An initial investigation into the impact of tourism of local budgets

AN INITIAL INVESTIGATION INTO THE IMPACT OF TOURISM ON LOCAL BUDGETS: A COMPARATIVE ANALYSIS OF SPANISH MUNICIPALITIES

ABSTRACT

Tourist municipalities in Spain have, particularly since 2008, been vocal about a "chronic deficit" linked to public expenditures. Within this context, new strategies to increase revenues have been proposed, including the introduction of tourist taxes. This paper contributes to this debate by determining if tourism activity actually has a negative impact on local finances. To that end, a comparative analysis is undertaken of budget structures between tourist and non-tourist municipalities using data from more than 3,200 Spanish municipalities for the years 2001 to 2010. The determinants of expenditure, revenues and deficit per capita are identified using linear regression. The results found a direct relationship between tourist activity and local deficits in the smallest and largest municipalities, while a beneficial effect is actually seen in the remainder of the sample. In view of this evidence, the option of introducing new tourist taxes should be more restricted in scope and depend upon further evidence on possible cost inefficiency in the affected municipalities.

Keywords: Tourist taxes, public budgets, local finances, Spanish municipalities.

1. INTRODUCTION

The financial crisis has tightened the budgets of local and regional administrations in Spain, regardless of their size. Between 2009 and 2012, the aggregate budget of the Spanish municipalities decreased by approximately 16%, from 57.6 to 48.3 billion euro (MHyAAPP, 2013). This translated into a severe reduction in public services. These budget cuts are particularly problematic for tourist areas, which must service a floating visitor population that in many cases significantly outnumbers the permanent residents. Among these additional services, one can mention policing, cleaning, tourist offices, cultural and sport facilities, waste processing, environmental protection, etc.… Also, note that the seasonal nature of these visitor flows creates the need to maintain the tourism infrastructure during the off-peak season. In contrast to the increased expenditures, the recession-driven reduction in the number of visitors during 2009 and 2010, as well as the reduction in their average spending, led to a substantial drop in revenues that amounted to the problem (IET, 2011).

The Spanish Law[1] recognises the particularities of tourist municipalities and establishes a number of specific funding alternatives to help them cover their increased expenditures (Márquez, 2008). Regional governments, e.g. the Valencian Community, have also introduced complementary regulations along the same lines (Pastor and Soler, 2009). In spite of this, the Spanish Federation of Provinces and Municipalities (FEMP, 2008) reports that local administrations in tourist areas suffer from a "chronic deficit". Two main limitations of the existing laws are pointed out: i) the restrictive definition of "tourist municipality", which requires the number of hotel beds plus second residences to be strictly higher than the number of permanent residences; and ii) the limited funding alternatives associated to that status. A number of strategies to improve local revenues for tourist cities were then proposed by the FEMP, including more government transfers or the introduction of tourist taxes, some of which have recently been implemented in major areas, e.g. Barcelona.

These demands for more tax differentiation led us to question whether tourism activity has a significant impact on municipal budget structures to the extent that a more specific regulatory framework can be justified. We propose a two-stage process to achieve this objective: first, the hypothesis of a "chronic deficit" linked to tourism can be tested by using the observed revenues and expenditures. If such a deficit were to be found, then a second analysis would require removing the effect of cost inefficiency that may be inflating these expenditures. Only at this point would the introduction of new taxes and regulations be justifiable.

This paper aims to undertake the first stage of this process and to test the "chronic deficit" hypothesis that supports further research on the suitability of revised regulations. This is achieved by identifying any substantial differences in expenditure and revenue structures between tourist and non-tourist municipalities in Spain, as well as determining the impact of tourism on local finances. Surprisingly, there appears to be a gap in the empirical literature on this particular subject, as previous studies have focused on other political and socioeconomic variables as determinants of municipal budgets.

To achieve these objectives, a comparative analysis is carried out using an unbalanced pool database of more than 3,200 Spanish municipalities of all sizes between 2001 and 2010. An indicator of tourism supply is used in order to classify the sample municipalities as tourist or non-tourist. Inferential statistics are then employed to establish significant differences between tourist and non-tourist municipalities in all components of local budgets and also in financial ratios calculated from the same data. Finally, the determinants of expenditure, revenues, deficit and debt per capita are identified using linear regression. Besides tourism

[1] *Ley Reguladora de las Haciendas Locales. Real Decreto 2/2004.*

supply, other variables included are population, income, unemployment and for the first time, due to the availability of panel data, election cycles and recession years.

The remainder of this paper will be structured as follows: Section 2 provides a literature review on all subjects relevant to the paper in order to support the originality of our contribution. Section 3 describes the database and methodology. Section 4 carries out the comparative analysis of budget structures and discusses the determinants of municipal revenues, expenditures and deficit per capita. Finally, Section 5 summarizes the main conclusions.

2. LITERATURE REVIEW

It has long been established that tourism creates both positive and negative effects for the residents and the local economies (Kaiser and Helber, 1978), and there is an abundance of research on the economic, environmental and cultural dimensions of the tourism impact (Brunelli et al., 2010). From the economic perspective, tourism has been commonly seen as a relatively risk-free solution to increase local revenues and promote economic activity (Wong, 1996). On the contrary, some authors indicate that the evident impact on municipal expenditures to cater for the floating visitor population must lead to a saturation level when tourism stops paying off (Young, 1973). In spite of these opposing views, there is a lack of empirical evidence on the direct impact of tourism activity on municipal finances, especially in recent times. As a result, few valuable references on this specific topic could be found.

First, the article by Wong (1996) studied the impact of tourism activity on local expenditures for a cross-section of 155 US counties. Exhaustive lists of different components of local expenditures per capita were regressed (using Ordinary Least Squares - OLS) against socioeconomic variables such as population, employment, income and crime rates. In addition, the reliance of the local economy on tourism is measured as a ratio between tourism-related payroll and total payroll expenses. As expected, the results indicate that tourism has a positive impact on many components of municipal expenditure, including fire, police, transportation, parks and recreation and local administration. While the analysis is sound, it is clearly limited by the lack of a revenue perspective to balance the discussion.

In that regard, a second reference is Deller et al. (1997), who analysed the impact of the provision of recreational housing on local expenditures and revenues (a "holistic" approach) using a cross-sectional sample of 69 counties in the state of Wisconsin (US) for 1990. Also employing an OLS regression with similar variables, the tourism activity is now proxied by the number of recreational houses per capita. The resulting elasticities indicate that the provision of seasonal housing pays for itself by increasing the potential for local revenue-generation of a similar amount as the associated increase in demand for public services.

The related literature on Spanish municipalities is very limited. However, the evidence produced so far is of great interest for our research. The most comprehensive contribution on the topic is from Zafra-Gómez et al. (2009), who focused on identifying the key determinants of local financial performance. Using a large country-wide database, a very detailed typology of municipalities is developed, based on a number of socioeconomic variables that include local tourism revenues and other indicators of economic activity. Results suggest that tourism development leads to higher expenditures, yet also to improved liquidity, solvency and overall budgetary sustainability. These results agree with Pastor and Soler (2009), who provide a comparative analysis of budget structures among 542 tourist and non-tourist municipalities in the Autonomous Region of Valencia in 2005. The distinction between different types of municipalities is based on the regulatory definitions explained in the

introduction. The analysis is purely descriptive and concludes that the hypothesis of the "chronic deficit" of tourist municipalities is not true, as they enjoy higher financial autonomy and present a similar tax burden than non-tourist areas. While this challenges the very same claims that motivate this paper, it is worth noting the absence of any statistical inference to support their conclusions.

Additional methodological references can be obtained from a second body of literature, which is linked to the identification of the determinants of local deficit or tax burden (without a specific mention to tourism). In this topic, that are many articles that focus on Spanish municipalities, including Lago-Peñas (2004) for the Region of Galicia; Sollé-Ollé (2006), Fluvià et al. (2008), Bastida et al. (2009) and Benito et al. (2010) with Spanish-wide samples; and the post-recession studies of López-Hernández et al. (2012) and Zárate and Vallés (2012), the latter for the Region of Aragón.

The most common variable is population (see e.g., Allers et al., 2001; Petterson-Lidbom, 2001; Castells et al., 2004). This allows us to test for scale economies in the provision of public services at a local level, whose existence and reach remain a contested issue.[2] While some theoretical studies assume that scale economies exist, based on the fixed nature of many local resources (King, 1996), the empirical evidence is unclear, with studies like Sollé-Ollé (2006) reporting positive scale effects, and Vanden-Eeckaut et al. (1993) concluding the opposite. Other studies (Sollé-Ollé, 2006; Gonçalvez and Veiga, 2007; Zafra-Gómez et al., 2009) use population density or population strata. Alternatively, Fluvià et al. (2008) proves that deficit rises with the number of population centres in each municipality, arguing that the benefits of consolidation linked to returns to scale are not fully realized when population is dispersed, as some basic infrastructures (e.g. roads, sewage, etc.…) cannot be concentrated.

Commented [Pr1]: Please checkthis wording is correct.

Attention is also paid to demographic indicators such as the proportion of elderly (>65) and young (<20) residents, or the immigration rate (e.g. Zafra-Gómez et al., 2009). These age groups are key drivers of demand for municipal services such as employment, health or education, while a significant proportion of senior citizens would lead to a decrease in demand for sport facilities, for example (Zárate and Vallés, 2012). Per capita income and unemployment rate are common economic indicators; with the first possibly stratified depending on the sources of data (Bastida et al., 2009, Benito et al., 2010). More recently, Zárate and Vallés (2012) have also analysed the impact of any debt limits imposed on the local administration in the wake of the recession. This is shown to increase the tax burden since access to debt is restricted.

Political variables have also been found to have an impact on local budgets. A basic indicator is the left- or right-wing orientation of the governing party, which can take the form of a continuous (Allers et al., 2001) or a binary variable (Gonçalvez and Veiga, 2007). The consensus is that left-wing parties tend to spend more than centre or right-wing governments (Bastida et al., 2009). Election years are said to control for opportunistic increases in public spending and reduced taxation linked to electoral cycles (Petterson-Lidborn, 2001; Galli and Rossi, 2002; Guillamón et al., 2012; Bastida et al., 2013). Additional variables account for stable majorities (Lago-Peñas, 2004), government coalitions or newly created parties (Sollé-Ollé, 2006).

The present paper builds on these previous contributions, especially with regards to the holistic approach and the OLS regression methodology, but it is able to differentiate itself in several ways. First, this is with a significantly larger database that can potentially lead to more reliable results. Second, we explicitly classify the municipalities by using an indicator

[2] A comprehensive survey on the topic is provided in Fluvià et al. (2008).

that considers more aspects of tourism supply beyond the mere provision of recreational housing. With respect to the determinants of local budgets, given the size of our cross-section (3500+ municipalities), some of the political variables are not available at the required level of disaggregation. In spite of this, we benefit from ten-year time series data (2000-2010) to introduce electoral cycles and recession years in the estimated models. These are both novel contributions to the empirical analysis of the impact of tourism on local budgets that expand the limited empirical evidence available in the literature.

3. DATABASE AND METHODOLOGY

3.1 Database and variables

In order to achieve the proposed objectives, a large database was compiled from a variety of sources. It comprises all 3,411 municipalities in Spain with a population over 1,000 permanent residents[3], observed between 2001 and 2010. The panel is unbalanced, with a grand total of 31,987 observations. While the number of municipalities is less than half of those that exist in Spain, our sample covers more than 95% of the entire Spanish population.

The database combines financial data with social, economic and political indicators. Financial reports for the sample municipalities are made publicly available online by the Ministry of the Treasury and Public Administrations (MHyAAPP).[4] Revenues are classified in different chapters according to their source. Chapters I, II and III comprise direct taxes, indirect taxes and other local taxes, respectively. Combined, these sections can be defined as a measure of the municipality's ability to generate tributary income from its own residents and visitors and will be a key determinant of its financial autonomy.

On the expenditure side, two separate classifications are provided. The first one (Expenditure 1) follows a similar structure as before, with general categories such as personnel, goods and services, or financial costs. The second classification (Expenditure 2) is more informative and links the expenditures to the programmes they fund. These include, for example, administration, police, health, education, transport and also repaying public debt. This information is summarized in Table 1 below.

Table 1. Regulatory classification of local revenues and expenditures in Spain

Chapters	*Revenues*	*Expenditures (1)*	*Chapters*	*Expenditures (2)*	
I	Direct taxes	Personnel	1	Basic services	Safety, housing and environment.
II	Indirect taxes	Goods and services	2	Police and emergency	
III	Other local taxes	Financial expenses	3	Social protection	Employment and pensions
IV	Current transfers	Current transfers	4	Social services	Health, education, culture and sport
V	Property income	Property expenses	5	Economic activities	Agriculture, industry, infrastructure and R&D
VI	Disposal of assets	Disposal of assets	6	General regulation	
VII	Capital transfers	Capital transfers	7	Economic regulation	
VIII	Financial assets	Financial assets	9	Transfers	
IX	Financial liabilities	Financial liabilities	0	Public debt	

Source: Ministerio de Economía y Hacienda (Ministry of Economy and Finance)

With regards to the explanatory variables, La Caixa's Economic Yearbook[5] provides a local tourism indicator (*tur*), which indicates the municipality's percentage contribution[6] to the

[3] This threshold is linked to the scope of La Caixa's database, which does not include municipalities below that population threshold.
[4] http://servicioswebbis.meh.es/apps/entidadeslocales/
[5] http://www.lacaixa.comunicacions.com/se/

tourism subsection of the national trade tax revenues (*Impuesto de actividades económicas* - IAE) for the year 2011. The IAE for tourism-related businesses in Spain is determined by three variables: number of tourist beds, average annual occupation and the category of the establishment. Thus, the amounts originating from each municipality can be used as a proxy of local tourism supply. In addition, the same source provides a global economic activity indicator (*eco*), obtained as the ratio of municipal to national IAE revenues.

(Eq. 1) *tur = (local tourism IAE revenues)/(national tourism IAE revenues)*

(Eq. 2) *eco = (local IAE revenues)/(national IAE revenues)*

Our research objective requires splitting the sample between tourist and non-tourist municipalities. Previous literature on related topics has employed location quotients (LQ) in order to identify those regions with an above-average concentration of tourism activity (see e.g. Klein et al., 2005; Thompson, 2007; Gülcan et al., 2009). These can be calculated as a ratio of local and national tourism concentrations, measured as the proportion of tourism-related jobs to total jobs at each level, for example. While detailed data on jobs, hotel beds or similar variables is not available at a municipal level, we can compute a revenue-based LQ of municipal tourism intensity (*LQtur*) as follows:

$$LQtur = \frac{tur}{eco} = \frac{\frac{local\ tourism\ IAE\ rev.}{national\ tourism\ IAE\ rev.}}{\frac{local\ IAE\ rev.}{national\ IAE\ rev.}} = \frac{\frac{local\ tourism\ IAE\ rev.}{local\ IAE\ rev.}}{\frac{national\ tourism\ IAE\ rev.}{national\ IAE\ rev.}}$$

(Eq. 3)

Thus, any municipality with *LQtur*>1 shows a level of tourism intensity above the national average and is labelled as "tourist", while those with *LQtur*<1 are labelled "non-tourist"[7].

Table 2 shows the distribution of Spanish municipalities according to *LQtur*. The most noticeable aspect of this distribution is its extreme asymmetry, with the vast majority of municipalities (87.46%) located below 1. The municipality with the highest tourism intensity in Spain is the coastal town of Muro, in the Balearic Island of Mallorca. The remaining top cities draw a very diverse picture of the Spanish tourism industry. Besides the coastal areas along the Mediterranean and the Atlantic, as well as in the Islands, it is also possible to find ski resorts, e.g. Naut Aran (Catalonia); nature/mountain destinations such as Biescas (Aragon); cultural/religious places, e.g. Camaleño (Cantabria); or small towns that are thriving on wine tourism, such as Elciego (Basque Country).

Table 2. Distribution of sample municipalities according to *LQtur*

LQtur	*Municipalities*				*Examples*
	freq	*cumul.*	*%*	*cumul.*	
>27	1	1	0.03%	0.03%	Muro
[24-27)	4	5	0.12%	0.15%	Pájara, Yaiza, Fuencaliente, Santa Susanna
[21-24)	3	8	0.09%	0.25%	Salou, Santa Margalida, Sant Llorenç des Cardassar
[18-21)	4	12	0.12%	0.37%	Sant Joan de Labritja, Sant Pere Pescador, Antigua, Es Gran Migjorn
[15-18)	14	26	0.43%	0.80%	Adeje, La Oliva, Teguise, Mogán, Sant Lluís, Benidorm, Puerto de la Cruz
[12-15)	14	40	0.43%	1.23%	San Bartolomé de Tirajana, Torremolinos, Camaleño, Calvià, Tías, Lloret de Mar
[9-12)	20	60	0.61%	1.84%	Formentera, Boltaña, Santanyí, Benalmádena, Tinajo, Calella, Valle Gran Rey
[6-9)	33	93	1.01%	2.85%	Roquetas de Mar, Estepona, Naut Aran, Rota, Nerja, Benicasim, Alp, Sallent de Gállego
[3-6)	91	184	2.79%	5.64%	Marbella, Mijas, Fuengirola, Manacor, Sitges, Casares, Sort, Cabranes

[6] Note that La Caixa's municipal indicators of economic activity add up to 100,000 (rather than to 100), but this is of little significance for their interpretation.

[7] As a practical note, note that the national average of *LQtur* (population-weighted) was actually 1.1 due to the great asymmetry in the sample. *LQtur* values in Table 2 are divided by 1.1 in order to reset the average at 1.

[1-3)	225	409	6.90%	12.54%	Barcelona, Valencia, Sevilla, Palma, Santiago, Toledo, Ibiza, Cullera, Biescas, Elciego
<1	2,852	3,261	87.46%	100.00%	Madrid, Zaragoza, Málaga, Murcia, Las Palmas de Gran Canaria, Bilbao, Alicante, Oviedo

Source: Own elaboration

The national average splits the sample into 409 tourist and 2,852 non-tourist municipalities and leaves major cities, such as Madrid, Zaragoza or Málaga in the non-tourist segment. While these cities receive a high number of visitors, the separation assumes that municipal budgets do not depend on tourism as much as the other cities. This also provides the desired size heterogeneity in both segments which is expected to lead to more robust results.

Additional variables are collected from the National Statistics Institute (INE) and from La Caixa's Yearbook. These include: i) Stratified population: According to the Spanish Law, local administrations are bound to provide minimum standards of service according to their population. To that end, five categories are defined: less than 5,000 residents (1); 5,000-20,000 (2); 20,000-50,000 (3); 50,000-250,000 (4); and over 250,000 residents (5).[8] ii) Dependent population (*dep*): Share of elderly (>65 years) and young (<16 years) residents. iii) Election years (*ele*): Binary variable that takes the value 1 for years with local elections (2003, 2007) and the years before (2002, 2006) and 0 otherwise. iv) Crisis (*cri*): Binary variable that takes the value 1 for the recession years (2008-2010) and 0 otherwise. v) Other: municipal area (*km2*), population density (*den*) in pop/km^2 and unemployment rate (*une*).

Table 3 provides descriptive statistics for our sample, showing the differences between tourist and non-tourist municipalities. It is worth noting the higher average population density, land area and unemployment rate in tourist municipalities.

Table 3. Descriptive statistics of the municipal sample

	Mean		*Std. Dev.*		*Minimum*		*Maximum*	
	Tourist	*Non-T*	*Tourist*	*Non-T*	*Tourist*	*Non-T*	*Tourist*	*Non-T*
Tourism intensity (LQtur)	3.85	0.15	3.96	0.27	1.02	0	25	0.98
Dependent population (dep)	0.36	0.36	0.05	0.05	0.21	0.22	0.54	0.62
Area (km2)	88.01	79.12	87.46	86.93	1	0	511	909
Population density (den)	88.04	88.26	237.46	185.01	2.26	1.56	2799	3512
Unemployment rate (une)	6.78	7.31	4.16	4.16	0.3	0	24.3	28.7

Source: Own elaboration. Note: Non-T: Non-tourist municipality.

3.2 Methodology

Three different analyses will be carried out. First, we compare the structure of local budgets between tourist and non-tourist municipalities for the entire sample. The percentage distribution of the different chapters is calculated and compositional data analysis (Aitchison, 1986) is employed for statistical inference. Equality of means under the alternative hypotheses of equal or different covariance structures (H_0) is tested against the assumptions of different means and covariance (H_m) using the method[9] described in Pawlowsky-Glahn and Buccianti (2011). The test statistic Q has the following structure:

(Eq. 4) $$Q_{0m} = n_t \cdot ln(|\Sigma_{t0}| / |\Sigma_{tm}|) + n_{nt} \cdot ln(|\Sigma_{nt0}| / |\Sigma_{ntm}|) \sim \chi_{(deg)}$$

Where n_t and n_{nt} are the sample sizes of touristic and non-tourist groups, respectively; Σ denotes the covariance matrices under the different hypotheses; and *deg* refers to the number

[8] Regardless of their population, provincial capitals automatically belong to the top category 5.

[9] This methodology requires performing an isometric log-ratio (ilr) transformation on the raw data. This procedure is performed using the *Codapack* software (Comas-Cufi and Thio-Henestrosa, 2011).

of constraints placed on the parameters by the null hypotheses. Equality of average values per capita for each expenditure and revenue chapter is also tested using the Student's *t* approach.

Secondly, we split the sample by population strata and the same *t*-tests are performed for additional financial indicators, including: i) Financial autonomy: the proportion of revenue chapters I to III over total revenues. It proxies the municipality's ability to generate revenue, as opposed to being dependent on government transfers; ii) Financial burden: ratio between debt payments (chapter 0 of the second expenditure classification) and the sum of revenue chapters I to V. It indicates the share of local revenues that are allocated to repay public debt (Pastor and Soler, 2009); and iii) Fiscal gap per capita: difference between expenditures per capita (net of public debt) and revenues per capita (net of current and capital transfers). This alternative measure of deficit focuses on expenditures linked to the provision of public services and revenues raised within the municipality (Grembi et al., 2012).

The third way to meet our research objectives is via regression analysis, which allows us to perform statistical inference in order to properly test the impact of tourism supply on municipal finances. The financial indicators explained above will be regressed against a vector of municipal characteristics, which are directly taken from the previous literature on municipal finances in Spain (see Section 2), in addition to our new indicator of tourism intensity. The estimated equations have the following structure (see abbreviations for the variables in Section 3.1):

(Eq. 5) $$Y_i=f(LQtur, den, dep, une, km2, cri, ele, STRAT, AUT)+\varepsilon$$

Where *Y* denotes five different endogenous variables: financial autonomy, taxes per capita, expenditures per capita, fiscal gap per capita, and debt per capita; ε denotes statistical disturbance; *AUT* denotes a vector of binary variables for the Autonomous Communities of Spain. The introduction of fixed effects at a municipal level was considered at an early stage but later dropped in order to prevent masking the effects of other variables. The regional dummies were included instead in order to control for additional factors that can have an impact on municipal costs or revenues, such as weather conditions, income per capita (as argued by Zafra-Gómez et al., 2009), fiscal regimes or insularity; *STRAT* denotes a vector of binary variables for the population strata, as has been done in previous studies. However, besides the evident search for economies of scale, we are more interested in any possible interactions between tourism intensity and population. It is also worth noting the introduction of the crisis effect (*cri*), which is directly taken from the recent study by López-Hernández et al. (2012) that confirmed the negative impact of the global recession on municipal finances in Spain. A linear time trend was removed because of the significant correlation with election years. Other interesting variables, such as commercial or industrial development (proposed by Zafra-Gómez et al., 2009), political orientation, or the population centres employed by Fluvià et al. (2008) are not included due to data not being available for the full sample period.

While there are suitable estimation methods that are specific for panel data, Ordinary Least Squares (OLS) is considered appropriate for the descriptive purposes of this paper. Coefficients will be standardised to allow for easier interpretation of results, particularly with regards to the relative impact of each variable on the different indicators. Table 4 provides the matrix of linear correlation among the non-binary explanatory variables.

Table 4. Linear correlations among the explanatory variables

	LQtur	*dep*	*une*	*den*	*km2*
LQtur	1.000	-0.166	-0.065	-0.004	0.028
dep	-0.166	1.000	-0.004	-0.241	0.225
une	-0.065	-0.004	1.000	0.041	0.103
den	-0.004	-0.241	0.041	1.000	-0.147
km2	0.028	0.225	0.103	-0.147	1.000

Source: Own elaboration

4. RESULTS AND DISCUSSION

4.1 Budget structures

Table 5 shows the comparative analysis of revenue structures. Overall, the percentage distribution of revenues is shown to significantly differ between the tourist and non-tourist clusters (tested using the statistic from Eq. 4). The same conclusion is obtained for most of the average revenue chapters per capita, with tourist municipalities presenting higher values in all cases. This is expected in some categories, such as direct and indirect taxes, due to the increased commercial orientation of tourist areas. It is also worth noting that tourist municipalities receive more support from other administrations in terms of current transfers. While this suggests that the tourist nature of a municipality is acknowledged by regional governments as a determinant for the allocation of public funds, it is surprising to see that capital transfers, linked to infrastructure developments, do not show the expected difference in per capita values and the revenue proportion is higher in non-tourist municipalities.

Table 5. Breakdown of municipal revenues per capita

Revenue chapters	*Mean*				*Standard Deviation*	
	Tourist		*Non-Tourist*		*Tourist*	*Non-Tourist*
	p/c	*%*	*p/c*	*%*	*p/c*	*p/c*
I. Direct taxes	303.94*	0.25*	206.00	0.22	3.94	1.14
II. Indirect taxes	63.81*	0.05	45.69	0.04	104.03	141.43
III. Other local taxes	226.84*	0.18	157.33	0.16	226.10	213.76
IV. Current transfers	282.69*	0.27	271.41	0.31	158.94	159.95
V. Property income	38.63*	0.03	21.72	0.02	95.97	63.96
VI. Disposal of assets	38.54	0.03	36.11	0.03	145.35	201.66
VII. Capital transfers	174.78	0.15	172.62	0.17	219.45	202.03
VIII. Financial assets	3.74*	0.002	1.47	0.001	71.78	26.85
IX. Financial liabilities	65.72*	0.05	49.25	0.05	138.61	118.97

Source: Own elaboration. Note: p/c: per capita variables. %: percentage over total revenues. Asterisk indicates a statistically significant (5%) difference between tourist and non-tourist groups.

Table 6. Breakdown of municipal expenditures per capita (1)

Revenue chapters	*Mean*				*Standard Deviation*	
	Tourist		*Non-Tourist*		*Tourist*	*Non-Tourist*
	p/c	*%*	*p/c*	*%*	*p/c*	*p/c*
I. Personnel	346.68*	0.31*	261.45	0.30	182.67	139.61
II. Goods and services	341.28*	0.30	263.59	0.29	208.37	160.20
III. Financial expenses	14.20*	0.01	9.50	0.01	16.26	11.49
IV. Current transfers	63.96*	0.06	49.78	0.05	73.86	59.33
VI. Property expenses	329.58*	0.03	303.60	0.30	325.02	321.12
VII. Capital transfers	14.10*	0.01	10.13	0.01	41.52	45.13
VIII. Financial assets	4.73*	0.01	1.77	0.001	75.67	29.84
IX. Financial liabilities	40.04*	0.03	31.16	0.03	60.05	65.76

Source: Own elaboration. Note: p/c: per capita variables. %: percentage over total expenditures. Asterisk indicates a statistically significant (5%) difference between tourist and non-tourist groups.

Table 6 paints a similar picture. Significant differences exist overall and in the individual chapters, and it can be clearly seen that tourist municipalities present higher average levels of expenditure, including those related to infrastructure and other properties (Chapter VI). This

suggests an imbalance between revenues from capital transfers (Table 5), which do not differ between groups, and property expenses that are, on average, 8.5% higher in tourist municipalities (Table 6). Such a funding gap might explain the higher levels of public debt in said cluster, as indicated in Table 7. Again, tourist municipalities are shown to experience higher levels of per capita expenditure in all categories, including basic services such as housing (residential or recreational), cleaning and waste management, or environment protection; social services such as health or culture; regulation; and particularly, police and emergency costs, which are 53% higher, on average, in the tourist municipalities. All these items are a major concern for the FEMP, and typically feature in their demands for alternative funding sources.

Table 7. Breakdown of municipal expenditures per capita (2)

Revenue chapters	*Mean*				*Standard Deviation*	
	Tourist		*Non-Tourist*		*Tourist*	*Non-Tourist*
	p/c	*%*	*p/c*	*%*	*p/c*	*p/c*
1. Basic services	189.72*	0.17*	152.16	0.17	175.82	169.79
2. Police and emergency	93.77*	0.07	61.24	0.06	172.87	131
3. Social protection	105.04*	0.10	98.14	0.11	90.55	93.57
4. Social services	498.40*	0.43	413.93	0.44	363.04	343.59
5. Economic activities	123.38*	0.10	103.99	0.11	195.51	170.48
6. General regulation	53.92*	0.04	39.24	0.04	138.73	106
7. Economic regulation	161.56*	0.12	130.11	0.12	436.97	387.08
9. Transfers	11.80*	0.01	9.52	0.01	35.39	24.53
0. Public debt	53.26*	0.05	39.64	0.04	70.32	75.85

Source: Own elaboration. Note: p/c: per capita variables. %: percentage over total expenditures. Asterisk indicates a statistically significant (5%) difference between tourist and non-tourist groups.

The above-mentioned differences are brought together in Table 8, which combines both expenditure and revenue information in simple financial indicators. In order to improve the analysis, the results are further disaggregated in population strata. Firstly, note that non-capital tourist municipalities up to 250,000 residents (strata 1-4) enjoy significantly more average financial autonomy than their non-tourist counterparts, which translates into a higher potential for revenue generation and less dependence on government transfers. Furthermore, there is little difference in the financial burden, which indicates the share of local revenues that are allocated to repay public debt. Both types of municipalities spend around 6% on that concept and, in the only case there is a substantial discrepancy (group 2), financial burden is actually higher in non-tourist areas.

Overall, fiscal gap per capita does not significantly differ between both groups, which, at first sight, could be interpreted as a sign that tourism activity actually evens itself out for Spanish municipalities. However, a closer examination of the individual population groups reveals a more complex situation. Non-capital tourist municipalities between 5,000-250,000 residents (strata 2-4) do actually enjoy lower fiscal gaps than their non-tourist counterparts. The opposite happens for the smallest municipalities, and the largest cities in group 5 cannot be statistically differentiated due to their high variability.

Table 8. Financial indicators

Indicator	*Strat.*	*Tourist*			*Non-Tourist*	
		mean	*s.d.*		*mean*	*s.d.*
Financial autonomy	1	0.421	0.004	*	0.397	0.001
	2	0.527	0.004	*	0.451	0.001
	3	0.561	0.005	*	0.484	0.002
	4	0.593	0.007	*	0.513	0.003
	5	0.511	0.015		0.484	0.008
	Total	0.478	0.002	*	0.422	0.001
Financial burden	1	0.049	0.001		0.051	0.001
	2	0.067	0.002	*	0.073	0.001
	3	0.077	0.002		0.088	0.001
	4	0.086	0.005		0.085	0.002
	5	0.097	0.012		0.100	0.008
	Total	0.060	0.001		0.060	0.001
Fiscal gap per capita	1	411.71	9.537	*	388.43	3.741
	2	291.05	8.922	*	310.02	3.226
	3	218.23	10.561	*	261.97	5.276
	4	174.58	12.150	*	236.09	6.805
	5	268.69	28.048		245.34	21.704
	Total	342.68	6.068		353.75	2.567

Source: Own elaboration. Asterisk indicates a statistically significant (5%) difference between tourist and non-tourist groups.

These first results mostly agree with the conclusions from Pastor and Soler (2009) by diminishing the credibility of the "chronic deficit" hypothesis put forward by the FEMP. The negative impact of tourist activity on local finances is only observed in the smallest municipalities and the complete opposite occurs in the vast majority of the remaining sample. Nevertheless, while the descriptive statistics shown above have a clear meaning, the presumed impacts could be affected by other variables. Thus, it is necessary to refine the methodology in order to establish the robust causal relationship required by our policy objective. To that end, a regression analysis is carried out.

4.2 Regression analysis

The impact of tourism supply on five endogenous variables (financial autonomy, expenditure, taxes, fiscal gap and debt per capita) is tested by estimating the linear specifications described in Equation 5. Note that second-order interactions between tourism intensity and the population strata are included, as well as a squared tourism coefficient that reinforces the impact of different levels of tourism specialisation seen in Table 2. The five resulting equations are shown in Table 9. While most parameters are significant at a 95% confidence level, goodness-of-fit (measured by the R^2 coefficient) varies widely and ranges between 41.8% down to 5.9% in the case of the debt equation, which is clearly affected by complex unpredictable factors at a local level. However, note that the predictive capacity of the model is of little use for our research objective. On the contrary, the F-coefficient is significant in all cases, indicating that the identified interactions contribute to explaining the dependent variable.

Table 9. Linear regression coefficients

	Financial autonomy		*Expenditures per capita*		*Taxes per capita*		*Fiscal gap per capita*		*Debt per capita*	
Variables	*Unstand.*	*Stand.*	*Unstand.*	*Stand.*	*Unstand.*	*Stand.*	*Unstand.*	*Stand.*	*Unstand.*	*Stand.*
LQtur	0.008	0.129 *	68.626	0.287 *	47.335	0.275 *	5.683	0.033 *	2.667	0.083 *
LQtur*LQtur	0.000	-0.073 *	-1.321	-0.097 *	-1.009	-0.103 *	0.002	0.000	-0.010	-0.005
LQtur*strat2	0.005	0.058 *	-8.469	-0.025 *	2.858	0.012	-9.703	-0.040 *	-1.010	-0.022 *
LQtur*strat3	0.004	0.023 *	-13.279	-0.022 *	-0.534	-0.001	-11.573	-0.026 *	-0.495	-0.006
LQtur*strat4	0.011	0.040 *	-14.002	-0.014 *	7.537	0.010 *	-15.279	-0.021 *	-0.437	-0.003
LQtur*strat5	0.019	0.009	1.404	0.000	23.131	0.004	8.504	0.001	-13.055	-0.012
strat2	0.043	0.125 *	-89.302	-0.071 *	-6.222	-0.007	-90.061	-0.100 *	16.977	0.101 *
strat3	0.070	0.117 *	-122.861	-0.056 *	-1.163	-0.001	-149.154	-0.094 *	24.867	0.084 *
strat4	0.090	0.109 *	-96.108	-0.031 *	29.029	0.013 *	-163.293	-0.074 *	31.044	0.076 *
strat5	0.087	0.039 *	-60.010	-0.007 *	47.173	0.008 *	-198.678	-0.033 *	53.591	0.048 *
ele	-0.003	-0.010 *	96.634	0.086 *	34.925	0.043 *	68.281	0.084 *	2.749	0.018 *
dep	-0.956	-0.285 *	-1876.308	-0.156 *	-2072.688	-0.240 *	728.002	0.085 *	-2.536	-0.002
une	-0.002	-0.057 *	5.705	0.044 *	-1.497	-0.016 *	8.865	0.091 *	0.225	0.012
den	0.0001	-0.073 *	-0.027	-0.062 *	-0.022	-0.070 *	0.003	0.009 *	-0.001	-0.020 *
km2	0.000	-0.022 *	0.175	0.036 *	0.037	0.011 *	0.101	0.029 *	0.016	0.025 *
cri	-0.033	-0.099 *	306.212	0.251 *	85.873	0.098 *	230.331	0.238 *	4.197	0.023 *
aut2	0.079	0.092 *	313.860	0.102 *	206.584	0.093 *	19.680	0.009	20.080	0.049 *
aut3	0.029	0.026 *	53.692	0.013	31.105	0.011 *	54.153	0.019 *	-13.191	-0.024 *
aut4	0.077	0.069 *	-4.913	-0.001 *	19.355	0.007	16.230	0.006	1.643	0.003
aut5	-0.115	-0.123 *	45.645	0.013 *	-143.606	-0.058 *	263.024	0.106 *	-6.908	-0.015 *
aut6	0.127	0.124 *	-81.371	-0.021 *	62.779	0.023 *	-86.036	-0.032 *	-15.456	-0.031 *
aut7	0.111	0.204 *	41.649	0.021 *	144.745	0.104 *	-100.696	-0.072 *	-9.952	-0.038 *
aut8	0.106	0.186 *	-50.841	-0.025 *	61.048	0.042 *	-111.451	-0.076 *	-7.201	-0.026 *
aut9	0.149	0.343 *	312.390	0.196 *	290.633	0.254 *	-41.498	-0.036 *	23.698	0.112 *
aut10	0.024	0.035 *	-91.597	-0.037 *	9.802	0.006	-56.488	-0.032 *	-20.887	-0.064 *
aut11	-0.016	-0.029 *	-130.932	-0.067 *	-39.268	-0.028 *	-24.968	-0.018 *	-22.104	-0.085 *
aut12	0.181	0.035 *	271.914	0.015 *	263.724	0.020 *	-25.498	-0.002	8.296	0.004
aut13	0.175	0.097 *	139.057	0.021 *	210.469	0.045 *	-92.009	-0.019 *	19.894	0.023 *
aut14	0.070	0.085 *	139.492	0.049 *	85.343	0.042 *	7.782	0.004	-0.862	-0.002
aut15	0.051	0.035 *	96.235	0.019 *	78.714	0.021 *	12.238	0.003	-14.884	-0.021 *
aut16	0.051	0.052 *	399.527	0.115 *	193.791	0.077 *	56.660	0.023 *	17.833	0.038 *
aut17	-0.042	-0.058 *	560.626	0.212 *	148.066	0.078 *	364.341	0.192 *	5.034	0.014 *
aut18	0.141	0.273 *	64.894	0.035 *	149.687	0.112 *	-93.239	-0.070 *	-0.076	0.000
constant	0.704	- *	1327.521	-	999.498	- *	-2.406	-	28.873	- *
Observations		30,088		31,809		31,809		28,596		28,596
F		752.86 *		358.58 *		428.43 *		180.06 *		125.99 *
R-squared		0.4182		0.242		0.204		0.156		0.059

Asterisk indicates statistically significant (5%) coefficients. Unstand: Unstandardized coefficients. Stand: Standardized coefficients.

The standardized coefficients allow us to compare the relative impacts of each variable. The dependent population is shown to have the largest negative influence on financial autonomy, expenditure and revenues per capita. This translates into a positive impact on fiscal gaps, as the reduction of tax revenues offsets the observed cost savings, likely linked to different patterns of public service consumption between dependent and non-dependent populations. The picture is similar for unemployed residents, except for the fact that they actually increase municipal expenditures (i.e. employment services). We also found that higher population density leads to lower expenditures per capita, clearly indicating the existence of returns to density in the provision of public services at a municipal level. Expenditures per capita are shown to increase around election years, thus agreeing with the previous literature (e.g., Galli and Rossi, 2002). In addition, note that tax revenue does not keep up with the increased spending for the same electoral reasons. The impact of the recession years covered by our sample (2008-2010) is also as expected, with a reduction in financial autonomy, mainly driven by the increase in demand for social services that higher taxes cannot fully cover. In both cases, municipalities experience larger fiscal gaps and are pushed into debt.

The population coefficients in the expenditure equation (note the negative sign and increasing absolute value) indicate the existence of economies of scale in the provision of public services at a municipal level up to the third category (i.e. between 1,000-50,000 residents). From that point, average local expenditures per capita rise again. This result may explain the inconclusive findings reported by the previous literature, which has not settled on either

increasing or decreasing scale economies (see Fluvià et al., 2008). The reason may be that municipal cost curves are indeed U-shaped, and different scale effects can be observed if average municipal sizes in the sample differ significantly. On the revenue side, large cities experience a significant revenue effect that translates into better financial autonomy and lower fiscal gaps per capita, yet higher levels of debt are also observed.

For the purposes of this research, however, the tourism-related coefficients are the most relevant as they allow us to confirm the conclusions obtained in the previous section. Again, financial autonomy is positively affected by tourism intensity for all municipalities. The same applies to expenditures and taxes per capita, though the specific impacts are modulated by population size. The negative signs of the significant interactions can be clearly interpreted as tourism activity actually expanding the range of population that municipalities enjoy scale economies within. This is another aspect that reinforces the positive impact of tourism on local finances. With regards to the fiscal gap, it is worth noting that tourism actually helps municipalities between 5,000 to 250,000 residents (excluding provincial capitals) to achieve lower deficit and reduced indebtedness. Thus, we can conclude that in all these municipalities, which comprise more than half of the Spanish population, tourism activity does not create a burden to local budgets, as the improved ability for revenue generation offsets the increased expenditures required to service the floating visitor population.

On the other hand, and agreeing with the results from Table 8, a direct link between tourism, deficit and debt can be established for groups 1 and 5, which are not statistically differentiated in the fiscal gap equation. Therefore, it is only in these extreme cases that the data supports the hypothesis of the tourism-related "chronic deficit" put forward by the FEMP. Thus, the option of introducing new tourist taxes should be more restricted in scope and still needs to depend upon further evidence of possible cost inefficiency by the affected municipalities. It is only by testing these hypotheses that the demands of the affected municipalities can be justified.

In the meantime, the policy recommendation for the central and regional governments is to encourage all local administrations in tourist and non-tourist areas to reduce costs. While this can be achieved in a variety of ways, our results clearly suggest that full or partial consolidation of smaller municipalities would be an effective policy, which aims to exploit the economies of scale that exist in the provision of public services at a municipal level, with the limitations discussed by Fluvià et al. (2008) regarding infrastructure that cannot be concentrated. This provides economic justification for the local administrations to adhere to the public sector rationalization programme put forward by the Spanish government in 2013.

5. SUMMARY

This paper aims to determine if tourism activity has a negative impact on local finances in the context of a debate regarding a more differentiated regulatory framework for tourist municipalities in Spain. To that end, a comparative analysis of budget structures and the financial situation between tourist and non-tourist municipalities is carried out using panel data of more than 3,200 local entities from 2001-2010. An indicator of tourism intensity, based on tax revenues, is used to split the sample into tourist and non-tourist groups. The determinants of expenditure, revenues and deficit per capita are identified using linear regression.

Simple inferential statistics reveal that tourist municipalities present higher average revenues per capita in all categories, and a higher proportion of tax revenues that leads to more financial autonomy than the non-tourist group. On the other hand, the tourist cluster presents higher levels of expenditure, including police, housing, environmental, social services and

regulation. In addition, tourist municipalities receive comparatively less support for infrastructure developments from other administrations. In spite of this, tourism is shown to have a beneficial impact on local finances for the specialised municipalities between 5,000 to 250,000 residents (excluding capitals), as they achieve lower deficit, reduced indebtedness, and larger scale economies. Only for the smallest and largest municipalities, tourism is shown to create a burden on local budgets, as the improved ability for revenue generation does not match the increased expenditures required to service the floating visitor population.

Thus, the first conclusion is that the option of introducing new tourist taxes or alternative funding sources should be more restricted in scope and never introduced as a general option that is available to the entire spectrum of tourist municipalities. Furthermore, even its restricted implementation is not fully supported by our limited empirical evidence. These results simply set the stage for future research on the likely impact of cost inefficiency by the affected municipalities, which may link to inflated expenditures. It is only by testing these hypotheses that the demands of the affected municipalities for a new regulatory framework can be justified. In the meantime, the policy recommendation is to encourage all local administrations to reduce costs. Our results clearly suggest that the consolidation of smaller municipalities would be an effective policy, aimed at exploiting the economies of scale.

Finally, it is also worth noting that this study presents some limitations, which are mostly related to missing variables that could not be included because they were unavailable at the required level of disaggregation. These limitations become new targets for future research, such as: i) the introduction of new variables in the regression, such as income per capita, population centres, industrial or commercial development, ii) explicit consideration of different levels of tourist specialisation and improving the municipal classification in that sense, and iii) the measurement of the evolution of visitors to each region, in order to further discriminate between expanding and declining destinations. This can lead to a better understanding of the impact of tourism on local budgets.

REFERENCES

Allers, M., de Haan, J. and Sterks, C. (2001). Partisan influence on the local tax burden in the Netherlands. Public Choice 106, 351-363.

Aitchison, J. (1986). The Statistical Analysis of Compositional Data. Monographs on Statistics and Applied Probability. Chapman & Hall, London.

Bastida, F., Benito, B. and Guillamón, M. (2009). An empirical assessment of the municipal financial situation in Spain. International Public Management Journal 12 (4), 484-499.

Bastida, F, Beyaert, A. and Benito, B. (2013). Electoral cycles and local government debt management. Local Government Studies 39 (1), 107-132.

Benito, B., Bastida, F. and Muñoz, M. (2010). Factores explicativos de la presión fiscal municipal. Spanish Accounting Review 13 (2), 239-283.

Brunelli, M. Macedo-Soares, T., Zouain, D. and Borges, A. (2010). Scientific research in tourism: Review of the literature from 2005 to 2009. Revista de administração pública 44 (5), 1225-1240.

Castells, A., Esteller, A. and Vilalta, M. (2004). Full characterization of the political economy of fiscal adjustment: Evidence from Spanish municipalities. Institut d'Economia de Barcelona (IEB). Working Paper 3/2004.

Comas-Cufi, M. and Thió-Henestrosa, S. (2011). CoDaPack 2.0, Universitat de Girona. http://ima.udg.edu/codapack/

Deller, S., Marcouiller, D. and Green, G. (1997). Recreational housing and local government finance. Annals of Tourism Research 24 (3), 687-705.

Everitt, B., Landau, S. and Leese, M. (2001). Cluster Analysis 4th ed. Wiley, London.

FEMP. (2008). Modelos de gestión turística local. Federación Española de Municipios y Provincias. Ministerio de Industria, Energía, y Turismo. http://www.femp.es//

Fluvià, M., Rigall-I-Torrent, R. and Garriga, A. (2008). Déficit en la provisión local de servicios públicos y tipología municipal. Revista de Economía Aplicada 48 (16), 111-132.

Galli, E. and Rossi, S. (2002). Political budgets cycles: the case of the Western German lander. Public choice 110 (3-4), 283-303.

Gonçalvez, L. and Veiga, F. (2007). Political business cycles at the municipal level. Public choice 131 (1), 45-64.
Grembi, V., Nannicini, T. and Troiano, U. (2012). Policy Responses to Fiscal Restraints: A Difference-in-Discontinuities Design. Harvard University Working Paper.
Guillamón, N., Bastida, F. and Benito, B. (2011). The electoral budget cycle on municipal police expenditure. European Journal of Law and Economics. DOI: 10.1007/s10657-011-9271-6
Gülcan, Y., Kuştepeli, Y. and Akugüngör, S. (2009). Public policies and development of the tourism industry in the Aegean region. European Planning Studies 17 (10), 1509-1523.
IET. (2011). Balance del turismo 2010. Instituto de Estudios Turísticos. Ministerio de Industria, Energía, y Turismo. http://www.iet.tourspain.es/
Kaiser C. and Helber, L. (1978). Tourism Planning and Development. Boston. CBI.
King, D. (1996). A model of optimum local authority size, in G. Pola et al. (eds.): Developments in Local Government Finance: Theory and Policy, Edward Elgar, Chentelham.
Klein, Y., Osleeb, J. and Viola, M. (2004). Tourism-generated earnings in the coastal zone: A regional analysis. Journal of Coastal Research 20 (4), 1080-1088.
Lago-Peñas, S. (2004). Local governments' asymmetric reactions to grants: looking for the reasons. Papeles de trabajo del Instituto de Estudios Fiscales. Serie Economía, no. 22.
López-Hernández, A., Zafra-Gómez, J.L. and Ortíz-Rodriguez, D. (2012). Effects of the crisis in Spanish municipalities' financial condition: an empirical evidence (2005-2008). International Journal of Critical Accounting 4 (5), 631-645.
Márquez, A. (2008). El municipio turístico: régimen jurídico y propuestas para su mejora. Tesis Doctoral. Universidad de Granada.
MHyAAPP. (2013). Estadísticas territoriales. Ministerio de Hacienda y Administraciones Públicas. http://www.minhap.gob.es/
Pastor, V. and Soler, A. (2009). Un análisis económico-presupuestario de los municipios turísticos en la Comunidad Valenciana. Gestión Turística 12, 141-163.
Pawlowsky-Glahn, V. and Buccianti, A. (2011). Compositional Data Analysis. Theory and Applications. Wiley, New York.
Pettersson-Lidborn, P. (2001). An empirical investigation on the strategic use of debt. The Journal of Political Economy 109 (3), 570-583.
Solé-Ollé, A. (2006). The effects of party competition on budget outcomes: empirical evidence from local government in Spain. Public Choice 126 (1), 145-176.
Thompson, E. (2007). Measuring the impact of tourism on rural development: An econometric approach. Journal of Regional Analysis and Policy 37 (2), 147-154.
Vanden Eeckaut, P. Tulkens, H. and Jamar, M. (1993). Cost efficiency in Belgian municipalities, in: H. Fried, Lovell, K. and Schmidt S. (eds.): The Measurement of Productive Efficiency: Techniques and Applications, Oxford University Press, Oxford.
Wong, J. (1996). The impact of tourism on local government expenditures. Growth and Change 27, 313-326.
Young, G. (1973). Tourism: Blessing or Blight? Baltimore: Penguin.
Zafra-Gómez, J.L., López-Hernández A. and Hernández-Bastida, A. (2009). Evaluating financial performance in local government: maximizing the benchmarking value. International Review of Administrative Sciences 75, 151.
Zárate, A. and Vallés, J. (2012). Comportamiento tributario de los gobiernos locales españoles. XV Encuentro de economía aplicada. La Coruña 2012.

Commented [Pr2]: Is this wording correct?