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Fiscal Decentralisation in Rural Local Governments in Mexico: Changes in Accountability and Entrepreneurship in the Local Government Structures

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Abstract

Shifting responsibilities from central to lower government levels is assumed to improve the delivery of local public services. In theory, local actors are encouraged to behave in a more accountable and entrepreneurial fashion. This paper sheds light on the impact of decentralisation policies in small-rural municipalities in Mexico. It answers the question whether fiscal decentralisation has been associated with changes in patterns of accountability and entrepreneurship, which tend to promote good governance in rural local governments. It employs fixed effect design to analyse financial, political, performance and administrative variables from 1990 to 2008. In addition, it proposes a definition for accountability and entrepreneurship in rural settings. The empirical evidence suggests that the influence of political variables in performance is a dynamic cycle and that rural municipalities have been engaged on both accountability and entrepreneurial behaviour. These changes seem to be highly encouraged by the type of financial resources decentralised.

Keywords: decentralisation; intergovernmental transfers; political election; accountability; entrepreneurship

1. Introduction

Autonomy is at the core of the decentralisation argument. Financial autonomy passed down via taxes, borrowing and central government transfers is expected to foster good governance. This research is aimed at analysing the outcomes derived from the decentralisation reform in the case of Mexico. Democratisation and decentralisation reforms have swept in federal countries. However, democracy, in many cases, does not attain the correct counterbalance of power, and decentralisation of expenditures tends to prevail in countries with high centralisation history. Mexico is part of these cases and recently has been engaged in important political transformation, which makes it a rich case study for lesson-learning.

In order to look at whether the decentralisation reform made a difference, this paper is going to compare municipalities in a number of ways and examine if patterns before the reform are significantly different from after it. To achieve this, the study is going to look at a number of variables, other than the reform itself, which may have made a difference to whether municipalities behaved in certain ways that the reforms made possible. This will be done, again, by looking at patterns of behaviour and apparent causality before the reforms, and after.

Two types of measure will be used: first, direct measures of services received, and second, measures of intervening variables – the sort of thing which we have good theoretical reason to suppose will make governments "better". Under the first heading two measures will be used: CBPS and the Standard Deviation of CBPS. Under the second heading, two indices will be used which are composites of different variables: the first measures levels of accountability and the second measures the level of entrepreneurship. Finally, the additional variables included are political ones, because they are likely to interact with the others. They are political competition and juxtaposition.

The remainder of this paper is organised as follows. Section 2 focuses on the literature review sub-sectioned under the background of the Mexican decentralisation reform and its political scenario. Section 3 describes the data and methodology divided into two subsections, first heading: the landscape before and after reform; and second heading: changes in patters of accountability and entrepreneurship after the reform. Section 4 presents the results of the empirical analysis, and Section 5 concludes.

2. Literature Review

According to Litvack and Seddon (1999, 2), decentralisation is "the transfer of authority and responsibility for public functions from the central government to subordinated or quasi-independent government organisations or the private sector." The decentralisation theory is grounded on economic and political arguments. The economic arguments involve productive and allocative efficiency of public goods and services. Productive efficiency refers to the production of public goods and services at the lowest possible cost and allocative efficiency means providing the mix of goods and services that matches the citizens' preferences. The political arguments refer to the control mechanism over local agents in terms of productive and allocative efficiency (see Tiebout 1956; Oates 1972, 1999). Productive efficiency is envisaged as a gain through local/regional competition. It is seen as an incentive to be involved in knowledge transfer and experimentation to reduce costs. This implies that local authorities get involved in more entrepreneurial actions; allocative efficiency is based on the argument of better responsiveness to local preferences due to closeness to the people, facilitating the collection of information and quality knowledge leading to immediate action.

From the political point of view, elections can be used to reward or punish politicians when they fail to provide the public services efficiently. Decentralisation promotes greater control over local politicians by putting them out of office in case of failure of being accountable. The literature also illustrates that local authorities

become more accountable and entrepreneurial with the financial resources they receive because they will be judged on how they manage them, and it directly affects their reputation and further re-election (see Shaw and Qureshi 1994 as cited in Tanzi 1996). Hence, politicians will try to satisfy the median voter through improving democracy and accountability.

The general arguments of decentralisation range from increments on economic growth, welfare and governance and decrements on regional disparities and poverty.[1] The theory has been neither completely vindicated nor disproved. However, caution has been urged mainly in regard to fiscal decentralisation. Fiscal decentralisation refers to the provision of more authority on revenue collection through taxes and intergovernmental transfers to quasi-independent public bodies such as local governments. Among the counter-arguments, it is claimed that central government is weakened financially, challenging the application of stabilisation and redistributive policies; that regional redistribution is worsened due to competitive disadvantages among poorer regions and that administrative flaws and a high level of corruption in local governments make its successful application impossible.[2]

Empirical research that contradicts the previous claims about local government inefficiency is an investigation carried out in Bolivia by Faguet (2000). Using an index of Unsatisfied Basic Needs and Local Government Effectiveness (LGE) constructed from a series of semi-structured interviews, Faguet found evidence that small-rural municipalities present the highest LGE. In addition, he did not find a strong correlation of LGE and urban-ness. Based on these findings, he proposes an incentive-based local-leadership theory: in a context of mobile politicians and diversity of municipalities in regard to size and resources, corrupt politicians will select wealthy municipalities leaving small-rural ones with honest politicians.

Other empirical research that investigates local-government performance is Moreno-Jaimes (2007). Taking as a case study all Mexican local governments he investigated whether political competition makes a difference in the performance of local governments. He did not find any support evidence of political incentives. Nevertheless, the results illustrate that indicators such as literacy rate, socioeconomic wealth and a higher rate of voter participation (measured as electoral turnout) seem to be the drivers of good governance. It is important to bear in mind that local government capacity and restrictions vary extensively. Rural local governments face different challenges and share large similarities in regard to socioeconomic status. This research argues that rural local accountability falls into the general expectation of transparency, inclusion of vulnerable groups and good revenues management as the rest of local governments. However, entrepreneurship actions are limited to the resources available to the local governments. Hence, rural entrepreneurship might take place in different means than in other municipalities. Even the incentives of political elections might have a different impact in a context where participation is not a major issue due to easy access to local authorities by the citizens. Hence, this

[1] See Baskaran and Feld 2009; Hammond and Tosun 2011, Xie, Zue and Davoodi 1999; Fukasaku and DeMello 1998; Strumpf and Oberholzer-Gee 2002; Rodriguez-Pose and Ezcurra 2009; Ezcurra and Pascual 2009.

[2] See Prud'homme 1995; Tanzi 1996; Lessman 2009.

research defines the concept of accountability and proposes a definition of entrepreneurship in rural settings. Based on these definitions, the indices of accountability and entrepreneurship are constructed.

2.1 Background: The Mexican Decentralisation Process

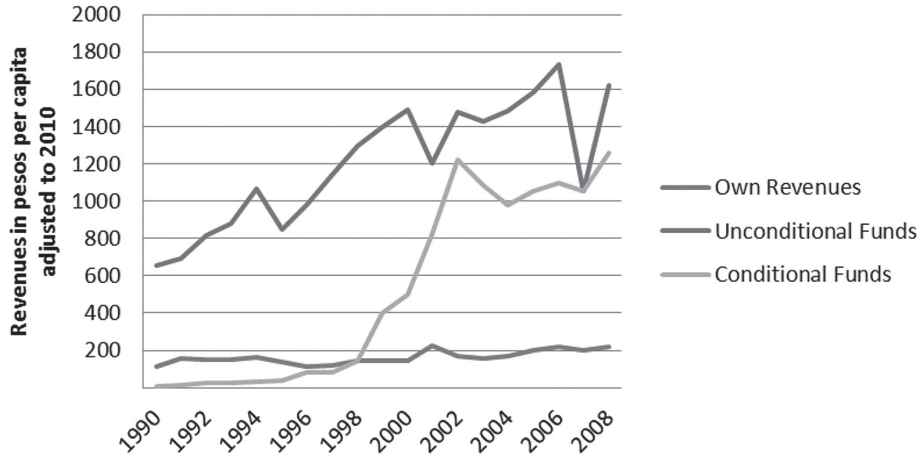
Mexico is a Federal country with 32 states, a Federal District and 2,457 municipalities by 2010. Mayors are elected democratically for three years without immediate re-election and councillors are elected via open-list proportional representation. The decentralisation reform started in 1983 when municipalities were granted the responsibility for potable water, drainage, sewage systems, public lighting, refuse collection, cemeteries, streets, public parks, public safety and slaughter houses. By 1997 the federal government created a budget to provide grants to states and municipalities (conditional grants) for specific areas besides the shared revenues (unconditional funds) they are entitled to.

These grants of expenditures increased the budget of local governments, and even though they are earmarked to certain expenditures, the local authorities take the decision of how to spend them and where. Unconditional grants are assigned through the General Participatory Fund (GPF) via the State. The federal government allocates at least 20% to the State, and the State allocates at least 20% to municipalities. Conditional grants to municipalities include FISM (Fund for Social Infrastructure) and FORTAMUN (Fund for the strengthening of municipalities). FISM is allocated to the States via the Secretary of Social Development and according to a formula approved under the Mexican Fiscal Coordination law. The redistribution from State to municipalities is based on a similar formula used by the Federal Government and an optional simpler formula when there is not information available for the calculation of the first. This fund is used for improving local public services. On the other hand, FORTAMUN is distributed across states and from states to municipalities in a discretionary mean (but States are obligated to publish the formula used for redistribution to municipalities). The fund is earmarked to public safety and financial obligations.

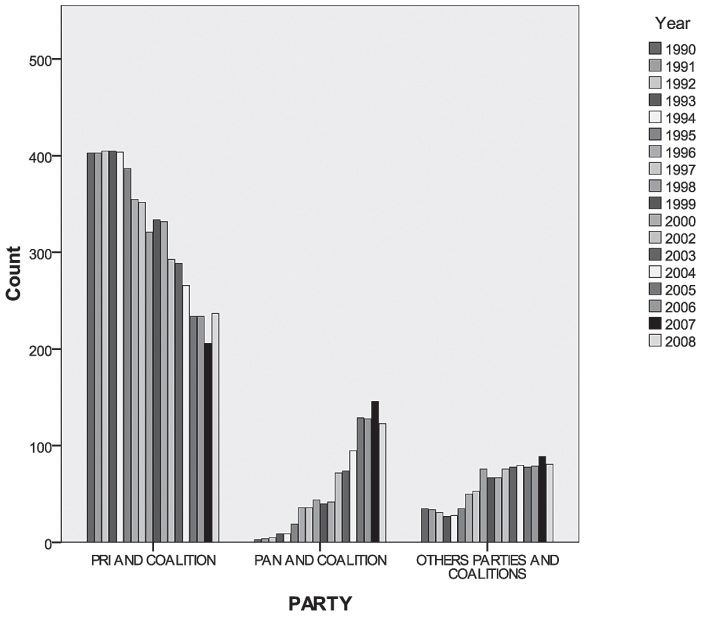
The introduction of conditional funds in 1997 highly increased the local budget. Revenues from unconditional funds have always been the main source of revenue, and the collection of own revenues from taxes and other contributions has slightly increased since the reform (see Figure 1).

The fiscal decentralisation reform described above took place within a changing political landscape. The Partido Revolucionario Institucional (PRI) was the ruling party in the country from 1929 until it handed over the presidency to the opposition party, Partido Acción Nacional (PAN) for the first time in history in 2000. Progressively since 1990, PRI has been losing political control in all type of elections. Moreno-Jaimes (2007) indicates that in 1990 almost 90% of the total population was under the mandate of local authorities coming from PRI membership and by 2001, more than half of this population was governed by opposition parties. In rural municipalities, this trend is following a slower pace (see Figure 2). From a sample of 441 rural municipalities and considering coalitions as part of the two strongest parties (PRI and PAN), the number of PRI-governed municipalities has

changed from 91.4% in 1990 and 79.8% in 2000 to 53.7% in 2008. PAN increased from an almost null presence in 1990 (in 3 municipalities only) to 9.5% in 2000 and 27.9% in 2008. The mainly left-wing PRD (Partido de la Revolución Democrática) and other minority parties had more popularity in 1990 than the Conservative Party (PAN) starting with 7.9% in 1990 and 15.2% in 2000 and rising to 18.4% in 2008. After PAN won the presidency in 2000, its presence in rural local governments increased modestly.



Source: Own calculation using the SIMBAD database (Municipal System Database) by INEGI.
Figure 1: **Revenues by category in sampled municipalities in Mexico from 1990 to 2008**



Source: Own calculation using CIDAC-BANAMEX databases
Figure 2: **Number of municipalities governed by party on a sample in Mexico from 1990 to 2008**

3. Data and Methodology

The aim of this paper is to take advantage of the fiscal decentralisation reform that took place in 1997 and use longitudinal municipal data from the period 1990-2008 to investigate whether the reform has had any significant impact on the quality of governance measured by the coverage of Basic Public Services in rural municipalities.[3] In addition, it explores the influence of the decentralisation reform on the local authority's behaviour by looking at changes in patterns of accountability and entrepreneurship after the reform, measured by a series of indicators (see Annex 3 for details on how variables are defined). The data used in this analysis comes from census (1990, 2000, and 2010) and counts (1995, 2005) collected by the Mexican National Institute of Statistics and Geography (INEGI), and surveys applied by different public and academic institutions (1995, 2000, 2002, 2004 and 2009). Statistical information was not available in all rural municipalities, and listwise deletion was used. Validation and model predictions are not the scope of this paper. The technique used was a fixed-effects design in a Mixed Linear Model using SPSS. This technique allows for a longitudinal database and it is flexible in exploring the covariance structure of the repeated measures.

3.1 Good Governance at the Local Level: Before-and-after Sceneries

The aim of this section is to describe the methodology used to investigate the changes in local-government performance. It is important to remind the reader that the aim of this paper is exploratory rather than a model predictor. Therefore, in order to better understand how local governance has changed, several models were run. The first model (I) explores the underlying implication of the variable used to measure local-government performance (considering it an independent variable in this analysis) and the following models (II and III) explore local-government performance using political and socio-demographic variables. Model II describes the scenery before the introduction of the reform and Model III, after the reform was in place.

One measure that is used in the literature as a proxy of local-government performance is Coverage of Basic Public Services (CBPS). This research uses only coverage of sewage and water services as a proxy due to data availability. These services are granted priority by local authorities. Therefore, it is important to point out that improving the level of water and sewage services might consequently improve the level of provision of other local public services. The reasons include the mitigation of a high level of investment from the local budget that permits financial security for investing in these specific services and, as a result, more flexibility for the allocation of local budget in other local public services once the priorities are covered. Hence, the results of this analysis can be extended to services other than the analysed ones.

[3] By rural municipalities, this research means a population of less than 30000 inhabitants, predominance of primary-sector activities by 2000, created before the reform, ruled by democratic election (some municipalities in the State of Oaxaca still use customs and traditions for electing representatives) and an average CBPS below 80% in 1990.

The CBPS information was collected from INEGI (census and counts). The coverage of the service is interpreted as the ratio between the number of houses with water/sewage service and the total number of houses in the municipality in the same census or population count.[4] The indicator is measured as follows: changes in percentage points in the average coverage of water and sewage service during a period of five years (one census and one count). In order to determine yearly percentage, a progressive increment between one census and one count was calculated.[5] The periods are divided into the pre-reform period from 1990 to 1997 and the post-reform period from 1998 to 2008 (See Annex 1, Table A for descriptive statistics).

The use of CBPS as a proxy variable brings another theoretical implication to the table. Local authorities are expected to be better allocators of local services. Therefore, the dispersion of CBPS within each municipality might have changed with the introduction of the reform. A proxy to measure this effect is the Standard Deviation of CBPS within each municipality. Lower Standard Deviation of CBPS (SD-CBPS) will mean a fairer distribution of services within municipal localities, which implies accountability toward citizens. In the context of this study, *localities* mean the subdivision of a municipality. It includes villages, communities, cooperative land tenure and also the municipal seat. In order to deeper explore this account, Model I analyses the relation between SD-CBPS and Coverage of services. This analysis has two aims: first, to understand the underlying relationship between investment in local public services and the degree of dispersion in service coverage; and second, to observe whether the patterns and nature of the relationship changed with the introduction of the reform.

The information was also obtained from the INEGI census and counts. The variable was calculated as follows: the ratio between the number of houses with water/sewage service and the total number of houses in the *locality* in the same census or population count.[6] The results are used to compute the standard deviation within the municipality and are calculated yearly. It uses a dummy variable to divide it into periods. In Model I, SD-CBPS is used as a dependent variable and CBPS as an explanatory one (see Annex 1, Table A for descriptive statistics).

Models II and III use CBPS as a dependent variable and two sets of explanatory variables, political and socio-demographic. The information for the political variables was obtained from CIDAC[7] and for the socio-demographic variables from INEGI. The political variables include juxtaposition, electoral completion and political party in order to explore how the political scenario changed. The socio-demographic variables consist of territory and population characteristics.

The variable called Juxtaposition was introduced by Moreno-Jaimes (2007) in a study of Mexican local governments. The variable was used to identify those munic-

[4] The information for these variables is listed on the Census of Population and Housing 1990, 2000 and 2010 and Count of Population and housing 1995 and 2005 from INEGI.

[5] The reason to include a yearly measure is because the census and counts do not match the time of local administrations. By including them, it allows the inclusion of three-year spans in the analysis to each local administration.

[6] The analysis takes into account all localities per municipality including the ones created during the years being studied.

[7] www.cidac.org.

ipalities where the local mayor and the governor come from different parties. His study was based on all local governments in Mexico from 1990 to 2000. He uses the same dataset but a different approach. His hypothesis was that juxtaposed local governments will have a more limited access to state government funds and, therefore, lower coverage of services. He did not find any differences in service coverage in juxtaposed municipalities. In the context of this study, the same definition of juxtaposition is used. There is juxtaposition when mayors belong to different political parties than the governor. The variable takes a value of 1. In contrast, if the mayor is from the same political party as the governor, it takes the value of 0. However, in this study the hypothesis is that municipalities juxtaposed *before* the reform had limited access to resources allocated to basic public services by the state due to political rivalry than those from the same party. This will lead to lower mean scores in CBPS for juxtaposed municipalities in the *pre-reform* and, either no-mean difference or a higher score for juxtaposed municipalities *after the reform*. The higher score for juxtaposed municipalities *after* the reform might be considered a positive change derived from the 1997 reform[8] (see Annex 1, Table A for descriptive statistics). Hence, the main difference with respect to his paper is that Moreno-Jaimes explored whether juxtaposed municipalities were more prone to budget restriction. He considers the intergovernmental transfers to be another explanatory variable. By contrast, this paper looks for changes with the introduction of the 1997 reform by dividing the database into periods. It explores the changes of the proposed political and socioeconomic explanatory variables given the introduction of the reform.

Following Moreno-Jaimes's study, political competition is included in order to observe its influence in rural settings. The indicator of competition in local elections (electoral competition) is measured as 1 minus the difference in the share of votes obtained by the two strongest parties. Therefore, a high index denotes high levels of competition and a low index the opposite. For instance, Xicoténcatl, my home town, had a local election in 2001. For the first time in the history of the town the opposite party won the election. The total votes were 11,405, and the share of votes by party was PAN (opposite party) 5,657, PRI 5,447 and the rest accounted for other parties and cancelled votes. The difference between the two strongest parties was 210 votes. This represents 0.02 or 2% difference in percentage. Hence, the index results in .98 (1-0.02) or 98%. This was a highly competitive election (see Annex 1, Table A for descriptive statistics). This variable is a proxy to measure the impact of democratic elections on the politicians' performance. In this case, elections are seen as a reward or punish mechanism for local authorities, but it does not capture the influence of the citizens' participation. Electoral competition can be indirectly influenced by other factors such as the electoral reform that allows party coalitions in Mexico. For instance, coalitions can be perceived as political arrangements rather than a strait of citizens' voice.

Electoral turnout is far from being the most accurate measure of citizens' participation (other proxy variables could be the number of NGOs, lobbying and so on).

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[8] This dummy variable follows the same mechanism as the grouping of parties. If a party from a coalition, e.g. PRI plus PANAL (Partido Nueva Alianza), is governing the State, a municipality from PRI and/or the same coalition is included as NOT JUXTAPOSED. PANAL on its own is considered JUXTAPOSED.

However, it is the best proxy variable available in the Mexican case for local governments. Hence, citizens' participation is calculated using the ratio between total ballot and total number of eligible citizens for voting in each local election. *Turnout* is held constant during three consecutive years. Participation is expected to foster CBPS (see Annex 1, Table A for descriptive statistics). A positive relationship between CBPS and turnout indicates that active citizens influence local policies. However, as claimed by Moreno-Jaimes (2007), it can simply show the effectiveness of mobilising people during elections, using local services as incentives – a political clientelism explanation. The latter is more prone to occur in this group of municipalities because of the tightness relationship built in small municipalities. In the case of Mexico, the weakening of the hegemonic party could have influenced the level of turnout in either direction. It could have positively increased the number of citizens' vote by giving them trust in their ballot power. On the other hand, the deterioration of PRI's electoral manipulation and mobilisation power could have lowered turnout numbers.

The last set of political variables is an identifier of groups of parties that were governing each year.[9] The two strongest parties also include coalitions.[10] Besides, three socio-demographic variables are included: territory, measured in square kilometres, population by 1000 inhabitants and population density. The reason to include these variables is because the cost of the basic public services will be higher for municipalities with larger territories and low population density. Therefore, the coverage of services might be lower for them. Moreover, even though this research sampled only small municipalities with rural characteristics, the number of inhabitants is politically important for state and district elections. In addition, municipalities with low population are the most behind in the alternation trend in local elections. By alternation this study means that any other party or coalition but PRI and its coalition have won the local election at least once. From the 441 sampled municipalities, the percentage of municipalities with at least one alternation changed from 8.4% in 1990 to 18.4% in 1997 to 61.9% in 2008. However, if divided into population size, most municipalities with small population sizes have always been governed by the hegemonic party (PRI) (see Figure 3). Hence, the distribution of resources might have been threatened even for municipalities from the same party where political power was strongly rooted by the hegemonic party.

The models also include an interaction between electoral competition and juxtaposition. The aim is to understand whom political competition influences the most, juxtaposed or no-juxtaposed municipalities and whether this influence changed with the introduction of the reform. However, the interaction must be read in context.

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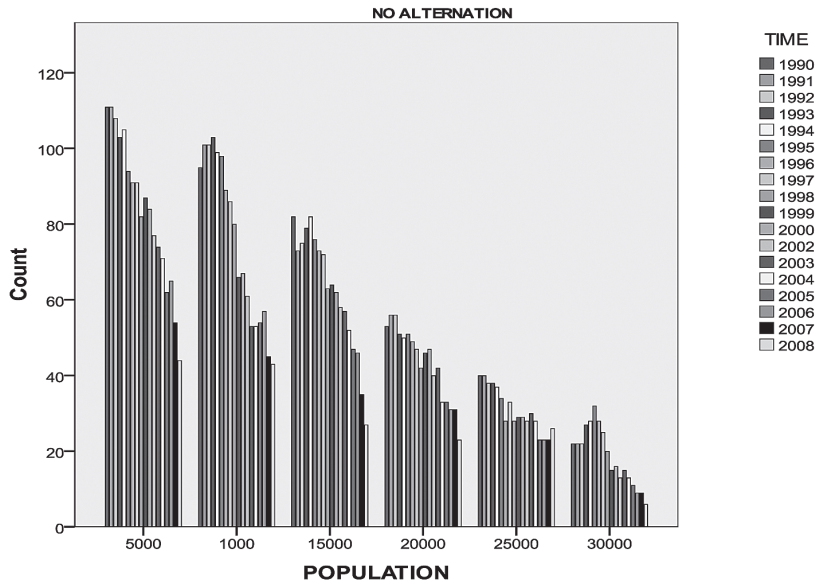
[9] Partido Revolucionario Institucional (central-left-wing) and coalitions (PRI+C); Partido Acción Nacional (right wing) and coalitions (PAN+C); Others + Coalitions (OTHERS+C).

[10] In some cases it lasted more than 3 years due to special circumstances. Competitive index and Party winner are set in the years that local governments were governing in order to match their effort for increasing local services. Elections in Mexico are not held in the same month, and neither is the start of the administrative period. However, in most cases the elections are held around 6 months before the start of the administrative period and in middle or later months of the year. Hence, if the election was held in 1990, the competitive index as well as the winner of that election is given to the subsequent three years (1991, 1992 and 1993).



Source: Own calculation using the CIDAC databases
Figure 3: **Number of municipalities that did not alternate by population size on a sample of Mexican municipalities**

It is important to note that the regressions include municipal fixed-effects, which allow controlling for any time-invariant characteristics of the municipalities that might have had an effect on CBPS over the period under analysis (e.g. state development). It estimates how political and demographic characteristics influence changes in CBPS in two different sceneries for local authorities: in the first scenery decision-making in regard to budget allocation is made at higher government levels (before reform), and in the second scenery, local authorities are empowered to a certain degree of decision-making (after reform).

3.2 About Internal Changes in Local Governments: Accountability and Entrepreneurship

This section outlines the methodology used to address the question whether fiscal decentralisation has been associated with changes in patterns of accountability and entrepreneurship. Firstly, it is important to define these concepts.

Accountability is paraphrased by Kluvers and Tippett (2010, 47) as "…broadly speaking, the process via which a person or group can be held to account for their conduct". The public sector is an interactive system with the problem of multiple principals. Hence, accountability can be seen from the managerial point of view focusing on the daily operations of the organisation and also from the political accountability side which involves issues of democracy and trust (see Boadbent and Laughin 2003 as cited in Kluvers and Tippett 2010). Hence, the financial autonomy derived from the fiscal decentralisation policy should produce internal changes in

accountability for both internal and external stakeholders as a mean of allocative efficiency. The concept of accountability leads to scrutiny of the level of openness and transparency in the local governments, the mechanism encouraging citizens' participation and involvement in decision making, its legal compliance toward financial resources and its commitment to citizens' involvement regardless of their political affiliation. Hence, it deals more with allocative efficiency. This concept is easily applied to the rural setting.

The entrepreneurship concept was borrowed from the private sector. The public-administration literature defines public entrepreneurs as "individuals who undertake purposeful activity to initiate, maintain, or aggrandize one or more public sector organisations" (Ramamurti 1986, 143 as cited in Zerbinati and Souitaris 2005). More recent studies have moved from a definition of economic maximisation toward innovation and creativity. Zerbinati and Souitaris (2005) propose a definition where not only wealth creation is recognised as an entrepreneurial aim, but also other "rewarding opportunities", such as political re-election and social recognition. The concept is still not as straightforward. Moreover, it is more difficult to understand its expectation in the context of rural municipalities, where social capital and resources are scarce.

After a series of interviews[11] in a pilot study carried out by the author, three types of entrepreneurial actions were identified (see Annex 2): **Grant-application facilitation:** Local government can assist and participate actively with local groups in being eligible for funds granted by the state or federal government directly for a specific sector; **Social-cooperation management:** The use of social cooperation and compulsory social services to minimise costs for local projects; **Win-win Negotiation:** Local government can negotiate with groups and communities for sharing costs for focalised projects.

Hence, entrepreneurship in rural local governments in this study is defined as the use of cooperation with private, public and social bodies and the ability to negotiate with the community in order to reduce costs/increase revenues. It deals more with productive efficiency rather than allocation.

It is a challenge to measure such abstract concepts. Its accuracy is debatable, but it is the only available means of understanding the general changes in a summarised way. Moreover, it is useful in order to explore general trends as well as identify specific cases.[12] For the use of this paper and following the definition mentioned above, two indices were constructed. The data comes from five local-government surveys carried out in 1995, 2000, 2002, 2004 and 2009 and financial data from 1990 to 2009. Due to missing data, the entrepreneurship index only includes the 2000, 2002 and 2009 surveys. Each variable has a maximum score of 2 and a minimum of 0. Some variables take an intermediate score of 1. The score of the indicator represents whether the municipalities have good, moderate or poor performance. The variables with

[11] The interviews were held with 5 main local actors in a local government in Mexico. They represented elected members including two mayors and one local council, one from a managerial level and an external stakeholder.

[12] In further analysis, the construction of these indexes will be used to identify municipalities with strong changes in accountability and entrepreneurial actions in order to do an in-depth qualitative analysis.

three levels come from financial data and some from the surveys as Likert scale variables. In most of the cases, the limits of each level were set according to the sample studied. The highest mean score of a variable over time is set as the upper limit and the average of all mean scores as the limit between moderate and low. This adds an important element to the analysis; it is based on an exclusive analysis for rural local governments, therefore, it shows a more realistic approach to what can be achieved and how good or bad rural local governments are performing (See Annex 3). The variables' selection and measurement largely benefited from the work of A. Carrera, R. Coronilla and A. Navarro (2010) of Red de Investigadores en Gobiernos Locales Mexicanos (IGLOM) (Network of researchers in Mexican Local Governments.

The indices show that local authorities have been progressing over time in both accountability and entrepreneurship. These changes are significant (Annex 1, Table B and C).

Model III investigates the relationship between the Accountability index and the political and socio-demographic variables mentioned above. Model IV explores the same relationship but of the Entrepreneurship index. Both Models (III and IV) also include financial variables for conditional and unconditional funds. Unconditional funds are the grants assigned to local governments derived from the General Participatory Fund. Full discretion is entitled in regard to expenditure. Conditional funds are the resources already assigned to specific areas such as infrastructure investment. Both variables are measured as the total annual amount received converted to 2010 real prices and divided by population.[13]

4. Empirical Analysis

With regard to local-government performance, the average mean of CBPS at the start of the analysis was 42.80% (SE=.98, $p<.001$) and the average score is lower by 1.01 (SE=.49, $p<.05$) points in CBPS before the reform. The rate of change was higher in the pre-period by .30 (SE=.06, $p<.001$) with an average of 2.09 points growth every year before the reform. It slowed down to an average of 1.79 (SE=.04, $p<.001$) after the reform.[14] Hence, there were no major changes in the provision of services after the introduction of the reform. This is not a concern itself because the reform does not involve general increments in resources but a change of hands of the resources and particularly, efficiency in the allocation of resources within the municipality.

In Model I, CBPS shows a high statistically positive correlation with the SD-CBPS (r=.14, SE=.388, $p<.001$). The positive relationship, however, might sug-

[13] The population use for the years between census and counts are determined by progressive growth.

[14] The model accounts for a covariance structure with auto-regression. This allows the correlation to decrease over time. The ceiling effect is still not a pressing concern The curve fit for the whole database presents the following results: Linear (R Square=.678, DF=3253, Sig .000), Quadratic (R Square=.685, DF=7902, Sig .000), Cubic (R Square=.685, DF=7901, sig. 000). By period: BEFORE REFORM, Linear (R Square=.864, DF=3253, Sig 000), Quadratic (R Square=.869, DF=3252, Sig .000), Cubic (R Square=.870, DF=3251, Sig .000); AFTER REFORM, Linear (R Square=.660, DF=4648, Sig .000), Quadratic (R Square=.670, DF=4647, Sig .000), Cubic (R Square=.670, DF=4646, Sig .000). Because they show no high difference, the simplest model was chosen.

gest that the level of investment is not enough for coping with the growing demand of basic services. This is evident with a lower SD-CBPS before the reform, but the rate of growth increases slightly faster before the reform by .03%. (SE=.006, p<.001). Hence, local authorities' allocation decision might not be the reason for the growing dispersion of local services but insufficient resources.

The estimation results for Models II and III that explore the relationship of CBPS and political and socio-demographic variables divided into before and after the reform are presented in Tables 1 and 2. In both analyses socio-demographic variables were not statistically significant as a single effect and after controlling for the other variables in the analysis. However, only the political variables, political competition and turnout are correlated and significant in both scenarios (with the exception of political competition, where significant level disappears when including the interaction *Juxtaposition* political competition* in the after-reform phase. This will be discussed later on.)

In Models II and III, the political-competition variable presents positive correlation suggesting that the more competitive the local election, the more coverage of service the municipality has. This supports the theoretical argument that envisages political competition as one determinant of good governance. Interestingly, the turnout variable shows a positive correlation before the reform (Model II) and negative association in the after period (Model III). Nevertheless, the negative effect after the reform is small.

The political variables *turnout, juxtaposition, political party and juxtaposition*political competition* were not significant before the reform but after. Therefore, in Model II when local authorities faced a high level of financial restriction, good performance can be partially explained or was fostered by electoral competition and citizens' participation (Model II-2). In this situation, there is no differentiation in political affiliation or political power. The findings support Moreno-Jaimes's conclusion to some extent. Citizens' participation (Turnout) seems to be a driver of good governance. However, in contrast to Moreno-Jaimes's findings, the evidence shows that for this group of municipalities before the reform, political competition was also an important determinant of good governance.

In the other panorama (Model III), when local authorities are granted a higher budget, the story is different. The turnout-variable sign shifts to negative correlation, and political competition is correlated as long as the interaction between juxtaposition and political competition is not included. The negative sign might suggest that lower participation as an indication of citizens' discontent can drive local authorities to work better in order to augment their party's chances to win further elections. However, it can also be a consequence of high levels of participation in this group of municipalities. Turnout went from 51.13% in 1990 to 65.15% in 1997 compared to 65.48% in 1998 to 64.91% in 2008. Hence, the scope for increments in turnout is rather limited. The analysis does not suggest that the financial reform changed the citizens' participation dynamic, but it does give local authorities scope for manoeuvre to act according to their citizens' claim.

In Model III, the evidence shows that after the reform municipalities that belong to a different party than the governor have higher CBPS or that municipalities that belong to the same political party as the governor have on average 3.85% less service

coverage. Although, before the reform, juxtaposition is not statistically significant, the correlation sign is the same as in the post-reform period. Hence, there is no evidence to conclude that favouritism was present before the reform for this group of municipalities when they were juxtaposed but there is evidence to suggest that "opposition status" fosters good performance and that the reform facilitates it.

With regard to party affiliation, in Model III, *PAN + Coalitions* has a higher average CBPS score than the base case *(PRI + Coalitions)*, and this difference is statistically significant at .001. However, when comparing *Others parties + Coalitions* with *PRI + Coalitions*, *Other parties + Coalitions* has a higher average score of CBPS, but it does not reach a conventional significant level. Although the results for party affiliation are not statistically significant in Model II, the parameter did change. In the pre-reform period, *PAN + Coalition* and *Other parties + Coalition* had a lower CBPS than the base case. Hence, the reform did make a difference.

The capture of the statistic significance of political competition by the interaction juxtaposition*political competition might be an evidence of state intervention. In conditions of higher political competition, municipalities that are from the same political party as the governor on average have a slightly higher mean than those from different parties. One explanation is that a competitive election, in municipalities with mayors from the same political party as the governor, means a probability to lose the next election, in case local authorities do not improve their political image during the local administration. Hence, resources might be redirected to these municipalities.

In the case where the same municipality wins without high levels of competition, the state party (headed by the governor) will not prioritise the redirection of resources. Hence, political competition can still be a determinant for "good" performance when it is considered a "warning sign of losing the next election" for municipalities where governors and local authorities belong to the same political party.

Hence, although the parameters are small, the results support Moreno-Jaimes's (2007) findings in regard to the importance of turnout (citizens' participation) in local-government performance. The claim that political competition does not influence performance is partially challenged. In this group of municipalities, it seems that by itself political competition does no longer influence good performance, but it did before the reform. After the reform, the underlying effect of political competition in rural municipalities is its importance as a warning sign of losing power in non juxtaposed settings. Moreover, "Opposition status" seems to play a role in encouraging good performance and the financial reform in enabling it.

Table 1: **Model II fixed effect analysis before reform**

Parameters		Estimates BEFORE REFORM					
	Intercept	Single effect	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5
Intercept			49.78*** (1.01)	48.48*** (1.03)	48.65*** (1.06)	48.74*** (1.07)	49.44*** (1.32)
POLITICAL COMPETITION	49.69***	.030*** (.002)	.030*** (.002)	.028*** (.003)	.028*** (.002)	.028*** (.003)	.020* (.010)
TURNOUT	49.64***	.028*** (.003)		.023 *** (.004)	.023*** (.003)	.023*** (.004)	.023*** (.004)
JUXTAPOSITION=0 BASE CASE=NO JUXTA-POSITION (1)	50.00***	-.901*** (.246)			-.159 (.252)	-.244 (.273)	-.966 (.829)
PAN+COALITIONS BASE CASE=PRI + COALITIONS	51.21***	.900** (.428)				-.325 (.454)	-.274 (.457)
OTHERS PARTIES AND COALITIONS BASE CASE=PRI + COALITIONS	51.21***	.494 (.347)				-.164 (.367)	-.143 (.367)
[JUXTAPOSITION=0] * POLITICAL COMPETITION Base case=NO JUXTAPOSI-TION (1) * POLITICAL COMPETITION	49.69***	.029*** (.002)					.009 (.010)
LAND EXTENSION	51.16***	6.41 (.0001)	-.0001 (.0002)	-.0001 (.0002)	-.0001 (.0002)	-.0001 (.0002)	-.0001 (.0002)
POPULATION BY 1000 INHABITANTS	51.20***	.0003 (.011)	.0108 (.027)	.0175 (.0278)	.0173 (.0278)	.0175 (.0278)	.0177 (.0278)
POPULATION DENSITY	51.21***	-.0001 (.0005)	-.0009 (.0014)	-.0013 (.0013)	-.0013 (.0013)	-.0013 (.0013)	-.0013 (.0013)
Pseudo R^2				.020			
N-1			437	437	437	437	437

Note: Dependent variable CBPS. Standard errors are in parentheses. McFadden's pseudo R squared was used. The result is a measure of the improvement in fit of the model due to the additions of independent variables. N-1 (464) ***p<.001 **<.01 *p<.05

Table 2: **Model III fixed effect analysis after reform**

Parameters		**Estimates AFTER REFORM**					
	Intercept	Single effect	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5
Intercept			63.90*** (1.03)	64.30*** (1.03)	64.88*** (1.03)	64.90*** (1.03)	67.18*** (1.18)
POLITICAL COMPETITION	63.92*** (.037)	.036*** (.004)	.037*** (.004)	.036*** (.004)	.032*** (.004)	.032*** (.004)	.005 (.007)
TURNOUT	67.35*** (.939)	-.004*** (.0008)		-.003 *** (.0008)	-.003*** (.0008)	-.003*** (.0008)	-.002*** (.0008)
JUXTAPOSITION=0 BASE CASE=NO JUXTA-POSITION (1)	67.45*** (.937)	-.934*** (.124)			-.714*** (.126)	-.720*** (.131)	-3.85*** (.807)
PAN+C Base case=PRI+C	66.83*** (.938)	.712*** (.153)				.478** (.153)	.485** (.152)
OTHERS PARTIES AND COALITIONS BASE CASE=PRI+C	66.83***	.260 (.175)				.153 (.179)	-.078 (.179)
[JUXTAPOSITION=0] * POLITICAL COMPETITION BASE CASE=NO JUXTA-POSITION (1) * POLITICAL COMPETITION	64.04*** (.031)	.031*** (.004)					.035*** (.009)
JUXTAPOSITION (1) * POLITICAL COMPETITION (ONLY FOR SINGLE EFFECT)	64.04*** (.031)	.038*** (.004)					
LAND EXTENSION	66.99*** (.946)	2.38 (.0001)	.0001 (.0001)	.0001 (.0001)	.0001 (.0001)	.0001 (.0001)	.0001 (.0001)
POPULATION BY 1000 INHABITANTS	67.21*** (.967)	-.0185 (.0210)	-.0208 (.0221)	-.0210 (.0220)	-.0208 (.0219)	-.0224 (.0219)	-.0207 (.0219)
POPULATION DENSITY	66.87*** (.9474)	.0023 (.0021)	.0028 (.0021)	.0028 (.0021)	.0028 (.0021)	.0028 (.0021)	.0026 (.0021)
Pseudo R^2							.004
N-1			437	437	437	437	437

Note: Dependent variable CBPS. Standard errors are in parentheses. McFadden's pseudo R squared was used. The result is a measure of the improvement in fit of the model due to the additions of independent variables. N-1 (464) ***p<.001 **<.01 *p<.05

With regard to changes within local government structure, both indices, accountability and entrepreneurship, are highly and significantly correlated to Coverage of Basic Public Services (In standardised values, Accountability r (294) =.05, SE=.009, p<.001 and Entrepreneurship, r (294) =.074, SE=.015, p<.001). Therefore, it is expected to find similar results as in the previous analysis. The estimated results are presented in Tables 3 and 4. Both indices are steadily rising over time, and the changes are statistically significant (see Annex 1, Table B and C).

Electoral competition is significant on its own as a variable affecting and apparently increasing both *accountability* and *entrepreneurship*, but in both cases, the association turns negative with the introduction of the *Juxtaposition variable*. The *Juxtaposition variable* informs us that local authorities that belong to the *same party* as the governor on average have *lower scores* on both the accountability and entrepreneurship indices than those from different party membership. This reinforces the argument that "opposition status" is a hidden incentive to perform better.

Party affiliation is not a statistically significant variable for either index, and the interaction *juxtaposition*political competition* turns to be significant at p<.05 only in the entrepreneurship index. Similarly, turnout shows a negative relationship, and it is only significant in Model V (entrepreneurship index) at p<.05, with a low effect, though. The significant level and negative sign of turnout in Model V might suggest that lower levels of participation during the election actually motivate local authorities to pursue more citizens' cooperation. It has to be considered that participation is considerably high in this group of municipalities. Moreover, the interaction variable confirms the previous finding that political competition can be a sign of warning of political weakness, which seems to directly encourage entrepreneurship actions.

Interestingly, the financial arrangements show that higher levels of unconditional funds are negatively related to accountability index scores and insignificant in the case of the entrepreneurial index, while the level of conditional funds are highly positively correlated with both. Hence, unconditional funds might lead to a rise in administrative spending and discouragement in public work investment and, and to some extent, of inclusion and transparency. Moreover, unconditional grants do not promote entrepreneurial actions or cooperation as defined earlier. On the other hand, a highly positive correlation of conditional funds in both models suggests that increments on conditional funds encourage both accountability and entrepreneurial actions. Finally, the socio-demographic variables were not statistically significant in both indices with exception of *population by 1000 inhabitants*, which turn to be significant at p<.01 in the accountability index. This suggests that the bigger the population size, the higher the use of accountability mechanisms implemented in local governments.

Hence, Models IV and V suggest that financial arrangements play an important role in motivating local authorities. Each type of grant fosters different types of actions (accountability or entrepreneurial). Unconditional grants negatively affect accountability actions but do not have an impact on entrepreneurial motivation. On the other hand, conditional funds promote both entrepreneurial and accountability actions. The same applies to the political variables. While "being opposition" encourages both accountability and entrepreneurship, turnout and the "warning sign of political weakness" directly impact entrepreneurship.

Table 3: **Model IV fixed effect analysis of accountability index**

Parameters		Estimates ACCOUNTABILITY							
	Intercept	Single effect	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6	MODEL 7
Intercept			.014 (.037)	.113 (.036)	.023 (.035)	.018 (.034)	.150*** (.047)	.165** (.058)	.169** (.058)
POLITICAL COMPETITION	.015 (.038)	.078** (.025)	.084*** (.026)	.090*** (.025)	.065** (.025)	.058** (.024)	.034 (.026)	.034 (.026)	-.004 (.027)
TURNOUT	.005 (.037)	-.067** (.028)		-.072** (.028)	-.068* (.027)	-.046 (.027)	-.048 (.027)	-.048 (.027)	-.049 (.027)
CONDITIONAL FUNDS	.023 (.036)	.285*** (.028)			.277*** (.028)	.323*** (.029)	.309*** (.029)	.309*** (.029)	.306*** (.029)
UNCONDITIONAL FUNDS	.004 (.038)	-.085** (.036)				-.188*** (.036)	-.190*** (.035)	-.190*** (.035)	-.190*** (.035)
JUXTAPOSITION=0 BASE CASE=JUXTAPOSED (1)	.196*** (.049)	-.311*** (.055)					-.227*** (.055)	-.239*** (.061)	-.242*** (.061)
PAN+C Base case=PRI+C	-.046 (.042)	.185** (.079)						-.008 (.079)	.-0008 (.079)
OTHERS PARTIES AND COALITIONS BASE CASE=PRI+C	-.046 (.042)	.187** (.077)						-.039 (.080)	-.019 (.083)
NO JUXTAPOSITION (0) * POLITICAL COMPETITION BASE CASE=JUXTA-POSITION (1) * POLITICAL COMPETITION	.025 (.038)	.100*** (.031)							.054 (.057)
NO JUXTAPOSITION (1) * POLITICAL COMPETITION (ONLY FOR SINGLE EFFECT)	.025 (.038)	.027 (.047)							
LAND EXTENSION	.008 (.038)	-.007 (.037)	-.001 (.037)	-.005 (.037)	-.005 (.037)	-.008 (.037)	-.013 (.035)	-.012 (.035)	-.013 (.035)
POPULATION BY 1000 INHABITANTS	.007 (.038)	.105** (.034)	.109** (.034)	.010** (.034)	.100** (.034)	.095** (.032)	.091** (.032)	.091** (.032)	.091** (.032)
POPULATION DENSITY	.008** (.038)	.040 (.034)	.013 (.036)	.011 (.036)	.017 (.035)	-.002 (.034)	-.002 (.034)	-.002 (.034)	-.001 (.034)
Pseudo R^2							.035		
N-1			268	268	268	268	268	268	268

Note: Dependent variable CBPS. Standard errors are in parentheses. McFadden's pseudo R squared was used. The result is a measure of the improvement in fit of the model due to the additions of independent variables. The results are presented in standardised values. N-1 (264) ***p<.001 **<.01 *p<.05

Table 4: **Model V fixed effect analysis of entrepreneurship index**

Parameters		Estimates ENTREPRENEURSHIP							
	Intercept	Single effect	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6	MODEL 7
Intercept			.034 (.039)	.028 (.039)	.061 (.037)	.061 (.037)	.230*** (.065)	.142 (.084)	.173* (.084)
POLITICAL COMPETITION	.034 (.039)	.081* (.037)	.082* (.037)	.087* (.036)	.071* (.035)	.072* (.035)	.042 (.036)	.035 (.037)	-.140 (.081)
TURNOUT	.027 (.039)	-.092** (.039)		-.089* (.040)	-.098* (.038)	-.099* (.039)	-.096* (.039)	-.098* (.039)	-.096* (.039)
CONDITIONAL FUNDS	.067 (.038)	.302*** (.043)			.298*** (.043)	.295*** (.046)	.276*** (.046)	.268*** (.047)	.251 *** (.047)
UNCONDITIONAL FUNDS	.034 (.039)	.065 (.038)				.004 (.041)	.005 (.041)	.007 (.040)	.011 (.040)
NO JUXTAPOSED=0 BASE CASE=JUXTA-POSED (1)	.271*** (.065)	.352*** (.078)					-.253** (.080)	-.184* (.090)	-.216* (.091)
PAN+C Base case=PRI+C	-.056 (.044)	.381*** (.114)						.164 (.119)	.209 (.121)
OTHERS PARTIES AND COALITIONS BASE CASE=PRI+C	-.056 (.044)	.339** (.111)						.156 (.121)	.226 (.125)
NO JUXTAPOSITION (0) * POLITICAL COMPETITION BASE CASE=JUXTA-POSITION (1) * POLITICAL COMPETITION	.051 (.041)	.115** (.042)							.222* (.091)
NO JUXTAPOSITION (1) * POLITICAL COMPETITION (ONLY FOR SINGLE EFFECT)	.051 (.041)	-.021 (.075)							
LAND EXTENSION	.033 (.039)	.049 (.040)	.041 (.044)	.040 (.044)	.028 (.042)	.028 (.042)	.041 (.042)	.041 (.042)	.043 (.042)
POPULATION BY 1000 INHABITANTS	.032 (.039)	.068 (.039)	.065 (.041)	.053 (.041)	.042 (.039)	.042 (.039)	.031 (.039)	.032 (.039)	.028 (.039)
POPULATION DENSITY	.033 (.039)	.007 (.040)	.003 (.045)	.008 (.045)	.020 (.043)	.020 (.043)	.026 (.043)	.024 (.043)	.024 (.043)
Pseudo R^2									.017
N-1			273	273	273	273	273	273	273

Note: Dependent variable CBPS. Standard errors are in parentheses. McFadden's pseudo R squared was used. The result is a measure of the improvement in fit of the model due to the additions of independent variables. The results are presented in standardised values. N-1 (207) ***p<.001 **<.01 *p<.05

5. Conclusion

This paper shed light on the incentives generated by fiscal-decentralisation policies and the political environment in rural municipalities in Mexico. The results did not find any significant differences in patterns of growth in CBPS before and after the reform. Allocation of resources due to socio-demographic characteristics did not influence the CBPS for this group of municipalities. Turnout and political competition were important indicators of good performance before the reform. After the reform, the influence of political competition appears only when there is an interaction with juxtaposition suggesting that it works as a "warning sign of political weakness", which fosters good performance. In addition, turnout seems to be influential as an indication of discontent by local citizens rather than participation as an encouragement for good governance as in the pre-reform period. Hence, the influence of political variables in performance is a dynamic cycle.

The financial arrangements endorse different types of actions. Conditional funds are found to be important in promoting both accountability and entrepreneurship, while unconditional funds have a negative effect on accountability and no effect on entrepreneurship.

There is evidence that "being opposition" is an incentive to perform better and it engages on both accountability and entrepreneurship actions. Differently, citizens' participation measured as turnout and the "warning sign of political weakness" are more prone to encourage entrepreneurship.

It can be concluded that Mexican municipalities have been engaged in positive changes in the rural local structure that promotes level of accountability and entrepreneurship. Hence, the fiscal decentralisation policy has been beneficial.

This research contributes to the debate of decentralisation theory by exploring its impact on rural areas. The findings suggest that the allocative-efficiency argument is well grounded in rural municipalities. Being closer to the recipients is a motivation and valuable experience to allocate better local services due to an information advantage. On the other hand, the productivity argument is present with mixed results. Rural municipalities appear to take advantage of cooperation to reduce costs. But, in the Mexican case (and with the limitation of this study), experimentation and regional/local competition seem to be outside the entrepreneurial minds of local authorities. Moreover, they also tend to have high levels of administrative spending rather than investment in public work, which does not follow the general arguments for improving economic growth, regional equalities and poverty reduction. Hence, in rural settings, decentralisation might improve governance and, to some extent, welfare, but it can also be detrimental to other aspects.

The use of elections as a reward or punish mechanism is not straightforward. The citizen's participation dynamic seems to be more related to citizens' general government perception rather than a reflection of the work performed by local authorities. However, the changes in political competition and juxtaposition may suggest that counterbalance of power is the incentive behind this control mechanism. This political incentive is more of the concern of political parties rather than of citizens.

The type of financial arrangement plays a main role in the sense of direction for

performance at the local government. Conditional funds should be highly considered. But, there are different arrangements to share this type of funds. Do they make a difference in the entrepreneurial behaviour of rural local authorities? This is a further research question …

References

Baskaran, Thushyanthan and Lars Feld. 2009. "Fiscal Decentralisation and Economic Growth in OECD Countries: Is there a Relationship." Center of Economic Studies and Institute for Economic Research, Working Paper 2721. Available at http://ssrn.com/abstract=l441152 (last accessed March 2012).

Carrera, A., R. Coronilla and A. Navarro. 2010. "Indice de Desarrollo Institucional y Sustentabilidd Municipal." Working Paper. Preliminary Version.

Ezcurra, Roberto and Pedro Pascual. 2008. "Fiscal Decentralisation and Regional Disparities: Evidence from Several European Union Countries." *Environment and Planning* 40(11), 85-201.

Faguet, Jean-Paul. 2000. "Decentralisation and Local Government Performance: Improving Local Service Provision in Bolivia." *Revista de Economía del Rosario* 3(1), 127-176.

Fukasaku, Kiichiro and L. DeMello. 1998. "Fiscal Decentralisation and Macroeconomic Stability: The Experience of Large Developing and Transition Economies." In Kiichiro Fukasaku and Ricardo Hausmann (eds). *Democracy, Decentralisation and Deficits in Latin America*. Paris: Inter American Development Bank/ Development of the Organisation for Economic Cooperation and Development, 121-148.

Hammond, George and Mehmet Tosun. 2011. "The Impact of Local Decentralisation on Economic Growth: Evidence from US Counties." *Journal of Regional Science* 51(1), 47-64.

Kluvers, Ron and John Tippett. 2010. "Mechanism of Accountability in Local Governments: An Explanatory Study." *International Journal of Business and Management* 5(7), 46-53.

Lessmann, Christian. 2009. "Fiscal Decentralisation and Regional Disparity: Evidence from Cross-Section and Panel Data." *Environment and Planning* A. 41(10), 2455-2473.

Litvack, Jennie and Jessica Seddon. 1999. "Decentralisation Briefing Notes." World Bank Institute, Working Paper. Available at http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,contentMDK:20112038~menuPK:556286~pagePK:209023~piPK:207535~theSitePK:213799,00.html (last accessed March, 2013).

Moreno-Jaimes, Carlos. 2007. "Do Competitive Election Produce Better-Quality

Governance? Evidence from Mexican Municipalities, 1990-2000." *Latin American Research Review* 42(2), 136-153.

Oates, Wallace. 1999. "An Essay of Fiscal Federalism." *Journal of Economic Literature* 37(3), 1120-1149.

Oates, Wallace. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanochi.

Prud'homme, Rémmy. 1995. "On the Dangers of Decentralisation." *The World Bank Researcher Observer* 10(2), 201-220.

Rodriguez-Pose, Andrés and Roberto Ezcurra. 2009. "Does Decentralisation Matter for Regional Disparities? A Cross-Country analysis." *Journal of Economic Geography* 10(5), 619-644.

Strumpf, Koleman and Felix Oberholzer-Gee. 2002. "Endogenous Policy Decentralisation: Testing the Central Tenet of Economic Federalism." *Journal of Political Economy* 110(1), 1-36.

Tanzi, Vito. 1996. "Fiscal Federalism and Decentralisation: A Review of Some Efficiency and Macroeconomic Aspects." In Michael Bruno and Boris Pleskovic (eds). *Annual World Bank Conference on Development Economic*. Washington: World Bank, 295-316.

Tiebout, Charles. 1956. "A Pure Theory of Local Expenditures." *The Journal of Political Economy* 64(5), 416-424.

Xie, Danyang, Heng-fu Zou and Hamid Davoodi. 1999. "Fiscal Decentralisation and Economic Growth in the United States." *Journal of Urban Economic* 45(2), 228-239.

Zerbinati, Stefania and Vangelis Souitaris. 2005. "Entrepreneurship in the Public Sector: A Framework of Analysis in European Local Governments." *Entrepreneurship and Regional Development* 17(1), 43-64.

Annex 1: **Descriptive statistics**

Table A: **Descriptive statistics of local services and electoral variables**

Descriptive Statistics of Local Services										Descriptive Statistics of Electoral Variables					
	N	CBPS		WATER		SEWAGE		SD-CBPS		ELECTORAL COMPE-TITION		TURNOUT			JUXTA-PO-SITION
YEARS		Mean %	Std. Devi-ation	Mean %	Std. Devi-ation	Mean %	Std. Devi-ation	Mean %	Std. Devi-ation	Mean	Std. Devi-ation	N	Mean	Std. Devi-ation	%
1990	465	45.91	20.81	60.35	24.06	31.47	21.39	26.10	7.20	30.00	33.00	456	51.00	22.00	93.00
1991	465	48.61	20.74	62.74	23.43	34.47	21.87	26.80	6.70	32.00	33.00	456	49.00	21.00	92.00
1992	465	51.30	20.83	65.13	22.99	37.48	22.68	27.50	6.50	38.00	34.00	461	52.00	20.00	92.00
1993	465	54.00	21.08	67.52	22.77	40.48	23.79	28.40	6.80	46.00	34.00	459	57.00	17.00	89.00
1994	465	56.70	21.48	69.91	22.76	43.49	25.16	29.50	7.70	49.00	33.00	457	58.00	16.00	89.00
1995	465	59.39	22.03	72.29	22.96	46.49	26.74	29.40	8.00	60.00	32.00	455	64.00	15.00	85.00
1996	465	59.80	21.64	71.99	22.55	47.61	26.01	29.10	7.10	69.00	27.00	461	65.00	12.00	80.00
1997	465	60.21	21.41	71.68	22.44	48.73	25.49	29.00	6.50	70.00	26.00	440	65.00	12.00	79.00
1998	465	60.62	21.35	71.38	22.65	49.85	25.19	28.90	6.20	77.00	22.00	460	65.00	11.00	69.00
1999	465	61.02	21.46	71.07	23.17	50.98	25.11	28.90	6.30	79.00	21.00	460	67.00	11.00	63.00
2000	465	61.43	21.74	70.77	23.98	52.10	25.27	28.30	6.60	80.00	21.00	461	67.00	10.00	61.00
2002	465	66.15	19.57	73.29	21.17	59.01	23.27	29.30	5.50	85.00	14.00	459	65.00	11.00	50.00
2003	465	68.51	18.72	74.55	20.21	62.47	22.60	30.10	5.50	85.00	14.00	459	65.00	11.00	49.00
2004	465	70.87	18.07	75.81	19.62	65.92	22.17	31.10	6.70	87.00	12.00	459	64.00	11.00	36.00
2005	465	73.23	17.62	77.07	19.43	69.38	22.00	30.90	7.90	89.00	11.00	457	65.00	11.00	34.00
2005	465	74.17	17.17	77.39	19.15	70.96	21.13	30.60	7.00	89.00	11.00	457	65.00	11.00	35.00
2007	465	75.13	16.79	77.72	18.93	72.54	20.39	30.50	6.30	89.00	11.00	457	66.00	11.00	41.00
2008	465	76.10	16.46	78.08	18.78	74.12	19.78	30.70	6.60	89.00	11.00	459	65.00	11.00	23.00
Valid N (list-wise)	465														

Table B: **Descriptive statistics accountability index**

	Descriptive statistics			Significance level in changes over time	
	N	Mean	Std. Deviation	Significance	Standard Error
1995	290	.6603	.34891	-.38 ***	(.03)
2000	295	.7407	.38964	-.29***	(.03)
2002	295	.9893	.36985	-.05	(.03)
2004	294	.9371	.37345	-.10***	(.03)
2009	271	1.0381	.35973	Case base	
Valid N (listwise)	265			Intercept 1.03***	(.02)

Table C: **Descriptive statistics entrepreneurship index**

	N	Mean	Std. Deviation	Significance	Standard Error
				Intercept .994 ***	(.025)
2000	295	.7432	.26876	-.251 ***	(.30)
2002	295	.9025	.34876	-.092 **	(.30)
2009	208	.9892	.46450	Case base	
Valid N (listwise)	208				

Annex 2: **Type of entrepreneurial and accountability actions**

Case 1: A trusteeship programme called Quality School in Mexico required schools to give $83,000 (Pesos) for being eligible for a school project valued $300,000. The local government wanted to support all local schools. In its annual competition for the hometown queen, the local government together with all local schools presented an innovative idea. Local government would double the amount invested in the competition. It promoted the participation of schools and students' mothers. They collected as much money as they could. After the competition, the mayor organised an open public meeting where he invited the governor (who was from an opposition party) and together with the local teachers, they asked the governor to collaborate in the same way. He accepted and the result was that as an example, if a school collected $100,000 it ended up with $300,000. They agreed that part of the money collected would go to the Quality school programme which was $83,000. This left them with $217,000 but they got the funds from the Quality School programme valued $300,000, which gave them a total of $517,000. This practice was performed during three consecutive years and school investment in infrastructure, maintenance and equipment amounted to overall $1 million pesos per school. The local government did not limit itself to the municipality funds but increased local investment by supporting local schools to be eligible for special funds.

Case 2: The local government hired an expert in land valuation. They did not have enough money for sophisticated studies. The mayor decided to invite students from the local high school to collaborate as part of the compulsory social service. Students were trained and divided into groups for visiting local properties that were detected as irregular due to low land valuation. At the end, the revenues from property tax increased by 78% that year without raising the tax rate. The initiative of local government minimised costs and increased its own local revenues in adverse circumstances.

Case 3: A cooperative farming with a population of 250 inhabitants had a property-tax debt with the local government for many years. The mayor had a meeting with the community and suggested that if they paid the debt off, the local government would provide the same amount of money to invest in a local project. They accepted and decided to invest the money in a bridge because this community is located between two rivers and every year, at least three times, the river used to flood, leaving the community isolated from its hometown. A suspension bridge was built. The community regarded the building of the bridge as a win-win situation when they contributed with their tax duties and, at the same time, benefited from their own contribution.

Annex 3: **Accountability and entrepreneurship indicators**

	Variable	Question	SURVEY YEAR					Values and Ranges G=Good M=Moderate P=Poor
			1995	2000	2002	2004	2009	
Accountability	Promotion of citizens' participation	Is there an area that promotes citizens' participation? Yes or No	6 (3)	19 (c)	53	3 (10)	8 (10)	Yes= 2 (G) No= 0 (P)
	Regulation	Number of regulations available in the local government	36	63	8	10	32	2= >.70 (G) 1= .31 -.69 (M) 0= <.30 (P)
	Basic public services in Municipal Seat and outside Municipal Sseat	Percentage of Local public services (such as water, sewage, street lighting, public safety, traffic, street cleaning, garbage collection) that have coverage inside and outside the municipal seat	INSIDE MS 21	53	39	17	17	2= >71% (G) 1= 50 – 70% (M) 0= <51% (P)
			OUTSIDE MS 24	56	39	17	17	2= >47% (G) 1= 26 – 47% (M) 0= <26% (P)
	Administrative Spending Level	Percentage of administrative spending in regard to total expenditures calculated as the sum of personal spending in the period between the number of years of that period.	**YEARLY INFORMATION TAKEN FROM SIMBAD DATABASE**					2= <22% (Minimum mean from 1990 to 2009) (G) 1= 24 – 21% (Mean from 1990 to 2009) (M) 0= >25% (P)
	Public work investment	Percentage of public work investment in regard to total expenditures calculated as the sum of public work investment in the period between the number of years of that period.	**YEARLY INFORMATION TAKEN FROM SIMBAD DATABASE**					2= >33% (Maximum mean from 1990 to 2009) (G) 1= 28 – 32% (Mean from 1990 to 2009) (M) 0= >27% (P)

	Variable	Question	SURVEY YEAR			Values and Ranges G=Good M=Moderate P=Poor
			2000	2002	2009	
Entrepreneurship	Cooperation with public organisations	Has the local government been associated with other local governments with a specific end?	60	43	75	Yes= 2 (G) No= 0 (P)
	Public Services Association	Is the local government associated with other institutions to provide local public services?	62	41	76	It is associated= 2 (G) It is not associated = 0 (P)
	Cooperation with public and private sector: Fiscal Effort	Percentage of own revenues collected in regard to total revenues calculated as the sum of percentage of own revenues collected in the period between the number of year in that period.	**YEARLY INFORMATION TAKEN FROM SIMBAD DATABASE**			2= >16% (Maximum mean from 1990 to 2009) (G) 1= 15 – 9% (Mean from 1990 to 2009) (M) 0= <9% (P)

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