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**ANALYZING THE PERFORMANCE OF LOCAL GOVERNMENTS IN
MEXICO: A POLITICAL EXPLANATION OF MUNICIPAL BUDGETARY
CHOICES**

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Abstract

This paper analyzes the budgetary choices of municipal governments in Mexico. Using a panel data approach that includes most municipalities in the country throughout the 1990-2001 period, I investigate to what extent local democracy has stimulated municipal governments to increase their investments on basic infrastructure projects, rather than expanding their bureaucratic apparatuses. My findings suggest that only under a decentralized policy setting, the competitiveness of the electoral arena has a positive influence on the provision of local public goods. I also find evidence that basic infrastructure spending increases when local elections are held, and when the local mayor belongs to a different party than the state governor.

I. Introduction

In recent years, there has been a widespread interest in understanding the consequences of policy decentralization at the local levels of government, particularly when the devolution of fiscal responsibilities has coincided with the broader process of democratization. Many developing countries with a history of strong centralization in their policymaking styles started to transfer new taxing and spending powers to their sub-national governments, with the aim of making the allocation of public resources more efficient and effective. Furthermore, decentralization efforts have had the explicit goal – at least in the official discourse- to involve the participation of citizens in the definition of policy priorities. In the Mexican case there have been several decentralization attempts in different sectors since the early eighties, but one of the latest was launched in 1997 by the federal congress and put into effect in 1998, in which earmarked transfers were given to municipal governments in order to increase their investments on basic infrastructure projects. These resources have become one of the most important funding sources for municipalities, particularly for those with high social deprivation levels. At the same time, the electoral environment of local governments in Mexico has been undergoing important transformations, moving from a situation characterized by the absolute hegemony of the official party, to another where the alternation of parties is a normal event. Given the relative autonomy that municipal governments have acquired as a result of the decentralization of basic infrastructure, and the strong competitiveness of local elections, one would expect local policymaking to become more responsive to the

demands of constituencies, particularly if we take into account that the vote of citizens can constitute an effective mechanism to punish ineffective leaders.

In this paper I attempt to make an empirical contribution to the decentralization debate, looking at the budgetary allocations of local governments in Mexico. My objective is to analyze to what extent the spending choices of Mexican municipalities have been responsive to increases in electoral competition and alternation of parties. In addition, I explore whether the interface between local democratization and policy decentralization has provided local authorities with better incentives to invest on basic infrastructure projects that are necessary to improve the social development of the country.

For the purposes of this paper, I frame the problem of budgetary allocations not merely as a technical matter, but as a highly political issue in which local policymakers try to maximize their political survival, using public resources with that aim. In the Mexican case, where reelection for public office is constitutionally forbidden, the problem of political survival consists of assuring the victory of the incumbent's party in the next electoral contest. Thus, under a context of high political competition (as it is now the case in Mexico), we can expect that local politicians will invest more on areas that provide them with a higher political reward, improving the chances of their parties to remain in power. This key hypothesis will be tested using data from virtually all municipalities in the country for the years from 1990 to 2001, which is the period in which the electoral landscape of Mexican municipalities became highly competitive.

The paper is organized as follows. The first section makes a brief review of the literature of policy decentralization and local governance, with the aim of highlighting

some of their most important insights. Section two describes the policy changes introduced by the federal government during the 1990 decade to decentralize the provision of basic infrastructure, and shows some indicators about the coverage of basic services in Mexican municipalities. Section three illustrates the highly competitive electoral environment that characterizes local governments in Mexico. Section four presents an empirical analysis of local budgetary choices, testing the hypothesis that a more competitive and diverse electoral environment stimulates municipal governments to invest on local public goods. Additional hypotheses are examined in that section. The last part of the document concludes and discusses the implications of my findings for public policy.

II. Theoretical background

This section presents a review of some relevant literature on local governance and decentralization. I start with a discussion of decentralization theories, since these have provided the principal arguments in favor of devolving policy authority to the local and sub-national levels in order to improve the efficiency in the allocation of resources. The classical decentralization arguments, I contend, do not provide an explanation of why some governments perform better than others, since it is taken for granted that local institutions and policy processes are capable, by themselves, to create the conditions for an efficient provision of public goods (i.e. that government performance will be the logical result of the ability of voters to bring their preferences to the policy agendas). Although recent literature on decentralization acknowledges that decentralization might entail important dangers –particularly in the context of developing countries-, I consider

that these theories are still based on a top-down notion of policy that overemphasizes the ability of decentralization to meet national policy goals, but disregard the outcomes of decentralization at the local levels. I will also discuss an emerging body of literature that attempts to explain the consequences of decentralization on local governance, looking more at how local conditions shape the outcomes of a decentralized provision of public goods.

The classical foundations of fiscal decentralization theory come from the works of Charles Tiebout and Wallace Oates (Tiebout, 1956; Oates, 1972), who provided arguments supporting the view that local governments should have the control over a number of expenditure functions to improve the efficiency of resource allocations. Tiebout offered a solution to the classical problem of public goods provision, arguing that local governments are better suited to identify the preferences of their constituents, and to incorporate them into their tax and spending decisions. Acting like a private market, local governments will charge taxes and supply local services, and citizens will reveal their true preferences by “voting with their feet”: they will move to jurisdictions that best match up with their tastes. At the margin, the benefit from consuming the public good or service will be equal to the cost, approaching a Pareto optimal solution. Despite the fact that Tiebout’s model rests on very unrealistic assumptions, his theory has been advanced as an argument to justify why local governments should be granted with most expenditure responsibilities, such as health, education, infrastructure, public safety, etc. A second important model in fiscal decentralization is the work by Wallace Oates. This author makes the point that not all public goods have the same characteristics: some goods provide benefits to the whole country, while others provide only local benefits. A

centralized government might ignore these spatial characteristics and the diversity of preferences, thus it is very likely to provide public goods inefficiently. His main conclusion is that decentralization policy should assign responsibilities among different government levels, according to the spatial characteristics of public goods. In summary, the implication of Tiebout and Oates' theories is the belief that local governments are more likely to perform better than central authorities, since local constituents can exert pressure –either by voting or by moving to alternative jurisdictions—to hold local policymakers accountable for their actions. In other words, local government performance is assumed to result from a decentralized system of public goods provision that allows citizens to reveal their policy preferences.

During the nineties, several scholars started to show reservations on the alleged virtues of decentralization, particularly when applied to developing countries.¹ These critical perspectives point out that decentralization can produce adverse effects on several aspects of the economy. Their goal is not to reject the whole idea of decentralization but only to make policymakers conscious of the importance of analyzing carefully the potential outcomes of decentralization programs. This body of literature has considered that decentralization can produce adverse effects in three different ways: 1) by threatening macroeconomic stability; 2) by exacerbating income inequality; 3) by weakening economic and production efficiency. Tanzi claims that in developing countries decentralization lacks a clear and comprehensive contract between central and sub-national governments: spending responsibilities are vaguely defined and subject to changes, and local policymakers have incentives to overspend or undertax, have poor information and expenditure management systems to guide their decisions and control

¹ The pioneering critical works are those by Prud'homme (1995), and Tanzi (1995).

their budgets.² With respect to income inequality, Prud'homme asserts that a decentralized system is less likely to be more effective at reducing interjurisdictional disparities than a centralized system, since the empirical evidence shows that in a centralized system richer regions subsidize poorer regions through national budgets, while in a decentralized system local jurisdictions collect all taxes from and undertake all expenditures on behalf on its residents. Finally, despite the fact that fiscal decentralization had been theoretically defended on the basis of economic efficiency, the critical literature also points out that developing countries do not have the required conditions to generate those benefits: the opportunities for people to express their policy preferences in their votes are very low, local officials lack the incentives and resources to improve their performance, local bureaucracies are often unresponsive and unqualified, and they are also more likely to be subject to pressing demands from local groups, thus making law enforcement a difficult task.³ In order to solve all these potential problems, the literature suggests that the design and implementation of decentralization policies should be conducted carefully, placing special attention to the assignment of expenditure responsibilities, the assignment of taxes, the design of intergovernmental transfers, and sub-national borrowing.⁴

In my view, decentralization research has implicitly adopted a top-down notion, in which decentralization is assessed in terms of its effects on national priorities, but not on local outcomes. Typically, empirical analyses consist of cross-country comparisons,

² For a more detailed discussion on the effects of decentralization on macroeconomic stability see Bahl and Linn (1992), Fukasaku and Hausmann (1998), and Alesina *et. al.* (1996).

³ Prud'homme (1995) estimates that informal taxation in Zaire (payoffs to authorities as well as contributions, gifts, and donations) is at least eight times more important than formal taxes.

⁴ I will not discuss in detail these issues. The prevailing decentralization policy advise can be found in Ter-Minassian (1997), Litvack *et. al.* (1998), Bird and Vaillancourt (1998).

but variations in fiscal performance across subnational or local governments are not explained. Asserting that decentralization might worsen macroeconomic stability or income inequality in a country does not imply that its consequences will be identical across all local jurisdictions within a same country.

An important academic and policy debate, whose aim it to understand how decentralization works at the local levels and what consequences it has on local governance, has emerged in recent times. For this literature, local and sub-national governments are the principal units of analysis, rather than the country as a whole. An influential work is Putnam's *Making Democracy Work* (Putnam, 1993), whose central argument is that the variations in civic traditions explain differences in institutional performance. In other words, he asserts that good government practices are more likely to emerge in communities characterized by a high level of associational life, since it helps them to overcome collective action problems. Research on local governance in developing countries also stresses that an active involvement of society in the design and implementation of public policies is an important condition for making them succeed.⁵ For the literature addressing local governance in the Mexican case, the issue of social participation has also been a persistent one, given the new opportunities that the arrival of opposition parties at the municipal level created for reshaping the relationships between state and society in the country.⁶ Many studies described how local governments were adopting innovative approaches to promote social participation, in their attempt to break

⁵ See, for example, Tandler's analysis on local governance in a Brazilian state (Tandler, 1997), and the study by Fiszbein (1997) on the capacity-building strategies put into practice in Colombian local governments. Both authors coincide in pointing out the importance of community participation for local governance. The latter emphasizes that better governance has also been a result of a more competitive political environment.

⁶ The collection of essays and case studies in Merino (1994) and Ziccardi (1995) are good examples of the analyses that concentrate in the role of social participation in municipal governance.

the traditional and authoritarian governance styles typical of the PRI administrations (Rodríguez, 1997). An article that provides a systematic summary of the several case studies on local governance in Mexico is a paper by Ward (1998), whose central argument is that the traditional partisan style of governance that characterized local governments in Mexico during the years of PRI hegemony, has been gradually replaced by more technocratic approaches, and that this shift in governance styles appears to be independent –at least to some extent- from which party is in power at the local levels. The author establishes a governance typology based on two variables: a) the level of technical rationality applied for local decision-making (i.e. the inclination of government officials to make policy choices according to technical criteria, rather than on partisan considerations), and b) the nature of party-government relations (i.e. the degree to which government decisions are influenced by party leaders, rather than by elected authorities). Assuming that these two dimensions lie on a continuum, the author derives four types of governance styles. One of the extremes of this categorization is named “machine politics”, characterized by strong party-government relationships and a low degree of technical rationality. This was the predominating style of local governance in Mexico until the eighties, when electoral competition and party alternation started to emerge at the local sphere. The other extreme is labeled “technocratic governance”, in which there is a combination of high technical rationality in decision-making with very weak party-government relationships. This category clearly resembles the governance style of most urban municipalities won by the PAN in the late eighties and early nineties, characterized by a strong use of business management techniques, recruitment patterns based more on local credibility than on partisanship, and a more intensive use of public consultation

mechanisms for agenda-setting. The other two resulting categories are called, respectively, “modernizing governance” and “autonomous government”, being the first a combination of high technical rationality and strong party-government relationship (the party still exerts a significant influence on the government’s policy agenda, but day-to-day decisions are largely based on technical considerations), while the second reflects just the opposite (this would be the case of most small rural municipalities dominated either by strong *caciques*, or by indigenous practices). The author contends that local governments in Mexico are gradually moving from the traditional “machine politics” and “autonomous government” categories to the more sophisticated technocratic and modernizing styles, as can be testified by most case studies on municipal governance in Mexico. Finally, the author argues that this shift in governance styles is explained by several factors, for example the increasing competitiveness of local elections, the rise in electoral victories of opposition parties, the need for parties to exercise effective government in order to remain in power, and policy reforms launched by the national government since the early eighties to strengthen the autonomy and responsibilities of local governments in the country.

The existing literature on governance and decentralization provides valuable insights for the analysis of local government performance. One of the recurrent themes embraced by most authors is the role that electoral competition and party alternation have played in transforming the traditional approaches to local governance. In the earliest years of opposition governments in Mexico, the new administrations were eager to convince the electorate that they represented a genuine departure from the traditional PRI governments, thus they had big incentives to adopt innovative managerial and policy

styles. Now that electoral competition and party alternation have become a normal fact in Mexican local politics, it is relevant to know whether those incentives for good governance still persist, and if they have also permeated the PRI local administrations. However, there have been few attempts to formally analyze the policy consequences of a more open and competitive electoral environment in Mexico, particularly at the local levels.⁷ The aim of the present study is to provide a statistical test to the proposition that the increase in electoral competition and party alternation at the municipal levels have improved the performance of local governments in Mexico, at least when applied to their budgetary decisions.

III. Decentralization of local infrastructure in Mexico

Despite several decentralization attempts, Mexico remains as one of the most centralized countries over the world, since the federal government continues controlling most of the spending and taxing instruments.⁸ With respect to the area of basic infrastructure, probably the first serious effort to make an explicit distribution of spending roles across government levels was the reform to the article 115 of the national constitution in 1983.

The reform assigned municipal governments with the responsibility to provide potable

⁷ This was probably due to the scarcity of data at the municipal level. Now that data availability has improved (particularly on municipal elections, spending programs, and local finances), more studies on local policy performance have emerged. See for example Hiskey (2000), Díaz-Cayeros and Magaloni (2003), and Cleary (2003).

⁸ For example, Goodspeed, (2001) compares a number of federations belonging to the OECD, in terms of different decentralization indicators. One is the revenues that states and local governments collect from their own sources as a percentage of their total budgets. Mexico ranks the lowest in this indicator, since its sub-national governments collected 10.5 percent of their total revenues from their own sources in 1998. The second most centralized country is Australia (collecting 33.5 percent), and the least centralized is Belgium (collecting 100 percent). Mexico's level of fiscal centralization is currently higher than it used to be in 1980, where the same indicator took a value of 30.6 percent. For a review of the historical forces that lead the strong centralization in Mexico's fiscal system see Giugale and Webb (2000).

water, drainage and sewerage systems, public lighting, trash collection, public markets, cemeteries, slaughterhouses, streets, public parks, and public safety. However, funding remained heavily under centralized control, and most small municipalities continued lacking the financial and technical capacity to provide by themselves many of those services.

During the years of the Salinas administration (1988-1994), a new federal program for poverty alleviation (the *Programa Nacional de Solidaridad* or PRONASOL) was created, which comprised special funds for the development of basic infrastructure projects like water, sewerage systems, electrification, etc. However, PRONASOL resources were decided by the federal bureaucracy in conjunction with local community organizations. In other words, local governments were mostly ignored, since they did not have any relevant role in the allocation of funds, and these never became part of their budgets. PRONASOL was ended by president Zedillo in 1995 as a result of several criticisms that maintained that the program had been used with electoral purposes.⁹ Since one of the goals of the new government was to make the distribution of intergovernmental funds more transparent, the resources that formerly belonged to PRONASOL were shifted to a new fund called Municipal Social Development Fund (*Fondo de Desarrollo Social Municipal*, or FDSM), which by 1996 started to be distributed to the states according to a formula that took into account their relative levels of social deprivation. Despite the fact that the states were required to distribute the funds of the FDSM to their municipalities based on formulas comparable to the federal one, states were mainly free to define their own methods of distribution, but not all of those

⁹ Molinar and Weldon (1994) suggest that by 1991 the Mexican government used PRONASOL resources to compete for votes.

formulas were consistent with the objective to compensate municipalities where poverty levels were more severe (Scott, 2004). Furthermore, the FDSM remained under the regulation and supervision of the federal government.¹⁰

Possibly, the most drastic step toward the decentralization of basic infrastructure in Mexico was the creation in 1997 of a new federal budgetary item called the *Ramo 33*, launched by the national chamber of deputies, which for the first time in history did not have the absolute majority of the PRI. In the past, federal funds for health, education, social infrastructure and other sectors were mainly decided by central agencies in Mexico City. With the new reform that was actually put into effect in 1998, many of these resources started being transferred to state and municipal governments. One of the most important elements within the *Ramo 33* was a municipal social infrastructure fund (*Fondo de Infraestructura Social Municipal* or FISM), whose goal was to stimulate the development of basic infrastructure projects across the country, particularly in areas with high levels of social deprivation. This budgetary item originated from the former FDSM (described in the previous paragraph), but it contained important innovations. As in the case of the FDSM, the FISM was distributed to the states according to a federal formula, but this time states were required, for the distribution of funds to the municipalities, to use either the same formula utilized by the federal government, or an alternative method based on less information requirements. But in the two cases, the formulas were explicitly stated in the national law of fiscal coordination, in order to reduce the discretionary power of state governments to use political considerations in the distribution of funds. Another innovation of the FISM is that its resources are comprised

¹⁰ Peredo (2001) presents a good description of the earmarked funds transferred to states and local governments in Mexico during the nineties. For the operation of the FDSM at the municipal level see Vega-Godínez (1998).

by 2.5 percent of the total revenues that the federal government is required by law to share with all states and municipalities (*Recaudación Federal Participable*). In other words, FISM funds are not subject to the budget battles that take place every year between the national executive and legislative branches, which considerably reduces the uncertainty faced by local governments regarding their budget availability.¹¹ An additional characteristic is that FISM resources have become part of the municipal budget, although they must be spent exclusively on the following social infrastructure areas: potable water, drainage and sewerage systems, municipal urbanization, rural electrification, basic infrastructure for health and education, improvements for housing services, roads and infrastructure for productive projects in rural areas. The federal law also requires municipal governments to promote the participation of communities in the formulation, implementation, and supervision of the projects carried out with FISM resources, which somehow resembles the approach adopted by PRONASOL for the allocation of resources. But it should be noted that, contrary to the previous decentralization policies, the regulation of the FISM is not anymore under the control of federal agencies, since now state governments are responsible to supervise its operation. Actually, the federal government lost substantial influence over the operation of these resources, since municipal governments are only accountable to state legislatures.

In summary, the decentralization policy of 1998 has considerably broaden the autonomy of sub-national and local governments to use federal resources for the development of basic infrastructure projects. However, the policy has had a number of drawbacks. A study by Rodríguez-Gómez (1999), for example, points out that the regulations established by some state governments for the operation of FISM funds have

¹¹ Evidently, the amount of funds can vary depending on the situation of the national economy.

considerably reduced the capacity of municipalities to participate in the definition of spending priorities. Even though federal agencies had a significant influence over the allocation of intergovernmental funds before 1998, municipalities and community organizations had nevertheless an important role in policy formulation. Now that the control of the funds is under the responsibility of state governments, the scope for municipal participation might have diminished, at least in some states. Another problem identified by the author is the capacity and willingness of municipal authorities to actually organize the participation of citizens in the definition of spending priorities. For example, some municipalities lack the necessary expertise to inform the public about the norms that should be fulfilled in order to use the funds. There are also cases in which spending decisions are made in fact by the municipal president, and local authorities only simulate the existence of a participatory process. Another potential problem of the FISM policy is its negative effect on the fiscal effort of Mexican municipalities. Some studies (Moreno, 2003; Raich 2003, Sour, 2004) have suggested that the transfer funds created since 1998 have reduced the incentives of local governments to enforce the collection of the property tax (the most important tax revenue at the municipal level): given the choice, a local policymaker prefers to rely on federal transfers to finance public goods, instead of increasing local taxes, especially if this entails a political cost. Finally, it is unclear whether state executives and legislatures are actually supervising effectively the use of funds by local authorities.¹² All these are problems that should be carefully taken into account in a comprehensive evaluation of the decentralization policy in the area of basic infrastructure in Mexico.

¹² From interviews with several state officials at the finance and planning department of the Estado de Mexico (one of the biggest and richest states in the country), I obtained the indication that municipalities have never been scrutinized in their use of FISM resources by the state legislature.

Before presenting a more detailed analysis on the consequences of decentralization and electoral competition on the budgetary choices of Mexican local governments, it is important to briefly describe the situation of basic infrastructure coverage in the country. Despite the several decentralization attempts in the sector of basic infrastructure and the increasing levels of federal expenditure to promote its development, Mexico still has considerable deficiencies in the coverage of basic services. Table 1 presents the descriptive statistics of the coverage levels for water, drainage, and electrification in 1990 and 2000. Although there have been increases in coverage for all the services throughout the ten-year period, the case of drainage remains being particularly poor, since even in year 2000 only 45 percent of households reported not having access to it. Given the huge heterogeneity that characterizes the municipalities of Mexico (principally in terms of population size), it is important to look at the differences in service provision across population categories.¹³ Table 1 displays also the descriptive statistics of service coverage according to the size of municipal population. As expected, coverage levels for the three services at any point in time are lower for smaller municipalities, while larger cities present coverage rates close to 100 percent, particularly in year 2000. This is explained by the fact that very small municipalities tend to be poorer, rural, and some of them might even have large proportions of indigenous people. Their welfare needs generally consist of meeting the minimum living standards, since they lack the most basic services. At the same time, residents in smaller localities tend in general to be more dispersed across the territory, and thus economies of scale in the provision of basic services cannot be fully exploited. Drainage coverage levels remain

¹³ More than 80 percent of the 2427 municipalities in the country have less than 50 thousand people.

particularly low within this group of municipalities: 58 percent of households living in municipalities of less than 50 thousand people did not have access to this service in year 2000. This figure is critical, given that sanitation services are essential for improving the welfare conditions of people. The case of water is somewhat better, even for smaller municipalities, for which coverage has reached almost 80 percent of households in 2000. Electrification in small municipalities has also reached acceptable levels.

Table 2 displays coverage levels for other services under the responsibility of municipal governments, based on survey data reported by municipal presidents in 1995 and 2000. Once more, we observe that less populated municipalities exhibit lower coverage levels at any point in time, thus reflecting their low general welfare conditions and their rural nature. Furthermore, county seats (*cabeceras municipales*) are invariably better endowed with municipal services vis-à-vis the remaining localities, which might possibly result from the fact that population tends to be more concentrated on county seats, thus requiring more services. However, it might also be the case that municipal authorities tend to give preferentiality to county seats as a result of their higher electoral importance.

Table 1
Basic service coverage in Mexican municipalities
(proportion of households with access to services)

	Whole sample			By population size								
	Mean	Std. Dev	N	<i>less than 50 thousand</i>			<i>50,000 to 200,000</i>			<i>more than 200 thousand</i>		
				Mean	Std. Dev	N	Mean	Std. Dev	N	Mean	Std. Dev	N
Water, 1990	65	25	2387	63	25	2083	73	19	240	88	12	64
Water, 2000	80	20	2426	79	20	2121	84	16	240	95	5	65
Drainage, 1990	28	25	2387	25	22	2083	50	22	240	77	15	64
Drainage, 2000	45	29	2426	42	28	2121	67	22	240	89	8	65
Electrification, 1990	76	22	2387	74	23	2083	84	14	240	94	4	64
Electrification, 2000	89	13	2426	88	13	2121	94	7	240	98	1	65

Source: Author's elaboration based on data from the 1990 and 2000 population censuses conducted by INEGI

Table 2
Coverage rates for other municipal services
(in percentages)

	Whole sample			By population size					
	Year	Within county seat	Outside county seat	<i>Less than 50 thousand</i>		<i>50,000 to 200,000</i>		<i>More than 200 thousand</i>	
				Within county seat	Outside county seat	Within county seat	Outside county seat	Within county seat	Outside county seat
Road safety (<i>tránsito y vialidad</i>)	1995	40	16	35	13	63	28	74	48
	2000	63	44	61	43	71	47	69	52
Public transportation	1995	63	42	61	39	78	58	83	63
	2000	73	56	71	54	83	65	81	69
Public safety	1995	78	51	78	50	76	52	82	64
	2000	82	63	82	63	80	61	79	69
Slaughterhouses	1995	40	8	35	5	67	18	69	36
	2000	62	29	58	26	75	37	82	59
Cemeteries	1995	87	61	87	60	86	65	81	72
	2000	86	70	86	70	85	72	85	75
Parks	1995	58	23	56	21	69	33	75	51
	2000	72	49	70	47	77	54	82	68
Road maintenance (<i>pavimentación</i>)	1995	51	17	48	15	64	25	70	42
	2000	62	36	61	35	68	40	75	48
Public markets	1995	22	4	17	3	39	11	66	31
	2000	56	29	52	24	72	44	83	60
Trash collection	1995	69	29	67	27	77	37	85	58
	2000	78	53	77	53	81	51	85	63
Street lighting	1995	81	55	81	55	83	58	88	69
	2000	85	67	85	67	83	64	88	69

Source: Author's elaboration based on data from the Census of Municipal Development (*Censo de Desarrollo Municipal*) conducted by INEGI in 1995 and INEGI and INDESOL in 2000

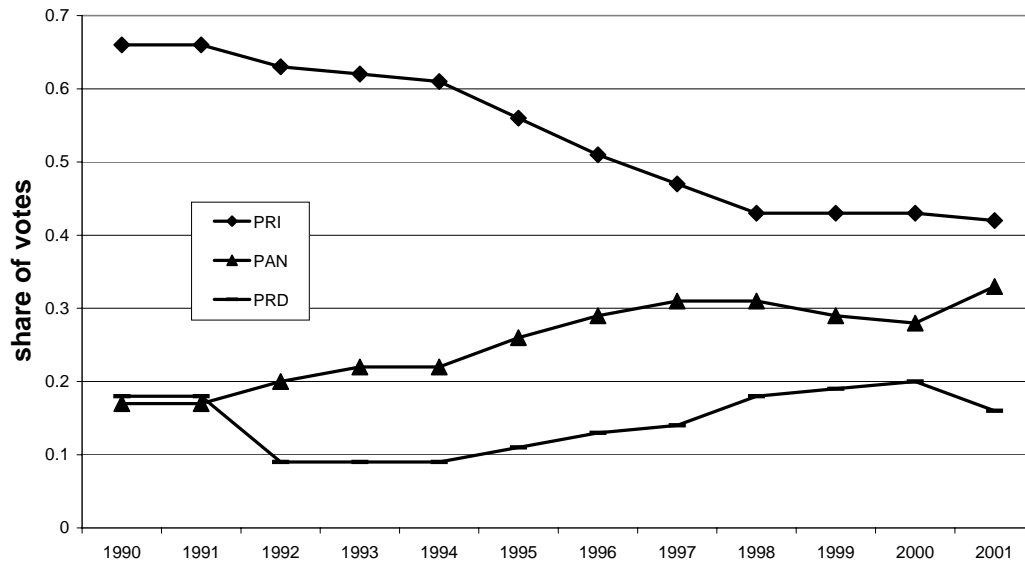
Given the big deficiencies that still exist in service coverage across the country (especially among poorer municipalities), it is imperative to know whether the spending choices of local governments tend to favor investments in the sector of basic infrastructure, particularly now that they have acquired more decision-making autonomy since 1998. Also, it is important to investigate whether the process of local democratization has induced municipalities to give preferentiality to spending areas of high significance for social development. The following section briefly describes the trends in electoral competition in Mexican local governments.

IV. Electoral competition in Mexican local governments

At the end of the 1980 decade, local governments started to undergo remarkable transformations in their political environment. One of the most important features of this change was the gradual erosion of the PRI hegemony in municipal elections. Figure 1 shows the evolution in the strength in municipal elections of the three most important parties in the country: the PRI, the PAN, and the PRD. In 1990 the levels of electoral support for the PRI in municipal elections were close to 70 percent, while each of the other two parties received less than 20 percent of the total vote. However, this situation has been changing throughout the last decade, since the electoral support in favor of the dominant party has declined progressively, particularly in 1995, where the fall in its electoral strength was more manifest. From 1998 to 2001, the vote share of the PRI in municipal elections stabilized around 43 percent. On the other hand, the PAN has progressively increased its vote share in local elections, which has made it the second

most important electoral force in Mexican municipalities. Finally, the PRD represents the third most important party at the municipal level, although the evolution of its electoral strength has not been steady.

Figure 1
Electoral Strength of Parties in Municipal Elections, 1990-2001



Source: Elaborated on the basis of CIDAC database of local elections (www.cidac.org.mx)

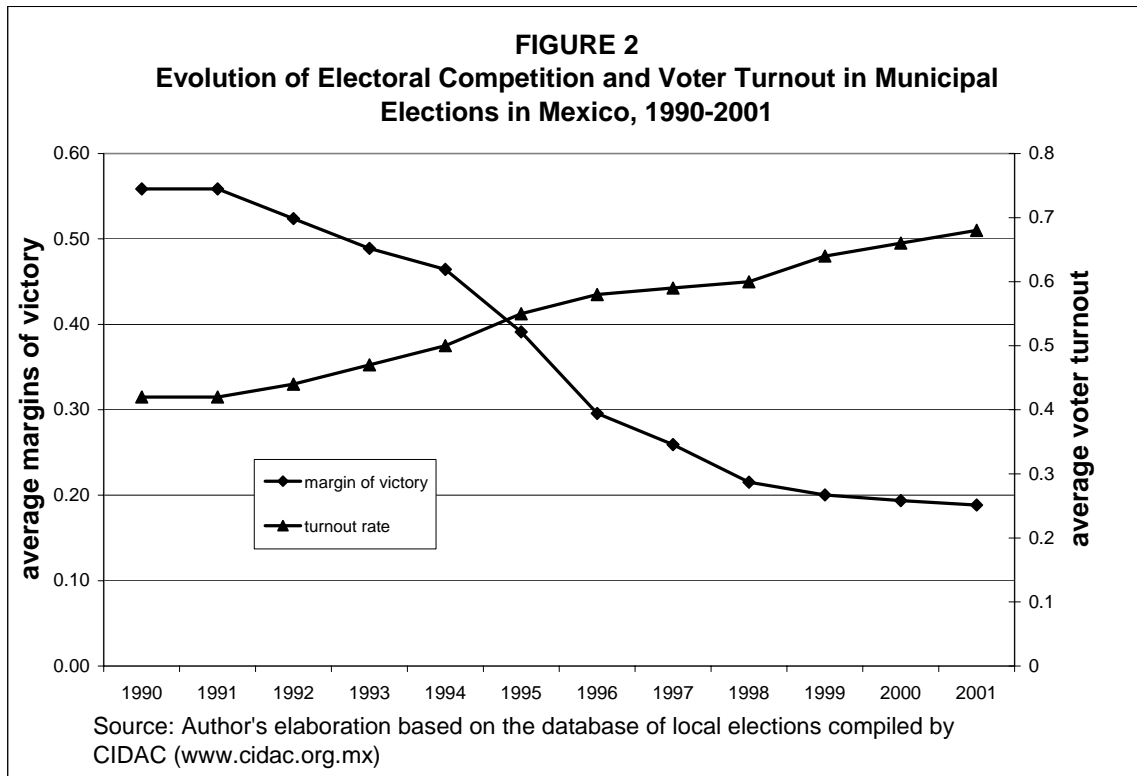
Despite the fact that the PRI continues being the party whose vote share in municipal elections is the largest overall, there are considerable differences across municipalities, which has often implied the alternation of parties in municipal governments.¹⁴ For example, while in 1990 the PRI controlled 96 percent of all the municipalities in the country, in 2001 it governed 70 percent. The alternation of parties has become a normal feature of local politics, although most of this alternation has taken place between the three most important national parties. During the 1990-2001 period,

¹⁴ The first experiences of opposition government in the country took place at the municipal levels, especially in cities located in the northern region of Mexico, where the PAN was the first to defeat the dominant party. For an appraisal of these experiences at the state and municipal levels in northern Mexico see Guillén-López (1993), and Rodríguez and Ward (1992, 1994, and 1995).

22 percent of all municipalities in the country had experienced the alternation of parties in the local government at least on one occasion, and in many cases it is possible to observe a single municipality governed by three different parties consecutively.

In order to evaluate to what extent the increase in the competitiveness of the electoral environment at the local level has translated into better governmental outcomes, we first need to have a good measure of electoral competition. In the political science literature, there are several indicators regarding the effective number of parties in a political system, such as those developed by Herfindahl (1950), Laakso-Taagepera (1979), or Molinar (1991), been the latter extensively used in studies of the party system in Mexico. For the purposes of my analysis, I believe that a measure of electoral competition should stress the risk faced by incumbent parties to loose the power, since this is precisely what might motivate elected officials to improve their performance. One useful indicator is the margin of victory existing between the two principal contenders. Specifically, an electoral competition index can be defined as the difference in the share of votes obtained by the two strongest parties in a local election (i.e. the difference in the number of votes obtained by each divided by the total number of effective votes). Therefore, the highest value the index can take is 1, indicating that the level of competition was the lowest, since a single party obtained the totality of votes in an election (i.e. the party was actually uncontested). Conversely, a value of 0 would imply that the election was extremely competitive. Figure 2 displays the evolution of the electoral competition index and the voter turnout rate between 1990 and 2001. The change has been remarkable, since the relative margins of victory have consistently declined throughout time. While in 1990 the average margin of victory was close to 0.6,

in 2001 it was under 0.2. The participation of voters in municipal elections has also been on the rise.



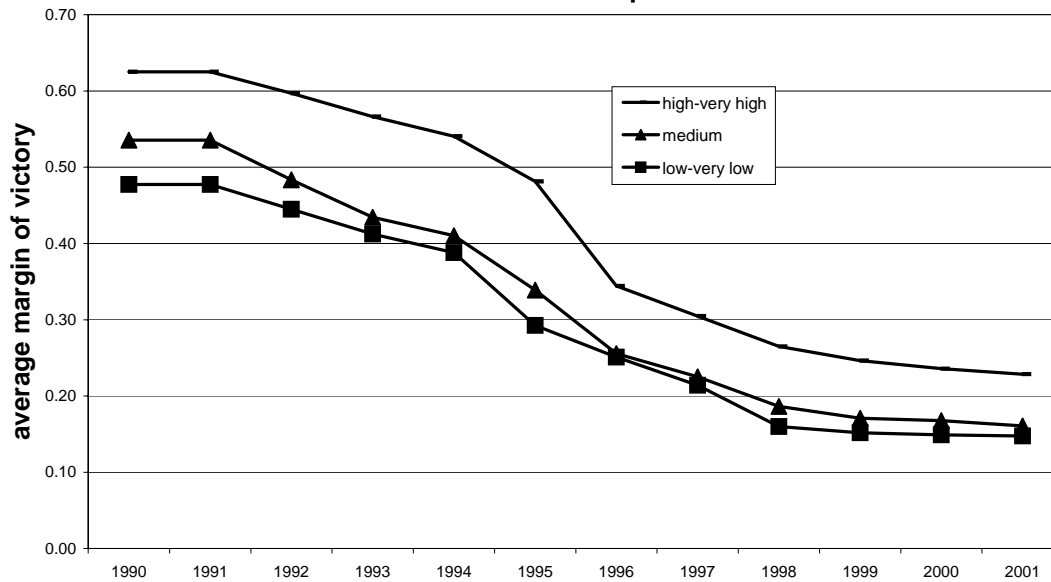
Evidently, the evolution of electoral competition has not been the same across all municipalities in the country, particularly if we consider that differences in socioeconomic well-being can be associated to different electoral conditions. Specifically, elections in municipalities characterized by higher incomes, superior educational levels, and better access to services, will tend to be more contested, as compared to poorer municipalities (particularly in rural areas), where local bosses or *caciques* still monopolize political power using traditional mechanisms of control, including marked clientelistic practices and even violence. This proposition can be confirmed by looking at Figure 3, which displays the evolution of local electoral

competition according to the index of municipal socioeconomic deprivation developed by CONAPO (Mexico's Population Council).¹⁵ Although the margins of victory have significantly declined throughout the decade for all municipalities, regardless of their level of socioeconomic well-being, there have been always marked differences in the levels of electoral competition between the three categories, but especially between the two extreme cases of socioeconomic deprivation. Therefore, any attempt to analyze the effects of electoral competition on the performance of local governments should always control for socioeconomic conditions, in order to avoid biases caused by the omission of a fundamental variable.

What consequences has the rise in electoral competition and participation had on the budgetary choices of local governments? Has the transformation of the political landscape of Mexican municipalities modified the incentives of local policymakers on how to spend public resources, particularly under a context of policy decentralization? The next section presents an empirical analysis that attempts to answer these questions.

¹⁵ The CONAPO index of social deprivation is a combined measure of several forms of social exclusion (i.e. the lack of access of households to basic services such as education, water, electrification, monetary income, etc.), thus it can be regarded as a good summary of social well-being at the municipal level (see CONAPO, 2000). Although the index is commonly broken into five social deprivation categories, ranging from “very high” to “very low”, I collapsed them into three ranks only, in order make the graph more legible.

Figure 3
Margin of electoral victory in municipal elections, by degree of socioeconomic deprivation



Source: Elaborated on the basis of CIDAC database of local elections (www.cidac.org.mx), and on the CONAPO index of social deprivation (www.conapo.gob.mx)

V. An empirical analysis of local budgetary choices

This section presents an econometric analysis on the budgetary allocations of municipal governments in Mexico. It focuses on the two most important budget line categories of local spending in Mexico: current administrative expenses and public infrastructure investments. The aim of the analysis is to explain the extent to which the allocation of local budgets responds to different pressures arising in the electoral arena. More specifically, in this section I will analyze whether electoral competition, party alternation, and the existence of vertically divided governments (when there is a divergence in the party membership between municipal presidents and state governors) encourage local authorities to invest resources in public works. Furthermore, the analysis will address the

consequences of the decentralization of local infrastructure in Mexico on the budgetary choices of municipal governments, and whether the interaction between decentralization and political competition modifies their spending behavior.

Conceptual framework and hypotheses

Analytically, we can think of a local policymaker as a rational actor that, lacking the possibility of reelection, attempts to maximize the chances of her party to remain in power in the subsequent election. This actor uses public resources as a means to achieve her political goals (Ames, 1987). The key question here is whether, given the local electoral environment, the local politician will be more inclined to spend on public infrastructure projects that generate broad benefits to the population, or whether she will prefer to allocate available resources to expand the administrative apparatus of the local government. The budgetary allocation problem evidently lies on a continuum: not all resources will be spent exclusively either on the administration or on public works projects. But the specific weight a policymaker assigns to each budget item might depend on local electoral conditions. That is, their chances of political survival depend on how benefits are distributed among local constituents. We can hypothesize that as the electoral arena becomes more competitive, local authorities will tend to invest more on local infrastructure than on current expenditures. The rationale behind this proposition is that, under a context of small electoral competition, incumbent authorities have relatively few incentives to provide benefits to a broad range of constituencies, since the basis of their power can be more easily expanded by rewarding only their political supporters through jobs in the bureaucracy and other selective transfers that entail an increase in

administrative expenditures. In other words, under low competition, the political survival of politicians is maximized through the use of traditional patronage that provides private benefits to political loyalists. On the other hand, a highly competitive environment compels local politicians to provide benefits to a broader range of potential voters. Thus, investing on public works projects that spread out benefits to broader constituencies would be the preferred spending strategy of a politician acting under a competitive environment.

An additional element that should be considered in analyzing the budgetary behavior of local governments is the institutional setting through which local public policies operate. Specifically, it is important to take into account the role that a more decentralized policy environment plays in shaping local budgetary choices. As I already argued in the previous section, the reforms launched by the federal government to the fiscal intergovernmental system in 1998 have increased the scope for municipal decision-making. Therefore, a relevant question is whether the authority acquired by municipal governments since the creation of the *Ramo 33* has had any relevant impact on how local authorities allocate resources for local infrastructure projects. Furthermore, it is interesting to explore if electoral competition has a stronger effect on social infrastructure investments under a more decentralized policy setting.

There are additional issues that I will investigate in the analysis, given the methodological advantages that my dataset provides. One regards the budgetary behavior of local governments during electoral years. Political business cycles predict that governments will tend to spend more on years in which elections take place, since incumbent authorities use public expenditures to “buy” votes (Nordhaus, 1975). I will

analyze whether this widespread idea holds for the case of Mexican local governments, and whether there is any difference between administrative and public works spending. Another issue that I address in my analysis is whether “juxtaposed” or vertically divided governments (i.e. municipalities where the party membership of the mayor and the state governors diverges) tend to favor public infrastructure investments. The reason for investigating the role of this variable is my assumption that, under a context of government juxtaposition, local politicians have a particular incentive to invest more on public works than on administrative activities, since local infrastructure projects are more visible to the population at large, thus providing them with the opportunity to claim credit for their creation. In other words, “opposition mayors” seek to be recognized by local constituents as the real originators of the public goods provided locally.

Data and models

In order to test my hypotheses, I constructed a dataset consisting of a combination of 1969 cross-sectional units (most municipalities in the country) and 12 years of observations, from 1990 to 2001.¹⁶ Thus, my panel of data comprises a total of 23,628 observations. Besides increasing the size of my sample, the advantage of this data structure is that it enables to analyze the budgetary behavior of local governments by incorporating the variations occurring throughout time, as well as the differences taking place across municipalities. Another advantage of the data is that it allows me to track down changes in performance from one year to another, thus I can more easily attach

¹⁶ I exclude the 410 municipalities of Oaxaca state that are governed by “*usos y costumbres*” (i.e. indigenous communities that use traditional mechanisms to select their authorities, in place of modern party systems). I also leave out municipalities that were created recently, for which data are not yet available.

responsibility for policy outcomes to different municipal administrations. One of the issues that introduces considerable complexity to this data structure is the fact that local elections take place at different moments, according to the electoral calendars of Mexican states (the appendix reports the years in which local elections have occurred during the period analyzed). Therefore, all electoral variables in my models take the same values throughout the three years of municipal government. For example, if Aguascalientes had local elections in 1989, the values of the electoral competition variable remain the same for 1989, 1990, and 1991, until a new election takes place. The 12-year interval of my dataset matches an average of four government periods per municipality, except for cases in which the local government period was of higher duration.¹⁷

The dataset comprises information from a variety of sources. Municipal finance data comes from a dataset by INEGI (the Mexican Census Bureau), which contains yearly information (from 1989 to 2001) on different types of municipal revenues and expenditures. Data on local elections comes from a dataset compiled by CIDAC (Center for Research and Development), which contains information on the distribution of votes across parties in all municipal elections that have taken place since 1980. Socioeconomic and demographic indicators are based on the population censuses carried out by INEGI in 1990 and 2000, as well as on the population count conducted by the same agency in 1995. A potential problem with socioeconomic indicators is that we lack data for the years in-between 1990, 1995, and 2000. Thus, I had to estimate them with the use of geometric averages. Since socioeconomic factors act merely as control variables in my analyses, this measurement strategy does not affect drastically my results.

¹⁷ For example, the term of municipal governments in the Estado de Mexico lasted four years in one occasion, from 1996 to 2000, when the electoral calendar of that state was modified to match it with the timing of federal elections.

I estimated two models, for which the dependent variables are, respectively, administrative and public works expenditures, both expressed in real per capita terms.¹⁸ The first set of independent variables in both models constitute the budget constraint of municipal governments. In the Mexican case, the local budget constraint is constituted by revenue-share transfers from the federal government, that account more than 70 percent of the total resources available. The second largest revenue source is the income that municipalities generate locally (the sum of local taxes, user fees, fines and other sources). It represents no more than 20 percent of the total. Municipal debt is another component of the budget constraint, though it only comprises around 3 percent of total available resources. Finally, the earmarked transfer fund created in 1998 by the federal government, the FISM, has become a very important element of the municipal budget, representing something around 30 percent of the total amount of resources.¹⁹ In order to control for sociodemographic conditions, I use the deprivation index elaborated by CONAPO (Mexico's Population Council), which can help us to distinguish patterns in budgetary allocations across different local socioeconomic conditions.

The key explanatory variables in the models are both political and institutional. The first political variable is the degree of electoral competition, measured by the margin of electoral victory in a local election (i.e. the difference in the proportion of votes obtained by the two strongest parties). A decrease in the margin of victory should be regarded as an increase in competition. The second political variable is the existence of party

¹⁸ All monetary variables are divided by population, and expressed in constant pesos of 2001.

¹⁹ It should be noted that state and federal agencies in Mexico still manage their own spending programs (for example on highways, health, education, agriculture, etc.), which operate locally. However, since these other spending categories are not controlled by local governments, I will leave them aside to simplify the analysis.

alternation, which indicates whether the party governing a municipality is different to the party that controlled the local government in the previous administration. Other variables that can give us a better picture on how local budgets are formed in Mexico are the timing of elections and the existence of government juxtaposition. I include a dummy variable to indicate whether a local election took place in a particular municipality at a specific point in time (recall that local electoral calendars vary by state). This variable allows to directly analyze whether local public spending increases during an electoral year, and whether this effect is the same for current expenditures and public work investments. Another dummy variable I incorporate in the model is “government juxtaposition”, which indicates whether a municipal president belongs to a different party than the state governor.

A last element in the model is a variable characterizing the institutional setting in which local spending operates. I call this variable “decentralization”, which indicates that, as of 1998, the federal government started to effectively transfer local governments the responsibility of providing basic infrastructure, together with grants earmarked for that purpose. Therefore, the decentralization variable takes a value of zero for all the years from 1990 to 1997, and a value of one for the years from 1998 to 2001. The decentralization variable is only included in the model in which the dependent variable is public works expenditure per capita, because the federal policy never had the explicit goal of modifying local administrative spending. Evidently, this variable allows to evaluate whether public infrastructure investments increased as a result of the decentralization policy. But it also gives us the opportunity to answer a more interesting question: is the competitive electoral environment more effective in promoting local

infrastructure investments under a decentralized policy setting? In other words, are local authorities more likely to invest on public goods under a context of electoral competition *and* policy decentralization? In order to analyze this question, my model incorporates the interactions between decentralization and electoral competition.

The estimations were performed using both fixed and random effects GLS methodologies, and the two are reported in each model. A total of 30 dummy variables for state effects are included in the random effects model (taking Aguascalientes as the baseline), but they are not included in the fixed-effects one, since they are evidently time-invariant. Also, 11 dummy variables to identify each year of the 1990-2001 period are included in both models (1990 is taken as the baseline). Given that spending choices are highly correlated from one year to another, I allow for first-order autocorrelation in the error term. The first model (the one with public works investments as dependent variable) is written as follows:

$$Y_{it} = \beta_0 + \beta_1 BUDGET_{it} + \beta_2 ELECTORALMARGIN_{it} + \beta_3 ALTER_{it} + \beta_4 DECENT_{it} + DECENT_{it} * (\beta_5 ELECTORALMARGIN_{it} + \beta_6 ALTER_{it}) + \beta_7 PRI_{it} + \beta_8 PAN_{it} + \beta_9 ELECYEAR_{it} + \beta_{10} JUXTA_{it} + \beta_{11} POVERTY_{it} + v_i + \varepsilon_{it}$$

where

Y_{it} represents the real per capita spending on public works carried out by municipality i at time t

$BUDGET_{it}$ is the budget constraint of municipality i at time t

$ELECTORALMARGIN_{it}$ is the difference in the proportion of votes obtained by the two strongest parties in municipality i at time t

$ALTER_{it}$ is a dummy variable taking a value of 1 if the party governing municipality i at time t was different than the party of the previous administration, and zero otherwise

$DECENT_{it}$ is a dummy variable taking a value of 1 for the years from 1998 to 2001 (i.e. when federal funds earmarked for local infrastructure were decentralized), and zero for the years from 1990 to 1997

PRI_{it} is a dummy variable taking a value of 1 if municipality i at time t was governed by the PRI, and zero otherwise

PAN_{it} is a dummy variable taking a value of 1 if municipality i at time t was governed by the PAN, and zero otherwise

$ELECYEAR_{it}$ is a dummy variable taking a value of 1 if municipality i had a local election at time t , and zero otherwise

$JUXTA_{it}$ is a dummy variable taking a value of 1 if there was a divergence in party memberships between the president of municipality i at time t and the state governor, and zero otherwise

$POVERTY_{it}$ is the deprivation index measuring the lack of access of households to basic services such as education, water, electrification, monetary income, etc.

v_i is a time-invariant, unit-specific component

ε_{it} is the residual, which in this model is assumed to be first-order autoregressive

The second model is identical to the previous one, except for Y_{it} , which in this case represents the real per capita spending on administrative activities carried out by municipality i at time t . The model also excludes the decentralization variable and all its interactions. Regression results are reported in Table II. The next section discusses them in more detail.

TABLE 3
GLS Fixed-Effects and Random-Effects Regressions
on Public Works and Administrative Expenditures per capita, 1990-2001

<i>Dependent variables:</i>	Public works spending per capita		Administrative spending per capita	
Independent variables	Fixed-effects	Random effects	Fixed-effects	Random effects
<u>Municipal budget constraint</u>				
Unrestricted federal transfers per capita (participaciones)	0.225** (0.005)	0.25** (0.004)	0.673** (0.004)	0.67** (0.003)
Locally generated revenue (taxes, fees, fines) per capita	0.352** (0.011)	0.355** (0.009)	0.483** (0.009)	0.466** (0.007)
Municipal debt per capita	0.568** (0.017)	0.566** (0.016)	0.2** (0.014)	0.224** (0.013)
Earmarked transfers for local infrastructure, per capita (FISM)	0.444** (0.019)	0.489** (0.018)		
<u>Policy and electoral variables</u>				
Decentralization (dummy)	61.808 (160.296)	116.762** (18.554)		
Margin of electoral victory	13.31 (9.797)	22.983** (7.894)	-6.771 (7.151)	-17.47** (5.879)
Margin * Decentralization	-93.602** (17.561)	-84.302** (16.498)		
Party alternation	-19.653** (7.986)	-21.203** (7.187)	11.016* (4.701)	10.986** (4.334)
Alternation * Decentralization	24.454** (9.141)	26.179** (8.539)		
PRI	19.451* (9.157)	24.282** (8.201)	3.546 (7.135)	2.488 (6.528)
PAN	24.948** (9.849)	23.498** (8.389)	0.402 (7.655)	3.699 (6.713)
Electoral years	5.664** (2.589)	9.453** (2.516)	-11.169** (2.102)	-11.07** (2.055)
Government juxtaposition	15.089** (6.305)	22.229** (5.828)	0.979 (4.904)	-1.77 (4.611)
Municipal deprivation index	Excluded	15.962** (3.147)	Excluded	-27.161** (2.63)
Constant term	84.724 (106.673)	-79.652** (33.731)	148.412 (102.476)	12.745 (29.282)
Number of groups	1954	1953	1954	1953
Maximum number of observations per group	11	12	11	12
Overall R-squared	0.433	0.536	0.871	0.896
<p>Note: Standard errors in parentheses. All models include year dummies (excluding one year). Only random-effects models include state dummies (excluding one state). Their coefficients are not reported. In all cases the disturbance term is assumed to be first-order autoregressive.</p> <p>**p<.01 *p<.05</p>				

Discussion of results

In this section I discuss the results from the regression analysis separately for each set of variables. Starting with the local budget constraint, we can clearly observe that all variables measuring the available financial resources of municipal governments are extremely important, both for current administrative expenditures and for public works investment. However, there are very interesting differences in how available resources are spent on each budget category. Administrative expenses are mainly financed through unconditional federal transfers (i.e. revenue-sharing grants or *participaciones*): for every peso obtained in the form of *participaciones*, municipal governments spend, on average, 67 cents in their operating costs. On the other hand, only 22 to 25 cents of every peso from federal *participaciones* are spent on public works investments. Since federal *participaciones* are unconditional funds that can be freely spent by local authorities, we can interpret this result as reflecting the budgetary preferences of local governments. Using economic jargon, unconditional transfers do not alter the price of administrative expenses relative to the price of public infrastructure projects, thus they do not modify the budgetary behavior of local authorities. Their only effect is to shift the budget constraint of local governments outward, but without encouraging them to spend more money in a specific policy sector. This implies that if Mexican local governments received only unconditional transfers, they would spend most of those resources on administrative activities, leaving social infrastructure projects considerably unattended. Something similar occurs in the case of locally generated revenue (i.e. money from local taxes, user fees, etc.). These resources can also be freely spent by local governments, and the results reveal that for every peso collected from their own-sources, local governments

spend no less than 46 cents to cover administrative expenses and 35 cents to pay for public works projects (the rest is spent on other budgetary items, such as personal subsidies and local debt payments). Though more weight is given to administrative activities, locally generated revenues finance a larger proportion of public works, compared to *participaciones*. In contrast, local debt is mainly used to finance infrastructure projects: for every additional peso obtained through debt, local governments spend 57 cents on public works, and only 20 cents are used to finance operating expenditures. The explanation for this is that municipal debt is in general conditioned to pay for local infrastructure. Regarding the fund created by the federal government in 1998, which is completely transferred to municipal governments to finance the development of local infrastructure (the FISM), we can see its positive and significant impact on public works spending. Nevertheless, we should be cautious when interpreting the magnitude of its coefficient (44 cents per peso received in FISM funds), since prior to 1998 this transfer fund was absent from local budgets (the variable takes a value of zero for all the years before 1998). That is, given that my estimations are conducted for the whole 1990-2001 period, but the FISM actually started in 1998, its effect on public works expenditures is underrated.²⁰ The influence of this earmarked

²⁰ When the analysis is performed only for the years in which the new fund was in operation, its coefficient is over 0.7, which implies that for every peso obtained in the form of the earmarked transfer, municipalities spend more than 70 cent on public works. Yet, we should be concerned with the fact that the remaining 30 cents are not spent on public work projects, despite the fact that the transfer fund has been earmarked for that purpose. A potential explanation is that the mechanisms for overseeing the use of those funds (a role that is officially under the responsibility of state legislatures) are relatively ineffective, enabling some local governments to spend them on activities that are not formally permitted by the federal law. An alternative explanation is that many local governments still lack the adequate institutional capacity to manage those earmarked funds. Recall that the Mexican fiscal coordination law (as well as the specific rules established by state governments to regulate the operation of the FISM) requires local governments to prioritize their social infrastructure needs with the participation of communities, and to follow technical procedures in order to be eligible to receive the funds. It is quite possible that local governments that lack the technical and managerial expertise to meet these criteria (presumably governments of very poor municipalities) will not be able to use the full amount of resources available to them. Since my data on the earmarked funds

fund on administrative expenses is not incorporated to the analysis, but some estimations revealed that its impact is negligible.

In summary, there are strong differences in the way public resources are spent by Mexican local governments, but it is interesting to note the big importance administrative activities have among their budgetary priorities, at least as compared to social infrastructure investments. The main policy implication of this first analysis is that there is a broad rationale supporting the existence of earmarked transfers from higher levels of government. Given the high social deprivation levels that exist across the country and the severe deficiencies in social infrastructure that characterize many Mexican municipalities, expecting that local governments will solve by themselves those problems is totally unrealistic. Not only they lack the necessary resources to meet the most basic social needs, but when they have additional funds they tend to spend them on administrative activities instead of investing them in infrastructure projects that presumably have higher social returns. This justifies the existence of conditional transfer funds, such as the *Fondo de Infraestructura Social Municipal (FISM)* launched by the Mexican congress in 1998, whose aim is to force local governments to invest on social infrastructure.

The next question is whether there are different patterns in the budgetary allocations of local governments that result from differences in socioeconomic conditions.²¹ The results clearly show that each budget category has a divergent relationship with municipal

reflect only the maximum amounts that municipal governments are authorized to spend, but not the resources actually used by them, the remaining 30 cents that are missing could be an indication of the impossibility of some local governments to use them.

²¹ Note that it is only possible to assess the role of social deprivation levels in the models estimated through random effects regressions. The reason is that the deprivation index is mostly time-invariant, thus it is not feasible to use it within a fixed-effects framework.

well-being levels: administrative expenditures are inversely related to levels of social deprivation, while public works investments are positively related to the index. These differences can be explained by the fact that wealthier municipalities already met most of their basic infrastructure needs, thus requiring less investments in that area. At the same time, wealthier municipalities require modernizing their administrative apparatuses in order to deal with the more sophisticated policy issues they face, thus they tend to invest more on their bureaucracies. Poorer municipalities, on the other hand, require large investments on infrastructure to meet their most basic social needs (i.e. they need to introduce water supply, sewer systems, electrification, roads and schools), while their public administration is much less complex, given that they do not have to face the problems more developed cities do.

The last part of the analysis has to do with the role that political and institutional factors play in shaping the budgetary allocations of local governments. Once we have controlled for local budgetary restrictions and socioeconomic levels, the next question is whether a more competitive electoral environment stimulates public spending in a particular way, and whether such an effect is increased (or even modified) under a more decentralized policy setting. Once more, the results suggest that electoral competition and party alternation have very different consequences on how local governments spend their available resources. The first result is these variables have all a positive effect over administrative expenditures (although competition is only statistically significant in the random effects model). That is, declining margins of electoral victory and alternation of parties in municipal governments seem to stimulate local governments to expand their administrative apparatuses (recall that the negative sign of the margin of victory's

coefficient indicates that competition and spending are positively related, since higher margins of victory imply less electoral competition). On the other hand, the consequences of electoral competition and party alternation on infrastructure investments depend on whether they operate under a centralized or a decentralized policy environment. For the period before decentralization, electoral competition and party alternation seemed to discourage local governments from investing on public infrastructure projects, an outcome that challenges the usual claim that party competition should promote the accountability of government officials. However, for the years in which decentralization was operational, the effect of the two variables on public works spending changed radically: both competition and alternation started to stimulate local authorities to increase their investments on basic infrastructure. That is, the interaction between decentralization and the other two political variables (competition and alternation) significantly modifies the budgetary choices of local officials: before decentralization, for every one percent decrease in the margin of electoral victory, local governments reduced their spending on infrastructure by 23 pesos on average (according to the random effects estimations). After decentralization, the net effect of competition on infrastructure spending is reversed in such a way that the same one percent decrease in the margin of victory stimulates local governments to spend 61 pesos per capita on infrastructure (i.e. the difference between the coefficient corresponding to the margin of electoral victory and the coefficient corresponding to the interaction of that variable with decentralization). The same outcome occurs for the case of party alternation, since the net effect of this variable on infrastructure spending (i.e. the difference of the effect with and without decentralization) is around 5 pesos per capita. An alternative way to

interpret these results is from the perspective of the decentralization policy itself. The random effects model suggests that, after the decentralization, local governments spent, on average, 116 pesos per capita more than what they used to spend before the decentralization took place. But the effect of the decentralization policy is even larger in municipalities characterized by low margins of electoral victory (i.e. municipalities where competition is high) and where alternation of parties occurs.

The main conclusion of this analysis is that municipal authorities are more willing to invest on basic infrastructure when they face an institutional setting characterized by both competition (or alternation) and decentralization. This result is *qualitatively* consistent across the random and fixed effects models, although the magnitude of the coefficients changes from one model to the other.

Now I will discuss the results obtained from the remaining political variables. The analysis suggests that there is a tendency among local governments to substitute administrative spending for infrastructure investment in years where local elections take place. In years when local elections are held, current expenditures decrease by 11 pesos per capita, while spending on public works increases by 9.5 pesos. It implies that elections provide municipal governments with the best occasion to make their actions more visible to the population at large, and the most manifest expenditure categories are public works (roads, schools, hospitals, etc.), rather than administrative spending. Another piece of evidence supporting this view is that, under a context of government juxtaposition (i.e. when the party of a municipal president is different than the party of the state governor), municipal governments tend to increase their spending on local infrastructure projects: juxtaposed local governments spend, on average, between 15 and

22 pesos per capita more than local governments that are not juxtaposed. The phenomenon of “juxtaposition”, on the other hand, does not have any significant consequence on current administrative expenditures. If we assume that, under a context of party divergence between municipal and state governments, local mayors seek to be differentiated by their constituents from state authorities, then we should expect them to favor policy sectors where they can more easily claim credit for. In other words, the phenomenon of party juxtaposition provides local governments with a special incentive to invest on areas that are more visible to the population, making it clear that they are responsible for those policies, and not any other authority. For that reason we observe that government juxtaposition stimulates spending on local infrastructure (a very manifest expenditure category), but does not have any effect on administrative expenditures.

Does party membership matter for local budgetary allocations? Not in the case of administrative expenditures, since neither municipalities governed by the PRI nor those governed by the PAN show to spend more on their administrative apparatuses compared to the PRD and the other smaller parties. In the case of local infrastructure investments, on the other hand, there are marked party differences: according to the fixed-effects model, both PRI and PAN governments tend to spend more on public works than the remaining parties in the country. However, the results are inconclusive regarding whether PANista governments spend more on infrastructure than the governments of the PRI, since their coefficients vary between the fixed-effect and the random-effects models.

VI. Conclusions and policy implications

This paper has shown that the political landscape of Mexican municipalities affects the budgetary choices of local governments. The central proposition that a more competitive electoral environment fosters the levels of spending on local infrastructure clearly depends on the policy setting under which local governments operate. Before the federal government decentralized the provision of local infrastructure in 1998, electoral competition and party alternation had only a stimulating effect over the levels of administrative expenditures, but not on infrastructure investments. Once the decentralization policy was in effect, their consequences on public works spending were reversed. This is, in my view, a strong indication that only under a more decentralized policy setting the openness and competitiveness of the electoral arena can have a positive influence on the provision of locally provided public goods. The main implication of this analysis is that local democracy is not a sufficient condition to motivate local policymakers to invest on basic infrastructure projects: local governments require having decision-making autonomy over resources to better take advantage of the opportunities that a more competitive environment presents.

However, the previous proposition does not necessarily imply that local governments should be completely autonomous in their use of intergovernmental resources. As the analysis revealed, local authorities have a strong propensity to increase their administrative expenses when they get additional unconstrained resources, and it is unclear whether increasing current expenditures is the optimal strategy to improve their performance. Thus, some form of earmarking by higher governmental levels is still

needed to stimulate the development of local infrastructure, specially if we take into account the big deficiencies in basic service coverage that exist across the country. The earmarking of intergovernmental funds should not be too rigid, as it was the case before the 1998 reform to the Mexican federalist system, when many spending choices were carried out by federal agencies without the participation of local governments. But some broad guidelines that compel local authorities to allocate resources on basic infrastructure projects, as well as the requirement to involve the participation of citizens in the definition of spending priorities, are in my view essential conditions for policy decentralization to succeed.

Another main conclusion from this analysis is that the nature of infrastructure spending in Mexico is highly political: not only it increases significantly during electoral years, but it is a useful means by which local authorities try to make themselves visible to the population, particularly when state governors have divergent party affiliations. The political character of infrastructure spending should not be regarded necessarily as a negative attribute, since it might provide local politicians with a special incentive to invest on projects that are beneficial for the society. However, it is also possible that, in order to obtain immediate political recognition, local politicians might choose projects that provide only short-term benefits to the population, thus preventing the development of infrastructure investments that require a longer period of maturation. Unfortunately, the available data do not allow us to evaluate with more precision the quality of infrastructure projects chosen by local governments.

There is a number of issues that require further research. In my view, one of the most imperative ones is a more detailed analysis on how local governments make their

spending choices at the very micro level. Although the federal policy requires them to incorporate the participation of society in the formulation of spending priorities, it could be the case that local authorities comply with this obligation only “on the surface”, but actually making use of traditional clientelistic practices (for example by allocating resources only to localities where their parties enjoy substantial political support). If this was the case, the goals of the decentralization policy might be distorted, since a budgetary process guided exclusively by party considerations could have very negative consequences on the reduction of poverty levels.

References

- Alesina, Alberto, et. al., (1996). Budget Institutions and Fiscal Performance in Latin America, Cambridge, National Bureau of Economic Research, Working Paper 5586.
- Ames, Barry (1987). *Political Survival. Politicians and Public Policy in Latin America*, Berkeley: Univ. of California Press.
- Azfar, Omar, S. Kähkönen, and P. Meagher (2001). “Conditions for Effective Decentralized Governance: A Synthesis of Research Findings”, IRIS Center, University of Maryland, Working Paper 256.
- Bahl, Roy, and J. Linn (1992). *Urban public finance in developing countries*, Oxford, Oxford University Press.
- Bird, Richard and F. Vaillancourt, eds, (1998), *Fiscal decentralization in developing countries*, Cambridge, Cambridge University Press.
- Cabrero, Enrique and A. Carrera (2002). *Fiscal Decentralization and Institutional Constraints. Paradoxes of the Mexican Case*, Working Paper, DAP-CIDE, Mexico.
- Cabrero, Enrique, et. al (1996). *La nueva gestion municipal en Mexico: Analisis de experiencias innovadoras en gobiernos locales*, Mexico, Porrúa-CIDE.
- CIDAC, *Base de datos de elecciones locales, 1980-2000*. Available on-line at www.cidac.org.mx.
- Cleary, Matthew (2003). “Competencia electoral, influencia ciudadana y desempeño del gobierno en los municipios mexicanos”, in *Política y Gobierno*, Vol. X, Num. 1, pp. 183-217.
- Díaz-Cayeros, Alberto, and B. Magaloni (2003). “The Politics of Public Spending –Part II. The *Programa Nacional de Solidaridad* (PRONASOL) in Mexico”, Background Paper for the World Bank World Development Report 2004.
- Fiszbein, Ariel (1997). "The Emergence of Local Government Capacity: Lessons From Colombia", *World Development*, Vol. 25, No. 8, pp. 1029-1043.
- Fukasaku, Kiichiro and R. Hausmann ed. (1998). *Democracy, Decentralisation and Deficits in Latin America*, Inter-American Development Bank-OECD, Washington, D.C

- Giugale, Marcelo M. and S. Webb, eds. (2000). *Achievements and Challenges of Fiscal Decentralization. Lessons from Mexico*, Washington DC, The World Bank
- Guillén López, Tonatiuh (1996). *Gobiernos municipales en Mexico. Entre la modernización y la tradición política*, Mexico, Porrúa-Colegio de la Frontera Norte.
- Hiskey, Jonathan (2000). “Does Democracy Matter? Electoral Competition and Local Development in Mexico”, paper presented at the 2000 Latin American Studies Association Meeting.
- Huther, Jeff and Anwar Shah (1998). “Applying a Simple Measure of Good Governance to the Debate on Fiscal Decentralization.” *World Bank Operations Evaluation Department Policy Research Working Paper No. 1894*. World Bank, Washington, DC.
- INAFED, *Sistema Nacional de Información Municipal*. Available on line at www.inafed.gob.mx.
- INEGI, *Finanzas Públicas Estatales y Municipales, 1989-2001*. Available on-line through the *Sistema Municipal de Bases de Datos (SIMBAD)* at www.inegi.gob.mx.
- INEGI, *Censo General de Población y Vivienda 1990 y 2000*. Available on-line through the *Sistema Municipal de Bases de Datos (SIMBAD)* at www.inegi.gob.mx.
- Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobaton (1999b). “Governance Matters.” Policy Research Working Paper 2196. Washington: World Bank.
- Litvack, Jennie, et. al. (1998). *Rethinking Decentralization in Developing Countries*, The World Bank (Sector Studies Series), Washington, D.C.
- Merino, Mauricio (1994). *En busca de la democracia municipal*, Mexico, El Colegio de Mexico.
- Molinar, Juan and J. Weldon (1994). “Electoral Determinants and Consequences of National Solidarity”, en W. Cornelius, et. al. (eds.), *Transforming State Society Relations in Mexico: The National Solidarity Strategy*, San Diego, University of California.
- Moreno, Carlos (2003). *Fiscal Performance of Local Governments in Mexico: The Role of Federal Transfers*, Working Paper 127, DAP-CIDE, Mexico.
- Nordhaus, William D. (1975), “The political Business Cycle”, *Review of Economic Studies*, 42, pp.169-190.

- Oates, Wallace (1972). *Fiscal Federalism*, Harcourt Brace Jovanovich, New York.
- Peredo, Alberto (2001). "Fiscal Decentralization in Mexico under Zedillo (1994-2000): Devolution vs. Deconcentration. Preliminary Findings", Paper prepared for delivery at the 2001 meeting of the Latin American Studies Association, Washington, DC, September 2001.
- Prud'homme, Remy (1995). "On the Dangers of Decentralization", *The World Bank Research Observer* 10(2)
- Putnam, Robert (1993). *Making Democracy Work. Civic Traditions in Modern Italy*, Princeton, Princeton University Press.
- Raich, Uri (2003). *Impacts of Expenditure Decentralization on Mexican Local Governments*, Working Paper 102, DAP-CIDE, Mexico.
- Rodríguez, Victoria (1997). *Decentralization in Mexico: from Reforma Municipal to Solidaridad to Nuevo Federalismo*, Boulder, Colo.: Westview Press.
- Rodríguez, Victoria, and P. Ward, eds. (1995). *Opposition government in Mexico*, Albuquerque: University of New Mexico Press.
- Rodríguez-Gómez, Katya (1999). "La descentralización del gasto social destinado a la construcción de infraestructura básica y su repercusión en la gestión municipal en México", paper presented at the conference Gobiernos Locales, El Futuro Político de México, Guadalajara, Jalisco, Septiembre de 1999.
- Scott, John (2004). "La descentralización, el gasto social y la pobreza en México", in *Gestión y Política Pública*, Vol. XIII, Num. 3, pp. 785-831.
- Sour, Laura (2004). "El sistema de transferencias federales en México: Premio o castigo para el esfuerzo fiscal de los gobiernos locales urbanos?", in *Gestión y Política Pública*, Vol. XIII, Num. 3, pp. 733-751.
- Tanzi, Vito (1995). "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects", in *World Bank Annual Conference on Development Economics*, Washington, D.C
- Tendler, Judith (1997). *Good Government in the Tropics*, Baltimore, John Hopkins University Press.
- Ter-Minassian, Teresa, ed. (1997). *Fiscal Federalism in Theory and Practice*, International Monetary Fund, Washington, D.C.

Tiebout, Charles (1956). "A Pure Theory of Local Expenditure", *Journal of Political Economy*, núm. 64.

Vega-Godínez, Alejandro (1998). *Las perspectivas del Nuevo Federalismo: el sector de desarrollo regional y el combate a la pobreza. Las experiencias de Aguascalientes, Guanajuato y San Luis Potosí*, Working Paper 62, DAP-CIDE, Mexico.

Ward, Peter M. (1998). "From Machine Politics to the Politics of Technocracy: Charting Changes in Governance in the Mexican Municipality", *Bulletin of Latin American Research*, Vol. 17, Num. 3, pp. 341-365.

Ziccardi, Alicia, coord. (1995). *La Tarea de gobernar: gobiernos locales y demandas ciudadanas*, Mexico, Porrúa-UNAM.

APPENDIX. CALENDAR OF MUNICIPAL ELECTIONS IN MEXICO BY STATE, 1988-2001

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Aguascalientes														
Baja California														
Baja California Sur														
Campeche														
Coahuila														
Colima														
Chiapas														
Chihuahua														
Durango														
Guanajuato														
Guerrero														
Hidalgo														
Jalisco														
Mexico														
Michoacan														
Morelos														
Nayarit														
Nuevo Leon														
Oaxaca														
Puebla														
Queretaro														
Quintana Roo														
San Luis Potosi														
Sinaloa														
Sonora														
Tabasco														
Tamaulipas														
Tlaxcala														
Veracruz														
Yucatan														
Zacatecas														

Source: CIDAC, *Base de datos de elecciones locales, 1980-2000*. Available on-line at www.cidac.org.mx