

Forum Series on the Role of Institutions in Promoting Economic Growth

**The Performance and Stability of Federalism, Mexican Style:
An Institutionalist Perspective**

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The Performance and Stability of Federalism, Mexican Style: An Institutionalist Perspective

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Executive Summary

The purpose of this paper is to explain the structure, stability, and performance of federalism, Mexican style. The principal features of federalism include: First, the state was dominated for 70 years by the hegemonic Revolutionary Party (PRI) that maintained monopoly control of all levels of government. Second, Mexico became a highly centralized state. Third, markets were heavily controlled by the central government. Fourth, this system has recently begun to breakdown, first with economic liberalization; and second with the PRI losing its monopoly hold on power.

To explain these features of Mexican federalism, I draw on recent developments in positive political theory and the new institutionalism. Explaining the above features of Mexican federalism requires understanding the incentives of the hegemonic PRI. The PRI's dominance of Mexico cannot be taken as given. Multi-decade dominance is rare and reflects the maintenance of political cartel. Like economic cartels, political ones are difficult to maintain.

The principal tool for understanding the PRI's success is the *hegemonic punishment game*. PRI officials, by virtue of controlling the government, can decide which localities and interest groups to reward and punish. The model shows that, if the difference between reward and punishment is sufficiently large, opposition-leaning voters and interest groups are induced to support the PRI.

This system is at once tragic and brilliant: brilliant in that it forces citizens to take an active role in maintaining a regime they do not like; and tragic in that it reduces the

¹ Senior Fellow, Hoover Institution; and Ward C. Krebs Family Professor, Department of Political Science, Stanford University. The author thanks Alberto Diaz-Cayeros, Rui de Figueiredo, Stephen Haber, Robert Inman, Beatriz Magaloni, Yingyi Qian, Sunita Parikh, for helpful conversations. This paper reports on my work with several coauthors: Careaga and Weingast (2003), Diaz, Magaloni, and Weingast (2003), and Parikh and Weingast (2003).

responsiveness of the government to citizen wishes, forcing them to accept a corrupt, authoritarian regime.

The PRI's need to maintain the cartel explains how it structured both state and economy. The model's critical assumption is that the difference between reward and punishment be sufficiently large. The need to create this large difference explains how the PRI designed the both the state and its relationship to the economy.

- First, consider federalism. Centralized federalism, including policy and budgetary authority, implies central control over the dispersion of both budgets and policy benefits. States and localities that fail to support the PRI are punished by withholding budgets and desired policies.
- Second, consider the economy. Massive market intervention creates control, privilege, and dependence. Here too the political value of intervention is that it creates policy benefits to be lost if firms and interest groups fail to support the PRI.
- Finally, consider politicians. Maintaining the political cartel requires that political officials stay within the PRI umbrella rather than defecting and contesting power through competition. Centralized federalism denies politicians a major route for political independence – using the independent subnational offices to build a constituency base independent of the PRI.

In short, the structure of the state and economy in Mexico served the ends of the hegemonic PRI, helping to maintain itself in power.

Massive economic intervention nonetheless came at a cost – crippling the economy so that Mexico experienced little growth in per capita income between 1980 and 2000. The hegemonic system was designed to create political dependence, not to provide market-enhancing public goods.

The PRI's hegemonic system broke down over the last two decades. Defection began from “below,” that is, at the local level. Economic liberalization provided many localities with a new option – integration with the United States's economy. At the same time, increasingly binding fiscal constraints limited the ability of the PRI to maintain the punishment regime, which massively failed in the late 1990s.

Finally, I summarize a range of empirical evidence in support of this approach. First, I provide evidence of the PRI's punishment regime: localities that defect from the PRI are punished. Second, this work also demonstrates that the internationally oriented localities are most likely to defect from the PRI. Third, I summarize evidence about the inefficiencies of Mexico's revenue sharing system.

**The Performance and Stability of Federalism, Mexican Style:
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Introduction

The purpose of this paper is to explain the structure, stability, and performance of federalism, Mexican style. The principal features of federalism in Mexico to be explained include the following. First, the state was dominated for 70 years by the hegemonic Revolutionary Party (PRI) that maintained monopoly control of all levels of government until the late 1990s. Second, although nominally a federal system, Mexico became a highly centralized state over the course of the second half of the twentieth century. Third, at the same time, markets in Mexico were heavily controlled by the central government. Fourth, this system has recently begun to breakdown, first with economic liberalization and the opening up of trade occurring from the 1980s and 1990s; and second with the PRI losing its monopoly hold on power, first in the municipalities, then in some states, and then dramatically in the late 1990s and 2000 at the national level.

To explain these features of Mexican federalism, I draw on recent developments in positive political theory and the new institutionalism.² For the purposes of this paper, I focus on the role of political parties in their role of organizing political officials responsible for governmental decisions. Central to the analysis is the relationship between the incentives faced by parties and their decisions along two dimensions: first, how to design the structure of the state, and second, what types of policies to pursue with respect to the economy.

²I review this approach and its implications for federalism in (Weingast 2003).

Explaining how decisions about these two dimensions have been made in Mexico requires understanding the incentives of the hegemonic PRI. As noted, the PRI dominated Mexican politics from 1930 to 2000, allowing it to structure both the state and the economy. I argue in this paper that it did so to serve its own purposes of maintaining its hold on power.

The PRI's hegemonic dominance of Mexico cannot be taken as given, but is a constructed feature of Mexican politics. Multi-decade monopoly dominance of a state across multiple successions of leaders is rare among major states. Other examples include the Congress Party's dominance of Indian politics from the late 1940s through 1989; and the Liberal Democratic Party's dominance of post-WWII Japan. This type of political dominance reflects the successful maintenance of political cartel. Like economic cartels, political ones are difficult to maintain.

The principal tool for understanding the PRI's is the hegemonic punishment game developed by Diaz, Magaloni, and Weingast (2003). The punishment game considers the decision of an opposition-leaning pivotal voter in a given locality about whether to support the PRI or the opposition (the decisions of voters who prefer the PRI to the opposition are easy to understand). Once the voter chooses, PRI officials in their role as governmental officials at higher levels then decide about whether to reward or punish the locality through its decisions about budgets and policy benefits. The model shows that, if the difference between reward and punishment is sufficiently large, opposition-leaning voters are induced to support the PRI.

Once this system was established as a means of ending the social and political disorder following the revolution, it was stable. Although voters across the country might prefer the opposition, acting alone, they cannot change the system; all they can do is decide whether they will be rewarded or punished. Once the system is established, voters across an entire country come to believe that voters in other localities will behave this way, so they too have an incentive to go along.

This system has a "tragic brilliance" quality: brilliant in that it forces citizens to take an active role in maintaining a regime they do not like; and tragic in that it reduces the responsiveness of the government to citizen wishes, forcing them to accept (in the case of Mexico) a corrupt authoritarian regime (Diaz, Magaloni, and Weingast 2003).

I demonstrate below that the PRI's need to maintain the cartel explain how it structured both state and economy in Mexico. The critical assumption in the above logic is that the difference between reward and punishment be sufficiently large as to induce citizens to support the PRI despite their predilections to support the opposition. This logic – the need to create sufficient dependence among voters, interest groups, and politicians – explains how the PRI designed the both the state and its relationship to the economy.

First, consider federalism. Centralized federalism, including policy and budgetary authority held by the central government, implies central control over the dispersion of both budgets and policy benefits. States and localities that fail to support the PRI are punished by withholding budgets and desired policies. This contrasts with meaningful federalism in which states and localities command substantial resources of their own: under these circumstances, even if the central government punished a state for supporting the opposition, that state would have its own resources with which to meet local needs. Centralized federalism, in contrast, denies states and localities this option, and thus ties voters to the PRI.

Second, consider the economy. Massive market intervention creates control, privilege, and dependence. Here too the political value of intervention is that it creates policy benefits to be lost if agents fail to support the PRI. This helps tie interest groups to the PRI, for defection to support the opposition risked losing policy benefits that, in a controlled economy, often mean the difference between handsome profits and failing.

Finally, consider politicians. Maintaining the political cartel requires that political officials stay within the PRI umbrella rather than defecting and contesting power through competition. I have already suggested that centralized federalism denies politicians a major route for political independence – using the independent subnational offices to build a constituency base independent of the PRI. Here the rules prohibiting all officials from being reelected are critical.

In short, the structure of the state and economy in Mexico served the ends of the hegemonic PRI, helping to maintain itself in power. Centralized control of the state and economy allowed the PRI to maintain the support of most elements of society: citizens qua voters forced to support the regime at the polls; interest groups forced to maintain

allegiance to the party rather than the opposition; and politicians forced to remain within the cartel umbrella rather than defecting to create real political competition.

Massive economic intervention nonetheless came at a cost – crippling the economy so that Mexico has experience little growth in per capita income between 1980 and the present. The hegemonic system was designed to create political dependence, not to provide market-enhancing public goods. I summarize two recent models showing the inefficiencies involved in massive revenue sharing systems in which subnational governments receive the lion’s share of their budgets from the central government.³

This broke down in the 1990s. The punishment game is a tipping model, meaning that, if citizens in many localities come to believe that voters in many other locations will no longer support the PRI, they too have an incentive to defect. Many changes in the late twentieth century pushed Mexico toward tipping. First, fiscal distress forced the PRI to liberalize the economy – reducing both trade barriers and internal economic controls. This lessening of control combined with dramatic fiscal constraints to reduce greatly the resources commanded by the central government. Also, as I demonstrate below, following liberalization many localities began defecting unilaterally in order to participate in economic integration with the United States (Diaz, Magaloni and Weingast 2003). These changes, in turn, this caused the punishment regime to fail.

More specifically, I draw on the theory and empirical results of Diaz, Magaloni, and Weingast (2003) to show how defection from the PRI system began from “below,” that is at localities first. Liberalization provided many localities with a new option – integration with the global economy, particularly that of the United States. For many locations, this involved exports of goods and services; for others it involved labor migration combined with capital remittances. In both cases, market integration gave the local economy an alternative to the PRI system by helping to generate local public resources independent of the center. Moreover, for localities exporting goods and services, the opportunity costs of the corrupt PRI system, with limited attention to market-enhancing public goods necessary for integrating the economy, rose, allowing these regions to defect despite the PRI’s punishment.

³These inefficiencies are of two sorts: Inman (1988) and Inman and Rubinfeld (1997) on the inefficiencies generated by the national government; and Careaga and Weingast (2003) on the additional inefficiencies generated at the local level.

I summarize a range of empirical evidence in support of this approach to the political economy of Mexico. First, I draw on Diaz, Magaloni, and Weingast's (2003) evidence in support of the PRI's punishment regime: localities that defect from the PRI are punished. This work also demonstrates that the internationally oriented localities – both in terms of exports and of labor migration – were the most likely to defect from the PRI in the late 1990s. Second, I draw on Inman (1998) and Careaga and Weingast (2003) to show the inefficiencies involved in Mexico's revenue sharing system.

This paper proceeds as follows. Section 2 summarizes the normative idea of market-preserving federalism, which incorporates the traditional fiscal federalism framework in economics. Section 3 develops the framework for understanding the incentives of parties, including the hegemonic punishment game. Section 4 derives the implications of this approach for the structure of federalism and the economy. Section 5 begins the application of the approach to Mexico, showing the implications of the hegemonic punishment model. Section 6 analyzes the Mexican fiscal system, especially the creation of the revenue sharing system. Section 7 raises the issue of democratization, the defection from the PRI system, and the demise of PRI's dominance. My conclusions follow.

2. Market-Preserving Federalism: The Normative Ideal

I draw on the ideas of fiscal federalism and market-preserving federalism as our normative ideal form of federal system. This approach at once provides a normative ideal and a framework for understanding the dimensions along which federal systems differ and why they have political and economic performance differs.

The economics of fiscal federalism

The economic theory divides into two types of analyses, which I call here the classical and the modern. The classic economic contributions to federalism rest on the work of Hayek, Tiebout, and Musgrave and are strongly normative in character based on the assumption of a benevolent government. The modern work extends this tradition to include the study of various incentives problems among the many subnational governments created by federalism itself.

The economic classics of federalism. The classic economics of federalism revolves around Hayek's (1939) emphasis on the role of differential information across levels of government; Tiebout's (1956) emphasis on inter jurisdictional competition, and Musgrave's (1959) notions of the assignment of policy and tax authority across jurisdictions. Oates (1972) codified this work into a relatively coherent approach. These are straightforward but powerful ideas. As these works are the most well-known and as many good surveys exist, I will summarize them briefly.⁴

Hayek emphasized the importance of differential information. Subnational governments and their citizens typically have better information than the national government about local conditions and preferences. Thus, with respect to local public goods, local decisionmakers are likely to make more informed and thus better decisions that matching local policy to local conditions than will national policymakers. Moreover, national governments have a tendency to promulgate "one-size-fits-all" policies that are insufficiently variable to adapt to differing local conditions.

Tiebout (1956) emphasized the critical importance of interjurisdictional competition, that has at least three separate components. In the presence of labor and capital mobility, this competition leads to matching policies to citizens and communities; to citizens and capital owners sorting across jurisdictions to reside in those with policies most favorable to their needs and circumstances; and to provide incentives for city managers, who must anticipate the effects of their decisions for citizens and firm location decisions. Interjurisdictional competition combines with the mobility of citizens and capital to imply that policies at variance with the population or firms means that citizens and capital leave for more hospitable locations, lowering the tax base. City managers, ever worried about their city's tax base, are thus led to provide policies hospitable to those located in their jurisdiction. This last point implies that incentives of governmental officials is endogenous to the structure of federalism, a topic discussed at greater length below.⁵

The third idea derives from Musgrave (1959), who studied the assignment problem, which asks how should authority over public goods, policy, and taxes be assigned to the

⁴For surveys of federalism, see: Inman and Rubinfeld (1997), Nechyba and Mckinnon (1997), Oates (1972, 2001), and Rubinfeld (1987).

⁵Economists provide lot's of evidence for these propositions. United States is a very mobile population, and the evidence suggests that the provision of local public services is important in these moves (see e.g., Oates 1969, Gramlich and Rubinfeld 1982, Nechyba and Strauss 1997).

different levels of government to maximize citizen welfare? Musgrave observed that public goods differed along several dimensions, including the degree to which they exhibit economies of scale and congestion as the number of people consuming the public good grows. Some public goods, like national defense, a common market, and a stable currency, are truly national in scope in the sense that there are large economies of scale and little congestion. Other public goods, such as parks, schools, sanitation, are more local in scope.

The assignment principle holds that authority over public goods should be assigned to that level of government that can most efficiently produce it. Thus, the national government should provide public goods which exhibit little congestion, such as national defense, while local governments should provide public goods that are more local in scope, such as parks, schools, and sanitation facilities, particularly as jurisdictions can adjust their provision of these goods to suit citizen tastes.

As Oates (1972) emphasized, these ideas combine to provide a powerful normative argument in favor of federalism: federalism enhances citizen welfare through the appropriate assignment of functions across levels of government; through matching and sorting individuals and firms across jurisdictions that provide polices and public goods best suited for their firms and citizenry; and through the appropriate use of information.

Modern economics of federalism. The classic economic approach to federalism is relatively pro-decentralization. Modern economic research on federalism has tempered the felicitous conclusions of the classic economic contributions, in part by studying various incentive problems created by virtue that subnational governments face various forms of free-riding and common pool problems.

For our purposes, the most serious common pool problem concerns whether subnational governments face a hard or soft budget constraint (Dillinger and Webb 1999, Inman 2003, McKinnon 1997, Rodden 2000, Rodden, Eskeland, and Litvack 2001, Roland and Qian 1999, Sanguinetti 1994, Wildasin 1997). A hard budget constraint requires that subnational governments bear the full financial consequences of their decisions: they cannot be bailed out or receive endless loans from the central banking system. A subnational government facing a hard budget constraint cannot spend beyond its means without risking bankruptcy. A soft budget constraint allows an subnational

government to spend beyond its means. Although a soft budget constraint creates budget deficits, these are financed either through central government bailouts or by access to forgivable loans from a central bank. Because subnational governments do not bear the full financial consequences of their fiscal decisions under a soft budget constraint, their spending is more profligate. This process is sadly illustrated by the explosive state deficits and consequent national macroeconomic imbalances in late 1990s Brazil and late 1980s Argentina.

Market-preserving federalism

Market-preserving federalism provides a framework that makes explicit a set of political assumptions implicit in the type of ideal federalism studied by the classical era economists.⁶ Specifically, the classic economic approach requires the following conditions about the political structure of federalism:

- (A1): A Hierarchy of governments, each with their own sphere's of policy autonomy;
- (A2): that subnational governments have substantial regulatory controls over their economies;
- (A3) that a common market exists, including the federal government's ability to prevent subnational governments from raising internal trade barriers;
- (A4) that subnational governments face a HBC;
- (A5) that a set of institutions protect the federal arrangement from encroachment by political officials at the various levels of government.

Each of these conditions is implicit in the classical economic studies noted above. Moreover, making these assumptions explicit emphasizes that the economic approach also contains a comparative theory of federalism. Consider: condition A1 is a defining condition of federalism which all federations satisfy. Federal systems delegate very different types of powers to their subnational governments. Condition A2 emphasizes

⁶Weingast (1995), Montinola, Qian, and Weingast (1995), Qian and Weingast (1997), and Parikh and Weingast (1997).

that, for federalism to have the effects noted by Musgrave, Oates, and Tiebout, subnational governments must have meaningful policy authority over local public goods and other regulatory policy that affects their local economies. The common market (A3) is also essential for interjurisdictional competition. When subnational governments can raise internal trade barriers, they can protect their firms from outside competition, extract rents from constituents and assetholders, and indulge in a higher degree of corruption. These barriers can also hinder the factor mobility necessary for matching and sorting of factors and local public goods emphasized in the Tiebout literature. Problems with the failure of the HBC (A4) are also well-known, as discussed above. When subnational governments do not bear the full financial consequences of their decisions, they are more likely to spend profligately, dispense rents, and engage in corruption. Finally, the failure of A5 compromises federalism. Thus, when the constitution allows the federal government to take over states (India) or fire state governors (Mexico), the federal government can use these tools to manipulate subnational governments and compromise their policy independence.

Market-preserving federalism also provides a framework for summarizing the performance of different federal systems, depending on their characteristics. All federations delegate some power and authority to subnational governments. The question is, what powers and authority? Does there exist the common market? Do states have meaningful fiscal and policy authority? Do states face an HBC? And Does the center have the power to undo federalism, take over states, or fire state officials? Federal systems differ depending on how they answer these questions.

The fundamental political and self-enforcing question of federalism concerns the question of what determines which box into which a federation falls? The answer is in part self-enforcing federalism.

3. Parties and Self-Enforcing Federalism

This section develops an approach to studying parties and their effect on federalism. A common one sentence definition of economics is the allocation of scarce resources among competing ends. In most countries, the central government is the agent that makes the biggest decisions about resource allocation. The question is, why do those in power make the decisions they do?

To address this issue, I focus on political parties and assume that parties seek to maximize the probability they capture power and, having attained it, to use power to maintain their position. This implies that a party in power uses their control over the structure of the state and over public policymaking as tools to serve their own private, partisan interests.

Inevitably, rent-seeking and service to interest groups is a part of this process. But whether rent-seeking comprises all of public policymaking decisions depends in part on the incentives facing politicians and the expectations of voters. That some countries create market economies implies that politics cannot be solely about rent-seeking and market intervention to serve political ends.

Political Institutions deeply affect the type of incentives politicians face, so a country's constitution – the structure and process that determines who public policy decisions are made – matters.⁷ Some political institutions, such market-preserving federalism, help provide political officials with incentives to attend to public goods.

In economics, firms and consumers are motivated to further their own interests. As economists have argued since Adam Smith, there are institutional settings under which this motivation for private gain nonetheless provides for the public interest. The behavior of firms, for example, depends on whether they face competitive markets or are protected from competition.

The same logic holds for political decisionmaking. Parties, politicians, voters, and interest groups are motivated to further their own interests. Here too, the institutions facing political officials affect their incentives and hence their behavior. In contrast to

⁷By this definition, all countries have a constitution, even if it possesses no official, written document called a constitution. In some personal dictatorships, the constitution may simply be, the rules are whatever the dictator says they are that day. Most countries, including most authoritarian states, have constitutions with greater structure.

many in the public choice school, our framework does not imply that politics inevitably involves solely rent-seeking and service to interest groups. Indeed, even James Buchanan, who assumes that government agents seek to maximize budgets, shows that an appropriate institutional rules can tame Leviathan (see Buchanan 1977, Brennan and Buchanan 1980).

Governments in developing countries are typically insecure, implying that their efforts to survive in power lead them to use resources under their control to bind constituents to support them. This necessarily involves *goal distortion* as the party in power subverts the goals public policies for partisan gain. This process is easiest to see in public spending decisions, where spending often channels funds to politically important groups rather than those that ought to be targeted were creating public goods the principal goal. Thus, studies of spending on poverty money in Latin America reveal that the party in power spends these funds in districts where they need votes, not in those districts where poor people are concentrated. Indeed, statistical studies often find that poverty variables are statistically unrelated to spending.⁸

Parties and self-enforcing federalism

In recent years, new scholarship has attempted to study how federal systems are maintained.⁹ In the language of game theory, this requires that federalism is self-enforcing in the sense that political actors have an incentive to abide by the rules defining federalism: without these incentives, they will disregard the rules, and federalism will not be stable.

Riker (1964) first put forth the thesis that political parties are central to maintaining federalism. In particular, he argued that cooperation between national and subnational co-partisans helped maintain federalism. This approach is now widely used in political science, as a range of scholar apply this approach to various federal systems.¹⁰

⁸See, e.g., Diaz (19**), Molinar and Weldon (1999), ** and Sanguinetti (1994).

⁹This section draws on de Figueiredo and Weingast (2003) and the short survey in Weingast (2003).

¹⁰Ordeshook and his collaborators have become the major proponents and theoretical developers of this approach in recent years (see Ordeshook 1996, Ordeshook and Shvetsova 1996, Phillipov, Ordeshook, and Shvetsova 2003). See also Blanchard and Shleifer (2001), Dillinger and Webb (2001), and Garman, Haggard, and Willis (2001).

Unfortunately, the logic of the hypothesis is not well specified. The intuition is that under some circumstances national parties are insufficiently strong to win elections themselves. To win, they need the cooperation of their subnational co-partisans. Under these circumstances, national officials have an incentive to respect the restrictions of federalism. If, for example, they seek compromise to powers and prerogatives of subnational officials, then their co-partisans are likely to resist, harming their party's chances in the next election. Indeed, such an attempt gives the *opposition party* a competitive advantage in the next election. This effect, in turn, gives national officials the incentive to respect the rules of federalism. This approach is typically used to understand why national officials respect federalism, rarely why subnational officials do so.¹¹

The problem with this argument is twofold. First, the circumstances under which it holds have never been adequately spelled out.¹² Second, empirically, it is clear that not all party systems in federations behave in this way. In other words, the theory remains incompletely operationalized.

In what follows we do not answer these general questions. Instead, our approach is to build a specific model of party behavior in circumstances relevant for India, and then to show the model's implications for the structure of federalism.

Theory of a hegemonic party

We begin by modeling party behavior when one party dominates politics, typically a multi-generation lived organization that survives changes in leadership. Examples include the Revolutionary Party (PRI) in Mexico (1930-2000) and the Congress Party in India (1950-1989).

¹¹Jonathan Rodden suggested a variant on this above logic for why parties might mitigate common pool problems: subnational officials know if they create huge debts that must be financed by the national government, this will give their opponents an issue on which to attack them, thus harming their party's chances to win the next election. Similarly, central government partisans have an incentive to discourage this behavior among their subnational co-partisans.

¹²Some scholars have put forth a range of hypotheses under which it is more likely to hold, such as whether the national party controls nominations to subnational officials and subnational representation in the national government; whether the center can fire governors; and whether the nature of the electoral system promotes cooperation or confrontation between national and subnational officials (see Dillinger and Webb 2001; Garman, Haggard and Willis 2001; Ordeshook and Shvetsova 1996). These hypotheses are intuitions rather than conclusions derived from a model.

Hegemonic parties are cartels among politicians. As with economic cartels, political cartels are typically unstable and cannot be created and maintained at just anytime. Under most circumstances, a subset of politicians and interest groups can do better by defecting from the cartel than remaining with it: forming a competing party grants them the value of the lottery over capturing the entire government which typically exceeds their share of a cartel. Put another way, it is hard for the cartel to rig it so that any potentially defecting subset capable of winning an election is better off within the cartel.

The rarity of sustained, multi-decade political cartels suggests that these cartels are hard to maintain. Most of the time there exists a splinter group willing to take the lottery of capturing all power to their share of rewards under a power sharing agreement.

This argument also implies that it takes an unusual circumstance to form a stable political cartel. In particular, something must aid the cartel's ability to prevent defection. The answer, we hypothesize, is the threat of social disorder. Consider the case of the formation of the PRI in Mexico in the late 1920s. Although the end of the Mexican Revolution meant the cession of wide-scale violence, major factions continue to maintain their separate armies, and for over a decade the renewal of civil war was a constant threat. Moreover, presidential elections were more often settled with pistols than the ballot box.

The formation of the PRI created a cartel among competing politicians, forming a single party to govern Mexico that ended both the political violence and greatly diminished the threat of civil war.¹³ The cartel not only shared the political gains of power, but also helped end violence among the top officials. Because leaders all feared renewed civil war, they were willing to set up a political cartel to share rents and end the violence.

A hegemonic party's punishment regime

To model how a cartel maintains itself, we begin with the pivotal decisionmaker's decision about whether to support the party or defect. For the moment, we leave abstract the identity of the pivot, the context of the decision, what constitutes defection. We will apply this model to various circumstances. Sometimes the pivot will be a voter in a

¹³The Congress party in India also meets this condition, as it helped contain the fissiparous tendencies involved with the various types of India's ethnic divisions.

locality deciding whether to support the hegemonic party or the opposition in local elections or in the election of national representatives. At other times, it will be an interest group or a group of politicians faced with the decision to support the hegemonic party or to defect.

The pivotal decisionmaker moves first and must decide whether to support the hegemonic party or to defect (see figure 1). Next, the hegemonic party moves and must decide whether to punish or reward the pivot. For concreteness, we can think of the reward or punishment involving the following: for a voter in a given locality, the hegemon's decision concerns whether to provide or withhold part of the locality's budget; for politicians, the reward involves advancement within the party; and for interest groups, the reward involves some maintaining or cutting off some form of policy benefits.

Consider the preferences of a pivot who prefers, *ceteris paribus*, to defect from the Hegemon to support another party, but who also values the rewards the hegemon provides. Such a decisionmaker prefers first to be governed by an alternative party and not to be punished by the hegemon (outcome C in the figure and table 1). Second, the pivot prefers to be governed by the hegemon without punishment (A). The pivot next prefers to be governed by the opposition without the reward (D). Finally, the pivot least prefers to be governed by the hegemon without the reward (B). This preference ordering implies that an opposition government without the rewards is not as valuable as supporting the hegemon and obtaining the reward.

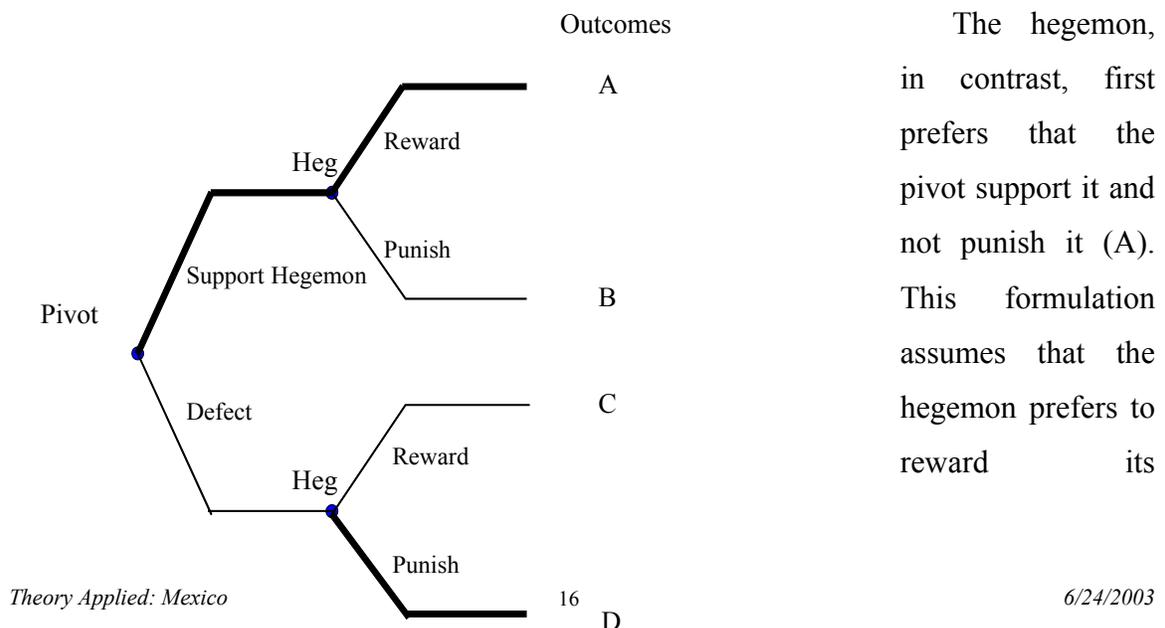


Figure 1: Equilibrium Hegemony.

supporters rather than punish them. Implicit in this assumption is the notion derived from a (suppressed) repeated game that the pivot's support for the hegemon is conditional on receiving some form of reward. The hegemon next prefers that the pivot support it and not get the funds. Third, the hegemon prefers the pivot to support the opposition and provide no reward. Finally, last on the hegemon's preference list is that it reward a pivot that supports the opposition.

Table 1. Preferences in the Hegemonic Punishment Game.

Hegemon's preferences	Pivot's preferences
A	C
B	A
D	D
C	B

We solve the game by working backward through the tree. Given its preferences, the hegemon rewards pivots that support it and punishes those that defect. Working back a step and taking the subsequent hegemon's behavior as known and given, we have the pivot's choice: because it prefers A to D, it will choose to support the hegemon. We represent the equilibrium path by the heavy line in figure 1 from the first node on the center left: the pivot chooses to support the hegemon and the hegemon rewards it with funds.

The model shows that the hegemon's credible threat of punishment makes it too costly for the pivot to defect. The pivot prefers to be support the opposition and to be rewarded by the hegemon, but this choice is not available. Because the hegemon punishes

a pivot who defects, it forces the pivot to choose between supporting the opposition without reward and supporting the hegemon with a reward. Given this choice, the pivot in the model prefers to support the hegemon.

Several implications of the model bear on the structure and stability of federalism. First, the equilibrium in the model depends on how the pivot values the hegemon's reward and on the relative difference between the hegemon and the opposition. To succeed, the hegemon must have the ability to provide a sufficiently large reward to induce the pivot to support it rather than its more preferred opposition party.

Second, the success of this punishment scheme depends how it is embedded in the large political environment.¹⁴ Thus, consider a pivotal voter in a locality is deciding on whether to support the hegemonic party in a state election or to defect to an opposition party it prefers. By virtue of being pivotal, this voter knows she can assure herself that, by supporting the opposition, that this party controls the state. The Nash equilibrium question reveals this voters real dilemma. The pivot must take the decisions of voters and pivots in other localities as given. Acting alone, all this pivot can do is change the party in its state, but not the identity of the majority party in the nation (as Noll and Fiorina 1978 emphasize). This forces the pivot to follow the equilibrium logic of the punishment game and support the hegemon. Of course, if the pivot could also make its preferred party the majority party in the nation, then it could have both its favored party and rewards from the center. But this is not the question facing the pivot.

Third, this logic also implies that pivotal voters across all localities face a tipping game. Acting alone, they are all induced by the punishment regime to support the hegemon. But if (the many) pivots' expectations change in some way so that pivots in a large (e.g., a majority) of states believe that each will defect, then each has an incentive to defect. And if a sufficiently large number of pivotal voters did this, they could vote out the hegemon, change the identity of the majority party in ways that alter the pattern or rewards or punishment.

As with all tipping models, the major question is what types of events coordinate expectations in a way that the game tips. The answer in the abstract is that it takes an

¹⁴The logic that follows draws on the models in Diaz, Magaloni and Weingast (2003), which in turn draws on Fiorina and Noll (1978) who first proposed a mechanism of this sort.

unusual event, but one that is common knowledge to all or most citizens. For example, a financial crisis might diminish the hegemon's ability to punish and reward in a way that simultaneously changes many pivotal decisionmaker's expectations and hence their decisions.

Fourth, punishment regime is characterized by a "tragic brilliance" (Diaz, Magaloni and Weingast 2003); *viz.*, it not only forces voters to accept a situation they would rather not, but it forces them to participate actively in maintaining this system by supporting the opposition.

The final implication of the model concerns an empirical prediction about what types of voters should get the most rewards and how this compares with predictions from models of competitive party systems. Voting models typically study competitive party systems and assume that incumbent parties use their power to attract political support.¹⁵ This entails rewarding core supporters (those likely to support the party under most circumstances), rewarding pivotal supporters even more (those whose support is both necessary to win but contingent on rewards), while providing less if any benefits to the opposition. In contrast, the hegemonic punishment regime implies that the distinction between core and pivotal supporters should be less of a factor in determining spending allocation (Diaz, Magaloni, and Weingast 2003).

Theory of Competitive Parties

Parties under a competitive system operate as a variant on this theme. Consider a system with two main parties.¹⁶ A competitive party system under these circumstances differs from a hegemonic one in the following ways. First, because the parties must compete neither has a lock on power. Second, each typically party has a core constituency of voters that are associated with it, typically for policy and ideological reasons. These voters typically vote for their party year in and year out. Yet a third set of voters also exists in competitive systems, namely the pivotal or swing voters. Though these voters may lean toward one or the other party, they are less attached to either and

¹⁵See, generally, Cox and McCubbins (1996), Dixit and Londregan (1996), Levitt and Snyder (1995), and Lindbeck and Weibull (1987).

¹⁶In systems with winner take all presidential systems, Duverger's law implies that two parties are likely to compete for power (Riker 19**, Cox 19**).

are willing to vote for either depending on the expected benefits.

Competitive parties are constantly concerned about the tradeoff between providing benefits to their core supporters and to the swing group. Indeed, remaining in power requires that voters in the swing group perceive themselves better off under the party in power than the opposition.

This perspective yields direct implications for policy benefits. For comparison, consider a hegemonic party. In its efforts to maintain support in all districts, a hegemonic party provides benefits to all districts that support it, and punishes the few localities that defect. This implies a relatively even distribution of funds, with only defectors being cut out.

Under a competitive party system, the party in power must contend with a viable opposition for power, and it could lose power at any time. The distribution of funds should be more complex than under a hegemonic system. First, the party in power will not waste funds on the opposition's core supporters: there is little chance that these constituencies will support it. Second, it will reward core supporters. Finally, it will provide the highest level of benefits to the swing regions, for these are localities not committed to the party by virtue of ideology and can swing back to the other party.¹⁷

4. Parties, Fiscal Federalism, and the Economy

The purpose of this section is to sketch two separate implications for fiscal federalism and economic performance in Latin America. The first concerns the economic consequences of revenue-sharing systems. The second concerns the politics of soft budget constraints.

Political Economy of Revenue Sharing Systems

Standard works in fiscal federalism argue that assigning policy authority to the appropriate level of government is the critical variable in increasing citizen welfare. On

¹⁷As noted above, a large theoretical and empirical literature exists on this topic. Applications to Latin America include Diaz-Cayeros (1999, forthcoming) on education, Jones, Sanguinetti and Tomasi (2000), Morgenstern (1997) on federal public investment, and Weldon and Molinar (1994) and Magaloni et al (2000) on solidarity funds.

the tax side, these works argue that taxes should be raised by the federal government and distributed to subnational ones (see, e.g., Musgrave 1959, Oates 1972). Part of the rationale for this recommendation about taxes is redistribution. Subnational governments are not likely to finance sufficient redistribution if this must be financed through their own taxes.

Drawing on political economy models, I contest the economists' normative conclusion that the decision about whether subnational governments raise their own taxes has no effect on economic performance.¹⁸ The economists' conclusion – that the national government should raise taxes – is based on the assumption of a benevolent government. If this assumption were accurate, developing countries would not so persistently pursue policies that deviated from the economists' ideal.

In what follows, I consider a simple political economy model of subnational government choice to demonstrate the effect of revenue sharing on subnational government choices affecting economic performance. This work contributes to an emerging literature on the political economy of financing subnational governments. The logic draws on some old works in fiscal federalism, including Tiebout (1956) and Buchanan (19**). Tiebout argued that when subnational governments raise their own taxes, tax payers would be more vigilant in policing how their money was spent. Buchanan also emphasizes incentives, focusing on waste in government. He argued that federalism would help police government waste so that governments should be smaller in federal systems. Until recently, the evidence for this proposition was mixed. Oates (1985) for example, could not find evidence for or against the proposition. More recently, however, Rodden (2003) has provided evidence in favor of Buchanan's proposition.

Rodden's first observation is that subnational government control over taxation is critical to their incentives about how much to spend. Evidence on the "flypaper" effect (cites) shows that governments spend every dollar they receive in revenue sharing. Inman's work, discussed below, shows that common pool problems are likely to make revenue sharing decisions by the national legislature too large (see Inman 1988, 2003; see also Inman and Fitts 1990 and Inman and Rubinfeld 1997). Based on this logic, Rodden distinguishes among federal systems based on how much their subnational governments

¹⁸This discussion draws on Careaga and Weingast (2003).

finance their own spending. In this context, he finds evidence for Buchanan's thesis.

In reviewing the positive theory of revenue sharing, I first consider Inman's approach showing that revenue sharing decisions by the national government are likely to be too large; and then Careaga and Weingast's model showing that greater revenue dependence implies greater inefficiency.

National Government Revenue Sharing Decisions

In a series of works, Inman develops a positive model showing the effects of political institutions on how revenue sharing systems operate in practice. The idea concerns a form of common pool problem created by the nature of district-specific representation legislatures. When members are elected to the national legislature from specific geographically based constituencies, their elector incentives force them to evaluate different public policies based on the policies' effects on their individual district rather than the overall impact on the society as a whole. This is likely to create several forms of inefficiency.

In the context of federal financing of subnational government spending, each legislator has a tendency to support programs that are larger than the efficient scale. The reason draws on the idea that each district faces a tax price for benefits spent in her district substantially below the full costs of financing these benefits, which are borne by citizens in other districts (Weingast, Shepsle and Johnsen 1981). Indeed, in a legislature with n districts, on average each legislator faces a tax price that is on the order of $1/n$ of the full tax price. By their nature, representative legislatures therefore create common pool problems, as each seeks to increase the benefits flowing to her district and none are responsible for the overall tax burden. Because legislators do not face the full tax price of the benefits spent in their district, they seek a level of benefits that is too larger.

In presidential systems, the president faces different incentives. In particular, the president has an incentive to internalize the total tax burden. Yet generally policy decisions in presidential systems combine the interests of the president and the legislature, so the president is unable to check fully the legislature's tendencies.¹⁹

¹⁹The common wisdom in the presidential systems of Latin America is that the president dominates policymaking and that the legislature is weak. As Weldon (1997) observes, however, presidential

The main implication for revenue sharing is that the common pool incentives facing legislators lead them to create revenue sharing programs that are too large. The evidence in Inman (1988) and Inman and Fitts (1990) in a slightly different policy context support this conclusion.

How Revenue Sharing Affects Subnational Government Decisions

The next step in the argument is to investigate the incentive effects of revenue sharing on subnational governments. Consider a subnational government deciding how to spend its budget. Stepping beyond the standard normative economics framework of benevolent government, we assume that a subnational government has two categories of spending, first on market-promoting public goods; and second on various forms of inefficient programs, including rent-seeking, service to interest groups, and corruption.²⁰ This model endogenizes the choice between promoting markets and inefficient policies.

Formally, the subnational government, S , seeks to maximize its utility subject to a budget constraint, B . It allocates its budget on two inputs, public goods, y ; and various forms of rent-seeking, r . Spending more on either variable is assumed to increase the subnational government's utility.²¹

The subnational government's budget consists of two parts. First, it receives a revenue transfer, $T \geq 0$, from the central government. Second, it raises a portion of its own revenue through taxes on the local economy. This formulation is general and allows us to model subnational governments that entirely finance their own expenditures, those who depend completely on national government transfers, and mixed systems.

Total taxes generated by the local economy are assumed to be a function of the local public goods provided; that is, locally generated are $\mathcal{G}(y)$. This assumption reflects the notion that market-enhancing public goods promote economic growth and hence generate greater total taxes. Thus, we assume that as y increases, so too does the economy and

dominance is based on several conditions that give the appearance of presidential dominance. In particular, when the president is the head of his party and when the party holds both the legislature and the presidency, then public policy decisions are often made by the party behind closed doors, then ratified with legislation. But this does not imply the unimportance of the legislature, but that the effects are internalized by the party in its decisions, knowing it will have to gain the legislature's support.

²⁰A variety of recent models in public economics formulate the government's choice problem in these terms. In addition to Careaga and Weingast (2003), see Persson and Tabellini (2000), Zhuravskaya (2003).

²¹Technically: $U_1 > 0$ and $U_2 > 0$, while $U_{11} < 0$ and $U_{22} < 0$.

hence total tax revenue increases; that is, $\partial N > 0$.

We also assume that the revenue sharing system allows the subnational government to retain a portion \forall ($0 \neq \forall \neq 1$) of locally generated taxes. When $\forall = 0$, the subnational government receives all its revenue from the federal government and the amount is independent of the amount of locally raised taxes; when $\forall = 1$, the subnational government raises 100% of its own revenue.

Under these assumptions, the subnational government's budget constraint is thus given by: $B = T + \forall \mathcal{G}(y)$.

This formulation implies that when $\forall > 0$, a subnational government's budget constraint is non-linear. The reason is as follows. Spending funds on rent-seeking produces some political benefits (utility) for the government. In contrast, spending funds on market-enhancing public goods has two effects: first, it produces some political benefits for the government; but second, it expands the local economy, so total taxes increase, relaxing the subnational government's budget constraint. Hence, the greater the subnational government's spending on y , the larger is its budget.

Given these constraints, the model implies a tradeoff in S 's choice of r and y . The equilibrium values are given by r^* and y^* .²²

The principal comparative statics result of the model is that as \forall increases, so too does the y^* . That is, as the portion of locally-generated revenue that the subnational government gets to keep increases, it spends less on rent-seeking and corruption and more on public goods. The reason is simple. As \forall increases, the subnational government captures a larger share of an increase in locally generated tax revenue from spending on y .

Under these circumstances, Careaga and Weingast (2003) show that revenue systems are subject to the *fiscal law of 1/n* where n is the number of subnational governments. To derive this law, we compare a complete revenue sharing system ($\forall = 1/n$) with one where the subnational government raises 100% of its revenue ($\forall = 1$).²³

²²See Careaga and Weingast (2003) for how these are derived. What is critical in what follows is the comparative statics results, not the particular equilibrium values.

²³The reason $\forall = 1/n$ under complete revenue sharing is that an increase in y by a given subnational government increases $\mathcal{G}(y)$, which is shared by all states, so that the subnational government's share of the tax increase generated from an increase in y is $1/n$.

Under a complete revenue sharing system (when $\forall = 1/n$), S receives its entire budget in transfers of revenue from the federal government). When there are n states, S captures on average only $1/n$ of the increase in tax revenue arising from its public goods spending on y . This implies that the subnational government's budget constraint is given by $B = T + \vartheta(y)/n$. Under complete self-financing of revenue, the subnational government's budget constraint is given by $B = \vartheta(y)$.

Because the S's marginal rate of substitution between r and y at the equilibrium must be tangent to its budget line, the difference in locally generated revenue shifts S's decision in favor of y when it moves from complete revenue sharing to complete self-financing. (Recall that increasing y shifts the budget line and raises the slope.)

Consider an example. Set the relative price of r and y to 1, assume that $\vartheta(y) = y/4$, and suppose that there are, as in Mexico, 32 states. Then the budget line has a slope of -1 , so $\forall = 0$ implies that S's marginal rate of substitution between r and y is also given by -1 . Under these assumptions, $\forall = 1/n$ implies that the shift in the marginal rate of substitution in favor of y is $-128/127$. In contrast, when $\forall = 1$, the shift in the marginal rate of substitution in favor of y is $-4/3$, about 42 times larger.

In other words, a subnational government raising some of its own revenue shifts its decisions in favor of public goods over rent-seeking and corruption. The greater the revenue independence, the greater the shift. Finally, the fiscal law of $1/n$ holds that the difference in the shift toward public goods between complete revenue sharing relative to complete revenue independence is on the order of $1/n$.

Conclusions

The main import of this section is that revenue sharing systems in practice engender three separate sources of inefficiency. First, following Inman, revenue sharing systems tend to be larger than the efficient scale. Second, following Careaga and Weingast, revenue sharing systems induce subnational governments to spend more on inefficient rents rather than market-enhancing public goods. Third, the larger the portion of subnational revenue received through revenue sharing, the larger is the inefficient tendency of subnational governments.

Putting all three of these together for the large federal systems such as Mexico where most states receive most of their revenue from the national government, revenue sharing generates several compounding sources of inefficiency.

5. Applying the Framework to Mexico

I apply the above framework to Mexico in three steps. In this section, I study the implications of the hegemonic model for the PRI's design of the state and the economy, including the structure of federalism. The next section applies the model to fiscal federalism in Mexico. The following section describes how this process broke down in the 1990s, launching meaningful political competition and democracy in Mexico.

A brief outline of changing fiscal federalism in Mexico

Since the Revolution (1910-17), Mexican fiscal federalism divides into four phases.²⁴ The first phase runs from roughly the first thirty years, from 1917-1947. During this phase Mexico had a very decentralized federal system, subject to a range of common pool problems, including internal trade barriers, compromising the common market (Islas 1997, Diaz-Cayeros 1999). On the tax side, competitive taxation reigned, with too large a tax burden (Diaz-Cayeros 1999,48).

Phase 2 began after WWII and goes through the 1970s. During this phase, the Mexican government began to control the common pool problems, eliminating trade barriers among states and creating the common market. It also rationalized taxation so as to eliminate competitive and over-taxation of business. States also raised most of their own revenue during this period.

During phase 2, federalism, Mexico style, was roughly characterized by market-preserving federalism, the economists ideal form of federalism. The consequence was significant economic growth. Indeed, the period from 1950- 1970 is known as the "Mexican miracle," a period of sustained growth. Nonetheless, during this phase, the Mexican government began a period of centralization, creating a revenue sharing system that, by the 1970s, included all states.

²⁴This section draws on Careaga and Weingast (2003).

Phase 3 began in 1980 to the present and represents a highly centralized form of federalism. The national government took control over most taxation in the 1970s, and states possessed very few instruments of taxation. Most major policy decisions were made in Mexico City. Mexico's centralized federalism implied little policy freedom for the states and hence little competition among them. On the economic side, growth stagnated, with Mexicans no better off in 2000 than in 1980. This slump had multiple causes besides centralized federalism and market intervention: phase 3 coincides with the international debt crisis and the fall in oil prices.

Phase 4 runs from roughly 1994 through the present. During this phase, fiscal constraints on the national government have allowed subnational governments, municipalities in particular, a greater degree of policy freedom. The election of the opposition candidate, Vicente Fox, to the presidency in 2000 dramatically ended the PRI's 70 year monopoly on national power.

Implications of monopoly control for federalism and public policy

Although the hegemonic punishment game is simple, it has powerful implications for how a hegemonic party will seek to design both national institutions – including the institutions of federalism – and public policy across all levels of government.

Monopoly control of the state by the hegemonic PRI meant that the party and the national government were the same entity. Monopoly control allowed PRI leaders to shape the design the state for partisan purposes in two separate ways. The first aspect concerned the planning system and market intervention. Extensive intervention meant that a wide range of economic and political interests came to depend on government policies, and often, on government subsidies: large numbers of people became employed in the public sector, as bureaucrats and as workers in public sector enterprises. Trade barriers provided industry with protection. A range of policies provided explicit and implicit subsidies. The public sector dominated financial markets and the formation of new capital.

This range of policies implied an immense reach of the party qua government. Per the hegemonic punishment game, across a wide range of activities, failure by interest groups and citizens to support the party in the next election threatened losing the flow of

benefits.²⁵ Of course, extensive control of the market for political purposes also implied a much less vibrant economy and hence constraints on growth.

Second, the hegemonic PRI's monopoly control over the structure of government also had implications for federalism and subnational politics. Fiscal and policy centralization had another effect, of ensuring that states were weak and dependent on the center. Because so much resources flowed from the central planning and budgeting system, control over these resources granted the center the ability to punish states that failed to support it by diminishing the flow of resources.

This institutional control achieved two separate partisan goals for the hegemonic PRI. First, state policy dependence made it far more difficult for political officials to defect from the cartel by establishing an independent policy base in a state from which to launch alternative policies, distribute rents, and demonstrate to constituents the value of alternative policies from those of the hegemon.²⁶ Extensive central controls over state governments implied that, even if opposition officials gained control of a state, their ability to create alternative policies – and to demonstrate the value of alternative policy visions of development – was greatly constrained.²⁷

Second, budgetary dependence gave voters something substantial to lose if they supported officials seeking to defect. Put simply, the center would punish them by withholding budgets and subsidies from defecting states.

Third, extensive control over the economy created a series of rent flows to a wide range of interest groups. Dependence on these rent flows, in turn, gave the center a credible threat to punish interest groups that sought to defect by supporting the opposition.

²⁵Note this political argument draws on the principle articulated in Klein and Leffler (1981), that the existence of rents can be a commitment device. In this context, the center creates rents, which binds the interest group to support the party. Per the punishment regime, the center withdraws the rents if the interest group fails to support the party.

²⁶Lijphart (19**) emphasizes that this is an important advantage of non-centralized federal systems: that parties losing at the national level can maintain an independent base in the states or provinces from which to maintain their competitive positions and to launch future challenges for national control. The dependence of states on the national government in Mexico made this process difficult for the opposition.

²⁷“While there has been an increase in funds that come down the pike to the states, these are increasingly earmarked in ways defined by the federation and which offer little aegis to state governments. Nor do states enjoy much opportunity for raising their own incomes, again because most key areas of tax collection (income tax and VAT) remain in federal hands, and because in other taxes the federal government takes the larger slice, allowing the state government in effect to only level a surtax.” Rodriguez and Ward (1999, 18-19).

As noted above, the punishment model requires that the hegemon control sufficiently large reward to swing the pivot's preferences. The highly interventionist socialist structure combined with the highly centralized state to grant the center striking control over both public policy and over the economy. This extensive and control allowed it wield rewards that were sufficiently large to prevent defection.

The argument for the two aspects of the hegemon's use of state authority – market intervention and federalism – is similar: the creation of rents that can be withheld binds constituents, politicians, and interest groups to the center. Even opposition-preferring regions and firms have something to lose and hence have a (perverse) incentive to support the PRI.

Federalism in the Hegemonic Era. This approach explains the motivation for the PRI's design and maintenance of centralized federalism characterizing Mexico under the hegemonic party era. The institutional details of centralization are described in the next section, particularly undertaken after WWII and completed by 1980.

The hegemonic PRI sought central control for its own partisan purposes: maintaining the political cartel required the punishment regime to prevent defection. To do this, the PRI, through its dominance of the central government, sought extensive control over both the market economy and over the states. This control simultaneously compromised the market economy and state policy independence. States had to become dependent on the center for the center to prevent subnational officials from defecting from the cartel.

Once PRI had established this central control system, the punishment regime created self-enforcing centralized federalism. All parties had incentives to cooperate with the PRI and the national government. Central control over the states precluded the ability of subnational political officials from creating an independent constituency base through control of state resources. Citizens were induced to support the party because central control of budgets and policy benefits implied the withdrawal of budgets and policy benefits following the election of opposition candidates. Similarly, interest groups had incentives to tow the line: extensive market intervention implied dependence on the state for policy benefits, subsidies, and protection from competition. Defection put these benefits at risk. Once the hegemonic party established itself and designed the institutional features of the Mexican state to suit its partisan goals, nearly all had incentives to support

the hegemon. PRI's punishment regime was remarkably effective.

Yet centralized control over both the economy and the states had significant economic implications: it prevented Mexico from pursuing economic policies that would produce long-term economic growth. Market intervention implied interest group dependence on PRI ensuring their continued support lest they lose their share of the rents. Market control, in turn, limited Mexico's ability to grow. Similarly, centralized federalism compromised state independence, and with it, the benefits that flow from market-preserving fiscal federalism. State officials were constrained in their ability to pursue independent policy initiatives. The fiscal system, emphasizing equalization, reduced the natural fiscal incentives for states to pursue strategies that fostered growth since equalization implied that most of the fiscal gained would be captured by the center.

In short, the hegemonic PRI structured the state and economy to suit its partisan goals, sacrificing long-term economic growth.

Evidence. I provide two types of evidence favoring this model. The first set of evidence derives from the case study literature and demonstrates that those local governments (municipalities) in Mexico that elected the opposition party, PAN, were punished. For example, Rodriguez (1995,158) reports that "it appears that financial obstacles were placed in the path of these municipal governments." For example, the most prevalent was "tortuguismo," the "practice of withholding funds that have already been allocated by slowing down their actual delivery (the term comes from tortuga, tortoise), particularly before elections. The PRI also used influence over the banking system "to deny resources to these opposition governments." [158] PRI controlled states also withheld of funds for "special projects" [159], including hospitals, roads, large-scale housing projects. "PAN officials from the 1983-86 administrations assert that these special projects were fewer in number and smaller in value while they held power" (Rodriguez 1995,159).

The revenue sharing model above helps explain how the PAN survived despite the PRI's fiscal punishment. As a market-oriented municipality opted out of the PRI-fiscal system to take control of local public goods provision, its revenue increased along with the local economy. In combination with lowering levels of corruption, enhanced delivery of local public goods and services greatly increased local citizens' willingness to pay

taxes and especially new user fees. For localities that elected PAN governments, local tax revenue grew quickly to replaced losses from the state and federal governments. Rodriguez (1995,166) reports of Ciudad Juarez, for example, that, “Over the course of only a few years [after electing the PAN], the ratio of state to local revenues... changed from around 70 percent state funding to over 70 percent local funding (ingresos propios).” In particular, during the first year of the panista government, 1984, local revenue increased 300 percent.

The second set of evidence derives from Diaz, Magaloni and Weingast (2003), who provide statistical evidence in favor of the model. Using data on 1840 of Mexico’s 2417 municipalities for the year 1997, they test the hegemonic party model’s prediction. First, they demonstrate the punishment regime works in practice. They estimate that municipalities electing the PRI in 1997 received on average \$132 pesos per capita. Those that elected the opposition PAN were punished by withdrawal of one-quarter of their budget, to \$95 per capita. Those electing the opposition PRD received \$106 per capita. Second, the hegemonic punishment regime implies that punishment should occur regardless of margin, and Diaz et al found no statistical effect of margin. Third, the governorship matters: when the PAN holds the governorship, it rewards municipalities electing the PAN and punishes the PRI.

6. Fiscal Federalism in Mexico

This section applies the model of revenue sharing to federalism, Mexican style.

Implications of growing centralization of Mexican fiscal federalism

The mechanisms of fiscal centralization and control are important. Centralization began in the late 1940s. Between 1947 and 1953, the central government sought to induce the states to give up their taxation and policy authority in exchange for additional tax revenue from the center. Given the level of inducements set at the time, 17 states joined, while 14 remained outside this system and retained control over policies and taxation. As suggested below, on average, the poorer states joined. In 1972, the center induced the remaining states to join the centralized system, in part through raising the total benefits

from revenue sharing. In 1980, this system was adjusted significantly.

The financial figures tell the story. In the 1970s, states raised approximately 60 percent of their own revenue, while in the 1980s, they raised about 30 percent. Another way to measure the fiscal impact is to assess the proportion of revenue raised by a state from its own taxes. The ideal data set would cover the entire period, so we could see the differential impact of the early FPWD on both types of states (early and late joiners). Unfortunately, we have data only from 1970 onwards.

The data reveal significant changes following both the 1972 and 1980 centralizations. Per our theory's predictions, state taxes as a proportion of total state revenue fell dramatically after 1972: from 45 percent prior to the 1972 to 29 percent for the rest of decade (table 2). This proportion fell again dramatically after 1980, to 3 percent, remaining slightly lower in the late 1990s.

1970-72	45
1973-80	29
1981-94	3
1994-99	2

Source: Careaga and Weingast (2003, table 13.3)

During the second phase of Mexican fiscal federalism, the central government sought to centralize Mexican federalism, successively inducing states to agree to give up their policy authority and independence in exchange for greater revenue.

The theory above shows that under complete revenue sharing, a state bears all the costs of providing a public good, but captures only 1/nth of the revenue benefits. The rest of the benefits are spread across other jurisdictions through the central government's division of the common pool. Therefore complete revenue sharing systems greatly diminish a state's incentives to provide market-fostering public goods. We call revenue sharing agreements in which states give up their policy and fiscal autonomy *fiscal pacts*

with the devil (FPWD) because they increase corruption, provide fewer public goods that enhance growth, and diminish citizen welfare. The greater revenue implied greater rents for local political officials to dole out, while problems can be blamed on Mexico City where the real decisions get made.

Evidence

The theoretical approach above makes four predictions, and we provide some evidence for each.

1. The effects of the FPWD on state revenue generation. First, the fiscal federalism model predicts that as the proportion of revenue received by a state from central government revenue sharing increases, its spending on market-enhancing public goods should decrease. The simplest prediction is that, following the richer states joining the revenue sharing system, state taxes should go down. In the 1970s, state taxes averaged around 1 and 1/4 percent of Mexican GDP. In the 1980s, this fell to below ½ a percent. At the federal level, non-oil revenue increase by one-quarter to one-half. Consistent with the Buchanan thesis that creating a monopoly on taxation allows greater extraction, total taxes in Mexico increased.

2. Explaining the timing of when states joined the FPWD. The framework implies that the more market-oriented states should be later joiners to the centralized system. These states experience the greatest harm to their economies, as they have the greatest leverage through financing public goods for enhancing their economic growth. Because it takes a larger inducement for more market-oriented states to join, they should be observed to join the system in 1972 rather than in 1947-53.

Table 3 presents some data that bears on this question. It shows that states that joined centralized revenue sharing later were on average significantly richer, having an average GDP per capita of 16,000 pesos while those who joined early had an average GDP per capita of 5,600 pesos, a nearly three-fold difference. Similarly, the states that joined later appear more export-oriented. We have no data for the period relevant states' decisions; our data is from much later, 1998. At this time, the states that joined early were far more export oriented, exporting on average \$4.4 billion in comparison with an average \$1.2

billion for those states that joined earlier.²⁸

3. Calculating \forall for Mexico. The third source of evidence for the framework is to calculate the parameter \forall , the proportion of revenue raised in a state that the state retains. Because the distribution of federal funds is by formula, we can use the formula to calculate \forall . Since 1980, Mexico has used a variety of related formulas, though with different fiscal effects. Careaga and Weingast (2003) investigate several.

Table 3: Relationship Between Joining Centralized Revenue Sharing and the Economy.

	State Joining 1947-53	States Joining 1972
Ave. GDP/cap (1970)	5,600	16,000
Exports (1998)	1.2B	4.4B

Source: Careaga and Weingast (2003)

In what follows, I report the analysis for the current formula in use since 1995. The formula for distributing revenue has three components: it allocates 45.17% of the revenue pool on the basis of population; 45.17% by a formula, analyzed below; and 9.66% in inverse proportion to the other two criteria.

The component based on population is simple to analyze. A state with a proportion, q_i , of the population receives $.4517q_i$ of the total pool. The formula entitles a state of average population (3.125% of the total) to receive $.4517 \cdot .03125P = .014P$, where P is the total revenue pool. This also implies that, if a state changes its policies so that it increases its revenue by $x\%$, this component entitles the average state to $.014$ of the increase, or about 1.4% of the increase.

²⁸Careaga and Weingast also perform a more systematic statistical analysis of this question. Using logit analysis, they report that GDP per capita is statistically significant determinant of whether a state joined early or late, though exports in 1998 was not, the latter perhaps because the data on exports is from a much later period (see Careaga and Weingast 2003, table 13.1).

I now analyze the 45.17% of total revenue pool allocated under by the following formula (F1) based on revenue collection:

$$R_{it+1} = \frac{R_{it}(A_{it} / A_{it-1})}{\sum_j R_{jt}(A_{jt} / A_{jt-1})}$$

where R_{it} is state i 's share of the total revenue in time t ; A_{it} is the proportion of revenue pool, P , raised in state i in time t ; and the total revenue pool, P , is given by $P = \sum_j A_{it}$.

The incentive effects of this portion of the formula are good: the formula returns any increase in tax revenue contributed to the common pool. Mathematically, this is easily shown since $MR_{it}/MA_{it} = 1$. Intuitively, this can be seen by considering what happens when one state raises its tax collections by $x\%$, assuming that the revenue from all other states remains constant. The numerator of the formula becomes $(1+x)*R_{it}$, and the denominator becomes $\sum_j R_{jt} + x*R_{it}$. Suppose that state i produces 5 percent of the revenue pool and that it increases collections by 10 percent (i.e., $x = .1$). Then the numerator becomes $1.1*.05 = .055$; and the denominator becomes $.95 + .1*.05 = 1$. So a ten percent increase in locally generated revenue leads to a ten percent increase allocated by the formula.

The formula says that, holding constant for the behavior of other states, if state i increases its revenue this year, then next year it will receive nearly the full increase. Of course, this formula applies only to 45.17% of the total pool.

We now investigate the impact of the formula as a whole on a state's marginal incentives. Thus, if state i increases its collections by $x\%$, the overall formula has three independent components that affect state i 's portion of the increase. First, by the population component, state i with population proportion q_i receives back a portion of their gain from the common revenue pool of $.4517q_i*x$. For a state with the average population of .03125 of the total, this implies that state i receives back 1.4% of the gain. The second component is by the complex formula, F1, which grants state i 45.17% of the gain. The third component, based on inverse of population, grants a state with the average population an additional 0.3% x .

Thus, for a state with the average population, an increase of $x\%$ of revenue translates into three components of gain are: $.4517x$, $.014x$, and $.003x$, for a total increase of $.466x$. Of course, the overall formula represents only half of all federal revenue spent in the states. This implies that, at the margin, each state keeps a little less than one quarter ($.233$) of any increase in locally generated revenue.

By way of comparison, consider some data from other countries. For the states in the United States during its rise from a relatively poor nation on the periphery of the Atlantic economy to the richest nation in the world (that is, over the 19th century), states were virtually revenue self-sufficient, imply an \forall of about 1. Iaryczower, Saigh, and Tomasi (2000) suggest that the same was true for Argentine provinces during the belle epoch of the late nineteenth and early twentieth centuries. Similarly, Jin, Qian and Weingast (2001) calculate \forall for China during the high-reform period, 1982-93. They show that Chinese provinces retained at the margin 89 percent of any revenue increase. In contrast, Zhuravskaya (2003) calculates \forall for a sample of Russian cities in the mid-1990s. She shows that it is around 10%, so that the higher governments take 90 percent of any increase in locally generated revenue. Blachard and Shleifer (2001) suggest that the figure is not likely to be much higher for the relationship between Russian regions and the central government.

Although this evidence hardly represents a systematic statistical test over a proper sample, it does suggest a relationship between fiscal responsibility and growth consistent with the model. The theoretical works described above suggest the link between economic growth and fiscal responsibility concerns government incentives. States raising their own revenue have incentives to spend their tax money wisely: citizens constantly police subnational government's use of their taxes, and they have the option of keeping their taxes if they do not feel they are getting their money's worth. This same logic does not hold for funds from revenue sharing, since if they are not spent, they revert to the center. In addition, revenue sharing creates common pool problems, since it implies that states that spend money on market-enhancing public goods find most of the increase in taxes generated from the growing economy go to the common pool and not their own coffers. The Mexican experience is consistent with this, as we now see.

4. The Effects of Revenue Sharing on Economic Growth. We argue that revenue sharing pacts motivate local politicians to reduce efficiency and increase corruption, and therefore dampen economic growth. Mexico's FPWD seems best interpreted as helping the center maintain political power rather than enhancing market efficiency.

Our theory has several predictions about the impacts of changes in \forall over growth in Mexico. In the first period (1917-1940) common pool problems slowed down growth. In the Second Period (1947-1980) the ability of the center to police the common market brought about major efficiency improvements. However, by coaxing states to join the FPWD, the center also compromised growth in those states. Growth was dampened in the third period (1980-1994). Since 1994, increases in both competition and in \forall have boosted growth. The figures bear out this pattern: growth averaged 2.3 percent from 1980-93 per year, increasing to 5.1 percent from 1996-99.

To study the effects of the fiscal changes on economic growth, Careaga and Weingast (2003) created a sample of five states that joined the FPWD early and five that joined late. The fiscal system treated these states differently, with significant effects on growth.²⁹

Late joining states were richer. With respect to expenditures, late joining states averaged 647 million pesos per year (1970-72), while those joining early averaged 178 million, a ratio of about 3.6 (late to early). Late joiners also had larger state GDPs. For the year 1970, early joiners average 7.5 billion pesos GDP while late joiners the figure is 18.1 billion pesos, a ration of about 2.4.

As we have already noted, two major events occurred in the early 1980s that affected these patterns: the change in the fiscal system, resulting in greater centralization; and the exogenous economic shocks caused the international debt crisis and by collapsing oil prices. Given the data we have, we cannot separate the effects of these two changes.

The first major change is the relative growth of state expenditures among the early joiners. We have calculated the ratio of state expenditures (late to early joiners) for the two periods, 1970-80; and 1980-94. This calculation is reproduced in table 4.

²⁹The sample included: early joiners: Aguas Calientes, Campeche, Guerrero, Michoacan, and Puebla; and late joiners: Chihuahua, Durango, Mexico, Nuevo Leon, and Zacateca.

**Table 4: Change in the Ratio of State Expenditures
(Late Joiners to Early Joiners) After 1980.**

	1970-80	1980-94
Ratio (late to early)	4.17	2.16

Source: Careaga and Weingast (2003, table 13.5)

The data reveal a dramatic change in expenditures: the ratio of expenditures (late to early joiners) falls by nearly a factor of one-half after 1980. Because nearly all state expenditures after 1980 were financed through the federal revenue sharing system, the new tax system clearly gave disproportionately more revenue to the earlier – and on average, poorer – joiners.

We next turn to the state GDP growth rates. By separating the states into the two sets of early and late joiners, we are able to assess the differential impact of the two changes (changes in the fiscal system; and exogenous economic shocks) across the two sets.

The data show that real state GDP growth rates for the late joiners is somewhat larger than the early joiners in the early period, 7.5 percent versus 6.6 percent per year respectively (table 5).

**Table 5: Average Real state GDP Growth Rate,
By Group and Period (percent per year).**

	1970-80	1980-93
Early Joiners	6.6	3.0
Late Joiners	7.5	1.7

Source: Careaga and Weingast (2003, table 13.6)

The data also show that the growth rates of both groups fall dramatically after 1980, as is well-known. The fall, however, is much larger for the late joiners: average GDP growth per year is 3.0 percent for the early joiners while only 1.7 percent for the late joiners.

The change in growth rates is consistent with the FPWD hypothesis: growth rates should fall more in states joining later. Moreover, the smaller fall for the early joiners is consistent with the evidence from the data on expenditures (and hence redistribution). Because the early joiners get proportionately more transfers under the revenue sharing scheme, they are likely to grow at a greater rate (assuming that some of the revenue is spent on public goods!). Of course, there are many alternative hypotheses about why state GDP growth rates should fall. Perhaps the debt crisis and the oil shock hit the richer states harder. Nonetheless, the fact that growth rates for the late joiners fall more than for the early joiners is consistent with our hypothesis.

7. Democratization, Globalization, and the Demise of the PRI Punishment Regime

I draw again on Diaz, Magaloni, and Weingast (2003) to analyze how the long-standing PRI in Mexico lost its hegemony. The model of the PRI's hegemony from 1930 through the early 1980s is an equilibrium one. To discuss the breakdown of this equilibrium into another, more competitive one, I turn to a comparative statics argument

Political implications of economic integration with the United States

Several dynamic aspects of Mexico have implications for the PRI's loss of hegemony. First, over the past two decades, Mexico's economy has become increasingly integrated with that of the United States. A host of localities in Northern Mexico and the el Bajío region now have vibrant economies with deep connections with the U.S. Other poorer localities in the South have also developed extremely strong connections to the U.S., mainly through intensive labor migration and the cash remittances migrant workers send to their families back home.

Second, public goods provide necessary inputs to economic growth (Barro 1997, Knack and Keefer 1995, North 1981). In local communities throughout Mexico, the

PRI's system too often implied inefficient production of local goods and services. PRI officials at all levels had little incentive to be concerned with critical features for economic development, such as whether electricity service was reliable. Local governments found infrastructure complementary to growth hard to provide, in part because financing it depended on obtaining funds from a remote national government that distributed funds according to electoral criteria, rather than their productivity.³⁰

Third, the Mexico's dismantling of Import Substitution Industrialization (ISI) policies meant that the remote central government increasingly lost control of over the local economies. With ISI policies, local economies were geared toward the center, where markets for their goods and inputs concentrated.

Moreover, Mexico's economy has become more global, particularly the growing economic integration with the United States. Before 1985, nearly 80 percent of Mexico's exports came from the state owned oil company; the manufacturing sector was geared toward the internal market, tightly regulated by the central government. Policies such as multiple exchange rates, tariffs, permits, subsidized credit, strict regulations on foreign direct investment and the transfer of technology, all meant that producers had no chance unless they courted the central government.

The liberalization of trade, made necessary by reforms following the debt crisis, gave localities a credible exit option from the PRI system. Economic integration with the United States became the new engine of economic development. In less than fifteen years, Mexico's economy experienced a dramatic transformation, and today it is the largest exporter of manufacturing goods in Latin America.

Why did the PRI adopt a policy, trade liberalization, that eventually contributed to its ultimate demise? As in other developing countries, trade liberalization came about because the old development model failed. ISI depended on continuous imports of intermediate and capital goods, which were financed first with agricultural exports and, when these dried out, with trade deficits. During the decade of the 1970s, intensive international borrowing and oil exports allowed the government to sustain these policies

³⁰ See, e.g., Diaz-Cayeros (1999, forthcoming) on education, Morgenstern (1997) on federal public investment, and Weldon and Molinar (1994) and Magaloni *et al* (2000) on solidarity funds.

despite huge inefficiencies and rising deficits. The debt crisis of the 1980s forced governments to alter existing policies. The real question for all developing countries became not whether to liberalize trade, but how to do it.

Assessing the Model's Comparative Statics

The hegemonic punishment model captures a central feature of the breakdown of the PRI's hegemonic position. To see this, consider how the economic changes in Mexico noted above affected voter preferences. Five separate effects work together to alter voter evaluation of the opposition relative to the PRI in areas seeking to integrate with the United States economy.

(1) Localities seeking to integrate with the United States faced growing opportunity costs of the PRI's corruption and lack of local public goods provision. As these opportunity costs rose, the value of A relative to D in the locality declines.

(2) A locality's integration of its economy with that of the United States implies that, as the value of government public goods and services complementary to the market rises, so too does the value of control over the government. This rise, in turn, raises the value of D.

(3) Citizens' willingness to pay (e.g., user fees) increases when their local government provides more valued goods and services, generating more local revenue.³¹ This, in turn, also raises the value of D.

(4) As the local economy develops through international economic integration, the significance of central government transfers relative to the value of the local economy declines. In this regard, the remittances of illegal migrant workers is central. This decreases the costs of D.

(5) The on-going economic crises beginning in the 1980s and extending through the late 1990s limited the central government's resources. This in turn limited its ability to reward supporters, decreasing the value of A.

To model these changes, let the value of D to the locality rise relative to A. In this formulation, I rewrite D as a function of an exogenous shift parameter, $D(\forall)$, where \forall

³¹ Rodriguez (1995), Ward (1995), and Rodriguez and Ward (1995) provide evidence for this claim.

represents the underlying economic shifts just discussed. As \forall rises, so too does the locality's value of D relative to A. During the years of PRI hegemony, $\forall = \forall_0$; at this time, \forall_0 was sufficiently low so that the locality preferred A to $D(\forall_0)$. As \forall grew, the locality's value of D relative to A rose. Eventually, \forall became large enough so that, at $\forall = \forall_1$, the locality valued $D(\forall_1)$ above A.

Table 6 provides the locality's expanded preference order. As before, the locality prefers A to $D(\forall_0)$, but with \forall sufficiently large, the locality prefers $D(\forall_1)$ to A. Notice also that as \forall changes, the PRI's preference order also changes. The reason is that the PRI does not want a successful local opposition anywhere. Although it has no control over \forall , the PRI prefers $D(\forall_0)$ to $D(\forall_1)$.

Of course, other elements affect voter preferences between A and D, including ideology and the particular weight given to transfers.

Table 6: The Locality's Evolving Preferences

PRI's Preferences	Locality's Preferences
A	C
B	$D(\forall_1)$
$D(\forall_0)$	A
$D(\forall_1)$	$D(\forall_0)$
C	B

Evidence

The model hypothesizes that localities are more likely to opt for the opposition despite the risks when they possess credible "exit" options, either because their economies are more highly integrated with the United States and international markets. Once Mexico began to liberalize trade, a process of economic decentralization ensued, allowing some dynamic local economies to integrate with global markets.

In the eighties, only a handful of municipalities defected to the PAN. The PAN was

strong in the North and the historically anti-PRI Bajío region. The PRD emerged after 1988 as a result of a PRI splinter, and grew through the years. This party is stronger in the state of Michoacán (situated in the region of el Bajío region), and in the South. PAN and PRD have different regional strongholds, the PAN in the wealthier and urban localities, and the PRD in the poorer and more rural ones. Nonetheless, as we will demonstrate, both opposition parties benefited from international trade and openness.

To test these hypotheses, Diaz, Magaloni, and Weingast (2003) estimate the determinants of the party governing in the Mexican municipalities in 1995.³² The independent variables are as follows. The first variable is the degree of global integration of the state, as measured by the share of imports plus exports in state GDP. Also included is a variable for the internationalization of the municipality, the percentage of people in the municipality residing in the United States. This variable indicates trade in factors of production, both labor migration and capital inflows through remittances sent back home by migrant workers. Indeed, the magnitude of remittances is quite large, estimated to be approximately \$3.8 billion in 2000. The model predicts that both these variables have positive coefficients.

A number of controls are also used including three measures of development: state GDP, and municipal percentage of illiterate among those over fifteen years old, and the municipal rurality, as measured by the percentage of population living in localities with less than 2,500 inhabitants. Development is expected to impact areas that lean to the PAN and to the PRD in different manners. The PAN should win in richer states and in more urban, literate municipalities; the opposite pattern should hold for the PRD. A series of regional variables are also included.

The results support the model's interpretation of the parameter \forall and are novel in several respects. As with the modernization accounts of Mexican politics (Ames, 1970; Molinar, 1991; Klesner, 1996), we show that the PRI performs better in rural, more sparsely populated areas, and the opposition in urban municipalities. In addition – and per our theory -- we show that integration of the state economy with international markets,

32 They focus on municipalities in 1995 for two reasons. First, it is the only year for which data on subnational international trade, one of our key independent variables, is available. Second, we are interested in explaining the propensity of localities to defect the PRI as a function of their different structural characteristics, and hence a cross-section analysis is appropriate.

higher international flows of factors of production as captured by the variable international migration, and higher growth rates in the local economy, all significantly increase the likelihood of defecting to the opposition.

In the case of the PAN, the most powerful positive effects on the probability of defection are trade, international migration, state's GDP, and level of development of the municipality as measured by rurality. In the case of the PRD, the most powerful positive effect is international flows of factors of production as measured by migration. These are precisely the variables that we hypothesized should enable voters to defect from the PRI.

8. Conclusions

This paper argues that the Mexican hegemonic party, PRI, used its monopoly control over the government to adapt both national political institutions and economic policymaking to further its own goals of remaining in power. In both cases, the PRI used its power to centralize control, creating extensive dependence on the state.

The hegemonic punishment game reveals the logic driving the PRI. To maintain hegemonic control required retaining the support of far more than a majority of citizens, interest groups, and politicians. The punishment game reveals how the PRI accomplished this. By creating sufficient policy dependence, voters and interest groups were induced to support the regime. Centralized control also greatly reduced the avenues available to potentially defecting politicians. Under the PRI's punishment regime, politicians, interest groups, and voters all came to have an interest in maintaining the system.

For federalism, the PRI's incentives implied a very centralized federalism, greatly reducing the power of the states. Centralized federalism reduced the power of the states, creating two kinds of political dependence on the PRI. For votes, the massive revenue sharing system implied that citizens had significant benefits to lose if they voted in the opposition. For politicians, control meant that they could not create an independent political base from which to launch opposition parties through creating policy initiatives and constituencies independent of the PRI.

Centralized control also meant massive intervention in the economy: trade protection for domestic industries, subsidies for a wide range of industries, labor restrictions to protect jobs and wages, capital investment controlled by the center, with most planned

industrialization around the capital, and a host of programs reducing competition or creating monopolies in many sectors.

Although the system produced negative benefits in toto for many citizens, the regime induced them nonetheless to support it because the regime provided them with a share that could be lost. Indeed, this system is at once tragic and brilliant. Acting alone, citizens in one area could do nothing about the system; by their actions they could only determine whether they got their share. And so their incentives induced many citizens to support actively a regime which they believed corrupt. The same logic holds for individual interest groups and for subsets of politicians, all of whom had similar incentives to play their role in maintaining the cartel.

The paper summarized a range of empirical support in favor of the model. First, it reported on case studies and statistical evidence that showed how the punishment regime worked in practice. Localities that defected were in fact punished. Second, it provided a range of empirical evidence for the inefficiencies of the revenue sharing system. Third, the paper provided evidence about the “democratization from below” thesis, showing that the more internationally oriented localities were more likely to defect from the PRI system.

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