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Budget Transparency in Local Governments

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GRADE IN FINANCE AND ACCOUNTING

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Abstract

This work will study the socio-demographic determinants, political, budgetary and economic, that affect the transparency of local entities. To perform the study, we have chosen the transparency index data for the 110 largest municipalities of Spain, in 2012 has been chosen from the information offered by the website of the organization Transparency International Spain. The results indicate that the budget imbalance and population, influence an increase in the level of transparency. On the contrary, factors such as debt per capita, unemployment and provincial capital, affect a decrease in the level of transparency. In addition, through the evolution of the global index it has been possible to conclude that legislation on transparency and the organizational Transparency International Spain, have helped to stimulate the disclosure of the information from local governments.

Keywords: transparency, local government, disclosure of information

JEL Classifications: H11, H71, H72

Index of contents

1. Introduction	1
2. Literature review on transparency in governments	3
3. The transparency index for local governments in Spain	8
4. Sample description of the variables and methodology	11
4.1. Sample and description of variables	11
4.2. Methodology.....	14
5. Results.....	15
5.1. Results of the global transparency.....	15
5.2. Results of transparency in the six areas	17
6. Conclusions	18
References.....	21

Index of tables and graphics

2. Literature review on transparency in governments.....	3
Table 1. The transparency of public administrations.....	24
3. The transparency index for local governments in Spain.....	8
Table 2. Municipalities contained in the 2012 TI survey.....	26
Table 3. Indicators prepared by TI-Spain.....	28
Graphic 1. Evolution transparency index.....	34
Graphic 2. Evolution global transparency index.....	35
4. Sample description of the variables and methodology	11
4.1. Sample and description of variables	11
Table 4. Sample of the independent variables.....	29
4.2. Methodology.....	14
Table 5. Descriptive statistics.....	30
5. Results.....	15
Table 6. Estimation of regressions.....	31
Table 7. Model Tobit, estimation of regressions for area.....	32

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Paloma Giménez Perona

1. Introduction

From the perspective of the public sector, transparency is a very important requirement for governments, both local and central; to secure good public management¹. Transparency provides information that promotes the understanding of policies and reduces uncertainty, which is sometimes caused by lack of information. Therefore, citizens can evaluate the performance of the activities carried out by public administrations.

Transparency is gaining such importance that institutions like the International Monetary Fund (IMF) have established guidelines that governments must follow to obtain high levels of transparency. The IMF has created a code of good practices on transparency², directed at monetary and financial policies of the budget process. It focuses on four pillars: I) the clarity of functions, responsibilities and objectives of the public sector in the economy, II) budget processes should be formulated and inform the public in all its phases, III) the availability of budget information which must meet the characteristics of easy understanding and be available to the public within a reasonable period and IV) accountability and assurances of integrity of budget information which must ensure data quality. The pillars should be useful and serve as a guide to policymakers to design their budget reports. If a country complies with this, we would that affirm, that it has the highest level of fiscal transparency and, therefore good public management.

In this work, the importance of the third pillar for society is emphasized. This represents the public availability of budget information, that is, the justification of public activity which has to be performed. Starting from the availability of reliable data on results, in which informs and give surrender account to citizens on the use of resources and the degree to which proposed policy are obtained. The study intends to focus on this,

¹ Public management is defined as the application of all the processes and tools that the public administration has to achieve to reach the objective of development or welfare of the population.

² For purposes of the Code of Good Practices on Transparency, IMF manifests that transparency is the public disclosure of the objectives of a policy, legal, institutional and economic thereof, the decisions and the political foundations in an understandable, accessible and timely form.

because although politicians know exactly all the data of their budget, this information is not provided to the citizen with complete accuracy. Sometimes, citizens have difficulty in knowing what their money has been assigned to, if the politician has used it for a good purpose or for the politician's own use or purposes.

The lack of transparency is often associated with corruption³, especially at the local level, because as Prud'homme suggests (1995) it is more likely that politicians and local officials give in to pressure from interest groups. Also, usually, local politicians are more discreet when making decisions than national. Schick (2003) contends that electoral participation at the municipal level is lower, government activity is less transparent and there is an increased risk of corrupt activity. Sharman and Chaikin (2009) show that corruption is one of the major financial problems for most developing countries and is one of the biggest obstacles to economic growth.

Studies by Transparency International Spain⁴, asserts that of the 176 countries ranked in the index of perception of corruption in 2012, which has a range from 0 (highly corrupt) to 100 (less corrupt), two thirds obtained a punctuation of less than 50. This indicates that corruption is an obvious problem which can be found day after day in our public institutions, and levels of transparency should be increased. Corruption has been at the center of a wide range of literature, authors like Blumkin and Gradstein (2002), Lindstedt and Naurin (2010), Peisakhin and Pinto (2010) indicate that an improvement in the levels of transparency reduces corruption.

The study by Becker (1968) states that the probability of an individual being corrupt, depends on the risk assumed, the expected benefits and the probable sanction that could be attached. To reduce this risk Islam (2002) finds that laws, access and dissemination of information, reduces incentives the possibility that a politician is corrupt and increases the probability of being detected. This argument states, that greater transparency acts to decrease the moral hazard problem, since it is related to public control and this in turn, with less corruption. Finally, Mauro (1995), Olson, Sarna, and Swamy (2000), Meon and Wells (2005), suggest that if access to corrupt activities is

³ One definition of corruption is the "improper use of public office in exchange for private gain" (Lindstedt and Naurin, 2010).

⁴ The information is obtained the Transparency International: http://www.transparencia.org.es/IPC%C2%B4s/IPC_2012/Aspectos_m%C3%A1s_destacados_IPC_2012.pdf

more difficult or it has a lower probability, there will be a higher level of transparency that improves governance facilitates the growth of economy, efficiency and development.

As we have seen, despite transparency of public institutions being a very important topic, the literature is scarce in identifying the determinants that influence their level. Perhaps, this is because it is hard to know which is the best way to measure transparency, as it is a complex issue. This paper will examine how certain authors have studied the transparency by measuring it in different ways. Moreover, it is made clear that the knowledge of the factors that determine the levels of transparency, generate better procedures of managing the budget and wider divulgence of accountability. Accordingly, this work consists of carrying out an analysis of the determinants, socio-demographic, budget, political and economic, of local governments transparency. To do this, the transparency index created by Transparency International Spain has been chosen, which has been applied to 110 of the largest Spanish municipalities in 2012.

The study is structured as follows. In section 2, a literary review of transparency in government. In section 3, the index of transparency created by Transparency International Spain is addressed. In section 4, the methodology used is specified. In section 5, the results of our empirical model for the rate of global transparency are analyzed and the six areas of government⁵ activity. Finally, section 6 summarizes the conclusions.

2. Literature review on transparency in governments

The growing demand for the surrender of national accounts established in recent years, means that transparency of public institutions, has a great importance both economically and socially. In the literature, studies on transparency are observed, but is still in the first phase of a long way to go, as it is evaluating the determinants of government transparency. This first phase is even more marked in the case of transparency of local governments, as currently there are not many studies that address this topic in depth.

Political institutions play an important role in the levels of transparency, because they are in charge of the process of the budget report, which is one of the most important documents made by the government. In this budget, includes indicators such as deficit

⁵ Transparency International Spain has divided the global transparency index into six areas of activities by local government.

and public debt and where reconciled and implemented specific policy objectives are. Its formulation process consists of three phases at the central level: (1) The proposed budget is made by an executive, (2) Parliament approves and submits the budget, and (3) bureaucracy implements the budget. National voting procedures are very important for budgeting, because they establish when and who can influence it.

With the process of budget formulation known. What does literature understand by budgetary transparency? Literature is extensive in this term. According to Poterba and Von Hagen (1999) it is when policy information provided in clear, consolidated and easy accessible manner for the public and the participants. Premchand (1993) defines budget transparency, as availability to the public of information on the operations and procedures carried out by politicians for making government decisions. Garrett and Vermeule (2006) divided budget transparency in two parts, (1) transparency is budget disclosure from which policymakers and the public should be informed in a clear, prominent and understandable method, (2) transparency can also refer to public decision-making for the approvals of budgets.

Hood (2001) manifests that there are two theoretical approaches that explain budget transparency. The first approach is the theory of the rule of law, which believes the key to governance mandatory disclosure and transparent management. In this case, Spanish laws determine the minimum information that municipalities must disclose. The second approach is the principal-agent theory, which comes from the private sector and is linked to disclosure for better governance in the public sector. But this theory holds that governments do not have to follow the preferences of citizens, as they may have their own interests, which do not always maximize the welfare of society.

Although politicians are those who should deliver a level of transparency in budget reports, many authors are not convinced they want to communicate all the information they have in their possession.. According to Benito and Bastida (2009) politicians have little incentive to formulate obligation of a clear, simple and transparent budget. They also show that governments should be under pressure to increase budget transparency and so provide citizens and financial markets with a correct performance evaluation together with the political situation. This would facilitate better decision-making processes of economic agents.

Moreover, Ball (2011) states that generally politicians do not want to support transparency in the same way as it is done in the private sector. In his opinion, governments lack the will to give a transparent information, because of major obstacles attributed to not providing adequate information, such as, constitutional restrictions and

legal or limitations of financial information. However, these obstacles do not affect the developed countries, because they have sufficient resources to be able to formulate their reports properly and provide a high level of quality in them. According to this author, the absence of willingness is due to two main elements: (1) the incentives that politicians have in the short term, are not closely related to social interest and (2) the current institutional agreements, such as elaboration of the budget, provide politicians with weak incentives to submit high quality and transparent reports.

On the other hand, the following authors give the opposite view, Benito and Bastida (2009) and Ball (2011). According to Gigorescu (2003), the richest countries in terms of GDP per capita, are less concerned about the high costs involved in the collection, processing and provision of information in the budget. He concludes that the poorest countries are less transparent, as these costs can deter from procedures to adopt laws relating to transparency. This theory is also affirmed by Bastida and Benito (2007) with an empirical demonstration using the variable GDP per capita, they argue that increasing the wealth of a country is positively related to increased level of transparency in budget reports.

Empirical studies on transparency in governments, both internationally and locally, can be classified into three groups, according to the source of information used to measure the level of transparency. In the first group, we can highlight the works of Guillamón, Rios and Vincent (2011), Guillamón et al. (2011a) and Albalade (2013), who use the information given on the website of the organization Spain Transparency International (TI-Spain), on the global level of transparency of public institutions. In the second group, we find the works of Serrano et al. (2008), Cárcaba and Garcia (2008), Jorge et al. (2011), Piotrowski and Bertelli (2010) and Polo (2011), who have created their own index of transparency through information given by the public administrations of each locality. Finally, the third group, is constituted by studies of Benito and Bastida (2009), Caamaño et al. (2011) and Alt and Lassen (2006), using information from organizations external control, as is the case of the IMF and OECD, they formulated transparency indices.

In a study of the evolution of the transparency index in the biggest municipalities of Spain, since the year 2008-2010, Guillamón, Rios and Vicente (2011) show that municipalities governed by leftwing parties are more transparent than the right. The political strength and the unemployment rate are related negatively to the level of transparency, while total expenditure is positively related. Finally, it stresses that the most transparent municipalities receive a higher amount of financial resources.

Guillamón et al. (2011a), with data from the transparency index of the 100 largest municipalities of Spain, in 2008, state that the population of the municipality, transfers received and higher taxes have a significant and positive impact on transparency. As for to political ideology, it shows that the leftwing parties are more transparent than the right. The debt variables, the electoral strength and participation of voters is not shown to be significant.

Albaladejo (2013), with data from the transparency index of 2010, for the 110 largest municipalities in Spain, shows that the population positively influences the levels of transparency. He also claims that leftwing governments are more transparent than the right. The political strength, the provincial capital, unemployment and tourism, influence reduced levels of transparency. Budget variables, the voter participation and economic activity have no influential result.

Serrano et al. (2008) conducted an empirical study considering all provincial capitals and municipalities that have more than 70.0000 inhabitants in Spain, in 2006. His sample was limited to a total of 92 municipalities, selecting financial information on their budgets and annual accounts. This study concludes, the existence of significant and positive influences between income per capita and population, as a result of greater disclosure of budget information.

Moreover, Cárcaba and Garcia (2008) elected a sample of 334 Spanish municipalities with over 20,000 inhabitants. Data was collected from municipal web pages and examining aspects related to the amount, understandability and comparability of financial information published, in 2004. Their results show a positive relationship between transparency and the size of municipalities, political strength and the level of investment. The study concludes, that the development of notifications of digital information for the Spanish public in local areas, is in a phase of initiation.

Jorge et al. (2011) from 49 Italian and 45 Portuguese municipalities, assess the level of transparency of local governments in each country in the middle of 2010. Their model asserts, that population variable is only significant in the case of Italy. Moreover, the voting participation variable is counterintuitive, because it has a negative impact on levels of transparency.

Piotrowski and Bertelli (2010), created their own measure of municipal transparency starting from an investigation, by obtaining information from surveys on topics of local community and government performance, it carried out on 6,055 inhabitants in New Jersey. Their empirical model shows the relationship between socio-

demographic, economic and institutional determinants. This study concludes that only the population level is positively related to transparency. A higher percentage of elderly inhabitants (over 65 years) in the population and the greater volume of the budget, are contrary to expectations, so they are related negatively.

The research of Polo (2011) focuses on the creation of an index of fiscal transparency starting from the annual reports of the Audit Office of Cataluña⁶. Allowing you to know if the budget information for a given municipality, has been transmitted in a legal term and has been published for the general knowledge the citizenship. This index has been analyzed for 680 Catalan municipalities in the period 2001-2004. This study only evaluated the budget and policy variables. The result was that the political strength and debt per capita have a negative relation to transparency, while political participation is positively related.

Benito and Bastida (2009) evaluate the level of transparency through the database World Bank Budget in 2003. It based on a survey in each country of the Organisation for Economic Cooperation and Development, and in 30 countries that are not members, which provides information on almost 300 aspects of the budget. This empirical study is one of the first to evaluate the relationships that exist between the budgets of the countries, transparency, the fiscal situation and political participation in an international approach. The conclusions reached by this article are that transparency improves the commitment of politicians to be fiscally responsible and that there is a positive and significant relationship between political participation and transparency index.

Moreover, Caamaño et al. (2011) designed a questionnaire based on 15 questions⁷, starting from the revision of the International Monetary Fund Code of Good Practices on Fiscal Transparency (2007). The answers have a range from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was performed to measure budget transparency in 33 Galician municipalities in 2008. Their conclusions are that transparency has a negative relationship in coalition governments and unemployment. Debt has a positive impact with the transparency index. This contradicts the result that Polo (2010) specifies on the per capita debt. The answer offered to this contradiction is

⁶ Such information is presented through annual reports, which are public and can be consulted at: http://www.sindicatura.org/web/guest/Corporacions_Locals .

⁷ For a better understanding, the questionnaire is in: Caamaño, Lago, Reyes and Santiago (2011) "Budget Transparency in Local Governments: An Empirical Analysis", *International Studies Program*, Working Paper, 11, pp. 8

that governments tend to increase transparency, when there are higher debt and a lower deficits. Moreover, there are not significant variables in the level of transparency of the population size and electoral participation.

Finally, Alt and Lassen (2006), use data taken from a questionnaire from the OECD in 1999, for 19 countries that were members in that year. The questionnaire only included data that was related to transparency, of the 76 items composing the questionnaire only 11 of them were incorporated. In his study, he incorporated implications to a model of three outcomes. Their results were that, to greater levels of transparency, less debt accumulation. But, an increased political participation, increases the accumulation of debt. Lastly, right-wing governments tend to have higher deficits than left.

Table 1, shows a summary of the documents described in this section, where it indicates the sample, the variables used and the result obtained, whenever it is significantly related only to transparency.

[Table 1 about here]

3. The transparency index for local governments in Spain

Transparency International Spain (TI-Spain) is a non-governmental organization, which in 2008 created the first index of transparency of local governments in Spain. Governments that make up this index are larger municipalities, those having more than 65,000 population, which together account for more than half of the population of Spain. In the year of its creation this figure was 100 municipalities and in 2012 this figure increased by 10 municipalities more.

Each municipality is assigned an individual score of transparency, with a range of 0 to 100 points, with 0 being a lower level of transparency and a higher level 100. The names of the 110 locations are shown in Table 2, together with their global index of transparency. As shown in the table, these indices are widely dispersed, as the municipality with the highest level of transparency has a rating of 100 and the lowest transparency has a rating of 15.

[Table 2 about here]

With this index TI-Spain, tries to promote full disclosure methods, giving municipalities the opportunity to make information public. Where governments must strive to provide correct information, thus achieving a better public understanding and a higher level in the transparency index. To better understand how governments can increase their transparency index and what kind of efforts need to be made, it is necessary to explain the calculation of the index.

This index is calculated by grouping 80 indicators in six areas (1) Information on the municipal corporation, (2) Relations between citizens and society, (3) Economic-financial transparency, (4) Transparency in the procurement of services, (5) Transparency in urban planning and public works and (6) Indicators of the new Law on transparency. It is noteworthy, that this latter area was introduced in 2013, as Spain was one of the few countries that did not have a law on transparency and only takes into account countries with more than one million inhabitants. This affected all levels of government, because governments were not required to provide citizens with information on their decision-making processes or their activities.

For information of the 80 indicators, TI-Spain made an appraisal of a previously completed a questionnaire, with a score for each municipality. . Taking into account the municipality questionnaire of the previous year, the organization can incorporate new information in the report if it appears on the website of the municipality. Or it may be the case that once the assessment by TI-Spain is completed and the questionnaire is sent to each of the 110 municipalities, it wants to add new information in the report, or not include new data, approval can be given. TI-Spain may verify the information at any time, because municipalities are required to report where they are located on the questionnaire data. If a municipality adds information on any of the 80 indicators, its level of transparency will increase. A summary of this survey along with the distribution of the 80 indicators, can be found in the table 3.

[Table 3 about here]

In previous years, the questionnaires that municipalities did were subject to for four different types of punctuation, but the organization TI- Spain wanted to simplify this aspect. Therefore since 2012 there are only two types of ratings for each of the 80 indicators that make up the index of transparency, this score is:

- 1) 1 POINT: If the information of the indicator evaluated is published in the web page of the town hall.

- 2) 0 POINTS: If the information of the indicator evaluated is not published in the web page of the town hall.

In graph 1, the differences and evolution from the year 2008 to 2012, are observed between the indexes of transparency of five areas. The indicator from the new transparency law has been excluded, as it was incorporated in the year 2012, therefore presents no evolution.

[Graphic 1 about here]

The evolution of index of transparency areas, shows information for the period 2008-2010. As can be observed, the index that has obtained a minor growth, it is the index of transparency on the municipal corporation. This low growth, is because at the date of its creation (2008), it had a high level of transparency (70 points), compared to other areas, causing that the evolution to be slow so that by the year 2012, it had increased only 3.7%. This area seeks to inform on elected officials and staff, the organization and the heritage and the rules of municipal institutions.

The rate of economic-financial transparency, in 2012, was one of the lowest indicators and was located just above the index of transparency in the procurement of services, the one which presented the highest growth of its index. In the year 2008, it was the lowest rate of all areas with 29 points, and in 2012, it managed to obtain a score of 71 points. This index, it gives accountable and budgetary information, on income, expenses and municipal debts.

Finally, in 2012 a new indicator was incorporated, that it evaluates the area of the new transparency law. It reports on the planning and organization, contracts, agreements, grants and charges of the town hall, investees and on economic and budgetary information. Although not shown in the graph, this area is placed in the assessment with a score of 57.4 index points.

On the other hand, by way of example, we can see if TI-Spain's purpose to promote disclosure has been met in recent years. In graph 2 is evaluated the evolution of the average global transparency index from the first year of its inception (2008) until the last year that the index has been published (2012).

[Graphic 2 about here]

In this graph, we can see that the annual increase has followed the global transparency index, it has not been steady, if not decreased. Producing the following increments: year 2008-2009 a 22.84%, year 2009-2010 a 9.69% and finally year 2010-2012 a 1%. This may be due to the fact that in the first year global transparency index had 52.1 points, so that governments made great efforts to raise the index. Thanks to these efforts, in 2010, global transparency index rose to 70.2 points in position. In this respect we can say, that is high index, has caused governments to spend increasing effort and difficulty to increase levels of transparency, reaching only an increase of 1% in the last period.

If we compare the transparency index in 2008 and 2012, we see that there has been an increase of 36.08%, so with this data we can conclude that TI-Spain's purpose to promote the dissemination of information, has been fulfilled. The transparency index has increased in recent years, from the date of its creation an index of 52.1 points compared to 70.9 points published last year (2012).

4. Sample description of the variables and methodology

In this empirical analysis, first we will examine the determinants of the overall index of transparency of local governments. Also, to realize the same empirical model for the six areas that TI-Spain assesses in order to evaluate how the factors of each of these areas are affected. Before carry out this analysis, the dependent variable and the independent variables will be defined.

4.1. Sample and description of variables

The dependent variable used for this study is the transparency index. Our sample has been obtained from the index of transparency of local Governments carried out by TI-Spain, in the year 2012, evaluating the 110 largest municipalities of Spain. According to the literature, the factors that determine the transparency of Governments are varied. The factors that affect the transparency of the local governments will be identified. In this study we will include the variable of socio-demographic, budgetary, political and economic natures.

The first group are the socio-demographic variables, which is made by the population of each town, the percentage of participants in the municipal elections of each locality, and if a municipality is a provincial capital or not. The second group consists of the budgetary variables, made up of debt per capita, per capita taxes and budgetary imbalance of each municipality. The third group, comprises political variables, which made up of political ideology, that is, if a government leader is right-wing or left-wing, and by the strength of the leader. Finally, the fourth group are the economic variables, which are formed by the unemployment rate and broadband lines. Below, in table 4 each variable of this study is defined and the signal of the results expected.

[Table 4 about here]

Socio-demographic variables

Population: (log_population) is the logarithm of the size of a city described in number of inhabitants (thousands). The literature has shown, that this variable is positively correlated with the level of transparency. According to Bastida and Benito (2007), a larger population in the municipality positively affect the transparency.

Capital: (capital) is a dummy variable that takes the value of 1 if the municipality is a provincial capital and the value of 0 otherwise. Since in the capitals, there are a greater number of organizations of the public administration, we want to examine whether the capital factor, has a level of significance and observe how this variable affects the transparency index. According to Albalade (2012), the capitals of provinces are an obstacle to increasing the degree of transparency.

Turnout: (turnout) is the percentage of participation of each municipality in the last local elections. This variable is an indicator of the interest that citizens have with the policy of its municipalities. The expected result is ambiguous, since the empirical models of literature, are not clear in this aspect. Jorge et al. (2011) stated that the relationship between transparency and the percentage of participation have a negative sign, which was not expected. While Polo (2011) determines that a greater participation in elections induces a greater level of transparency.

Budget variables

Budget imbalance: (budget_imbalance) is the budget surplus, it is calculated from the ratio between the total expenses and total revenue of the municipality. A positive relationship between this variable and transparency of governments is expected.

Debt: (debt_percapita) is the debt of a municipality that each inhabitant pays. It is calculated from the annual debt the population of a municipality has. The expected result is ambiguous, since there are several opinions in this regard. According to Alt and Lassen (2006) and Alt et al. (2006), a lower transparency is associated with a greater debt issuance. On the contrary, Caamaño et al. (2011) argues that to the greater the debt, the higher the level of transparency that local governments offer.

Taxes: (taxes_percapita) are the municipal taxes collected per inhabitant. It is calculated from the yearly taxes the population of a municipality has. Authors like Guillamón (2011a) defend empirically that the municipalities that attribute more taxes to its inhabitants, reveal a higher level of information, so they are more transparent.

Political variables

Left-wing ideology: (left_mayor) is a dummy variable given the value of 1 if the local government belongs to the party of the left and 0 in the opposite case. With this variable we want to assess whether there is a significant relation to transparency and political ideology. Albalade (2012) shows that left-wing parties who lead the local government, are associated with higher levels of transparency.

Left majority: (left_majority) is a dummy variable which takes the value of 1 if the party leader of the Government is on the left and enjoys an absolute majority. That is if more than 50% of the elected councilors are left-wing in government that is leading in that municipality. In the case that another party enjoys an absolute majority, it will be given the value of 0. This variable identifies the Governments on the left who do not need agreements with other political parties to govern in its municipality. Alt et al. (2006) argue Governments with less political strength, increase levels of transparency to a greater extent than when a party governs with absolute majority.

Economic variables

Broadband: (broadband_percapita) is the number of broadband lines the inhabitants of a municipality has.

Unemployment: (unemployment) is the unemployment registered in a municipality that is measured by the percentage of the population potentially active. Guillamón et al. (2011a) empirically, shows that the municipalities that have high unemployment rate have a low level of transparency.

4.2. Methodology

Our regression model, shows the analysis of the degree of fulfillment of the determinants relating to the rate of transparency of local governments with the variables described above, so our regression model is:

$$\begin{aligned} \text{Transparency}_i = & \beta_0 + \beta_1 \text{Log_population} + \beta_2 \text{Capital} + \beta_3 \text{Turnout} + \\ & \beta_4 \text{Budget_inbalance} + \beta_5 \text{Debt_percapita} + \beta_6 \text{Left_mayor} + \\ & \beta_7 \text{Left_majority} + \beta_8 \text{Broadband_percapita} + \beta_9 \text{Unemployment} + \varepsilon_i \end{aligned}$$

For the estimation of the determinants of transparency Tobit model has been used. This model allows the calculation of the effects of each of the variables on the level of transparency. The dependent variable is censored, between 0 and 100, since they represent the highest and lowest score that a transparency index can have. Table 5, represents the descriptive statistics for the set of independent variables used in the study. This includes the average, median, maximum and minimum and standard deviation.

[Table 5 about here]

5. Results

Table 6, distributes the factors that affect the index of transparency in four categories, socio-demographic, budget, political and economic. These estimates have been made with the Tobit model, which shows the effects that the variables have on the probability of an increase or decrease in the level of transparency. While, table 7 shows the estimated results for each of the six categories of transparency, from the same model.

[Table 6 about here]

[Table 7 about here]

5.1. Results of the global transparency

First, we will analyze the results shown in the table 6. Our empirical study on the socio-demographic factors, determines that all variables have a significant effect on transparency. In particular, it is noted that the municipalities with the largest populations, tend to enjoy a higher level of transparency. This result coincides with the work of Guillamón et al. (2011a). The authors indicate that the influence of the population in the transparency index, may be due to two reasons (1) transparency needs an adequate infrastructure, which implies that they are in locations with a greater number of inhabitants and (2) large municipalities get more public funds and consequently face greater pressures to inform on them.

Focusing on the variable capital, as expected, it is negatively related to the transparency index. This result is also confirmed by Albalade (2012), who argues that the provincial capitals have a lower level of transparency. This is because, these types of cities have a greater presence of public administrations, which represent an obstacle to their own levels of transparency. As a result, a greater number of administrations, economic resources and political power in these places, are significantly higher, regardless of the size or the local economy.

Regarding the variable of the participation of citizens in the voting, the results coincide with Jorge et al. (2011), who showed that the voter participation negatively affects levels of transparency. This fact can be explained from the abstentions, since a

higher level of these has a positive influences on making local governments put more efforts to disseminate the information.

If we look at the budget variables, we observe that the budget imbalance is associated positively with transparency index, that is, as a government have a higher level of spending or lower revenue, it will have greater pressure from society to be more transparent. On the other hand, despite the different conclusions which gives the literature on debt per capita. Our study confirms the results of Alt and Lassen (2006), Alt et al. (2006) and Polo (2010), and shows that has a significant and negative relationship with transparency, i.e., to higher levels of debt, governments offer us lower levels of transparency. Therefore, when in government there is a greater level of debt per capita, the information they offer is lower than those with lower levels of debt.

Political variables, unlike in other studies, is not relevant in the determination of the index of transparency in this study. Therefore it is not possible to affirm theories such as that of Ferejonh (1999), who argued that the left-wing governments, increase levels of transparency, because they want a broader public sector. Neither can the conclusions of Piotrowski and Van Ryzin (2007) be supported who argue that the left-wing parties are more transparent than the rights, because the former worry more about facilitating access to information. But we agree with Polo (2010) who argues the appearance of political ideology was not significant in their empirical study. Further to political ideology, is the political strength, in which our result can not verify the conclusions of Guillamón, Ríos and Vicente (2011), who show, that stronger political governments are less transparent than the divided governments.

Finally, in terms of economic variables it is observed that the unemployment variable is the only significant variable. Provides in our study one of the most relevant results, it has a very high level of significance (1%) and presents the expected sign. This result confirms to Guillamón et al. (2011b)⁸. The conclusion is that the municipalities with a higher rate of unemployment show a low rate of transparency, in comparison to municipalities with lower unemployment rates. Unemployment is an indicator of the local economy and, therefore, better economic situation tends to increase the levels of transparency index.

⁸ Gillamón et al. (2011b) affirms in their study that the unemployment rate affects the levels of transparency negatively.

5.2. Results of transparency in the six areas

Moving onto the results of table 7, in which we have evaluated how transparency is affected in to the six segments or activities, which are attributed to the local government. With this, we want to justify the efforts made by TI-Spain to create an index of transparency for each area⁹.

The first area is the information about the municipal corporation. The results show, that with higher population levels, transparency levels are greater in this index. This is due to the fact that, the greater number of inhabitants exerts more pressure for the disclosure of information. On the other hand, in the provincial capitals transparency levels are lower and also are in municipalities where there are high levels of unemployment.

The second area, tells us about the relations between the citizens and society. In this segment, only socio-demographic and economic variables have influence. The population affects positively in the transparency levels, while the participation of citizens in the voting and unemployment affect negatively these levels.

The third area is the economic- financial transparency. Our results are consistent with Albalte (2013), where the budget variable, such as debt or the budget imbalance variables are not significant for this area. Moreover, only unemployment and the provincial capitals are meaningful and affect the transparency level in a negative way with the transparency index. This is because unemployment is a measure of the economy of the municipality, and the capital cities of the provinces tend to decrease their level of transparency. In the latter case, the transparency economic-financial, decreases by 15 points, representing the largest decrease in transparency which lies in our estimates with respect to this variable.

The fourth area is that of service engagements. According to our empirical results we conclude, only the variable of the unemployment affects in a negative way.. As we have said before, this is because the unemployment variable reflects the economic situation of each municipality.

The fifth area is that of urban planning and public works. This area affects a larger number of variables so it is the most sensitive. The level of transparency is influenced

⁹ For more information, in the table 3 of this document, the characteristics are displayed which evaluated in each of the areas in which the results obtained will be described.

negatively by unemployment, capital debt and participations of citizens in voting. By contrast, the budget imbalance affects positively.

The sixth area, is the new transparency law. Our results show that a larger population and a greater budget imbalance, influence positively the increase in levels of transparency. While unemployment and the capitals of the provinces are related in a negative way.

Finally, we will highlight the most important factor, unemployment affects all indexes in six areas and global transparency index. It has a negative influence with a high level of significance, between 1% and 5%. This is because, at present in Spain the unemployment rate presents a great importance in our society. Spain has the second highest unemployment rate in the European Union, although in the last year it started a reduction of this rate, ahead of Portugal, Germany and Poland. On the other hand, if we compare the male unemployment rate with the European Union, it is observed that it is highest in Spain. In Spain it stands at 11.7% against that the European Union which stands at 10.4%. Estimates by the Organization for Trade and Development in Spain, the recovery is weak and slow and the unemployment rate will hardly fall in 2014 and 2015.

6. Conclusions

The main objective of this study has been to analyze the socio-demographic, budgetary, political and economic factors that have an influence on the levels of transparency at the local level. The size of the sample used consists of 110 Spanish municipalities, with more than 65,000 inhabitants, in 2012. In terms of methodology, we have used the Tobit model because the dependent variable is censored between 0 and 100. This range represents the transparency level of each municipality, with 0 being a lower level of transparency, and 100 higher level.

According to our results, the only demographic variable that has a positive relationship with transparency is the population, the other two remaining, provincial capitals and voting participation presented a negative influence on the index of transparency. The latter being, a counterintuitive sign. The justification for this result is that less political participation in a municipality, influences in a negative way, causing a stimulus to local governments to offer more information to its citizens.

In terms of budgetary variables, the budget imbalance presents a positive correlation, in that higher levels of expenditure or lower revenue, mean a higher index of transparency. On the other hand, per capita debt relates negatively, that is, to higher levels of debt, less transparency. This is because politicians with greater levels of debt politicians provide less information in order to try to "hide" some data and thus not give a bad image to citizens or simply to avoid having to give explanations on certain aspects.

In our study, as in other works such as Polo (2010), the political variables are not statistically significant. Finally, the only economic variable that influences the level of transparency, is the level of unemployment. This affects the level of transparency, in a very significant way having a negative relationship. So, the higher the unemployment the lower the transparency index will be. Unemployment is one of the biggest problems currently in Spain, presenting a difficult solution for government. For this reason, the Government in 2012, has adopted measures established in the Official State Bulletin¹⁰, on the protection of part-time workers and other urgent social and economic measures. If these adjustments achieve a reduction in the level of unemployment, this would contribute to a higher level of transparency by local governments.

As we have seen in this document, the TI-Spain organization has managed to achieve the dissemination of public information. But this is only the beginning of a long way to go, as there are currently many obstacles that block access to information, and therefore this means that there is a limited number of municipalities to assess. This limitation arises, because the access to the information in the majority of municipalities is not as efficient as could be expected. They have to evolve and start making the most of the opportunities offered by new technologies.

On the other hand, in our study we have evaluated the segmentation of the index of transparency in six areas, because it serves to have a better understanding of the effect on the variables in these segments. For example, in the area of economic-financial transparency, the cities that are capitals of provinces and unemployment show a negative relationship with transparency index. Although this approach is relevant to understand in greater depth the determinants of each index of transparency, it would be interesting if in future more studies are undertaken that will facilitate the understanding of the obstacles and determinants with respect to transparency.

¹⁰ The measures are established in OE-A-2013-8556, its link is: <http://www.boe.es/boe/dias/2013/08/03/pdfs/BOE-A-2013-8556.pdf>

Finally, it would also be beneficial in the future to analyze the index of transparency of all Spanish municipalities, in order to achieve two goals: (1) even more comprehensive analysis of the determinants that affect the level of transparency and (2) a greater promulgation.

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Table 1. The transparency of public administrations

<i>Authors</i>	<i>Sample</i>	<i>Variables</i>	<i>Results</i>
Guillamón, Rios and Vicente (2011)	Index of transparency of the 100 largest municipalities in the period 2008-2010.	Political ideology (left)	Positive
		Political strength	Negative
		Unemployment rate	Negative
		Expenditure	Positive
Guillamón et al. (2011)	Index of transparency to 100 municipalities, in 2008.	Population	Positive
		Taxes	Positive
		Political ideology (left)	Positive
		Received transfers	Positive
Albalate (2013)	Index of transparency to 110 municipalities, in 2010.	Population	Positive
		Political ideology (left)	Positive
		Political fortress	Positive
		Province capital	Negative
		Unemployment rate	Negative
Serrano et al. (2008)	92 capitals of provinces with over 70,000 inhabitants, in 2006.	Tourism	Negative
		Population	Positive
		Income per capita	Positive
Cárcaba and García (2008)	334 Spanish municipalities with over 20,000 inhabitants, in 2004.	Population	Positive
		Political strength	Positive
		Investments	Positive

(Continued)

Table 1. (Continued)

Jorge et al. (2011)	49 Italian municipalities and 45 Portuguese, in 2010.	Population	Positive
		Voting participation	Negative
Piotrowski and Bertelli (2010)	6,055 people in New Jersey.	Population	Positive
		Elderly population	Negative
		Budget	Negative
Polo (2011)	680 Catalan municipalities, in the period 2001-2004.	Political strength	Negative
		Debt per capita	Negative
		Voting participation	Positive
Benito and Bastida (2009)	Index transparency for OECD member countries and 30 non-members, in 2003.	Political participation	Positive
Caamaño et al. (2011)	33 Galician municipalities, in 2008.	Political strength	Negative
		Unemployment rate	Negative
		Debt per capita	Positive
Alt and Lassen (2006)	19 OECD countries.	Debt per capita	Negative

Source: Prepared

Table 2. Municipalities contained in the 2012 TI survey

Local government	Transparency index	Local government	Transparency index
Alcobendas	100	Santa Cruz de Tenerife	76
Bilbao	100	Ourense	75
Gandía	100	Cádiz	75
Gijón	100	Chiclana de la Frontera	75
Oviedo	100	Badalona	74
Ponferrada	100	Parla	74
Sant Cugat del Vallès	100	Castellón de la Plana	74
Torrent	100	Reus	73
Burgos	99	Manresa	73
Albacete	98	Palma de Mallorca	73
Barakaldo	98	Valladolid	71
Getxo	98	Tarragona	68
Mataró	98	Coslada	66
Murcia	98	El Ejido	65
Puerto de Santa María	98	Marbella	65
Madrid	96	Vigo	65
Avilés	96	Cornellà de Llobregat	63
Sabadell	96	Fuenlabrada	63
Málaga	95	Pontevedra	61
Santa Coloma de Gramenet	95	Majadahonda	60
Sant Boi de Llobregat	94	Cuenca	60
Alcorcón	94	Guadalajara	60
Pamplona	94	Lorca	59
Roquetas	93	Las Rozas	58
Soria	93	Pozuelo de Alarcón	56
Terrassa	93	Sevilla	56
Vélez-Málaga	93	Orihuela	56
Alcalá de Henares	93	Sagunto	54
Arona	91	Cartagena	53
León	91	Salamanca	53
Móstoles	90	Alicante	53
Torrejón de Ardoz	90	Jerez de la Frontera	51
San Sebastián-Donostia	90	Ávila	49
Barcelona	89	San Fernando	48
Palencia	89	Córdoba	46
Rubí	89	Leganés	44
Fuengirola	89	Toledo	40
Las Palmas de Gran Canaria	89	Alcalá de Guadaíra	38
Lérida	89	Cáceres	35

(Continued)

Table 2. (Continued)

Logroño	88	Dos hermanas	35
Segovia	88	San Cristóbal de la Laguna	34
Lugo	86	Benidorm	34
Vitoria	86	Granada	34
Zaragoza	86	Almería	31
Santander	83	Badajoz	30
Torre Vieja	83	Valencia	30
Getafe	81	Algeciras	29
A Coruña	81	Jaén	29
Santiago de Compostela	80	Mijas	29
Ferrol	79	Huelva	20
Elche	78	Talavera de la Reina	20
Hospitalet de Llobregat	78	Telde	18
San Sebastián de los Reyes	78	Teruel	16
Girona	78	Ciudad Real	15

Source: Transparency Institutional Spain

Table 3. Indicators prepared by TI-Spain

A) Information about the municipal corporation (17)

1. Information about elected officials and staff (4)
2. Information on the organization and heritage (8)
3. Information on standards and municipal institutions (5)

B) Relations between citizens and society (13)

1. Information and citizen (7)
2. Degree of commitment to citizenship (6)

C) Economic-financial transparency (14)

1. Accounting and budget (5)
2. Transparency in income and municipal expenditures (5)
3. Transparency in the debts municipal (4)

D) Transparency in the procurement of services (4)

1. Procedures of procurement of services (2).
2. Relationships and operations with suppliers and contractors (2)

E) Transparency in urban planning and public works (17)

1. Urban management plans and urban development agreements (4)
2. Decisions on reclassification and urban development awards (2)
3. Ads and tenders for public works (3)
4. Information about concurrent, offers and resolutions (2)
5. Monitoring and control of the execution of works (3)
6. Indicators on urban planning and public works (3)

F) Indicators of the new law of transparency (15)

1. Planning and organization (2).
 2. Contracts, agreements and grants (6)
 3. Senior members of the city council and subsidiary entities (4)
 4. Economic information and budget (3)
-

Source: Transparency International Spain

Table 4. Sample of the independent variables

	<i>Variables</i>	<i>Definition of variables</i>	<i>Expected sign</i>	<i>Source</i>
<i>Socio-demographic variables</i>	Population	Logarithm of the number of inhabitants municipal population.	Positive	National Institute of Statistics
	Capital	<i>Dummy variable:</i> 1 - Capital province 0 - Not capital province.	Negative	Ministry of Interior
	Turnout	Percentage of the voters of a municipality.	Ambiguous	
<i>Budget variables</i>	Budget_imbalance	Chapters 1 to 7 (ORN) / Chapters 1 to 7 (DNR)	Positive	Ministry of Economy and Finance
	Debt_percapita	Chapter 9 (DRN) / inhabitants	Ambiguous	
	Taxes_percapita	Chapter 1-3 (DRN) /inhabitants	Positive	
<i>Political variables</i>	Left_Mayor	<i>Dummy variable:</i> 1 - Local government left 0 - Another party.	Positive	Ministry of Interior
	Left_Majority	<i>Dummy variable:</i> 1 - Local Government of left and with absolute majority 0 - Absolute majority another party.	Positive	
<i>Economic variables</i>	Broadband_percapita	Number of broadband in the municipality.	Positive	La Caixa Spain Economic Yearbook
	Unemployment	Unemployment registered in % of the population potentially.	Negative	

Note: ORN: Net recognized obligations

DRN: Net recognized rights

Source: Prepare

Table 5. Descriptive statistics

Independents variable	Mean	Median	Std. Dev.	Min.	Max.
Socio-demographic variables					
<i>Log_population</i>	5,142	5,075	0,314	4,554	6,51
<i>Capital</i>	0,455	0	0,50021	0	1
<i>Turnout</i>	0,618	0,632	0,07	0,465	0,752
Budget variables					
<i>Budget_imbalance</i>	0,975	0,94	0,157	0,72	1,628
<i>Debt_percapita</i>	228,45	115,9	322,82	-0,84601	1748,8
<i>Taxes_percapita</i>	607,59	585,93	162,9	263,77	1246,5
Political variables					
<i>Left_mayo</i>	0,081818	0	0,27534	0	1
<i>Left_majority</i>	0,036364	0	0,18805	0	1
Economic variables					
<i>Broadband_percapita</i>	0,266	0,268	0,041	0,177	0,37
<i>Unemployment</i>	14,953	14,65	3,606	6,2	23,6

Source: Prepared

Table 6. Estimation of regressions

Independent variable	Tobit
Socio-demographic variables	
<i>Log_population</i>	14,352* (7,339)
<i>Turnout</i>	-65,095* (37,983)
<i>Capital</i>	-8,0347* (4,528)
Budget variables	
<i>Budget_imbalance</i>	29,814* (16,609)
<i>Debt_percapita</i>	-0,01622* (0,00928)
Political variables	
<i>Left_mayor</i>	-4,64773 (10,2225)
<i>Left_majority</i>	-0,8750 (16,6091)
Economic variables	
<i>Broadband_percapita</i>	28,5657 (56,6422)
<i>Unemployment</i>	-2,367*** (0,661)
N. Observation	110
R ²	-
Wald Chi ²	47,2209

Note 1: Standard errors in parentheses.

Note 2: Statistical significance at 1 %(***), 5 %(**), 10 %(*).

Table 7. Model Tobit, estimation of regressions for area

Independent variables	Corporate transparency	Social transparency	Economic transparency	Contracting transparency	Procurement transparency	Law transparency
Socio-demographic variables						
<i>Log_population</i>	15,7452** (7,9872)	24,2440*** (7,4667)	9,9379 (12,6490)	11,1049 (16,9685)	11,071 (7,1486)	16,3916* (9,8491)
<i>Capital</i>	-11,3281** (5,1502)	-1,0647 (4,0877)	-13,9629* (7,4433)	-5,4034 (8,0835)	-4,6296 (4,3266)	-11,7783* (6,0142)
<i>Turnout</i>	-64,2044 (40,7954)	-57,6405* (32,0480)	-72,5319 (73,2772)	-72,4331 (63,7034)	-82,0570** (36,4405)	-62,0344 (50,0952)
Budget variables						
<i>Budget_imbalance</i>	15,8019 (20,5518)	21,5484 (15,5537)	20,5058 (32,5950)	54,1707 (39,7962)	33,0836** (15,2267)	44,5100* (24,5167)
<i>Debt_percapita</i>	-0,0110 (0,0129)	-0,0078 (0,0102)	-0,0241 (0,01938)	-0,0263 (0,0169)	-0,0159** (0,0077)	-0,0163 (0,0128)
<i>Taxes_percapita</i>	-0,0044 (0,0194)	-0,0047 (0,0160)	-0,0237 (0,0301)	-0,0036 (0,0270)	0,0024 (0,0146)	-0,000054 (0,0232)
Political variables						
<i>Left_mayor</i>	-7,5882 (11,139)	5,2913 (11,7801)	-12,2045 (24,8488)	-20,0782 (18,6013)	0,1644 (10,0002)	-2,9342 (14,0184)
<i>Left_majority</i>	5,2387 (18,5049)	-3,1804 (18,6224)	-4,3971 (29,2057)	16,9516 (31,9529)	-1,7815 (15,0913)	-9,2267 (22,4158)

(Continued)

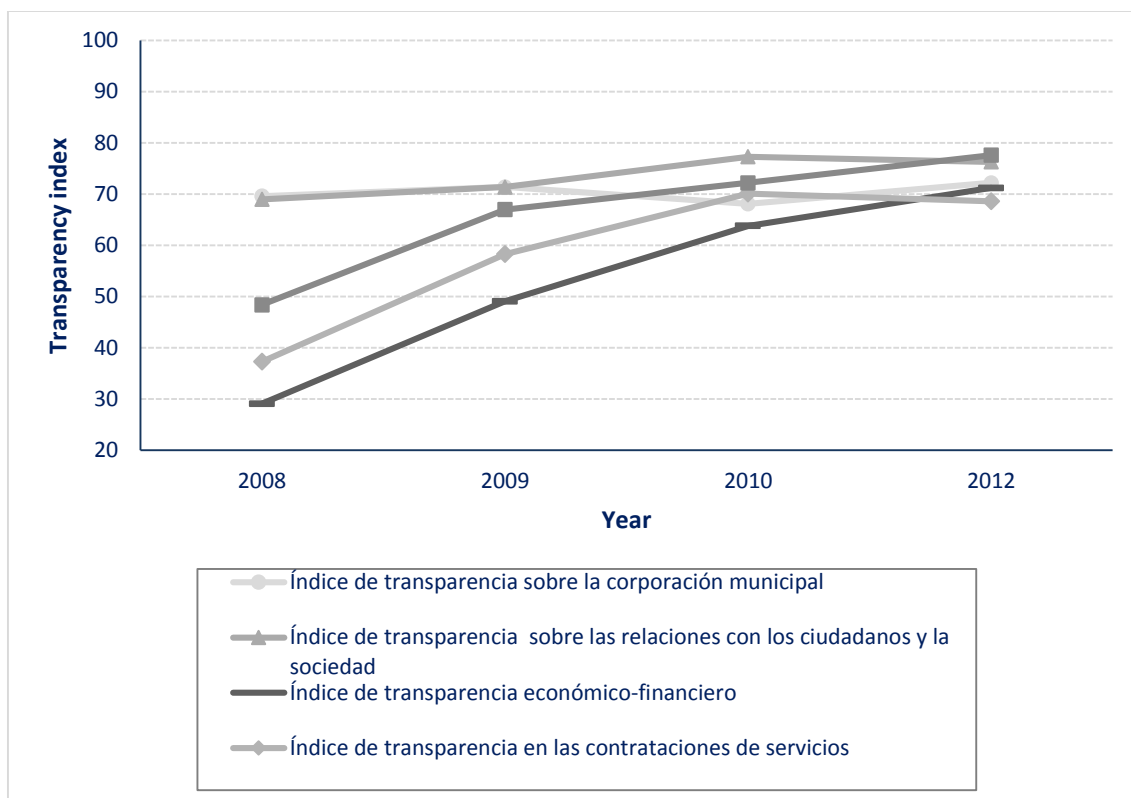
Table 7. (Continued)

Economic variables						
<i>Broadband_percapita</i>	25,9792 (62,6729)	6,1823 (53,7550)	63,0980 (99,1248)	-52,6757 (102,963)	40,5465 (50,5576)	53,0611 (74,7817)
<i>Unemployment</i>	-2,3962*** (0,7443)	-1,8781*** 0,7075	-4,5199*** 1,4945	-2,8262** 1,2903	-1,5220** 0,6213	-2,4747** (1,0806)
<i>N. Observation</i>	110	110	110	110	110	110
Wald Chi ²	0,0689	48,2571	82,1469	95,9131	44,3475	51,4649

Note 1: Standard errors in parentheses.

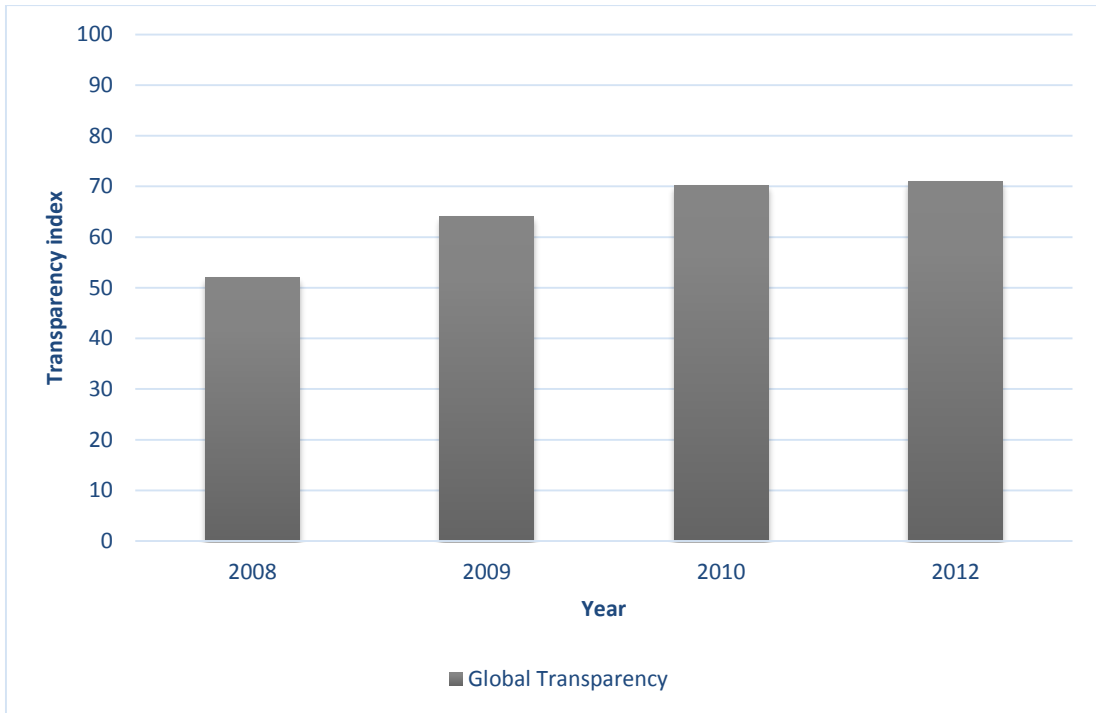
Note 2: Statistical significant at 1 %(***), 5 %(**), 10 %(*).

Graphic 1. Evolution transparency index



Source: Compiled from information TI-Spain.

Graphic 2. Evolution global transparency index



Source: Compiled from information TI-Spain