The efficiency of decentralized infrastructure spending at municipal level in Mexico

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Submitted to

Central European University

Department of Public Policy

In partial fulfilment of the requirements for the degree of Master's in Public Policy

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Budapest, Hungary

2012

Acknowledgments

Mayo de 2012, Budapest, Hungría

Dedico este trabajo y todo el esfuerzo que ha requerido llegar hasta este punto, a mis abuelos, a quienes no volveré a ver a mi regreso a México, pero ellos saben que el no haber estado allá para despedirlos ha valido la pena.

Un agradecimiento especial a mi mentor, mi jefe y mi amigo, Marco Cancino; a Aldo Silva por su disposición y paciencia; y a Rolf Siegel por haber sido pieza fundamental en la realización de este trabajo de investigación.

Finalmente y no menos importante, un gran agradecimiento a mi supervisor Achim Kemmerling y a la Central European Univeristy por haberme brindado las herramientas para lograr esta meta de vida.

Abstract

The main goal of the decentralized process in Mexico has been to improve social development to those more in need – in concrete poverty alleviation- through out an equalizing policy. To achieve this purpose, the federal government has devolved financial resources to states and municipalities by means of conditional transfers so as to make public spending more efficient. This research assesses whether resources transferred from the federal government to municipalities to cover infrastructure services have been spent efficiently so as to generate social impacts. For this purpose, an analysis of municipalities spending performance in terms of infrastructure during 2000 to 2010 has been carried out. Findings reveal that despite allocation of decentralized resources has been invested in infrastructure under a redistribute character; budget increase does not generate larger services provision. In this sense, there is a gap between resources spent and greater development. This implies that the design of conditional transfers does not create the right incentives to municipalities to improve their level of development. Thus, my research suggests that infrastructure spending has not being efficient enough to contribute to decentralization and it should be rethought.

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List of Abbreviations (English and Spanish versions)

BID	Inter-American Development Bank
	Banco Interamericano de Desarrollo
CEFP	Public Finances Research Center
	Centro de Estudios de la Finanzas Públicas de la Cámara de Diputados
CIDAC	Development Research Center
	Centro de Investigación para el Desarrollo
CONEVAL	National Council for the Evaluation of Social Development Policy
	Consejo Nacional de Evaluación de la Política de Desarrollo Social
FAEB	Education Fund
FAETA	Fund of Technological Education
	Fondo de
FAISE	State Infrastructure Fund
	Fondo de Aportaciones de Infraestructura Social Estatal
FAISM/FISM	Municipal Infrastructure Fund
	Fondo de Aportaciones de Infraestructura Social Municipal
FAM	Multiple Contributions Fund
FASP	Public Security Fund
	Distrito Federal
FASSA	Health Services Fund
	Fondo de Aportaciones para los Servicios de Salud
FORTAMUN	Fund to Strengthen Municipalities
	Fondo de Aportaciones para el Fortalecimiento de los Municipios y de
	las Demarcaciones Territoriales del DF.
GDP	Gross Domestic Product
	Producto Interno Bruto
IDH	Human Development Index
	Índice de Desarrollo Humano
IMCO	Mexican Institute for Competitiveness
	Instituto Mexicano para la Competitividad
INAP	Public Administration National Institute
	Instituto Mexicano de Administración Pública
LCF	Fiscal Coordination Law
	Ley de Coordinación Fiscal
OECD	Organisation for Economic Cooperation and Development
	Organización para la Cooperación y el Desarrollo
PEF	Federal Budget
	Presupuesto de Egresos de la Federación
PND	National Development Plan
	Plan Nacional de Desarrollo
Pronasol	Solidarity National Plan
	Programa Nacional de Solidaridad
PRI	Institutional Revolutionary Party

	Partido Revolucionario Institutcional
SED	Performance Evaluation System
	Sistema de Evalaución al Desempeño
SEDESOL	Ministry of Social Development
	Secretaría de Desarrollo Social
SHCP	Ministry of Finance
	Secretaría de Hacienda y Crédito Público
SNCF	Fiscal Coordination System
	Sistema Nacional de Coordinación Fiscal

*Notes before reading:

- For the purpose of this research, proper names and technical terms are given in English as well as in Spanish and its correspondent acronyms in order to make this Master Thesis more readable for both, English and Spanish speakers.
- Figures are given in Mexican pesos. The approximate exchange rates are:
 - \$13 Pesos = \$1 USD
 - \$17 Pesos = \$1 EUROS

Introduction

Resources transferred from the Mexican federal government to the states and municipalities represent main source of income at the local level¹ to meet social development challenges. Yet the efficiency of these funds expenditures has cast doubt on the functionality and accuracy of the fiscal system.

In 2010, Mexico reached 52 million people in what the National Council for the Evaluation of Social Development Policy, CONEVAL² defines as "poverty situation", meaning 46% of the population lack sufficient income to acquire goods and services to satisfy basic needs in terms of access to education, healthcare, social security, housing, basic infrastructure and food (2010). This does not mean that Mexico is a poor country but a nation with a huge inequality condition among their inhabitants.

The responsibility for designing social development policy is entrusted to the three levels of government – the federal government, states and municipalities. Responsibilities have been distributed in order to encourage more efficient government spending: the federal government and states attend the macro dimensions of social development, whilst the municipal level is in charge of providing adequate infrastructure and public services, such as electrification, sanitation drainage and potable water. However, in 2010, CONEVAL reported almost 19 million people - 17% of the population- without access to basic housing infrastructure services. In this regard, municipalities face an immediate challenge: to increase spending efficiency for improving their public service delivery, so more families and households can benefit from it.

¹The term "local level" will be used in this research to refer states and municipalities as a whole.

² CONEVAL is the institution in charge of regulating and coordinating the evaluation of the Social Development Policy and Programs implemented by public dependencies.

In order to support municipalities with this task, the federal government transfers earmarked resources to the subnational governments through set of funds, mainly included in Branch 33 (Ramo 33) of the federal budget. For the provision of aforementioned infrastructure services, municipalities receive their budget through the Municipal Social Infrastructure Fund, FAISM or FISM. The main purpose of FAISM resources is to directly support those sectors of the population with lower resources, meaning both those who suffer from extreme poverty and those in social inequality gap.

The decentralization policy in Mexico mainly goal is to diminish regional disparities through generating more profound social impacts. For this purpose, the municipalities' capacities for better fund expenditure must be accompanied by better coordination among different levels of government. Mexican fiscal federalism has been established in order to provide more resources to those entities with larger social gaps. The objective of these endeavors is to homogenize financial abilities and to provide equal opportunities for all Mexicans. In this sense, the objective of constituting a federal system is to share responsibilities and coordinate actions between the national, state and municipal level. Within the domestic fiscal federalism the way transfers are designed and conducted play the most important role. Mainly, Branch 33 assigns more money to municipalities with greater need. Unfortunately, the system of transfers has led to a fiscal dependency from the local to the federal. Approximately, 70% of municipalities budget comes from federal transfers. This situation has resulted in an overall decrease of public spending efficiency at the local level.

Since the process of decentralization started, several researchers and policy makers have conducted public finances analysis with regards to this problem. The private sector (CIDAC, IMCO), the academia (CIDE, INAP) and evaluations made by the public sector (CONEVAL, SHCP) have focused on the flaws of the transfer system design in order to identify the relationship between the allocated resources and its social impact. Public spending analyses usually work with the general social development variables such as poverty, marginalization or human development, but they do not take into account that every level of government has specific responsibilities and it should be evaluated in light of their legal boundaries. It is unclear, however, whether municipalities are spending efficiently their infrastructure budget so as to reduce poverty through better development. The aim of the this research therefore is to identify the efficiency of public spending at the municipal level through an analysis of the relationship between resources allocated to FAISM per capita and four infrastructure variables that are direct responsibility of the municipalities: provision of sanitation, potable water, electrification and drainage at the household level.

The present research focuses on the coverage infrastructure services and the level of development generated by being benefited from them across three different time periods: 2000, 2005 and 2010. In this regard, the expected finding after a quantitative analysis should be that as resources increase, services provision increases as well. As a result, the level of development of the region improves and poverty alleviation is supposed to rise as well. Consistently, this pattern should also reduce the large regional disparity that Mexico faces, which is also one of the goals of decentralized government systems. However, the social development evaluations provided by CONEVAL indicate that social gaps in Mexico are not decreasing, and poverty alleviation in particular, is not successful. For this reason, my analysis of the relationship between the social/infrastructure development and budget allocation might answer the question of whether or not the decentralization system in Mexico incentivizes the efficiency of public spending at municipal level in order to achieve social impacts.

Results of this analysis mainly suggest that despite the fact that there is evidence of an allocation of resources in infrastructure according to the redistributive principle, real and observed points of improvements are not reflected. This assumption denies the capacity of the decentralization system to foster spending efficiency since it seems that the design of Branch 33 creates a perverse incentive for municipalities not to raise their level of development so as to continue receiving funds from fiscal transfers.

Chapter one will provide a brief overview of decentralization and fiscal federalism objectives and describe the process of decentralization in Mexico. The second chapter will explain and analyze conditional transfers through Branch 33 of the federal budget as well as the infrastructure fund, FAISM. This will be followed by an assessment of several challenges of social development through infrastructure that municipal levels are faced with in Mexico. The fourth chapter includes theoretical and empirical findings from the literature as an introduction of the quantitative analysis. This chapter will present the reader evidence to what extent these funds from FAISM actually raise municipalities' level of development in terms of infrastructure. Finally, the last section will provide suggestions on how to rethink and redirect the course of the decentralization in Mexico.

Chapter 1: Decentralization and fiscal federalism

In order to understand the relevance of a decentralization process as a part of the democratization of a country, it is essential first to point out how much the local governments were empowered in the last years. According to the World Bank, good local governments are not just services providers but also facilitators of outcomes that enrich citizens' quality of life through their preservation of life and liberty (Shah and Shah 2006, 2). The relevance of the power of the local level lies in the fact that the centralized decision making process does not consider the particularities of every entity. Hence, federal governments apply homogeneous solutions to heterogeneous problems. As a consequence, there is an inefficient allocation of resources, which results in stagnation of social development. For this reason, a decentralized government is only justified through successfully and gradually reducing the social gap.

In developing countries in particular, the process of decentralization is essential to achieve a greater level of development since it aims to equalize local governments' limitations and capitalize their main advantages; as well as guarantying goods and services provision regardless of the fiscal capacity of the jurisdiction. Hernández Trillo and Jarillo-Rabling (2007, 1547) note that "decentralization has been an issue raised in response to top-down regional development. It is viewed as a way to make the government more responsive and efficient, and thus, fosters regional economic development and reduces poverty".

However, to equalize the level of wellness and development across regions it is not just necessary to assign more resources but to make their operation more efficient. According to Boadway and Shah (2009, 29), the pursuit of efficiency and equity in a federal economy justifies

the assignment of power and the optimal policies undertaken by each level of government. However, in a decentralized system, every jurisdiction rationally seeks efficiency and equity under its own considerations. This results in a system with different effects on their fiscal capacities, provoking horizontal and vertical fiscal externalities. Thus, decentralization must provide accurate arrangements among jurisdictions to minimize the costs of these externalities.

In a devolved government, fiscal transfers from the federation to local entities are these arrangements that play an equalizing role to reduce horizontal and vertical gaps. Since providing public services could be connected with higher costs in some places than in others and some local governments are furthermore better capable of raising revenues, the objective of equalization is to reduce these differences between jurisdictions (Boadway and Shah 2009). However, this purpose is achieved under a transfer system design that encourages fiscal capacity as well as independence among the three levels of government. Bird, Ebel, and Wallich (1995) state that the ways transfer systems are designed determine the influence of the local and central governments in every area of responsibility. Delegation increases efficiency once subnational governments administrate programs of national interest, such as education and health. Thus, the federal government may determine the amount of funds that must be spent in these areas, but the detailed administration of these monies corresponds to the local tier.

Overall, developing countries or economies in transition aim to increase efficiency, equity, and accountability through decentralizing the federal government and empowerment on the local level in order to pursue a greater level of development. Currently, Mexico is in this process of constantly reviewing and evaluating its intergovernmental fiscal transfer system. In 2011, the OECD carried out an analysis on public management in Mexico, in which it urged increased government capacity to ensure the efficient use of public resources. The OECD argued that main

source of revenue – oil production – has seen a rapid decrease in the last years (e.g. more than 20% in 2009) and it seems that this trend will continue in the near future. It is noted that "Mexico needs a more efficient government to face fiscal challenges and effectively tackle social problems such as poverty, access to basic quality services, and infrastructure" (2011, 17).

1.1 Context of the Decentralization Process in Mexico

The fiscal decentralization process in Mexico started in the 1980s. Transfers from the national to the subnational governments were arranged through conventions (*Convenios de Colaboración Administrativa*) between each state and the federation with the aim of contributing to local development. Hence, resources from fiscal transfers were allocated mainly to infrastructure, public services, health, education and public security of states and municipalities. However, every jurisdiction was allowed to negotiate their own resources with the federation according to their own criteria and terms of reference. The lack of a homogeneous legal framework permitted wide discretional margins within these arrangements and hindered the contribution to long term planning since resources were exposed to opportunistic behavior by political parties in power.

CEU eTD Collection

In order to reduce political manipulation of the public resources, a fiscal reform at the beginning of the nineties introduced specific criteria to allocate resources to the subnational level. In 1998, conditional transfers were formalized into the budget as Branch 33 (*Ramo 33*). Agreements between states and federal governments were integrated in the Fiscal Coordination Law³ (LCF) and coordinated by the Fiscal Coordination System (SNCF). This system was created to coordinate both conditional and unconditional transfers. The latter were incorporated as Branch

³Chapter V of the LCF.

28 of the federal budget (PEF). Unconditional transfers or participations (*participaciones*), as they are named, as I have discussed before during this academic year (Gómez 2012), allocate resources to the local level in proportion of tax collection capacity. This means that states commit to limit their tax powers in favor of the federal administration, in exchange for being part of the transfer funds. Nowadays, the federal government administrates the two most important taxes – income tax (*Impuesto sobre la Renta*) and value-added tax (*Impuesto al Valor Agregado*), even though these two tax revenues do not correspond initially to the federal administration by law. Consequently, the federal government controls around 80% of the fiscal income generated in the country. This is a clear indicator of the degree of financial dependence of the states and municipalities on the federal government.

1.2 The Role of Conditional Transfers in the Process of Decentralization in Mexico

Mexico like almost every country in economic transition is characterized by strong regional disparities. Among its 31 states and the Federal District, there are still some areas that lack basic services provision, such as potable water. On the one hand, the Federal District, the State of Mexico and Nuevo Leon produce approximately 40% of the country's GDP. On the other hand, the southern states Chiapas, Guerrero, Hidalgo and Oaxaca produce together barely 7% of the GDP (Hernández-Trillo and Jarillo Rabling 2008, 1548). As it was already mentioned, the purpose of decentralization has been to equalize differences among jurisdictions, meaning the federal government provides fiscal incentives to subnational governments according to their needs, so that every state and municipality may have the same financial ability to cope with their social development responsibilities. This was the main point the federal government used to justify the empowerment of fiscal transfers towards the local level.

However, the design of the Mexican transfers system has caused side effects on the public expenditure. They have created and increasing dependency on the federal budget – more than 70% of the local income comes from the federation (Aregional 2008, 168)– and a decreasing taxation capacity of the states. Moreover, conditional transfers design does not provide incentives for the local level to reduce their level of marginalization or to increase their development status.

In contrast to unconditional transfers (Branch 28), conditional transfers, identified as contributions (*aportaciones*) are resources exercised directly by every jurisdiction, but in this case the federation maintains control and monitors their use. Branch 33 was created for redistributional reasons to support states and municipalities in the decentralized functions of education, heath, social infrastructure and public safety (Gómez 2012). Operationalization of Branch 33 will be covered in the next chapter, but before going into detail, it is worth summarizing that the decentralization policy has created a distorted system where local governments have gained expenditure power without facing the social responsibility that is involved in being recipient of public resources.

Chapter 2: Branch 33 and the Municipal Infrastructure Fund, FAISM

In order to understand the role conditional transfers design have played as a practice of povertyalleviation this chapter will introduce Branch 33 and its accountability and control mechanisms as well as explain FAISM context and implementation. The last part of this chapter presents the most recent evaluations of this fund in order to provide updated information of the performance of the decentralization process.

As a result of the decentralized process of the nineties, some functions, faculties and resources were reassigned for local governments. Hence, health and education services provision were devolved and the federal budget integrated resources for these responsibilities through branches (*ramos*). In this scenario, Branch 33 – federal contributions – was created and integrated in chapter V of the Fiscal Coordination Law. Branch 33 is the channel through which the federation transfers conditional resources to states and municipalities to cover the following aspects: basic education, health services, social infrastructure, municipal strengthening, school breakfast programs, nutritional support to the population, poverty social assistance, education infrastructure (INAP, SHCP, BID 2010). In order to fulfill the purpose of reducing the social development gap between jurisdictions, the government incorporated several funds to Branch 33: the Education Fund (FAEB); the Health Services Fund (FASSA); the Social Infrastructure Fund (FAIS); the Fund to Strengthen Municipalities (FORTAMUN); the Multiple Contributions Fund (FAM); the Fund of Technological Education (FAETA); and the Public Security Fund (FASP). FAIS is divided into two parts: the State Infrastructure Fund (FAISE) and the Municipal Infrastructure Fund (FAISM).

Branch 33 was the main result of federal government efforts to strengthen the subnational level, particularly in financial issues. From 2000 to 2012, the budget allocated to Branch 33 has been steadily rising by an annual average growth rate of 3.3% (CEFP 2012). However, an increase in resources does not necessarily result in a greater social impact, especially because every fund has its own formula that sets different distribution criteria according to its particular objectives. This implies that the amount of assigned resources corresponds to the variables in the mathematical formula. Since Branch 33 appeared, these formulas have suffered several modifications due to the fact that it has been found that some variables do not match the objectives of the fund; consequently resources have not met expected outcomes. The main concern however, lies in the fact that conditional transfers could not provide incentives for the entities to reduce their level of marginalization or to improve their social inequality since, in accordance with the distribution formula, the higher the needs, the higher the amount of transfers allocated.

2.1 Branch 33: Accountability and Control Mechanisms

The huge amount of resources Branch 33 receives and its discretionary past have demanded more control over these monies. Each state that receives funds from Branch 33 is required to be accountable for the destination under the provisions established by the Federal Budget and Fiscal Responsibility Law (*LFPRH*) and the Fiscal Coordination Law(LCF). A report of the use and outcomes of these resources should be sent to the federal government by each jurisdiction every three months. The federal government, respectively the Ministry of Finance (SHCP), publishes this information on the Internet in the so-called "Report on the Economic Situation, Public Finances and Public Debt" (

).Similarly, states and municipalities have to make their reports public and upload

them on their correspondent websites. To date, it seems that these reports do not track the real social impacts these funds are generating. According to the CONEVAL Evaluation Report of Branch 33 (2011), states and municipalities, as well as the federal government, reported barely 90% of the information required during 2008 and 2009. This is a good indicator of institutional compliance but, as Perez Yarahuan (2010, 12) states, "there is a low degree of responsiveness" to translate outcomes into feasible improvements. Moreover, the transparency and accountability efforts of Branch 33 should aim at diminishing propensity of these funds of becoming an object of political manipulation.

Consistently, the control and audit of these resources have shown shortfalls too. The LCF states that conditional transfers have to be administrated and exercised by the correspondent local entities. This implies that once resources enter to local budgets become part of their local own income (LCF, art 49). Therefore, the same money is supposed to be controlled on both local and federal levels, depending on the stage of the transfer process. This ambiguous finding raises the question whether the state should intervene in the control process. According to Hernández-Trillo and Jarillo-Rabling(2007, 1550) the weaknesses of the legal framework of ear-marked transfers in Mexico "make local organizations vulnerable to the risk of political elite capture", particularly because states claim that funds belong to them so they can distribute them in accordance to their own criteria. Under this argument, the Federal Congress has limited faculties to be accountable for these monies.

As part of the control and accountability efforts of the current government, in 2007, the Congress approved a fiscal reform in which a Performance Evaluation System (*SED*) was established. This system aims to improve the way the governmental structure uses and administrates public resources to increase spending efficiency and program effectiveness, as well as to strengthen

transparency and accountability mechanisms. SED intends to reach all three levels of government and forces them to inform to the federal control entities about the use of the resources. Output indicators to measure efficiency, efficacy, economy and quality of goals achievement are implemented in the regulatory framework of Branch 33. So far, the system is still in the fledgling stages and has failed to deliver the expected results yet. However, it has been an important step forward towards more accountable and efficient public spending.

2.2 Municipal Infrastructure Fund, FAISM

The Political Constitution of 1917 (2012, 77) establishes in article 115 that municipalities are in charge of providing a) potable water, drainage and sewage, b) public electrification, c) garbage collection, d) markets and grocery provision, e) pantheons, f) park and gardens equipment and g) local public security to their citizens. In order to support municipalities in their duty as providers of these services, but particularly to directly benefit the population sectors with demanding poverty situation or with a social gap condition (art 33, LCF 2011, 27), the federal government transfers resources as federal contributions through the Municipal Infrastructure Fund, well known as FAISM or FISM (*Fondo de Aportaciones de Infraestructura Social Municipal*)⁴.

FAISM has been devised to generate an immediate or short-term impact raising the level of coverage of social basic infrastructure. As a result, the number of households in "poverty conditions" should be reduced and localities should be more equal between each other in the

⁴ This fund is applicable for the 2,440 municipalities within the 31 Mexican states. The Federal District, the capital, belongs to a different jurisdiction since it is not considered a state. Hence, its 16 delegations do not participate in FAISM.

long run. FAISM has been chosen as a target of this research given that these resources were highly discretional in the past.

This fund was originated as a replacement for the federal program Pronasol (Programa Nacional de Solidaridad), initiated by President Carlos Salinas de Gortari (1988-1994) in the early nineties. *Pronasol* was a poverty-alleviation program with a new perspective: "redefine state-society relations and reach those who were most in need of welfare assistance" (Rocha 2005, 347). Salinas' successor, Ernesto Zedillo (1994-2000) dismantled Pronasol due to the fact that financial resources from this program were mainly used to favor political parties (Perez Yarahuan 2005, 25-28). President Zedillo reformed the decentralization policy under the "New Federalism" (Nuevo Federalismo) that introduced Progresa and Branch 33 in PEF to channel resources to subnational governments to attend the population living without basic services. New Federalism main intention was to close discretional margins of resource allocation. It would be an overstatement to state that the purpose was accomplished. Either way, Zedillo's political party, Partido Revolucionario Institucional (PRI) lost the federal elections after 71 years of hegemonic power, in 2000. During the next years, Progresa became Oportunidades preserving the same objective – poverty alleviation⁵; and funds of Branch 33 were financially strengthened. In particular, FAISM increased its budget to more than double in ten years, going from \$14,054 in 2000 to \$36,370 million Pesos in 2010.

⁵⁰portunidades has been recognized as one of the most succesful social programes by international organizations such as OECD, the World Bank and the Inter-American Development Bank.



Table 1: Resources allocated to FAISM (1999-2011) (Figures in million Pesos, at 2010 current prices)

Source: Own elaboration based on data from Sedesol.

2.3 How does FAISM work?

Nowadays, FAISM is regulated by article 32, 33, 34 and 35 of LCF. Article 33 states that FAISM covers the following services: potable water, drainage and sewage, municipal urbanization, rural electrification, basic health and education infrastructure, housing improvement, rural roads and productive rural infrastructure.

The Social Infrastructure Fund – integrated by FAISE and FAISM - is annually determined by the federal budget, with resources that come from federal revenues classified as *Recaudación Federal Participable* (RFP)⁶. RPF accounts for approximately 2% of FAISM budget and it is distributed among states using the following formula (art. 34 LCF 2011, 28):

 $IGPj = Pj1\beta1 + Pj2\beta2 + Pj3\beta3 + Pj4\beta4 + Pj5\beta5$

⁶RFP is made up of all taxes collected at the federal level plus oil extraction and mining revenue.

Where:

Pjw = Gap with respect to the standard of extreme poverty of the basic need w for household j in the study

 β 1..... 5 = Weighting associated with the basic need

j = Household on study.

This means that difference between extreme poverty at local level with respect of extreme poverty at national level determines the amount of resources allocated. Extreme poverty figures are determined by the Global Poverty Index.

However, it is common that some entities do not possess available data to apply the formula. In these cases, there are four variables that count as criteria distribution: a) population that receives less than two minimum wages, b) employed population older than 15 years unable to read or write, c) households without drainage and d) households without electricity (art 35, LCF 2011, 30).

This formula is been constantly criticized, especially due to its complexity that leaves up its interpretation of public officials who apply it. In addition, it contains infrastructure variables that could benefit developed localities more than underdeveloped ones. It also has been said that in order to deliver the money to municipalities, the formula has to be used twice, at the state and municipal stage. This happens because FAISM is delivered from the federation to subnational government through the Ministry of Social Development, Sedesol. This ministry gives the money to the states, from where it trickles down to municipalities on the basis of the above described formula. Then, city halls channel the money to communities. At this point, there is no formal mechanism to assign resources, which makes spending discretional (CIDAC 2010, 8) and

it also could be used to punish or reward a municipality in accordance to their political purposes (Hernández-Trillo and Jarillo-Rabling 2007, 1550).

2.4 FAISM evaluations

The weaknesses of FAISM implementation have led public and private institutions to carry out analyses of the efficiency and the effectiveness of the administration of funds of Branch 33. In particular, under Performance Evaluation System (SED) the government is bound to assess public resources so as to assure a fluid connection between expenses and results. Moreover, within funds of Branch 33, FAISM "offers the most room for flexibility and initiative to government authorities and other social actors" (Rocha 2005, 354), fact that can be object of potentially abuse. Then, in 2010 and 2011 two official evaluations were launched: "Branch 33 in the Social Development in Mexico: An "Evaluation of the Eight Public Policy Funds" by CONEVAL, and "Consulting to Conduct Assessments at Branch 33" by SHCP in conjunction with the Public Administration National Institute (INAP) and Inter-American Development Bank (BID).

CONEVAL's evaluation of Branch 33 shows a redistributive effect on FAISM. This fund corresponds to the level of marginalization of every state and municipality, meaning that the poorer the localities, the more resources they receive (2011, 42-43). However, this does not imply that localities that receive more resources are making an efficient use of the money. In other words: municipalities with bigger budgets do not necessarily improve in welfare and quality of life measures. On the other hand, the qualitative approach of this evaluation reveals that public officials at the local level lack information on how to apply the distribution formula

(*idem*, 45). The criteria to determine spending priorities varies from region to region depending on local government capacities, mayors' and public officials' abilities and willingness to make the resources reach the population, making FAISM an easy target for opportunistic behavior.

In light of SED, the Ministry of Finance (SHCP) published results that include matrix indicators. Amongst other findings, a positive correlation of over 70% between resources allocated to FAISM and variables such as electrification, health and educational services, housing infrastructure and so on, can be constituted. This result indicates that FAISM budget spending has an impact on social infrastructure (INAP, BID, SHCP 2010,55). Consistently with CONEVAL, this evaluation does not show the impact of FAISM in terms of development, welfare, marginalization or poverty-alleviation, the main targets of the fund. Finally, this report also indicates that public officials - despite the fact that they know and identify needs of people on the ground – lack the knowledge how to use FAISM mechanisms and accomplish legal requirements (*idem*, 99). In the Mexican process of decentralization there is still a lack of understanding between the federal and the local tier.

In line with the mentioned evaluations, Table 2 aims to illustrate the correspondence between the amount of resources allocated and the level of social gap of every Mexican state in two different years, 2005 and 2010.

Resources alloca	Level of social gap			
STATE	2005	2010	2005	2010
Oaxaca	644.5	902.7	Very high	Very high
Chiapas	622.8	849.1	Very high	Very high
Guerrero	588.4	823.0	Very high	Very high
Veracruz	363.4	528.8	High	High
Puebla	341.4	496.2	Very high	High
San Luis Potosí	340.2	493.9	High	High
Zacatecas	329.8	466.2	Medium	Medium
Hidalgo	323.2	445.4	High	High
Tabasco	315.6	438.7	Medium	Medium
Michoacán	307.4	435.1	High High	
Campeche	299.4	431.6	High High	
Yucatán	271.6	402.4	High High	
Durango	253.8	360.1	Medium	Medium
Guanajuato	241.3	333.4	High	Medium
Nayarit	209.5	286.6	Low	Low
Querétaro	197.7	268.6	Medium	Low
Tlaxcala	182.5	266.7	Medium	Medium
Morelos	166.8	241.9	Medium	Medium
Chihuahua	149.0	216.6	Low	Low
Sinaloa	146.4	218.9	Low	Low
Quintana Roo	146.2	196.1	Medium	Low
México	137.7	201.8	Low	Low
Tamaulipas	126.6	185.4	Very low	Very low
Jalisco	110.9	159.6	Low	Very low
Colima	100.4	141.4	Very low	Very low
Sonora	94.4	135.6	Very low	Very low
Aguascalientes	83.5	120.7	Very low	Very low
Coahuila	75.7	110.6	Very low	Very low
Baja California Sur	70.3	89.5	Low	Low
Baja California	60.5	84.9	Very low	Very low
Nuevo León	53.8	76.7	Very low	Very low
Total	23,410	36,370	23,410	36,370

Table 2: FAISM allocations and levels of social gaps (2005-2010)

Source: Own elaboration based on data from Sedesol for FAISM figures and CONEVAL for the level of social gap.

In fact, resource allocation of FAISM is based on regional social development. The state distribution of FAISM *per capita* for both 2005 and 2010 is correlated with the multidimensional "Social Gap Index" of CONEVAL. This index includes indicators for education, access to healthcare, basic infrastructure services, housing quality and spaces, and home assets. For instance, we can observe that the three states with the most adverse conditions in the index,

labeled as "very high" (Oaxaca, Chiapas and Guerrero), also received the highest *per capita* allocations, whereas states at the bottom of the table (labeled as "very low") are wealthier and received less.

In sum, the main problem to achieve social development and poverty reduction is not the lack of resources but the way resources are used. In this sense, the conditional transfer system provides an explanation why municipalities in Mexico are not encouraged to leave their marginalized statuses. Before offering an empirical analysis to explain the reach of conditional transfers, it is important to address priorities of the social policy, mainly those regarding infrastructure services.

Chapter 3: The Challenges of Social Development Policy in Mexico

According the National Development Plan 2007-2012 (PND), the regional poverty distribution highlighted immense gaps in 2006. The entity with the highest incidence of "food poverty"⁷ was Chiapas, where 47% of the population was reported to live in this condition, followed by Guerrero with 42%, Oaxaca with 38%, Tabasco with 29% and Veracruz with 28%. By contrast, states with lower incidence of food poverty were Baja California with 1.3%, Nuevo Leon with 3.6%, Baja California Sur with 4.7%, Federal District with 5.4% and Coahuila and Chihuahua with 8.6% (these figures corresponds to the ones shown in Table 2). Given this situation, the government identified poverty alleviation as the biggest challenge of social development policy. To tackle poverty effectively, it is necessary to strengthen public policies that increase access to basic services as well as to coordinate the economic and social policies to increase income and employment of the general population (PND 2007, 149-150).

As emphasized in the Human Development Index Mexico (IDH or HDI), an essential element of (human) development is equal opportunities. State intervention and promotion of equal chances is crucial (2011, 15). This naturally leads to the principles of vertical equity (treating differently to different) and horizontal equity (treated the same way the same). These ideas can be extended to public expenditure, access to goods and services and transfer delivery. A notable difference in the treatment of vertical and horizontal equity in a human development approach is that the reference variable to consider that individuals are the same or different must transcend the income received, as it seeks to identify the capabilities of people or deprivation of the same, and not just access to resources (*idem*, 47-49). In this sense, it is necessary to identify to what extent

⁷Defined by PND as: population that has an insufficient *per capita* income to purchase adequate food to mantain health (2007, 145).

institutional design of public spending has privileged efficiency to pursuit the purpose of equality. In Mexico, social development challenges are clearly identified: government actions have been taken to deal with the challenges, resources have been allocated to those most in need, and social policy issues have widened after more than 20 years of the process. The federal government has a huge responsibility in this regard since it is in charge of the distribution of the resources. However, it is important to understand the dynamic between the federal and the municipal level.

3.1 Disparities and Public Expenditure of Municipalities in Mexico

The municipality is the body of government that is closer to the citizens and is in a better position to respond to the priorities and preferences of its citizens in terms of allocation of public spending. One of the main effects of the process of decentralization in Mexico has been the empowerment of the local tier in terms of budget. The main sources of municipal revenues are own revenues, federal transfers and state transfers. Varying amongentities, states transfers could reach a range around 2% to 8% of total income of the municipalities. In contrast, federal transfers are resources that the federation budget gives annually to municipalities. These transfers may represent up to 70% to 80% of total income. Own resources collected by municipalities are captured directly within their territorial scope and not subject to coordination schemes with the state or federal government. Consequently, it is income accruing to the fiscal or tax collection efforts made by the municipalities (Aregional 2009, 214).

In Mexico, there are more than 2440 municipalities in 31 states, characterized by enormous disparities. The uneven development can be explained as follows: municipalities with low

population densities generally have economies dependent mainly on primary economic sectors, tax bases are small and collection efficiency is low. On the other hand, local governments with greater human resources perform better in public administration as well as developing tourist centers and consequently have a higher tax collection performance.

The northern and northwestern municipalities are in more favorable positions, as well as some in Jalisco and Mexico State. At the other end are municipalities in the south and southeast, where own revenues are relatively low on average, mainly because of the presence of small rural towns, most of which have small tax bases and are politically unstable. Lack of own budget flexibility limits the potential due to the fact that own actions to promote development cannot be undertaken.

3.2 Infrastructure Spending

Capital expenditure is an item of great importance for municipal governments because the adequate provision of public services (such as electricity, water, drainage) and basic infrastructure (such as paved streets, markets, water, schools, hospitals) are key factors for regional competitiveness and for better standards of living of the population. It is also necessary for local governments to invest in cities to meet the needs created by urban growth tendencies.

According to IMCO (2010, 82), a basic list of infrastructure services covers three main sectors: energy, potable and waste water and transport and communications. Furthermore, the public policies analysis center, *Mexico Evalúa*(2012, 5), argues that there is evidence of the effects of

public infrastructure on the expansion of productive capacity as well as on the reduction of regional gaps and poverty alleviation.

Municipalities in Mexico spend approximately 60% of their total budget to cover administrative functions, salaries, etc. and less than 30% goes to capital expenditure (Aregional 2009, 227). The challenge is to coordinate all three levels of government across a long-term commitment so projects that start at some period of time receive enough resources to achieve social impacts. In Mexico, these efforts have been uneven across regions. While some localities cover infrastructure services nearly up to 100%, other regions fail to reach even 20% of the population. Moreover, infrastructure projects are one of the most vulnerable budget allocations since they can easily suffer from budget cuts when externalities or economic crisis affect incomes.

World Bank's Mexico Infrastructure Public Expenditure Report (2005, 15) states that infrastructure services are not achieving the expected outcomes not because of the lack of resources at their disposal but the way the resources are used. "Mexico has made steady progress in increasing the coverage of electricity, water, sanitation, and roads in recent decades, reaching one of the highest levels in Latin America. While gaps remain, particularly in rural areas and among indigenous communities, the main infrastructure challenge is not coverage, but insufficient service quality and poor operating efficiency". It is worth to note that infrastructure investment does not just aim to increase public services coverage. For infrastructure services can make to development is necessary that these are characterized to be efficient and good quality.

Chapter 4: The Social Impact of FAISM Resources in the Decentralized Process

To date, some analyses of FAISM have tried to identify the relationship between resources allocation and social outcomes. However, due to data limitations, it has been difficult to assess municipal performance in the decentralization process. For this reason, in this chapter I will present a quantitative analysis based on data gathered from the most updated indicators on the topic. Findings will reveal the extent to which conditional transfers have succeeded in benefiting those who are more in need as a result of an efficient public spending.

4.1 Fiscal Transfers and Social Impact: Theoretical and Empirical Findings from the Literature

Before presenting my empirical study of the social impact of FAISM resources, it is important to discuss some efforts that have been carried out on the evolution of conditional transfers to understand the current main problems decentralization of public spending is facing in Mexico.

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As it was already mentioned in chapter 2, decentralization of financial resources was pushed forward under discretional objectives to allow governments to influence spending decisions in accordance with their preferences. In the late 1990s and early 2000s, some scholars provided evidence of strong bias of the resource distribution on favor of PRI to undermine the opposition during electoral processes (Molinar and Weldon 1994, Díaz Cayeros 2004 and Perez Yarahuan 2005). In this sense, attention has focused on FAISM due to the fact that it makes it possible to

assess administrative capacity at municipal level; and municipalities are the closest entity to the citizenship (CIDAC 2010). Hernández-Trillo and Jarillo- Rabling provide quantitative empirical evidence of the political manipulation FAISM transfers have suffered. They argue that municipalities with a large population, with an accordingly higher number of voters, receive more fiscal resources. Their assumption is that earmarked transfers are designed based on discretional purposes, so FAISM could also be seen as pork-barrel spending (2007, 1552,1553). Given that FAISM was created to reduce political manipulation of resources derived from its predecessor *Pronasol*, these results reveal that fiscal federalism in Mexico lacks consolidation yet. In this line, Pérez Yarahuán found signs of political party bias in the distribution of infrastructure resources from conditional transfers at municipal level. In spite of the discretionary criteria of these funds, it appears that the FAISM formula accomplishes its purpose, meaning the money is reaching its target (2005).Hernández Trillo and Jarillo Rabling (2007, 1548)argue that:

"We argue that the SIF has been used for political purposes. This can be accomplished because of the natural monitoring problem coming from the Mexican Constitution in that the Federal government cannot channel resources directly to municipalities, but only through state governments. This encourages opportunistic behavior by state political elites, thus reducing the effectiveness of the fund".

Given that Mexico is still young in its democratization and decentralization process, it is remarkable that control, transparency and accountability mechanisms as well as evaluations of these funds have mitigated, to some extent, the effects of political opportunistic behavior of FAISM, particularly as a consequence of institutional arrangements of PAN administration (Perez Yarahuan 2010, 25). However, social outcomes remain insufficient. The heterogeneity of the level of development is one of the most important variables to consider when making a social impact assessment of resources. The distribution policy of municipal revenue resources to reach beneficiaries varies from poor to wealthy localities. Henceforth, on top of the amount of funds, allocation of resources might be distributed differently among municipalities as well. Escobar

(2007) identifies that poor municipalities, in contrast to developed ones, lack efficiency as a result of several factors: first, due to the incentive structure of allocation of transfers funds. Poor municipalities could conveniently invest resources in bad quality services without reducing the level of marginalization, and consequently keep receiving funds from conditional transfers. Second, these municipalities lack professionals to efficiently administrate resources for investments in priority areas. Third, mayors and upper levels of government lack coordination and communication capacities due to mayors' various amounts of tasks.

In this regard, Díaz-Cayeros and Silva Castañeda (2004, 23) analyze the total amount of fiscal transfers – conditional and unconditional – *per capita* and its relationship with level of development (according to CONAPO) of each entity. They identify that the more developed the municipality, the more transfers it receives. This means that municipalities with low levels of marginalization receive a large amount of money since it comes from two sources: FAISM budget and resources from high tax collection capacity allocated through unconditional transfers. Therefore, the redistributional purpose of devolved spending is not achieved. According to the Human Development Index for Mexico, conditional transfers (Branch 33) reduce while unconditional transfers (Branch 28) contribute to total income inequality (69, 2011). For this reason, resources of Branch 33 funds have to counteract the gap caused by Branch 28. In order to contribute to the equalizing purpose of spending decentralization policy, Díaz-Cayeros and Silva Castañeda propose to modify the formula of FAISM to limit the flow of resources to those municipalities that already reached high levels of development.

Overall then, the flow of Branch 33 funds (FAISM in particular) drifted away from its original purpose: equal opportunities for all Mexicans. It seems that during this process, the main objective has been perverted. In case of FAISM, municipalities could use the fund as a tool to

receive resources from the federation and promote own interests. Although resources are not necessarily channeled to achieve electoral objectives - measures have been taken to avoid it - it seems that the money fails to attain the expected social outcome. To provide an explanation of this puzzle the next part will address a quantitative analysis.

4.2 Empirical Analysis of FAISM Resources and their Social Impact in the Decentralized Process

This section presents empirical analysis on decentralized infrastructure spending. It aims to provide evidence on the extent municipalities have increased or decreased their level of development through the use of resources transferred from the federal government to municipal infrastructure services. For this purpose, this analysis will cover three years: 2000, 2005 and 2010⁸. The goal is to find patterns of municipal spending behavior. Consequently, the overall aim is to identify whether the design of the Municipal Infrastructure Fund encourages improving social welfare.

4.2.1 Data and Methodology

Before describing the process of the analysis, it is important to mention the added value of the data. As it was mentioned already, there are more than 2440 municipalities in Mexico, some fail to provide reliable information about either finances or achievements. Even though Branch 33 is a common target of studies and evaluations, the complexity of municipal data makes FAISM one

⁸I decided to take this time frame because the Mexican government changed after 70 years of PRI party rule in 2000. The new century therefore marked a new stage of doing politics encouraged by the need of transparency and accountability.

of the less attractive funds to analyze. In this regard, it is also important to note that the government (at all levels) has strengthened its efforts to provide more formal and reliable municipal information to ensure more accurate analysis of municipalities' performance. Hence, one of the main contributions of this research is to work with infrastructure services data. These values directly relate to municipalities' responsibilities. This has been possible due to the CONEVAL "Social Gap Index" (2010). The index contains health, education and household basic services at both state and municipal level.

The data set is made up of one variable regarding resources allocated to FAISM *per capita*, provided by CIDAC – and four variables concerning social performance, obtained from CONEVAL. For the social variables, this analysis uses four infrastructure service variables, defined as the amount of households without (in percentage) sanitation, potable water, drainage and electricity. These variables allow the reduction of externalities since resources allocated to FAISM aim to directly cover those kind of services.

First, I derived my variables Sanitation, Potable water, Drainage and Electrification for 2456⁹ Mexican municipalities for the years 2000, 2005 and 2010 out of the "Social Gap Index" data set obtained from CONEVAL website (2010).

Second, I derived the variable FAISM for 2456 Mexican municipalities for the years 1999, 2004 and 2009 of the data set provided by CIDAC. The data for FAISM is labeled as 2000, 2005 and 2010 since I expect it to have a lagged influence after one year.

Third, the absolute FAISM variable has to be normalized to achieve comparability. To do so, my new variable FAISMPC ("FAISM *per capita*") is defined as FAISM divided by population size of the respective 2456 municipalities for the years 2000, 2005 and 2010. I use the variable Size from the data set "Social Gap Index".

⁹Number of municipalities in Mexico varies frequently.

Fourth, the first look to the data revealed that some municipalities have received an inexplicable amount of resources (of more than 3000 pesos *per capita*) for some years. These observations were deleted from the data set. In addition, some other municipalities that lacked complete information for each variable were also removed.

Fifth, the data sets were matched. Only municipalities with continuous values for FAISM *per capita*, Sanitation, Potable water, Drainage and Electrification were chosen for the final data set. Overall, the final number of municipalities amounts to 2349 (that is 7047 observations).

Finally, I opted for dividing the final data set into three categories, namely highly developed (assigned as "3"), medium developed (assigned as "2") and lowly developed (assigned as "1") municipalities, to be able to gain insight into different peer groups. I consider municipalities as highly developed if the underdevelopment score – derived as the average of Sanitation, Potable water, Drainage and Electrification for the base year 2000 – is lower than 33%. 1490 municipalities (4470 observations) fall into this category. Medium developed is defined as underdevelopment scores between 33% and 66% (833 municipalities, 2499 observations), lowly developed as higher than 66% (26 municipalities, 78 observations).

4.2.2 Analysis and Results

My analysis is mainly exploratory and descriptive for two reasons: first, the analysis covers regions, not peoples' responses. Its purpose is not to find a formula of municipalities behavior but rather to identify patterns in their performance over time. Second, the data is not a sample of the population but the population itself. Moreover, the data is characterized by endogeneity, which poses an important limitation in running an econometric analysis.

The analysis will follow three main stages: the first is a description of the level of coverage of each service in relation to the amount of resources assigned through FAISM. This exercise aims to identify to what extent budget increases are proportional to increases in services provision. The second part of the analysis briefly illustrates resource allocation in accordance to level of infrastructure development. Last, evidence of municipalities' performance is presented through identifying changes in both services and FAISM resources for two different time frames: 2000 to 2005 and 2005 to 2010.

The descriptive statistics reveal that, as was noted in the theoretical framework, Mexico suffers from huge regional disparities. While some municipalities cover barely 100% of the population, others do not even reach 10% of their inhabitants. It seems that drainage and sanitation are the services that have improved in coverage the most, e.g. with the mean of sanitation advancing by 34% between 2000 and 2010. With the exception of electricity, all variables are normally distributed with skewness close to zero and kurtosis approximately around three.

	Table 5. Samation = percentage of nouseholds without tollet								
	Number of observations	Mean	Standard deviation	Min.	Max.	Skewness	Kurtosis		
2000	2349	23.98	16.44	1.47	87.19	1.09	3.68		
2005	2349	14.14	12.73	.32	84.65	2.08	8.20		
2010	2349	8.89	9.39	.3	69.92	2.51	10.87		

Table 3. Sanitation = percentage of households without toilet¹⁰

 Table 4. Potable water = percentage of households without water piped from a public supply

	Number of observations	Mean	Standard deviation	Min.	Max.	Skewness	Kurtosis
2000	2349	27.31	22.08	.48	100	1.12	3.54
2005	2345	20.85	20.59	.08	99.55	1.38	4.31
2010	2348	20.24	19.95	.1	98.98	1.42	4.50

Table 5 Drainage =	nercentage o	f hausehalds	without	drainage
Table 5. Dramage –	percentage 0	i nouschoius	without	uramage

	Number of observations	Mean	Standard deviation	Min.	Max.	Skewness	Kurtosis
2000	2349	49.59	29.11	.62	100	.127	1.73
2005	2349	31.47	27.00	.05	100	.90	2.73
2010	2349	24.85	24.20	.03	99.62	1.25	3.79

¹⁰This means that if the number increases, the service provision decreases.

	Number of observations	Mean	Standard deviation	Min.	Max.	Skewness	Kurtosis
2000	2349	11.01	12.50	.3	98.83	2.50	10.73
2005	2349	7.63	7.85	.31	71.65	3.45	19.28
2010	2349	4.54	6.18	.02	68.69	4.51	32.51

Table 6. Electricity = percentage of households without electricity

Regarding FAISM *per capita*, the budget was enlarged on average by 211 pesos from 2000 to 2005 and another additional 254 pesos from 2005 to 2010, tantamount to a relative budget increase of 294% for the whole decade. Regarding the distribution of the data, it was expected to find more observations concentrated in the tail with a high level of FAISM *per capita* and fewer observations in the tail with low level of resources allocation due to development disparities already mentioned. However, it seems that the data is closer to a normal distribution (see Annex 1). This is also corroborated with skewness and kurtosis of the variable. A possible explanation is that the vast majority of municipalities are highly marginalized.

Table 7. FAISM per capita = budget allocated to the Municipal Infrastructure Fund, per capitaNumber of observationsMeanStandard deviationMin.Max.SkewnessKurtosis

	Number of observations	Mean	Standard deviation	Min.	Max.	Skewness	Kurtosis
2000	2349	239.49	130.49	11.62	940.32	.94	4.69
2005	2349	450.54	295.26	17.68	2058.69	1.09	4.93
2010	2349	704.68	458.17	19.22	2634.42	.86	3.59

Furthermore, I detected that the trends of Tables 3, 4, 5 and 6 coincides with the findings of figures 1, 2, 3 and 4. These graphs illustrate how municipalities have invested FAISM resources providing the service. The Y-axis indicates the lack of service provision, meaning the lower the number, the greater the coverage. On the X-axis, FAISM *per capita* is given in Mexican pesos in 2010 prices.

Figure 3 reveals that drainage has followed the best spending pattern. It went from a plot concentration along the Y-axis (with an emphasis on the region of the graph that represents households without this service) in 2000 to a higher concentration in the lower region in 2010. This would mean that the amount of resources placed has been proportional to the increase of drainage coverage. This pattern is not that clear for potable water (see Figure 2). In this case, the plot region starts along the Y-axis and spreads out over the graph, meaning the efforts to increase potable water coverage have been irregular among municipalities. Despite the fact that electrification is characterized by high coverage, resources allocated to increase its provision have had a satisfactory result (see Figure 4); the plot concentrates around 40% in 2000 to less than 20% one decade later. Regarding sanitation (see Figure 1) the pattern is similar to electrification. Between 2000 and 2010, the plot region has seen a slump as well, underlining the pattern that higher spending actually widened service provision.

In spite of the fact that resources were spent on service delivery, the puzzle is still unsolved since there is evidence of lack of development and immense disparities between municipalities. For this reason, I grouped municipalities according to their level of development in terms of infrastructure coverage as high, medium and low. Figure 5, 6 and 7 support the argument that coverage increases proportionally to budget boosts. It is worth to notice that medium and lowly developed municipalities showed a better performance than the highly developed ones.

So far, there is a justification of the use of resources. However, there is still no evidence of whether the municipalities that have received greater amounts of money have performed better. For this purpose, I analyze to what extent municipalities have increased or decreased services provision in regards of the budget changes. This exercise was designed to identify changes mentioned for two periods of time: from 2000 to 2005 and from 2005 to 2010. These

two time frames also represent two different governments in office (at both local and federal level). Figures 8, 9 and 10 plot changes in services coverage for all three municipality groups: the highly developed (municipalities with more than 66% of public services coverage, in average); the medium developed (municipalities with coverage between 34% and 66%); and the lowly developed (municipalities that cover public services up to 33% of the population). In this sense, interpretation of the graphs in Figures 8,9 and 10 follows the same logic as the previous ones: the lower the Y-axis values, the greater the change, meaning lack of service provision decreased. Regarding the X-axis, it shows the amount of money the municipality received as FAISM budget.

For the highly developed group (see Figures 8 and 8.1), the spending pattern indicates higher efficiency for the 2000 to 2005 frame than for the 2005 to 2010 period. In the first case, municipalities increased service coverage with a smaller budget than in the second period. Figure 8 illustrates how the plot concentration in the first five years covers the region between zero to -10 or even -15 and up to 200 pesos, meaning these particular municipalities improved service provision by 10 to 15% with a budget upgrade of less than 300 pesos. For 2005 to 2010 (Figure 8.1), the plot region is spread out between zero to -5 or -7 and up to 300 pesos. Thus, more money lacked results in outcomes. Figure 8 and 8.1 also illustrate that more municipalities decreased in services provision during 2005 to 2010 than during 2000-2005.

The medium developed municipalities (see Figures 9 and 9.1) show the same pattern. Since these localities face higher needs, more resources were transferred. Thus, the plots are concentrated between -5 to -20 and 50 to 500 pesos for 2000 to 2005 (Figure 9), while the plot region varies from zero to -10 and from 200 to 500 pesos for the 2005 to 2010 period (Figure 9.1). Hence, as a general assumption, FAISM budget channeled twice as many resources to medium developed than to the highly developed municipalities from 2000 to 2005. As a consequence, outcomes have risen in the same proportion. From 2005 to 2010, results were less favorable. Although budget increased considerably, coverage changes were smaller than in the first period. Similar to the pattern observed with highly developed municipalities, in this case some municipalities even present negative results.

For lowly developed municipalities, analysis is poor due to the fact that the peer group only consists of 26 municipalities. However, the few displayed observations indicate the same pattern as the medium and highly developed municipalities. This group supports the argument that FAISM budget is in fact allocated according to the redistributive principle since this is the group that increased their resources the most.

To sum up, the good news is that FAISM resources have been allocated according to the redistributive principle - at least in terms of development in infrastructure – this indicates that the budget has increased more for those municipalities with medium and low development. Experiences in the two time frames have however been mixed: while resources have resulted in improved coverage of sanitation, potable water, drainage and electricity for the first time period, higher spending has failed to achieve the same proportion of success in the five years that followed.

Overall, my analysis shows that a generalized and strong relationship between budget increase and infrastructure development improvement has been disproved. This implies that giving more resources to those municipalities in need has not necessarily resulted in greater outcomes. Even though resources increased in the second analyzed period, from 2005 to 2010, it is seen that during the first five years – 2000 to 2005- there was a wider coverage services. In this sense, I can state that: first, there is evidence that FAISM resources have been invested in more infrastructure; and second, increasing the budget has not resulted in larger services supply. These two statements lead to the conclusion that there is a loophole between resources invested and greater social welfare since it seems that the money allocated is not

necessarily related to the development of the municipality. Thus, FAISM has not been exercised in a very efficient way and therefore its contribution to the decentralization process is undermined. This conclusion leads to the issue of the design of conditional transfers. In the next chapter I will discuss possible explanations for my findings as well as recommendations for the course of decentralization in Mexico.



Figure 1. Households without sanitation& FAISM per capita

Figure 2. Households without potable water & FAISM per capita





Figure 3. Households without drainage & FAISM per capita

Figure 4. Households without electrification & FAISM per capita





Figure 6. Group 2: Medium level of development in terms of infrastructure





Figure 7. Group 3: High level of development in terms of infrastructure

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Figure 8. Highly developed municipalities (group 3)Changes 2000-2005Changes 2005-2010



Figure 9.1 Medium developed municipalities (group 2)

Figure 9. Medium developed municipalities (group 2) Changes 2000-2005

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Chapter 5: Redirecting the decentralization process for Mexico

This thesis analyzed and assessed the Mexican decentralization process performance as a social development promoter and consequently, in reducing the immense regional disparity that characterizes this country. Both theoretical and empirical research present evidence of a redistributive allocation of resources – states and municipalities attain resources in accordance with their social backwardness. In particular, the municipal infrastructure fund, product of a huge effort from the government to make resources more efficient and less political, showed having been distributed and spent to increase services coverage. However, it has been found that there is not a clear relationship between resource allocation and more infrastructure services. The main concern is that even though there is evidence that the money was wasted under the justification of reducing poverty and increasing the level of development within municipalities, these expenses fail to achieve this goal. Henceforth,FAISM contribution to the decentralization process should be rethoughtas a to boost its reach.

In order to redirect the flow of FAISM in the decentralization process it is essential to identify what discourages spending efficiency. A plausible explanation is that the design of FAISM created a perverse incentive for municipalities not to reduce their marginalization so as to keep receiving funds from the federal government.Moreover, it seems that service provision fails to offer enough quality to improve the well-being of the people in need.In this regard, the following recommendations will help to diminish this effect:

1. In line with the aforementioned evaluations of Branch 33 (Chapter 2), the formula to allocate resources to FAISM need to be adjusted so as to raise its redistributive character

and, as CONEVAL argues, includes variables related to basic household services in order to generate a direct impact (2011, 80). In addition, the correct application of this formula should be clear to public officials so they can apply it correctly.

2. Thelegal framework of Branch 33 needs toclarify transparency and accountability attributions and responsibilities for each level of government on every stage of the decentralization process. This measure will help avoid overlapping tasks or leaving discretional margins.

3. In order to foster response capacity of municipal governments, the number and scope of public evaluations should be increased. SED already does a good job. Nonetheless, evaluations might assess both coverage and quality of public services. For this purpose, more impact evaluations should be included as a SED requirement.

4. It is necessary for authorities at all three levels of government to commit and invest in long-term projectsregarding infrastructure spending for two main reasons:first, the length and budget of sole administrations is insufficient to develop ambitious infrastructure projects; and second, long-term projects reduce the odds to use resources for political purposes as well as diminish the perverse incentive created by FAISM since municipalities have to allocate resources on those public works that already started in previous administrations.

Finally, Branch 33 and FAISM budgets will continue to be a target for analysis inside and outside the boundaries of public institutions. The present research provides a useful tool for further analysis on the effects of social spending and basic infrastructure using variables

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directly related to the purpose for which resources were spent. However, qualitative fieldworkresearch will also be necessary in order to understand the institutional, cultural and political aspects of the decision-making process within municipalities. Additionally, an analysis of the way services are delivered in order to find the reasons why infrastructure resources are not achieving their goal of poverty alleviation would be important.

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Annex



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