

Fiscal Decentralization in Latin America: New Life for Local Government?¹

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Against the historical “centralist tradition” of Latin America have been a series of recent decentralization initiatives.² These appear to be a move to share power among the national, state and municipal governments. In the case of Mexico, these decentralization initiatives have built on the foundations established in the Municipal Reform of 1983. Rodriguez (1997) argues this not only established a “decentralization culture” but also served to increase municipal autonomy in the arenas of public administration, services, finances and development. Local governments and reformers have been demanding increased municipal autonomy and rights for years. These demands have increased as opposition parties have gained control of local government. In 1985, the PAN (*Partido Acción Nacional*) argued in their national platform that “the free municipality should have economic autonomy and political freedom; the road to democracy surely must run through the free municipality” (PAN, 1985, p 9).

This movement toward “decentralization” is not limited to Mexico, but is occurring throughout the region. Is it actually the case that countries traditionally considered among the most centralized, are now endowing sub-national governments with independent power? Alternatively, is what we are seeing an elaborate charade, an attempt to retain control but to shift the blame? This paper considers the causes of one aspect of decentralization, fiscal power sharing, as it is occurring in Latin America today. For political scientists fiscal decentralization merits independent attention. Beyond a doubt the two processes are related, but nonetheless remain distinct. Independent of the sharing of political power, fiscal decentralization remains important because it is ultimately the power of the purse that makes or breaks local government. Local governments with many responsibilities but little financial power are unlikely to meet the

¹ The author thanks Brian Crisp for many useful discussions on federalism and decentralization in Latin America and William Dixon for help with Shazam code. Nonetheless, any errors or omissions are my own.

² The term centralist Tradition was coined by Veliz (1980) in describing the historical development of politics in Latin America.

population's expectations, calling into question their effectiveness and/or legitimacy. I argue that the degree of fiscal centralization also determines the "real" power of sub-national government.³

I begin this study of the causes of fiscal decentralization by first considering some past efforts. The literature reviewed in this section is used to derive some hypotheses to explain the degree of fiscal centralization in the next section. In the third section of the paper, these hypotheses are tested on a sample of twenty-one Latin American countries over the period between 1985 and 1995. The paper concludes with a discussion of the importance of these results and their implications for future research.

Studying Centralization and Decentralization

Decentralization characterizes the movement from a system where power is highly concentrated to one where power is shared at multiple levels. More specifically, it is the movement of responsibility and function from national government to sub-national offices. (Rondinelli, 1981). Centralization implies movement in the opposite direction--with functions previously performed at local levels being carried out at the national. Understood in this sense changes in power relations can be classified as vertical decentralization. Vertical centralization exists to the extent that national governments marginalize state and local governments. Most Latin American countries can additionally be labeled as experiencing executive centralization since the executive branch frequently dominates both the legislative and judicial branches. While decentralization can theoretically be studied either vertically or horizontally, this paper, like much of the literature, focuses on vertical centralization.

Unfortunately, many previous studies have confounded fiscal and political decentralization. Since the amount of centralization is difficult to measure, it is tempting to include any observable indicators political or fiscal. However, by considering them separately we

³ In this paper, the term state government refers to all intermediate levels of government between local or municipal administration and the national government. In some cases these are regional governments and in other cases provincial governments. Sub-national government encompasses all levels of government below the national level.

gain a more accurate overall picture of the process and status of decentralization in a country. Political decentralization involves transferring political power to sub-national levels of government. Fiscal decentralization, on the other hand, is concerned with expenditure and income responsibilities. In politically decentralized systems, sub-national governments have the autonomy to set policy without interference from national authorities. Laws and policy can be chosen that will be preferable to citizens in that area, even if their values and opinions are different from citizens living elsewhere in the country. Similarly, in fiscally decentralized systems, sub-national governments decide which taxes to collect, collect them, and determine expenditure levels. In fiscally centralized systems, on the other hand, revenue is distributed by the national government to the states and municipalities who spend it in ways consistent with nationally derived goals and plans.⁴

Fiscal decentralization deserves independent study because the extent to which resource devolution accompanies the transfer of political responsibility contributes to the nature and success of the political transfer. In writing about Latin America in general Harris (1993) notes that “the underdevelopment of local government and the reluctance of political leaders at the center to relinquish power have greatly inhibited such efforts and made real devolution rare” (page 185). The extent to which states and municipalities have sufficient resources to carry out the tasks assigned to them determines their actual power. It is relatively easy and cheap for the national government to decide to transfer responsibility for providing services to lower levels of government (Rodriguez 1992, 1997). What is far more difficult, expensive and politically costly is to transfer the financial resources and technical expertise to make these extra responsibilities feasible (Rondinelli, 1989, 1990). Yet without this transfer, sub-national governments remain

⁴ There has been considerable debate over the merits of different financing systems and their impact on the local economy. The consensus emerging on this point is that fixed tax bases should be assigned to local governments while ones that are more mobile should be tapped by the national government. See for instance: Ter-Minassian, 1997; Bahl and Linn, 1994; Bird, *et al*, 1995, Rondinelli, 1989, 1990.

dependent upon the national.⁵ Stella Lowder (1992) argues that national governments have been quite willing to shed responsibilities. However, in order to preserve their authority, they have not usually given state and local governments enough power. This has resulted in poor local public service administration. Unfunded mandates reflect a situation with potentially high political decentralization, but relatively low fiscal decentralization

Studies of decentralization have used a variety of approaches and methods. However, a few broad themes characterize the literature relevant to this project. Previous efforts to study decentralization can be classified in three main categories: those which describe decentralization in theoretical terms; those treating decentralization as an independent variable; and those treating it as a dependent variable. While this study treats decentralization as a dependent variable, it is worth mentioning briefly some of the important studies from these two other literatures.

The theoretical literature that has developed provides a rich description of the process of decentralization. These studies have included some complex and broad models for observing and studying decentralization (Cameron, 1990, Rondinelli, *et al* 1989). One of the best theoretical models for decentralization is developed by Rondinelli, *et al* (1984). This model distinguishes three degrees of decentralization: deconcentration, delegation and devolution. Deconcentration exhibits the least amount of decentralization because it only involves “the handing over of some amount of administrative authority or responsibility to lower levels within central government ministries or agencies” (page 10). It is important to note that in this case there is still central control over the administration of programs. Little authority has been transferred and the sub-national governments performing these functions often approximate “field offices” of a national agency in carrying out their duties. Delegation, allows slightly greater decentralization since it “transfers managerial responsibility for specifically defined functions to organizations that are outside the regular bureaucratic structure and that are only indirectly controlled by the central government” (page 15). In this case, they not only carry out the program but they have the ability

⁵ Centralization is usually claimed to have the advantages facilitating redistribution. However, this does not change the fact that they are centralized and vertical imbalance exists.

to make important decisions about the way that the program will be administered, running it with some autonomy. Nonetheless, they may still be required to report to the central government. Devolution exhibits the highest degree of power sharing among levels of government since it “is the creation or strengthening - financially or legally - of sub-national units of government” (page 19). This is the highest level of decentralization that can occur within a country. When devolution occurs, sub-national governments not only provide services, but also decide what services to provide. In fiscal devolution occurs when taxes are determined locally, collected locally and then used to fund local programs. For instance, local assessments of a property tax to fund public schools in that municipality. Fiscal centralization is characteristic of the case where local governments collect part of a national tax, such as a VAT (Value Added Tax), but then immediately transfer all funds to a national office. Deconcentration could be present in this case if the percentage a local government received was dependent upon their collection efforts.

Some studies have treated decentralization as an independent variable, useful in explaining other phenomena such as development strategy or successful administration of decentralized programs. In looking at development strategy across a wide range of countries, Krane (1978) found that the amount of centralization in a state was not systematically related to its development strategy or its success. Control over resource allocation was a more important predictor of successful development. A more detailed look at the effects of decentralization on the administration of development programs, is Karen Manglesdorf's (1988) study of rural health care programs in Ecuador. She provides evidence that decentralizing these services improved their provision in some, but not all cases. Decentralization of supply sources did not improve their quality. The broadly applicable lesson from her research is that the impact of decentralization may be function specific. This implies that the results will not be the same in all cases. The extent to which decentralizing public administration can improve services is also taken up in the Inter-American Development Bank report (IDB, 1997). They are concerned with the long-term patterns established concerning centralized financing. The implication they draw is that while decentralization can increase efficiency, the way it is financed will determine if decentralization is

successful or not. This is consistent with their concern that sub-national governments can borrow without approval from the national government, since in many cases this leads to substantial debts. It is important to note that while they do not capitalize on the distinction between fiscal and political centralization, they are primarily studying fiscal decentralization since they are more concerned with the allocation of fiscal resources. A similar issue is considered by Wiesner (1994). Using data collected from extensive fieldwork and discussions with Argentinean, Bolivian, Chilean, Colombian and Peruvian officials he considers the effect that decentralization has had on the variation in the efficiency and equity with which health and primary education have been provided.

The final body of literature reviewed here treats the amount of centralization as the outcome to be explained. Among possible explanations, one frequently neglected is the structure of the state. The structure of the state, federal or unitary, is usually treated as implicit in studying decentralization or worse is ignored entirely. In many cases, the literature has not been precise on this point and two conceptually distinct dimensions are treated as identical. The institutional organization of the state is determined by the prevailing constitution.

Federalism has been used to explain a variety of political outcomes including allocation of administrative responsibility, fiscal relationships and the efficiency of federal political systems (de Villiers, 1994). Additionally, there have been studies of the apparent tension between the federal and state governments, as the federal attempts to preempt state action (Zimmerman, 1993). Other studies have examined the factors encouraging support for federalism within the U.S. Congress (Schechter, 1983; Hero, 1987; Webber, 1989). Within Argentina, electoral contestation at the state level is argued to affect the number of parties contesting national elections. Jones (1997) concludes that when congressional elections occur concurrently with elections for governor, the overall number of parties' decreases. Gustafson (1990) argues that federal structures in Argentina are a way to avoid a return to authoritarian rule. Stronger local governments will act as an effective check on the federal level.

While not applied to studying decentralization, empirically and conceptually, we observe

that studies of federalism tend to assume that power is required at local levels of government. Chubb (1988) considers whether the same factors affect state and national election outcomes. Stein (1990) expands this research to consider the way in which functional responsibility in a federal system affects voter's responses. He finds that voters may hold senators responsible for economic downturns, but only hold governors of the president's party culpable. In doing so, they implicitly assume that political power exists at the state level or governors would not be subject to electoral defeat for failing to act. While these are studies of federalism, they are also studies of the decentralization of political power. This inadvertent combination of the two is a problem corrected in the research proposed here.

The neglect of state structure has been further compounded by the assumption that federal systems must, by definition, be more decentralized than unitary ones. While Osaghae (1990) has argued that federal systems are more appropriately characterized as possessing non-centralization, this argument does not challenge the underlying assumption that all federal states exhibit greater decentralization than any unitary state. Unfortunately, because decentralization has become part of the definition of federalism, many authors cannot evaluate the full relationship between the two. Brown-John (1983) correctly considers the possibility that the amount of centralization could vary within federal states and the contributors to the volume examine cases accordingly. He concludes that the attitudes of participants—both government and citizens—will determine if federal arrangements succeed or fail. Elite consensus is argued to be necessary for decentralization not to pose a threat to the future of the federal state. However, because this work focuses only on one type of state structure we do not know if this is also true in unitary states. It is impossible to know if different factors cause this variation in federal and non-federal states or to determine the role that federal state structure plays in the process since state structure has not been allowed to vary.

Sanwal (1985) identifies 1) local input to decision making, 2) local control over resources, and 3) systemic controls to ensure the transfer of resources as important for the success of programs targeting the poor in Indonesia, Kenya, and India. However, because the study only considers three successful programs, it is impossible to verify that these do lead to successful

programs, since these same factors may have surrounded failed programs. Unfortunately, selection bias in only studying successful decentralization has characterized many studies in this area. Many of the works included in this category are more an attempt to assess the sources of successful policy as to explain decentralization. In part, this draws attention to the importance of studying financing in determining the extent to which local governments are successful in administering programs.

Another assumption implicit in much of this literature is that local public goods can be more efficiently provided by local government (Rondinelli, 1989). Mikesell (1994) demonstrates that local populations have different allocation preferences and dispersed revenue systems give local governments a better chance to respond to these different allocation preferences. This would not be true under a common tax system (where revenues are collected nationally and dispersed). However, most studies of decentralized revenue and expenditure patterns have been based on data from the United States and Europe, which are developed countries. Bahl and Linn (1994) argue that gains from decentralization may vary with development. Their cross-national testing revealed that, in countries considered underdeveloped or developing local administration is likely to be inefficient. In these cases, any gains that would normally accrue from decentralization are likely to be lost due to inefficient government. For these countries, centralization may actually better serve the goals of development.

Rodriguez (1997) undertakes one of the best studies of the causes of decentralization. Her work on Mexico looks at changes in power relations between the national and state governments and between the municipal governments and the state and national governments. She examines both the extent and financing of transfers of responsibility for health and education to the states and municipalities. Rodriguez has argued that the process of decentralization may be a façade perpetuated by the PRI as a way to hold onto power in the face of declining legitimacy. As opposition parties gain increased power at local levels, the appearance of increasing their authority even if their actual authority is not increased could be useful. While modifications have been made to the Mexican fiscal system to try to ensure that more money reaches the

municipalities, it is unclear to what extent the municipalities have become more independent. Rodriguez (1992, 1997) argues that municipal decentralization efforts have been hijacked by the states as they have absorbed the lion's share of funds. Ironically, municipal autonomy may increase in the long run as they are forced to seek alternative sources of income, which would firmly establish their independence. Unfortunately, though the one country nature of here study, this means that we cannot use it to determine whether state structure matters for decentralization or not.

Much of Latin America spent the 1980s and 1990s adopting or avoiding structural adjustment programs. The process of structural adjustment is often painful and difficult because it involves hard tradeoffs, as government expenditure must be cut. If the budget deficit is to be contained, either revenue must increase or expenditure must decrease. Many governments have found it problematic to do either, despite its importance. Public service expenditures are often very difficult to reduce because constituents have come to depend upon these services. Democratically elected leaders have a vested interest in avoiding policies which will generate a public backlash. As Rodriguez notes, one way to keep the international creditors happy by balancing budgets, while keeping the population happy by continuing to provide some social services, is to shift responsibility to the states. However, if the national government chooses not to adequately finance these programs, then the blame for inadequate services can also be passed on to the states.⁶ Alternatively, states may use this as an opportunity to provide some of these services on their own and with their own funds. States who seize this opportunity, take advantage of this may do a great deal to increase their autonomy in the long-run. Rosenfeld (1995) argues that the process of structural adjustment creates a general spirit of privatization. State run enterprises are sold to private investors because it is believed that they can run them more efficiently. In this spirit large, cumbersome programs administered at the national level may be

⁶ Rowland (1998) argues that in Mexico there has not been a decentralization of austerity in the provision of public goods, implying that financing has been commensurate with responsibility. However, she does note that under decentralization we have begun to witness a wider variety of quantity and quality of public good provision across the Mexican municipalities.

“privatized” or given to sub-national governments because they may be able to run them more efficiently.

One of the most detailed studies of fiscal centralization is that undertaken by Wallis and Oates (1988) of the United States. They argue that there are three main explanations for variation in fiscal centralization in the states within the United States. These are 1) the land size, population and geographic distribution of population; 2) the level of income and wealth; and 3) the diversity of preferences and their distribution among the population. They test these hypotheses using a large sample of state level data for the United States. In their model fiscal centralization is operationalized as the share of state government revenue in state-local government spending. As state governments spend more, relative to local governments, fiscal centralization is said to increase. Many of their hypotheses are worth considering in cross-national research especially since their measure of fiscal centralization is relatively transferable. To a certain extent, this study suffers from a confusion of state structure and decentralization. Since this is only based on data from within a federal state, it is impossible to know if the federal structure of government relations has affected the outcome. In addition, it is not clear the extent to which state-municipal relations are comparable to nation-state/municipal relations because of the differences in relative power imbalances. In summary then, the biggest failings within the literature to date include a failure to adequately separate state structure from decentralization, a mixing of political and fiscal decentralization, and an undervaluing of cross-national studies. The research in this paper is an attempt to correct these problems.

Proposed Explanations for Fiscal Decentralization

Three general explanations for variation in fiscal centralization within a country emerge from the literature reviewed above. Variation in the degree of fiscal centralization is hypothesized to result from state structure, economic crisis, and local population characteristics. These general explanations are developed into formal hypotheses below. The first explanation considers the role of state structure in explaining fiscal centralization.

Implicit in much of the literature is the assumption that federal systems will be more decentralized, on all dimensions, than will unitary states, but this has not been tested empirically. Since Latin America contains examples of both federal and unitary states, it will be possible in this paper to consider the effect that federal structure has upon the degree of fiscal decentralization that is actually observed. This can be formally stated as *H1: Federal states will experience greater fiscal decentralization than unitary states.*

Work by Rodriguez (1988) and Rosenfeld (1995) leads to the expectation that the process of economic crisis and the resulting process of structural adjustment would increase the amount of fiscal decentralization in a state. This can be formally stated in the second hypothesis. *H2: More extensive structural adjustment programs increase the chances of fiscal decentralization.*

The final set of hypotheses to be tested are based on the premise that local governments are more representative of local populations and therefore respond more efficiently and promptly to local demands than can the national government. Wallis and Oates (1988) note that there is an optimal amount of land area that can reasonably be governed. Small countries thus have less need for decentralized government since the national government can respond to everyone. National governments in large countries, on the one hand, are more likely to need at least some degree of decentralization to administer their territory. *H3: As the geographic area of a state increases, the amount of fiscal centralization will decrease.* However, since Wallis and Oates contend that perhaps it is not simply geographic size, but also the size of the population of a country that necessitates centralization it is worth considering hypothesis four. *H4: As population increases, the amount of fiscal centralization is expected to decrease.* They proceed to note though that the distribution of the population may also affect fiscal centralization. A thinly spread population in a large country will be less effectively served by local government, whereas large urban populations can efficiently be governed locally. *H5: As urbanization increases, centralization is expected to decrease.*

One of the most common justifications for fiscal centralization is to provide a means for the national government to engage in redistributive policies. Wallis and Oates suggest that well off

regions are more likely to support larger public sectors capable of income redistribution. *H6: As national wealth increases the chances of fiscal centralization increase.* They do note that rich regions may fight this, seeking to keep their largesse for themselves, rather than transferring them to other areas, they hypothesize that increasingly unequal distributions of income may lead to less centralized financing. Unfortunately, given the aggregate nature of the data employed here, it is not possible to test the effect of sub-national inequalities in wealth. However, income distribution can be observed across households as well as across regions. The literature on income inequality seems to suggest that power remains concentrated in cases where the income distribution is highly skewed (for instance Muller and Seligson, 1988). In this case we would expect that fiscal patterns would follow the fiscal. *H7: As income distribution worsens, fiscal centralization is likely to increase.*

The final set of explanations offered by Wallis and Oates relate to government responsiveness to local preferences. Detailed intra-country variations may play an important role in determining the optimal degree of fiscal centralization. One of the clearest measures of diversity is race and ethnicity. In fact, Wallis and Oates operationalize diversity based on race. *H8: Increased diversity within a country is likely to decrease fiscal centralization.*

Finally, the process of decentralization appears to be occurring throughout Latin America as countries with varying democratic experiences move toward sharing power with state and local governments. While authoritarian governments may find it expedient to concentrate all political control in a single national office, democrats may find that less appealing. Instead, they may opt for the adoption of constitutional provisions and protections to ensure that power is shared. Gustafson (1990) argues that this is what has happened in Argentina as the provinces have been strengthened in an attempt to prevent a return to authoritarian rule. While important for decentralization, democracy is not hypothesized to cause decentralization per se. Nonetheless, democracy is expected to contribute positively to decentralization. *H9: Democracies are more likely to decentralize than non-democracies.*

Data and Analysis

In order to test the hypotheses set out in the preceding section data were collected for twenty-one Latin American countries over the period from 1985 to 1995.⁷ This data set therefore contains both cross-national and time-serial variation. Detailed notes on the operationalization and measurement of each of the independent variables as well as the source of the data are recorded in the Data Appendix.

Fiscal centralization is measured as expenditures by state and local governments as a percentage of total expenditures by all levels of government. This ranges from the decentralized high of 49.3% for Argentina to the extremely centralized low of 0% for Barbados and the Bahamas (IDB, 1997). The use of income and expenditure allows for a constant and transferable measure across countries and across time. Since the variable is measured as a percentage, comparison across countries with overall budgets of different sizes, denominated in different currencies, are easily possible. Moreover, the use of a ratio allows comparison across time as well, without needing to account for inflationary changes. These factors have made this an attractive measure to other authors as well (Wallis and Oates, 1988, Lopez-Murphy, 1995 and Nickson, 1995).

The competing explanations derived above were tested on three different data sets. Missing data presented a substantial problem since finance data were not reported yearly for all countries in the sample. The first data set (referred to as “full data”) includes all countries for the entire 10-year period between 1985 and 1995.⁸ While this sample is the largest, it also suffers

⁷ The countries included are: Argentina, the Bahamas, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela. However, large amounts of missing data on multiple variables for the Bahamas, Barbados and El Salvador meant it was impossible to include these cases in the analysis.

⁸ The time-series, cross-sectional nature of the data made it probable that the covariance matrix is affected by heteroskedasticity, leading to biased or “wrong” standard errors. In order to deal with this problem it was necessary to use panel-corrected standard errors (Beck and Katz, 1995). Thus, the parameter estimates generated and the standard errors reported in the tables have been corrected to account for heteroskedasticity.

from serious problems of missing data.⁹ In order to verify that the results were consistent across models, two sub-samples of “full data” were chosen. One (referred to as “85&95”) maximizes cross-national variation at the expense of time serial and uses only the years 1985 and 1995. The other (referred to as “limited”) includes only those countries with a full reporting for the entire time series. This data provides an indication of trends over time, but sacrifices cross-sectional variation.¹⁰ Results from all three models are presented. Including the results from all three samples allows for some assessment of the impact of sample composition upon the results. Results are considered real and robust to the extent that coefficients with similar directions, magnitudes and statistical significance emerge across the different samples.

That a general trend toward fiscal decentralization is occurring across the region is true beyond a doubt. Table 1 compares the percentage of sub-national expenditures in 1985 with those in 1995. In this analysis federal structure is defined based on a constitutional preservation of rights and responsibilities to be exercised at the sub-national level.¹¹ In three of the four federal states, we observe a significant increase during this period, with expenditures in the fourth, Venezuela, remaining relatively constant. Increases in decentralization are interesting since these states are already among the most decentralized in the region. However, federal state structure is not a sufficient explanation. Colombia and Bolivia, both unitary states, are highly fiscally decentralized, even more so than Venezuela. This first look at the data provides some indication that federalism is important in explaining fiscal decentralization—but alone is not sufficient. The importance of federalism is reinforced in the statistical analysis in Tables 1 and Table 2.

⁹ Missing data present a substantial problem for many scholars in this area as many countries opt not to report sub-national expenditures to International Financial Institutions. Since it was not possible to estimate a full pooled model with missing data, missing values were interpolated. The interpolation was preformed using a linear fit on the assumption, based on the full time-serial cases, that patterns remain linear over time.

¹⁰ The cases meeting the criterion to be included in this analysis are Argentina, Bolivia, Brazil, Nicaragua, Mexico, and Paraguay.

¹¹ There is some debate as to whether constitutional structure is the best determinant of federal structure. The problem with classifying as system as federal or unitary based on the observed distribution of power within the state is that federalism and decentralization become fused. In this sense Venezuela can more appropriately be labeled a case of centralized federal state and Colombia and Bolivia decentralized unitary states.

Since state structure is treated as an antecedent variable, the first hypothesis was tested in both univariate and multivariate models. It is apparent from Table 2 that by itself Federalism is a powerful predictor of fiscal decentralization. Based on the “full data” model federal states have approximately 21.7% higher spending by state and local governments than do unitary states. By itself, state structure explains a substantial portion of the variation in fiscal centralization in a state, between 39% and 51% based on the R-square statistic. However, from Table 1 we know that state structure, by itself is really an insufficient explanation. Thus, it is necessary to examine the effect of state structure in a larger context. Even when other hypothesized causes were “controlled” the effect of state structure was robust and statistically significant. In federal states, the expenditures by state and local governments were between 7% and 127% higher than in unitary states. Given the robustness of these results across samples, we can say with confidence that federal states exhibit greater fiscal decentralization.

The second hypothesis proposed that the adoption of structural adjustment programs increased the chances of fiscal decentralization. Based on the results reported in Table 2, regardless of the data sample used, structural adjustment exerts a highly statistically significant and positive effect upon the percentage of expenditures executed by state and local governments. While there is variation in the magnitude of the effect across samples, it nonetheless appears substantial. A country increasing structural adjustment by .10 is expected to experience an increase in local-state expenditures between 1% and 2%.¹²

The third hypothesis considered the effect of land size upon the extent of fiscal decentralization. It hypothesized that larger countries would have greater fiscal decentralization. The models in Table 2 provide some support for this hypothesis. While statistically very significant, the effect of land size on fiscal decentralization appears rather small in substantive terms. An increase of 5,000 square kilometers—roughly .06% the size of Brazil but almost 10%

¹² Structural adjustment is measured on a .000 to 1.000 scale developed by the Inter-American Development Bank. An increase of .10 represents a 10% increase in possible values of structural adjustment.

of the total area of Costa Rica--would increase expected state and local expenditure by approximately 3% based on "85-95" data sample. All else being equal then we would expect Brazil to have state and local government expenditures higher than Costa Rica, due to their larger territory. As the comparison between Brazil and Costa Rica implies this variable has a higher impact in larger countries.

Related to the impact of increased state size upon decreased centralization, is the possibility that increased population might also lead to decreased centralization as well. Hypothesis four posited a positive relationship between increased population and decreased centralization. However, contrary to expectations, the models evince that increases in population will lead to increases in fiscal centralization (decreased state-local spending). Despite being somewhat small, this result is robust across the three data sets. A population increase of one million is expected to decrease the share of state-local spending slightly less than one percent, regardless of the data set used. For the full data set a population increase of 100,000 leads to a predicted decrease of 0.2% in state-local spending. While the effect is substantively quite small the robustness of the effect leads to a rejection of hypothesis four.

The fifth hypothesis proposed that increased urbanization would lead to fiscal decentralization. Based on Table 2, the multivariate effect of urbanization on fiscal centralization was mixed. The coefficient was small, positive and statistically significant for the full sample, but small, negative and statistically significant for the limited sample, but statistically insignificant in the 85-98 sample. Thus, the evidence for hypothesis five is inconclusive at best, but points more toward rejection than acceptance.

Hypothesis six considered the impact that the overall wealth of a country has on fiscal centralization. It proposed that increases in wealth and per capita income lead to increases in fiscal centralization. Regressing GNP/capita on state-local expenditures in all three samples produced different results in terms of direction and statistical significance. Per capita GNP only achieved statistical significance in the "limited" model. In this case, the effect is in the expected direction. However, since there is only limited evidence to support the hypothesis, we cannot accept

hypothesis six as correct.

The seventh hypothesis proposed that as income distribution worsened, fiscal centralization was likely to increase as governments concentrated power. In Table 2, the effect of income inequality is statistically significant only for the full data sample. In this model income inequality has a very small, negative effect. Based on this model we would expect a one percent increase in the income accruing to the wealthiest 20% to lead to a 0.1% decrease in spending by state and local governments, a 10% increase in the income of the wealthiest 20% only leads to a 1% decrease in state-local expenditures. The variable does not achieve statistical significance even at the permissive 10% level in either the “85-95” or “limited” data models. Since this can be interpreted to mean that in two of three models the effect of changes in income inequality is not significantly different from zero, there is some compelling evidence to reject hypothesis seven.

The final hypothesis considered the effect that ethnic diversity might have upon the degree of fiscal centralization in a country. It was hypothesized that increased ethnic diversity would lead to decreased fiscal centralization. The variable measuring ethnic homogeneity was included to test this. In regressions upon both the “full data” sample and “85&95” sample, the variable homogenous population had a statistically significant effect in the expected direction. Countries with ethnic homogeneity are expected to have state and local expenditure five to seven percent lower than countries with greater ethnic diversity. Ethnically homogenous populations appear to have a higher degree of centralization than do ones that are more diverse. This may be because their need/demands are more similar, making it easier to set policy at the national level. Since the variable achieved statistical significance in two of the three models, there is some evidence for accepting hypothesis eight. Thus, which the evidence is a bit mixed, there is a good chance that ethnic diversity increased fiscal decentralization.

The ninth hypothesis proposed that democracies would have more extensive decentralization than non-democracies. While most countries in the sample are relatively democratic now, they do not have an equally democratic history. In order to control for any systematic variation in the amount of decentralization and level of state-local expenditures, the

democratic level of a country was included in the model. The level of democracy is statistically significant in all models. However, while the effect was positive in both the “full” and “85-95” samples, democracy had a negative effect in the “limited” sample. In all cases, the effect of democracy is substantively quite small. A one unit increase in the Polity scale democracy score results in less than a 0.5% increase in spending by sub-national governments.

Overall, these models provide a relatively good explanation for the causes of fiscal decentralization. The R-squared statistic on all models in table 2 is quite high, between .67 and .94. This indicates that at a minimum 67% of the total variance in the amount of fiscal centralization is explained by this model. Additional models, not presented here, including interaction terms were estimated. Of the various interaction effects tested, only interactions between federalism and land size and federalism and ethnic homogeneity achieved statistical significance. This implies that the effects of land size and of ethnic diversity are further increased in federal states. That these interactions were important should not be surprising given that both large land size and ethnic diversity have been argued to increase the chances of a country adopting a federal structure (see Friedrich).

Discussion

I need to say what these results mean. Of course I really have no idea.

Conclusions

Despite its importance for the success of local government, the process and the causes of fiscal decentralization have been under-studied in the literature to date. This paper attempts to correct this failing by testing some hypotheses regarding the causes of fiscal decentralization in Latin America. Using cross-sectional, time-series data from 18 Latin American countries over an 11-year period, several hypotheses were tested. There was robust evidence that federal systems had less fiscal centralization than did unitary ones. This provides empirical confirmation for what has long been believed about federal systems, but not tested. While there is compelling evidence

that federal states are more decentralized, this is not the whole story. Other factors are important in determining the amount of fiscal decentralization present in a country. Other significant predictors of fiscal decentralization included the adoption of structural adjustment programs and the geographic size of a country. Population increases were statistically significant predictor, but not in the expected direction. In general terms, the models fit quite well explaining a high percentage of the variance in the percentage of government expenditures by state and local governments.

The process of fiscal decentralization is distinct from political decentralization and worthy of independent study. Fiscal decentralization holds the key to determining if state-local governments are able to carry out programs or policies successfully. If responsibility for providing services is given to state and/or local governments without transferring sufficient resources the result is buck passing, not real power sharing. To the extent that fiscal decentralization occurs, there is an empowerment of local governments, even in non-federal systems. The centralization, which has characterized Latin America since independence, is unlikely to disappear overnight, despite active efforts by many national governments to devolve power. While following the money does not provide sufficient insight into political decentralization, studying fiscal centralization can provide important insights into state and local government capacity, an important part of local power.

Data Appendix

Fiscal Decentralization: Fiscal Decentralization is operationalized as a ratio of sub-national spending to total spending. The total amount spent by municipal and state/intermediate levels of government is divided by the total spending by all levels of government. Countries in which a higher percentage of total government expenditures occur at the municipal and state levels are deemed more fiscally decentralized than those with fewer. Sources: IDB (1997) Government Finance Statistics (1994, 1995, and 1996).

State Structure: Coded 1 if a state is federal, zero otherwise. States are considered federal if there are substantial powers reserved for sub-national government. (Elazar, 1994) Argentina, Brazil, Mexico and Venezuela are considered federal states. The remainder of Latin America is classified as Unitary. Source: Elazar (1994).

Land Area: Total land area of the country measured in square kilometers. Source: World Almanac (1996).

Population: Annual mid-year estimate of population. Source: International Financial Statistics (1997).

Homogeneity of Population: A population is considered homogenous if the overwhelming majority of people are from the same ethnic group. If over 90% of the population come from the same ethnic group this variable is coded one; otherwise it is coded 0. Source: World Almanac (1996).

Ethnic Balance: The measure of ethnic balance is intended to consider how balanced ethnic diversity is. A nation is considered to have ethnic balance if the ethnic groups comprising the population have approximate parity (defined as no further than 10 percentage points gaps between them). Where groups have parity this variable is coded one; otherwise, it is coded zero. Source: World Almanac (1996).

GNP per Capita: Values are purchasing power parity units. This allows for a better comparison between countries. Data were available for 1987 and 1995; the remaining values have been interpolated. Source: World Development Report (1997).

Urbanization: Percentage of the population living in cities and urban centers. Recorded as a percentage. Source: World Tables (1993, 1997).

Inequality: Data on income inequality is among the most difficult data to collect. Inequality is operationalized in this paper as the percentage of total income earned by the top quintile. The values entered for 1990-95 are the last reported year for 1989-1994. The values entered for 1985-98 are values reported for 1980-85 or prior based on available data. Sources: Social Indicators of Development (1996), Muller (1995).

Structural Adjustment: Structural Adjustment involves a variety of macroeconomic indicators and efforts by a government to undertake reforms necessary to bring or keep these measures in line to ensure the long-term growth and health of a nation's economy. This index includes policy changes pursued in the areas of trade, taxes, finance, privatization and labor. The five components are evaluated annually on a zero, one scale, summed together, and then divided by 5. The resulting index varies from zero (no adjustment) to one (extensive adjustment in a variety of areas). The calculations were done by the IDB. Despite the zero, one scale this variable is not dichotomous, but rather is decimal values bounded by zero and one. Source: IDB Report (1997) pg. 96.

Democracy: In order to avoid arbitrary decisions as to which countries are fully democratic and which are "transitional" or semi-democratic a continuous measure of democracy is used. Countries are scored on a zero to ten scale with zero being highly undemocratic and ten being fully democratic. Source: Polity III (1996).

Table A1: Correlation Coefficients for “full data” sample

Fiscal Decent.	1.000											
Federalism	0.664	1.000										
Land Area	0.689	0.768	1.000									
Homogeneity	-0.127	-0.051	0.155	1.000								
Ethnic Balance	-0.027	0.112	-0.071	-0.426	1.000							
Population	0.607	0.825	0.927	0.088	0.047	1.000						
GNP/capita	0.321	0.404	0.227	-0.085	0.113	0.244	1.000					
Urbanization	0.518	0.484	0.409	-0.004	-0.163	0.393	0.687	1.000				
Inequality	0.027	0.152	0.309	-0.210	0.069	0.375	-0.062	-0.154	1.000			
Structural	0.295	0.120	0.130	0.167	0.123	0.145	0.037	0.258	-0.051	1.000		
Adjustment												
Democracy	0.289	0.148	0.248	0.145	-0.035	0.195	0.243	0.220	-0.010	0.187	1.000	
	Fiscal	Feder	Land	Homog	Ethnic	Popul	GNP/	Urban	Inequ	Struct	Demo	
	Decentr	alism	Area	eneity	Balan	ation	capita	izatio	ality	ural	crazy	
	alizatio				ce		n			Adjus		
	n									tment		

References

- Bahl, Roy and Johannes Linn. 1994. "Fiscal Decentralization and Intergovernmental Transfers in Less Developed Countries." *Publius: The Journal of Federalism* 24(Winter):1-18.
- Beck, Nathaniel L. and Katz. 1995. *American Political Science Review*.
- Bird, Richard M., Caroline L. Freund, and Christine I. Wallich. 1995. "Decentralizing Fiscal Systems in Transition Economies" *Finance & Development* 32 (3): 31-34.
- Bird, Richard M. 1984. *Intergovernmental Finance in Colombia: Final Report of the Mission on Intergovernmental Finance*. Cambridge, MA: Law School of Harvard University.
- Brown-John, C. Lloyd. (editor) 1988. *Centralizing and Decentralizing Trends in Federal States*. Boston, MA: University Press of America.
- Cameron, R. 1990. "Decentralisation: A Framework for Analysis." *Politikon* 17(June):39-49.
- Chubb, John E., 1988, "Institutions, the Economy and the Dynamics of State Elections" *American Political Science Review* 81 (March): 133-154.
- de Villiers, Bertus (editor). 1994. *Evaluating Federal Systems*, Norwell, MA; Kluwer Academic Publishers.
- Elazar, Daniel J. (editor and compiler), 1994, *Federal Systems of the World: A Handbook of Federal, Confederal and Autonomy Arrangements*. Essex, UK: Longman Group Limited. (2nd edition).
- Friedrich, Carl J., 1968, *Trends of Federalism in Theory and Practice*, New York: Praeger Publishers.
- Gustafson, Lowell S., 1990, "Factionalism, Centralism and Federalism in Argentina" *Publius: The Journal of Federalism* 20 (Summer): 163-176.
- Jacobs, Kerry. 1997. "The decentralization debate and accounting controls in the New Zealand public sector." *Financial Accountability and Management* 13(4):331-144.
- Jones, Mark P., 1997, "Federalism and the Number of Parties in Argentine Congressional Elections." *Journal of Politics* 59 (May): 538-49.
- Inter-American Development Bank. 1997. *Economic and Social Progress in Latin America: Latin America After a Decade of Reforms*. Washington, DC: Inter-American Development Bank.
- International Monetary Fund. 1996. *Government Finance Statistics Yearbook*. Washington, DC: International Monetary Fund.
- Harris, Richard L. 1993 "Centralization and Decentralization in Latin America" in Cheema, G. Shabbir and Dennis A. Rondinelli (eds.). 1983. *Decentralization and Development: Policy Implementation in Developing Countries*. Beverly Hills, CA: Sage pages 183-202).

- Krane, Dale. 1978. "Longitudinal Patterns of Centralization and Development: Testing Theories of Government Organization." *Journal of Developing Areas* 12:297-314.
- Linz, Juan J. 1994. "Presidential or Parliamentary Democracy: Does It Make a Difference?" in *The Failure of Presidential Democracy*. Juan J. Linz and Arturo Valenzuela (eds). Baltimore, MD: Johns Hopkins University Press.
- López Murphy, Ricardo. (editor) 1995. *Fiscal Decentralization in Latin America*. Washington, DC: Inter-American Development Bank.
- Lowder, Stella. 1992. "Decentralization in Latin America: An Evaluation of Achievements" in *Decentralization in Latin America, an Evaluation* Arthur Morris and Stella Lowder (eds). New York, NY: Praeger Publishers.
- Mainwaring, Scott, 1997, "Multipartyism, Robust Federalism, and Presidentialism in Brazil." In *Presidentialism and Democracy in Latin America*, edited by Scott Mainwaring and Matthew Soberg Shugart. New York: Cambridge University Press.
- Mangelsdorf, Karen Ruffing. 1988. "Administrative Decentralization and Development: Some Conflicting Evidence from Ecuador" *International Review of Administrative Sciences* 54(1): 67-88.
- Mikesell, John L., 1994, "Vertical Balance and Horizontal Fiscal Diversity in the U.S. Federal System: What might common shared taxes do?" *American Review of Public Administration* 24 (Dec): 339 - 350.
- Nickson, R. Andrew. 1995. *Local Government in Latin America*. Boulder, CO: Lynne Rienner Publishers.
- Osaghae, Eghosa E., 1990, "A Reassessment of Federalism as a Degree of Decentralization" *Publius: The Journal of Federalism* 20 (Winter): 83-98.
- Rodriguez, Victoria. 1997. *Decentralization in Mexico: from Reforma Municipal to Solidaridad*. Boulder, CO: Westview Press
- Rodriguez, Victoria M. and Peter M. Ward. 1994. *Political Change in Baja California*. San Diego, CA: Center for U.S.-Mexican Studies, University of California, San Diego.
- Rodriguez, Victoria E. 1992. "Mexico's Decentralization in the 1980s: Promises, Promises, Promises.." in *Decentralization in Latin America, an Evaluation* Arthur Morris and Stella Lowder (eds). New York, NY: Praeger Publishers.

- Rondinelli, Dennis A. 1990. "Financing the Decentralization of Urban Services in Developing Countries: Administrative Requirements for Fiscal Improvements." *Studies in Comparative International Development* 25(2):43-59.
- Rondinelli, Dennis A., James S. McCullough, and Ronald W. Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-Economy Framework." *Development and Change* 20(January):57-87.
- Rondinelli, Dennis A. 1989. "Decentralizing Public Services in Developing Countries: Issues and Opportunities." *Journal of Social, Political and Economic Studies* 14(1):77-98.
- Rondinelli, Dennis A., John R. Nellis, and G. Shabbir Cheema. 1984. *Decentralization in Developing Countries: A Review of Recent Experience*. Washington, DC: The World Bank.
- Rosenfeld, Alex. 1995. "Descentralización y Gobiernos Locales en America Latina" in *¿Descentralizar en America Latina?* Quito, Ecuador: Sociedad Alemana de Cooperación Technica/ Programa de Gestión Urbana.
- Sanwal, Mukul. 1985. "Administrative Reforms for the Periphery: Decentralization Policies to Serve the Poor." *Indian Journal of Public Administration* 31(3):707-728.
- Schechter, Stephen L, 1983, "Federalism in the 97th Congress: Editor's Introduction" *Publius: The Journal of Federalism* 13 (Spring): 97 – 128.
- Stansfield, David E. 1992. "Decentralization in Mexico: The Political Context" in *Decentralization in Latin America, an Evaluation* Arthur Morris and Stella Lowder (eds). New York, NY: Praeger Publishers.
- Ter-Minassian, Teresa. 1997. "Decentralizing Government" *Finance & Development* 34 (3): 34-38.
- Veliz, Claudio. 1980. *The Centralist Tradition in Latin America*. Princeton, NJ: Princeton University Press.
- Wallis, John Joseph and Wallace E. Oates. 1988. "Decentralization in the Public Sector: An Empirical Study of State and Local Government." In *Fiscal Federalism*. Harvey S. Rosen (editor) Chicago, IL: University of Chicago Press.
- Wiesner D., Eduardo. 1994. *Fiscal Decentralization and Social Spending in Latin America: The Search for Efficiency and Equity*. Washington, DC: World Bank Working Paper Series 199.

Table 1: Sub-national government expenditures, 1985 vs. 1995**Table 2: Effect of Federal Structure on Sub-nation Expenditures**

	“full data”	“85&95”	“limited”
State Structure	.217** (.011) 19.91	.190** (.037) 5.19	.218** (.012) 17.55
Constant	.094** (.004) 23.93	.099** (.006) 15.33	.094** (.004) 22.09
R-square	.44	.39	.51
N	198	38	66

* $P > .05$ ** $P > .01$ Standard errors in parentheses, t-statistics below.

Note: Parameter estimates were produced using OLS with panel corrected standard errors. For a complete coding of the variables and data sources, see the Data Appendix.

Table 3: Explanations for Sub-national Expenditures

	“full data”	“85&95”	“limited”
State structure	.104** (.013) 8.2	.066* (.029) 2.26	1.27** (.205) 6.21
Land Area	5.75 E-8** (2.72 E-9) 21.14	5.06 E-8** (6.45 E-9) 7.844	9.6 E-8** (6.93 E-9) 13.90
Population	-1.9 E-9** (2.8 E-10) -6.631	-1.0 E-9* (4.4 E-10) -2.28	-8.98 E-9** (1.02 E-9) -8.830
Homogeneity of Population	-.067** (.003) -19.69	-.056** (.016) -3.539	.013 (.038) .351
GNP/capita	--6.5 E-4 (4.5 E-4) -1.45	3.81 E-4 (.002) .226	-.036** (.008) -4.621
Urbanization	.001** (4.2 E-4) 2.974	-5.95 E-5 (.001) -.057	-.005** (.002) -3.01
Income Inequality	-.001** (4.2 E-4) -3.21	5.99 E-5 (5.5 E-4) .109	5.66 E-4 (.002) .359
Structural Adjustment	.115** (.015) 7.882	.154** (.037) 4.20	.274** (.077) 3.57
Democracy	-.004** (8.2 E-4) 5.209	-.005* (.002) 2.609	-.005* (.002) -2.276
Constant	.049 (.033) 1.474	.010 (.037) .270	.578** (.131) 4.424
R-square	.69	.67	.94
N	198	38	66

* P > .05 ** P > .01 Standard errors in parentheses, t-statistics below.

Note: Parameter estimates were produced using OLS with panel corrected standard errors. For a complete coding of the variables and data sources, see the Data Appendix