisation of public services, then we should examine whether there is a corresponding relationship between financial condition and contracting back, and if so, whether this influence is exerted in the same direction as before, or in the opposite direction. Accordingly, in this study we conduct an empirical analysis of financial condition, addressing two of the concepts that define this situation, budgetary sustainability and cash solvency, both of which have been discussed in detail by Groves et al. (2003). By linking these two concepts of financial condition, we hypothesise that in local entities which have a healthy level of cash solvency and do not present a budget deficit, there will be greater pressure to remunicipalise public services.

In addition to the above, we take into account certain economic indicators which might influence the contracting back decision. Thus, our analysis includes the total municipal population, because this factor determines the level of demand for services (Plata-Díaz et al., 2017); for example, a growing population will require an increasing volume of municipal utilities, and this can increase the likelihood of contracting out taking place (Bel et al., 2010), and hence there is a lower probability of contracting back.

We also consider the unemployment rate, since according to Zullo (2009), high local unemployment reflects a poorly-functioning regional economy and less potential for obtaining tax revenues with which to fund public services. Finally, the index of economic activity is considered, taking into account the economic importance of the latter sector for many municipalities.

Data and method

This study was conducted using annual data for medium-sized municipalities throughout Spain, with 20,000 to 50,000 inhabitants. This sample selection excluded small municipalities, because they usually cannot deliver their services privately and the management form most commonly used by small municipalities is that of public provision. As very few of these municipalities contract out services, there are even fewer cases of contracting back. Municipalities with more than 50,000 inhabitants were also excluded from our analysis, because in Spain these local authorities present considerable economic and financial differences from those with smaller populations. Moreover, the services they are legally obliged to deliver vary according to municipal size. This factor, too, impedes comparison.

Table 1 lists and defines the study variables considered, and the main descriptive statistics are presented in Table 2.

Variable	Description	Source		
(a) Dependent variable				
Contracting back	Dummy variable that takes the value 1 if the local authority contracted back public services, and the value 0 otherwise.	Ministry of Finance and Public Administration, related to the effective cost, and also from data compiled by a private company.		
(b) Independent variables				
Efficiency	Overall index of local government efficiency measured via total municipal cost as input, and	Ministry of Finance and Public Administration.		

Table 1: Description of the study variables

8

	indicators of local public services as output.			
Election	Dummy variable that takes the value 1 if the municipal government is in a pre-electoral period and the value 0 otherwise.	Derived by the authors.		
Change to progressive	Dummy variable that takes the value 1 if following elections the governing party changes to one with a progressive ideology, and the value 0 otherwise.			
Continue progressive	Dummy variable that takes the value 1 if the governing party has a progressive ideology and retains power in the elections, and the value 0 otherwise.	Ministry of the Interior.		
Political strength/balance	Dummy variable that takes the value 0 if the governing party shares power with other parties, and the value 1 if it has an absolute majority.			
Political corruption	Dummy variable that takes the value 1 if acts of political corruption are detected, leading to prosecution, and the value 0 otherwise.	Derived by the authors from data published by national online press.		
Budget sustainability	Non-financial budgetary results index, calculated as the sum of non-financial current budgetary receivables and non-financial capital budgetary receivables divided by current budgetary payables and non-financial capital budgetary payables.	Directorate General for Financial Coordination with Regional and Local Authorities (DGCFCAEL, Ministry of Finance and Public Administration).		
Cash solvency	Cash surplus index, calculated as the difference between net short- term receivables, liquidity and net short-term liabilities.			
Population	Logarithm of total population of the municipality.	Derived by the authors from data published by National Institute of Statistics.		
Unemployment	Logarithm of local adult unemployment rate, calculated as total unemployment divided by population aged 15-64 years.	Spanish Economic and Social Yearbook: La - Caixa.		
Economic activity index	Index of economic activity in the municipality.	Cumu		

Source: Devised by the authors.

Table 2. Descriptive statistics	of the explanatory	factors of contracting back
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Type of variable	Variable	Average	Minimum	Maximum	Standard deviation
Dependent variable	Contracting back	0.156			
	Efficiency (t=-1)	0.763	0.323	1	0.152
	Election	0.667			
Independent	Change to progressive	0.213			
variables	Continue progressive	0.324			
	Political strength/balance	0.402			
	Political corruption (t=-4)	0.047			
	Budget sustainability (t=-1)	1.115	0.747	1.566	0.125
	Cash solvency (t=-1)	3.094	-6.996	21.828	2.496
	Population	10.265	9.846	10.828	0.238
	Unemployment	15.588	6.200	24.900	3.714
	Economic activity index	43.041	12	172	23.722

in the period 2014-2016

Source: The authors.

Note: Observations n=423, with 141 municipalities for each period analysed (2011-2014; 2014-2015 and 2015-2016).

Thus, a wide-ranging dataset was created, in which the dependent variable was assigned the value 1 when the local authority contracted back a public service, and the value 0 otherwise. This variable is constructed by means of two cross sections that enable us to compare the data from 2011 to 2014 (Period 1); from 2014 to 2015 (Period 2); and finally from 2015 to 2016 (Period 3), and thus observe changes in service provision forms. Thus, for period 1, the services privatised between 1999-2011 were examined to determine whether they subsequently remunicipalised in 2014; for period 2, this comparison was made between the services privatised in 2014 and those remunicipalised in 2015; finally, for period 3, the same comparison was made for 2015 and 2016. In total, 141 municipalities carried out contracting back operations during the study period; the total is broken down by Autonomous Communities (regions) in Figure 1; and by type of service and year in which the operation took place, in Table 3³.

³ The total sample population was 141 municipalities, for which we analysed the contracting back operations that took place in 2014, 2015 and 2016. Since it only became mandatory in 2014 for municipalities to publish

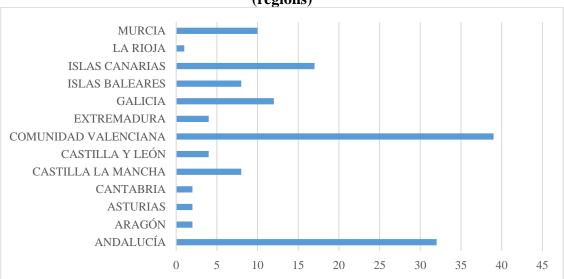


Figure 1. Contracting back 2014-2016, by Autonomous Communities (regions)

Source: The authors.

Table 3. Contracting	back operations	during the per	riod 2014-2016
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Type of service	Contracting back operations in 2014	Contracting back operations in 2015	Contracting back operations in 2016
Refuse collection	24	7	4
Other	22	7	4
Street cleaning	19	6	3
Street paving	17	5	3
Street lighting	13	5	2
Total contracting back operations	95	30	16

Source: The authors

Note: Observations n=423, with 141 municipalities for each period analysed (2011-2014; 2014-2015 and 2015-2016)

information about how public services were managed and provided, in order to identify the contracting back operations carried out during the study period, we were forced to compare the 2014 public service management forms with privatisation data for 1999-2011 compiled by a private company. This information provided 423 observations for analysis.

For each of the local authorities considered, we examine whether privatisation contracts were later reversed. In order to specify the model correctly and to determine the true effects of the factors analysed, and also taking into account the results obtained by López-Hernández et al. (2018), i.e. that the passage of time must be taken into account when measuring the influence of certain variables on the privatisation decision, we applied different time dimensions to the variables, each of which may produce a lagged effect on contracting back. To determine whether the effects on contracting back were delayed, a lag search was conducted to establish the time elapsed before each variable (efficiency, political corruption and the financial variables) could be expected to influence contracting back. The maximum delay time considered was four years, coinciding with the duration of the political cycle.

Finally, special attention should be paid to the way in which the efficiency variable was calculated. For our purposes, cost efficiency is a measure of overall local government efficiency, estimated by means of nonparametric frontier analysis (Pérez-López et al., 2015) or panel data DEA, which provides more robust estimates than the traditional contemporaneous frontier method (Surroca et., 2016). To obtain the estimates, the input included is that of total municipal cost, including labour costs, material consumption, capital expenditure and current and capital transfers (according to the municipal budget). The following variables are taken as proxies for the output of different public services: tons of waste collected, number of street lights, surface area of cemeteries, surface area of public parks, urban area, water network length and total population (Balaguer-Coll and Prior, 2009).

The study methodology, therefore, was based on a random-effects panel logit model, selected in accordance with the outcome of the Breusch-Pagan test, which indicated the need to perform a pooled regression. The Hausman test was applied to determine whether the estimates with fixed effects differed significantly from those with random effects. According to this test, the null hypothesis of equality cannot be rejected, and so we decided on the most efficient option, the panel data model with random effects (Molenberghs and Verbeke, 2005; Frondel and Vance, 2010). The results obtained are shown in Table 5. This model presents the following mathematical specification:

$$y_{it}^{4} = \alpha + \beta_{1}X_{1it} + \beta_{2}X_{2it} + \beta_{3}X_{3it} + \beta_{4}X_{4it} + \beta_{5}X_{5it} + \beta_{6}X_{6it} + \beta_{7}X_{7it} + \beta_{8}X_{8it} + \beta_{9}X_{9it} + \beta_{10}X_{10it} + \beta_{11}X_{11it} + v_{i} + u_{it}$$

where v_i is a random variable with average value v_i and a non-zero variance Var

(vi).

Results

Table 4 details the results of the econometric strategy performed in accordance with our study goals, showing that the random effects model was statistically significant.

	Pooled data		Fixed effects		Random effects		
Variables		Std.		Std.		Std.	Odds
	Coef.	dvn.	Coef.	dvn.	Coef.	dvn. ^a	Ratio
Efficiency (t=-1)	0.2218	0.0248	0.5317	1.3634	1.799*	6.061	6.064
Election	0.1748***	0.0429	0.0459	0.7061	1.707***	2.484	5.512
Change to progressive	-0.0694	0.0491	-0.1466	0.2764	1.805**	0.225	1.447
Continue progressive	0.0211	0.0402	-0.0457	0.0441	0.149	0.357	1.16
Political strength	0.0297	0.0382	-0.0149	0.5042	0.127	0.338	1.136
Corruption (t=-4) ^b	0.0966	0.1596	0.0539	4.5159	0.890*	1.413	2.434
Budget sustainability (t=-							
1)	-0.1657	0.1596	-0.0909	2.425	-1.595	0.258	0.203
Cash solvency (t=-1)	-0.06	0.0165	0.0141	0.2563	0.090*	0.054	1.094
Population	0.0529	0.0871	0.0001***	0.0006	-0.052	0.036	0.95
Unemployment	-0.0061	0.0048	0.1139***	0.8757	0.134	0.839	1.143

 Table 4. Results of analysis

⁴ X1= Efficiency(t=-1); X2= Election; X3= Change to progressive; X4= Continue progressive; X5= Political strength; X6= Corruption (t=-4); X7= Budget sustainability (t=-1); X8= Cash solvency (t=-1); X9=Population; X10= Unemployment; X11= Economic activity index.

Economic activity index	0.0009	0.0009	0.0051	0.154	0.007	0.007	1.007
Breusch-Pagan test	58.57 [0.000]						
Hausman test					17.08[0.0725]	

Source: The analysis performed by the authors.

Note: Observations n=423, with 141 municipalities for each period analysed (2011-2014; 2014-2015 and 2015-2016).

^a Robust (White) standard errors.

^b The variable 'Political corruption' was modelled by analysing the four years immediately preceding the contracting back operation, to observe how it was affected during the electoral cycle. *p<0.1; **p<0.05; ***p<0.01

This model is based on the odds ratio, which is relatively easy to interpret, assuming that a value greater than 1 corresponds to a positive effect on the probability of contracting back taking place, and that a value of less than 1 reflects a negative impact.

The results obtained show that global efficiency has a significant positive influence on the probability of local public services being contracted back (odds ratio = 6.064; p < 0.1). In other words, municipalities that present higher levels of efficiency are more likely to reverse an earlier privatisation of public services. This effect was detected with a lag of one year; thus, an increase in efficiency in the period t-1 is associated with greater remunicipalisation in year t. This result indicates that when efficiency increases, there is a greater probability of remunicipalisation taking place, which is contrary to what might be expected from the results obtained by Pérez-López et al. (2015) in their study of the overall efficiency of municipalities, i.e. that following privatisation there is a decrease in the efficiency of public services.

In relation to the political factors considered, the results obtained indicate the existence of opportunistic behaviour by public managers in the contracting back decision. In a pre-election period, hence, public managers will be more likely to remunicipalise public services (odds ratio = 5.512, p < 0.01). These results are in line with those obtained by Garrone and Marzano (2015), who concluded that shortly before elections there is a

resistance to the use of management forms associated with the private sector, as these are viewed in a negative light by voters (De la Higuera-Molina et al., 2018b).

Our results also show that when there is a change of government, in favour of a party with a progressive ideology, contracting back processes tend to increase (odds ratio = 1.447, p<0.05). This finding corroborates the results presented by Bel and Fageda (2007) and De la Higuera-Molina et al. (2018a), who reported that progressive governments have a greater tendency to use management forms related to the public sector, such as remunicipalisation.

The results also indicate that when a local entity is governed by a progressive party that has obtained a renewed mandate in recent elections, this situation does not significantly influence contracting back processes. Neither does the level of political fragmentation exert any significant influence on the decision to contract back a public service. The latter result is similar to that found by Gradus and Budding (2018) with respect to refuse collection services in the Netherlands.

In contrast, the level of municipal corruption does seem to influence contracting back decisions. Specifically, the appearance of political corruption four years prior to a remunicipalisation operation (i.e., the duration of the electoral cycle) exerts a positive and significant influence on such operations (odds ratio = 2.434, p < 0.1). On the other hand, according to the modelled analysis of political corruption, when this variable is considered with a time horizon of less than t-4, there is no effect on remunicipalisation processes. These results partly confirm the existence of a tendency towards remunicipalisation when there are relations between certain companies and corrupt politicians in the adjudication of privatisations or concessions of public services in Spain (Albalate et al., 2017).

The following findings were obtained regarding the elements of financial condition. Firstly, the variable 'Budget sustainability' does not significantly affect contracting back processes. However, cash solvency does exert a positive influence in this respect (odds ratio = 1.094; p < 0.1), which means that municipalities with more liquidity are more likely to remunicipalise a privatised service. These results are in line with those obtained by López-Hernández et al., (2018), who reported an inverse relationship between negative treasury situations and contracting out processes.

Finally, these results shows that socioeconomic factors such as population, unemployment and the economic activity index do not significantly influence the likelihood of a local authority contracting back privatised services.

Conclusions

The privatisation of public services has been widely studied, but little research attention has been paid to the contracting back of these services. In consequence, there is little prior evidence regarding the explanatory factors that may contribute to this process, by which contracting out is reversed, and there is a need to identify and understand the underlying issues.

Accordingly, this study seeks to determine which factors influence the contracting back of municipal services. To do so, we perform an analysis, using a random-effects panel data logit model, of the effects of cost efficiency, political behaviour, the detection of political corruption and financial variables on changes in the form of service provision and on the probability of the municipality contracting back its public services, taking account of various time dimensions. The study is based on a sample of 141 municipalities, each with a population of 20,000 to 50,000 inhabitants, for three periods: 2011-14, 2014-15 and 2015-16.

The detailed analysis presented of Spanish municipalities which have contracted back a wide range of public services leads us to conclude that an increase in the efficiency achieved in a prior period (t-1) raises the probability of a given municipality contracting back its public services. This result is in line with the hypothesis of cyclical patterns in local government contracting processes, termed the Pendulum Swing paradigm, as observed by Lobina (2017) and Warner and Aldag (2019), since the decision is not taken in order to improve efficiency. Contracting back decisions are also influenced by the local political situation, such that contracting back is more likely to take place in the period immediately preceding elections - reflecting the existence of opportunistic political behaviour – or following a change from a conservative government to a progressive one, which would corroborate the latter's ideological preference for the public control of municipal resources and services. Evidence of an association between political corruption and contracting back decisions has also been established in some cases. Thus, in relation to cases of political corruption, when the public prosecution service has detected signs of criminal action and when judicial proceedings have been initiated, this variable presents the longest delay before significant effects on remunicipalisation become apparent. This lag may be due to the limitation of our variable, which refers to the detection of cases of corruption, but not to the issuing of a judicial sentence in this respect. Thus, four years may pass before confirm the relationship between political corruption and the occurrence of remunicipalisation is confirmed.

Finally, the question of the local financial situation cannot be ignored. On the contrary to the fiscal stress-contracting out relationship, remunicipalisation is accentuated when the municipality presents a buoyant treasury position. This pattern of events reflects the prevailing administrative culture in Spain, in which there is a generalised preference for public ownership.

Future research in this field should be aimed at identifying other factors that may influence contracting back, such as quality of service and public accessibility, to complement those evaluated in this study.

References

- Albalate, D. & Bel, G. (2019). 'Politicians, bureaucrats and the public–private choice in public service delivery: Anybody there pushing for remunicipalization?', Jean Monnet@Cantabria Working Paper Series 1/19.
- Albalate, D., Bel, G., González-Gómez, F., & Picazo-Tadeo, A. J. (2017). Weakening political connections by means of regulatory reform: Evidence from contracting out water services in Spain. *Journal of Regulatory Economics*, 52(2), 211-235.
- Avis, E., Ferraz, C., & Finan, F. (2016). Do government audits reduce corruption? Estimating the impacts of exposing corrupt politicians (No. w22443). National Bureau of Economic Research.
- Balaguer-Coll, M.T., & Prior, D. (2009). Short-and long-term evaluation of efficiency and quality. An application to Spanish municipalities. *Applied Economics*, 41(23), 2991-3002.
- Bel, G., & Fageda, X. (2006). Between privatization and intermunicipal cooperation, small municipalities, scale economies and transaction costs, Urban Public Economics Review, 006: 13–31.
 - (2007). Why do local governments privatise public services? A survey of empirical studies, *Local Government Studies*, 33(4): 517–534.

- (2017). What have we learned from the last three decades of empirical studies on factors driving local privatisation?. *Local Government Studies*, 43(4), 503-511.
- Bel, G., Fageda, X., & Warner, M.E. (2010) Is private production of public services cheaper than public production? A meta-regression analysis of solid waste and water services. *Journal of Policy Analysis and Management*, 29(3): 553-577.
- Bel, G., Hebdon, R., & Warner, M. (2018). Beyond privatisation and cost savings: alternatives for local government reform. *Local Government Studies*, 44(2), 173-182.
- Bieler, A., & Jordan, J. (2018). Commodification and 'the commons': The politics of privatising public water in Greece and Portugal during the Eurozone crisis. *European Journal of International Relations*, 24(4), 934-957.
- De la Higuera-Molina, E. J., Plata-Díaz, A. M., López-Hernández, A. M., & Zafra-Gómez, J. L. (2018a). Dynamic-opportunistic behaviour in local government contracting-out decisions during the electoral cycle. *Local Government Studies*, 1-21.
- De la Higuera-Molina, E. J., Zafra-Gómez, J. L., Plata-Díaz, A. M., & Campos-Alba, C.
 M. (2018b). Ciclos políticos y factores explicativos de la externalización de servicios públicos en los gobiernos locales. *Revista de Estudios Regionales*, (112), 105-123.
- Demuth, J., Friederiszick, H.W. & Reinhold, S. (2018). "Reverse privatization as a reaction to the competitive environment: evidence from solid waste collection in Germany." *ESMT Working Paper 18-02*.

- Ditillo, A., Liguori, M., Sicilia, M., & Steccolini, I. (2015). Control patterns in contracting-out relationships: it matters what you do, not who you are. *Public Administration*, 93(1), 212-229.
- Fox, K. J. (1999). Efficiency at different levels of aggregation: public vs. private sector firms. Economics Letters, 65(2), 173-176.
- Frondel, M., & Vance, C. (2010). Fixed, random, or something in between? A variant of Hausman's specification test for panel data estimators. *Economics Letters*, 107(3), 327-329.
- Garrone, P., & Marzano, R. (2015). Why do local governments resist contracting out? Urban Affairs Review, 51(5), 616-648.
- Gradus, R., & Budding, T. (2018). Political and institutional explanations for increasing re-municipalization. *Urban Affairs Review*, DOI: 1078087418787907.
- Gradus, R., Martijn Schoute & Tjerk Budding (2019) "Remunicipalization in the Netherlands: an empirical investigation", Jean Monnet@Cantabria Working Paper Series 4/19.
- Groves, M., Godsey, W., & Shulman, M. (2003) Evaluating Financial Condition: A Handbook of Local Government. 3rd edition. Washington, DC: The International
- Hall, D., Lobina, E., & Terhorst, P. (2013). Re-municipalisation in the early twenty-first century: water in France and energy in Germany. *International Review of Applied Economics*, 27(2), 193-214.
- Hansen, M., Lindholst, A. C., Leiren, M. D., Solfjeld, I., & Randrup, T. B. (2016). Capability versus efficiency: contracting out park and road services in Norway. *International Journal of Public Sector Management*.

- Hessami, Z. (2012). On the link between government ideology and corruption in the public sector. mimeo, University of Konstanz.
- Hodge, G. (2000). *Privatization: An international review of performance*. Boulder, CO: Westview Press.
- Kim, Y., & Warner, M. E. (2018). Shrinking local autonomy: corporate coalitions and the subnational state. *Cambridge Journal of Regions, Economy and Society*, 11(3), 427-441. https://doi.org/10.1093/cjres/rsy020
- López-Hernández, A. M., Zafra-Gómez, J. L., Plata-Díaz, A. M., & de la Higuera-Molina,
 E. J. (2018). Modeling fiscal stress and contracting out in local government: The influence of time, financial condition, and the great recession. *The American Review of Public Administration*, DOI: 0275074017699276.
- Lobina, E. (2017). Water remunicipalisation: Between pendulum swings and paradigm advocacy. In *Urban Water Trajectories* (pp. 149-161). Springer, Cham.
- McDonald, D. A. (2018). Remunicipalization: The future of water services? *Geoforum* 91: 47-56.
- Molenberghs, G., & Verbeke, G. (2005). From Subject-Specific to Random-Effects Models. *Models for Discrete Longitudinal Data*, 257-263.
- Olken, B. A. (2006). Corruption and the costs of redistribution: Micro evidence from Indonesia. *Journal of Public Economics*, 90(4-5), 853-870.
- Pallesen, T. (2004). A political perspective on contracting out: the politics of good times. Experiences from Danish local governments. *Governance*, 17(4):573–87.
- Pérez-López, G.; Prior, D. & Zafra-Gómez, J.L. (2015): Rethinking new public management delivery forms and efficiency: long-term effects in Spanish local

government, Journal of Public Administration Research and Theory, 25 (4): 1157-1183.

- Petersen, O. H., Hjelmar, U., & Vrangbæk, K. (2018). Is contracting out of public services still the great panacea? A systematic review of studies on economic and quality effects from 2000 to 2014. *Social Policy & Administration*, 52(1), 130-157.
- Plata-Díaz, A. M., de la Higuera-Molina, E. J., Garrido-Rodríguez, J. C., & Zafra-Gómez, J. L. (2017). Contracting out and social services: responses to the austerity machine, financial condition and political parties. *Administration & Society*, 0095399717713797.
- Rhodes, M., Biondi, L., Gomes, R., Melo, A. I., Ohemeng, F., Perez-Lopez, G., & Sutiyono, W. (2012). Current state of public sector performance management in seven selected countries. *International Journal of Productivity and Performance Management*, 61(3), 235-271.
- Surroca J., Prior, D., & Tribó Giné, J.A. (2016). Using panel data DEA to measure CEOs' focus of attention: an application to the study of cognitive group membership and performance. *Strategic Management Journal*, 37:370-88
- Swarts, D., & Warner, M. E. (2014). Hybrid firms and transit delivery: the case of Berlin. Annals of Public and Cooperative Economics, 85(1), 127-146.
- Tellier, G. (2006). Public expenditures in Canadian provinces: An empirical study of politico-economic interactions. *Public Choice*, 126(3-4), 367-385.
- Voorn, B., Marieke van Genugten & Sandra van Thiel (2019) "A re-municipalization reinterpretation: finding equilibrium", Jean Monnet@Cantabria Working Paper Series 3/19.

- Warner, M.E. (2008). Reversing privatization, rebalancing government reform: Markets, deliberation and planning. *Policy and Society*, 27(2): 163-174.
- Warner, M. & Austin M. Aldag (2019) "Re-municipalization in the US: A pragmatic response to contracting". Jean Monnet@Cantabria Working Paper Series 2/19.
- Warner, M. E., & Hefetz, A. (2012). Insourcing and outsourcing: the dynamics of privatization among US municipalities 2002–2007. *Journal of the American Planning Association*, 78(3), 313-327.
- Zullo, R. (2009). Does financial stress induce privatization? Correlates of private and intermunicipal contracting, 1992–2002. *Governance: An International Journal of Policy*, 22(3):459–81