

Decentralisation

Aaron Schneider

30/5/2002

Decentralised government institutions are doing more of the work of government than ever before. Recent research has responded to this development and deepened our understanding of decentralisation and its links to outcomes such as growth, inequality, and political stability. Yet, the accumulation of knowledge is hampered by conceptual confusion. Researchers attach a startling diversity of definitions to the decentralisation concept and apply an equally startling diversity of measures. The availability of cross-national statistical data has only exacerbated this proliferation.

Some might consider this proliferation as an indication of the creativity and nuance involved in applying the decentralisation concept to heterogeneous cases. Alternatively, others might consider, as this project does, that the proliferation of meanings and measures erodes precision and hampers ability to assess types of decentralisation. The problem is worsened by the evaluative nature of the decentralisation concept, which leads researchers to conflate decentralisation with other concepts, especially those that are also imbued with positive value, such as democracy or market reforms.¹ The result is that there is little agreement about what cases are good examples of decentralisation, nor is there agreement about what causes decentralisation nor what effects it is likely to have.

To overcome this confusion, the current project proposes and tests a definition of decentralisation. The best that prior definitions have been able to offer is what decentralisation is not; transferring power and resources to national governments is definitely not decentralisation. By contrast, there is not complete agreement on a definition of decentralisation.² Nevertheless, all categorisations of the concept share the assumption that decentralisation includes the transfer of power and resources away from the central government.

This project hypothesises three core dimensions of the decentralisation concept: fiscal, administrative, and political.³ Fiscal decentralisation refers to how much of the money collected and spent by government goes through non-central government entities. Administrative decentralisation refers to how much autonomy non-central government entities have relative to central control. Finally, political decentralisation refers to the degree to which non-central government entities satisfy the political functions of governance, such as representation.

¹ For a discussion that explicitly treats decentralisation and democracy together, see Burki et al (1999). For a similar treatment of decentralisation and market-reform, see Grindle (2001).

² There have been numerous attempts to provide definitions of the decentralisation concept, but most involve adding adjectives to the concept to delimit its dimensions, as the current discussion does by focusing on political decentralisation, administrative decentralisation, and fiscal decentralisation. For example, see administrative decentralisation (Rondinelli et al, 1984); fiscal decentralisation (Bird 1993; Cheema and Rondinelli, 1983); and democratic decentralisation (Manor, 1999). Leonard (1982: 19-24) provides a categorisation based on whether power or resources are decentralised and to whom.

³ This distinction is not new; the World Bank, among many others, makes exactly this division of the decentralisation concept on its webpage: <http://www1.worldbank.org/publicsector/decentralisation/>. However, the current project applies statistical tests to verify that this distinction meaningfully organises cross-national data on decentralisation.

Decentralised systems are those in which non-central entities play a greater role in any or all of the dimensions. In such systems, non-central entities possess a greater share of fiscal resources, more administrative autonomy, and/or a higher fraction of responsibility for political functions. Because decentralisation is a relative concept, each dimension should be measured in terms of the non-central proportion of the overall total.⁴ The key contribution here is to examine each dimension and identify the unique characteristics that set it apart from the other dimensions. At the same time, the project takes into account the fact that the dimensions are tightly interrelated, and understanding the dimensions requires also understanding their interaction.

The current project proposes a measureable definition of decentralisation and offers an empirical test of that definition. The test confirms that three core dimensions of decentralisation are substantively different yet interrelated. The technique to undertake this type of hypothesis test is confirmatory factor analysis of data from 1996 for 68 countries (see appendix one). This technique tests the conceptual validity of the three dimensions, improves the accuracy of measures of each dimension, and studies the empirical relationship among them. Also, factor analysis generates a score for each case on each dimension, allowing countries to be measured according to their level of fiscal, administrative, and political decentralisation. In future work, these scores can be used for hypothesis testing about the causes of different kinds of decentralisation and the effects of kinds of decentralisation on important social outcomes.

Decentralisation in Vogue

The current fondness for decentralisation began during the 1980s and represented a striking reversal from advice that dominated earlier ideas of development.⁵ In the 1950s and 1960s, military coups and regime breakdowns occurred across Latin America and instability followed decolonisation in much of Africa. Observers understood these circumstances as evidence that escalating demands and mass mobilisation had outstripped the capacity of state institutions (Huntington, 1968). Centralised decision-making was seen as a way to rationalise scarce resources and depoliticise the masses; by contrast, decentralisation was viewed as likely to heighten political, racial, ethnic, and religious cleavages.

During the 1980s, the tide began to turn and pressure to decentralise began to rise. Stagnant economies and inefficient central bureaucracies led researchers to reconsider centralisation as a solution to the problems of developing countries, and multilateral institutions began to include decentralisation components in many of their programs.⁶ Additionally, freer trade, international treaties, and loan conditions led central

⁴ A slightly different approach to the concept might examine decentralisation as the dynamic process in which resources, autonomy, and/or political functions are shifted away from the centre. Movement, change, and action would then be part of the concept itself, and a project that sought to distinguish between decentralising and centralising regimes would have to measure change over time. Here, we are concerned with characterising static conditions: decentralised regimes versus centralised ones.

⁵ The current enthusiasm for decentralisation may be new, but it is not novel. The prior apex of enthusiasm for decentralisation was as a strategy to prolong colonial rule in much of Africa (Samoff, 1990: 513).

⁶ For an example of the zenith of decentralisation enthusiasm, see Campbell (1997). Between 1993 and 1997, fully twelve percent of all completed World Bank projects had a decentralisation component (Litvack, 1998: 1).

governments to choose, or be forced, to abdicate their traditional roles, and left critical functions to non-central government entities if they were to be performed at all.⁷ There were domestic pressures for decentralisation also, as local politicians and civil society actors sought to capture power from central governments, and national leaders granted access to central power and resources as a means of purchasing support from local allies or meeting demands for democratisation.⁸ As we enter the next decade, zeal for decentralisation has become more tempered, though a positive hue continues to tint most evaluations:

“An overall conclusion of the paper is that decentralised fiscal structures are more suitable in the institutional environment of developing countries, especially so if careful attention is paid to the design of institutions vital for the success of decentralisation policies such as the rule of law, conflict resolution and coordination, charter of rights, effective limitations on the authority of governments beyond their designated spheres of influence, accountability and institutional capacity for evaluation at all levels” (Shah and Huther, 1998: 1).

The fervour that surrounded decentralisation both encouraged and reflected processes that were already under way on the ground. Developed countries had already become increasingly decentralised by the 1970s; and over the 1980s, developing countries began to narrow the gap. In the developed world, sub-national revenues as a percentage of total revenues stood at 23.3 percent of total revenues in the 1970s and 23.9 percent in the 1990s. In the developing world, the sub-national percentage of total revenues rose from 11.6 percent to 13.2 percent. Including all countries, including those in transition, the average sub-national percentage of total revenues rose from 16.1 percent in the 1970s to 18.3 percent in the 1990s.⁹

As governments shifted resources downward, they also created new administrative apparatuses to implement programs and make decisions at the local level. In developing countries, 63 of 73 countries surveyed had governmental institutions that administered sub-national jurisdictions (World Bank, 2000: 109).

Many of these jurisdictions also provided the ground for political representation, holding elections and organising civil society associations at the sub-national level. For example, in 1999, 94 of 127 countries (74%) elected at least one sub-national tier of government (World Bank, 2000: 216-217).

In short, sub-national governments are now doing a larger share of the work of government in both developed and developing countries. As more and more countries move away from centralised government institutions, the concept of decentralisation is studied in new contexts. Still, though many of these countries share characteristics of decentralisation, there are stark differences in the kind and degree of decentralisation that has occurred.

Conceptual Confusion in Decentralisation Research

⁷ See Snyder (1999) for an example of how Mexican state governments stepped in to provide regulatory frameworks where the central government abdicated its role in coffee production.

⁸ For an example of how decentralisation was used by the military regime in Brazil to legitimise its rule, see Sola (1991) and Samuels (2000).

⁹ Data from World Bank Decentralisation statistics webpage, as cited in bibliography.

To their credit, researchers have been careful about the way they define decentralisation and the contexts in which they would like to study it. Yet, the differences in kind and degree of decentralisation have produced a conceptual muddle. The muddle has multiplied the conceptualisations of decentralisation; associated the concept with varied meanings; imbued it with positive normative value; conflated it with other concepts; and ignored its multi-dimensionality.¹⁰

A survey of the voluminous literature on decentralisation suggests that decentralisation has been approached by a variety of intellectual traditions with little agreement.¹¹ Cohen and Peterson (1997: especially Annex I) offer a useful categorisation of disciplinary approaches. Geographers and planners discussing spatial decentralisation focus on reducing concentration in urban areas by promoting regional growth poles. Political scientists discussing political decentralisation focus on decision-making at low levels of aggregation. Economists discussing market decentralisation focus on producing goods and services in the smallest unit that can efficiently meet the revealed preferences of individuals. Lawyers and public administration professionals discussing administrative decentralisation focus on decreasing the hierarchical and bureaucratic control of central government units.¹² In short, there are multiple approaches to decentralisation, and each carries implications about the most useful ways to define the concept. By way of contrast, decentralisation's antonym, centralisation, has a much more precise and accepted usage, which is the concentration of power, resources, and authority in a single head or centre.¹³

Two problems tend to arise with concepts given varied meanings. The concept can be associated with too many meanings (over-specified) or too few (under-specified).¹⁴ Either extreme produces conceptual muddle and causal uncertainty, as observers can approach the concept by delimiting the meanings and indicators that match their belief systems.¹⁵ This is especially problematic when the beliefs associate the concept with normative values, as in the case of the generally positive value associated with decentralisation.

Value-laden concepts are especially difficult to work with, as observers have difficulty measuring the concept in a case without at the same time taking into

¹⁰ Related to the proliferation of conceptualisations, there has also been an explosion of units of analysis in studying the concept. These include studies of individual local jurisdictions, all local jurisdictions, entire systems of national and local government, and comparisons across national systems. For a discussion, see Cohen and Peterson (1997: 12-13).

¹¹ For a survey of the 1980s literature on the topic, see Wallis (1991). Cohen and Peterson (1996) provide an excellent overview of methodological issues on the topic.

¹² Cohen and Peterson note that disciplinary differences explain some, but not all of the ambiguity. Sloppy social science and simply language differences also cause confusion. Specialists from France equated decentralisation with one of its subtypes, 'devolution,' (Prud'Homme, 1995); English speakers tended to settle for some variant of the Rondinelli, et al definition (see below); and Spanish-speaking observers used 'municipio' in ways that led to misunderstanding by those unfamiliar with the term.

¹³ According to the Oxford English dictionary, this usage has existed since the beginning of the 19th century.

¹⁴ On the dangers of poorly defined concepts, see Lakoff (1987).

¹⁵ The most complete discussion of concepts that become difficult is the framework offered by W.B. Gallie, who described essentially contested concepts. For an interesting discussion of measurement validity within concepts, see Collier and Adcock (1999).

account the evaluative nature of the concept. Thus, almost by definition, a highly decentralised case is automatically a case associated with other positive outcomes, and other evaluative concepts are almost assumed to coincide, such as democracy or participation.

In many cases, the original concept, decentralisation, becomes simply conflated with these other evaluative concepts. For example, much research has included democracy or market reforms in the definition of decentralisation.¹⁶ The problem, of course, is that the relationship between decentralisation and these other concepts is a causal hypothesis, subject to empirical test. Indeed, one can certainly imagine democratic regimes that are centralised, or decentralised regimes in which market reforms do not occur. All value-laden concepts do not necessarily go together, and attaching concepts that are of an evaluative nature can lead to faulty assumptions about their correlation.

An additional problem is created by the multidimensional nature of the decentralisation concept. Concepts that are multidimensional are especially complicated because observers must both recognise the dimensions and also understand their interactions. Imagine a case in which high fiscal decentralisation leads to low administrative decentralisation. Failure to distinguish between the dimensions might lead to a simple aggregation (high plus low), an average (high plus low/2), or opting simply to ignore one of the dimensions. Each of these options would mis-characterise decentralisation in the particular case. Also, failure to recognise that the high fiscal decentralisation has somehow led to high administrative decentralisation ignores the way they work together.

The types of problems that arise are typical of poorly defined concepts more generally.¹⁷ The first problem is that one observer can claim that decentralisation exists in a given case, while another observer claims the opposite.¹⁸ This leads to disagreement simply about where to study the phenomenon. Second, the role of decentralisation in causal analysis becomes muddled. One observer claims decentralisation comes from one cause while another observer points to a different or opposite cause. Likewise, one observer can claim that decentralisation causes an outcome while another observer claims it causes a different or opposite outcome. In sum, the result is complete uncertainty about the appropriate universe of cases for comparison and the causes and effects of decentralisation.

This project suggests that some of the conceptual and causal tangle can be traced to the fact that decentralisation has multiple dimensions, and observers are not explicit about which dimension they using. If there are multiple dimensions, then decentralisation along one dimension could be related to one set of causes and effects, and decentralisation along another dimension could relate to a different or opposite set of causes and effects. Alternatively, decentralisation along one dimension could interact or combine with decentralisation along another dimension to relate to a set of causes and effects. Researchers who do not explicitly look at each dimension or who haphazardly aggregate dimensions will mis-measure the type and degree of

¹⁶ For an analysis that examines the connection between democracy, decentralisation, and market reforms, see Fukasaku and Hausmann (1998).

¹⁷ See Collier and Adcock (1999), Collier (1993), and Sartori (1970).

¹⁸ For a discussion of competing measures of decentralisation in a single case, see Yilmaz and Ebel (2002).

decentralisation in a case and will draw incorrect inferences about the relationship between decentralisation and other phenomena. To disentangle these relationships, it is necessary to conceptualise and measure the dimensions separately and measure their interactions. Only then can we identify examples of more or less decentralisation and begin to undertake causal analysis.

Conceptual Frameworks for the Decentralisation Concept

One way to understand the core meanings of decentralisation is in terms of the uses to which the concept has been put.¹⁹ Some of the most successful conceptualisations and categorisations in the literature have concentrated on decentralisation in terms of decentralisation *to*. They define and distinguish dimensions of decentralisation in terms of who receives the power and resources that are being decentralised. Thus, democratic devolution identifies the category of cases in which decentralisation occurs to elected local authorities (Manor and Crook, 1998). Privatisation defines the category of cases in which decentralisation occurs to organisations outside the government sector (Rondinelli, 1989). The non-governmental sector has been further disaggregated into private sector organisations that are for-profit versus non-governmental, voluntary associations (Leonard, 1982). Each of these distinctions, and others, has been useful for understanding causes and effects of decentralising *to* one kind of unit or another. What is the impact of decentralising to an elected local government or to a private sector, for-profit organisation? Conceptualisations that apply these categories offer a useful beginning. But what about answering the more fundamental question. Where does decentralisation come from, and is it an improvement on centralisation?

In the following paragraphs, care will be taken to conceptualise and define the dimensions in ways that produce categories useful for these more basic questions. Therefore, we are concerned with decentralisation *from*. Each dimension is conceptualised in terms of the degree to which power and resources are taken away from central governments. Such a conceptualisation is clearly directed to studying the causal impact of shifting power and resources away from the central government. This will allow us to measure and evaluate decentralisation as compared to centralisation. Unlike prior conceptualisations, here the recipients of decentralisation are left ambiguous. Rather than be concerned with the many varieties of decentralisation, the current conceptualisation focuses on the one thing they all share: all forms of decentralisation, regardless of the recipient, involve shifting power and resources away from the central government.

This approach builds on applications of the decentralisation concept in theories of fiscal federalism, public administration, and political science. Briefly, fiscal federalism theories view decentralisation in terms of the welfare effects of giving resources to one level of government or another. Fiscal decentralisation indicates a greater proportion of government resources at levels other than the central

¹⁹ Leonard suggests that researchers choose a conceptual framework only after deciding the causal relationships they intend to test. "The variety of forms of decentralisation threatens to become unmanageable if we try to be comprehensive. To impose a limit one must specify the purpose for which the typology is being created and elaborate only those dimensions that are useful to it" (Leonard, 1982: 28-29).

government (Oates, 1972: 17; 1999).²⁰ Administrative arguments focus on the administrative effects of granting local jurisdictions autonomy from central control. This autonomy refers to general policymaking authority and personnel control, as well as control over what is done with public finances (Rondinelli, 1984).²¹ Finally, political arguments focus on the effects of conducting political activities such as participation, organisation, elections, and representation at the local level as opposed to the national level. Decentralised political systems are those in which political actors and issues are significant at the local level and at least partially independent from those at the national level (Fox and Aranda, 1996). These conceptualisations can be understood within the broader theoretical frameworks to which they are to be directed.

Fiscal Federalism. Fiscal federalism theories dealing with decentralisation focus on maximising social welfare, which is portrayed as a combination of economic stability, allocative efficiency, and distributive equity. The precise combination and importance attached to each goal will depend on the context, but the challenge of decentralisation is essentially to locate resources at the level of government that optimises social welfare (Musgrave, 1958: 132-33, 175-178).

Definition 1: Systems that are fiscally decentralised locate a greater proportion of fiscal resources at a level other than the centre.

In stabilisation policy, governments pump money into the economy (or withdraw it) to influence the overall level of economic activity. Generally, governments can be expected to seek a stable, but relatively high, level of activity. Fiscal decentralisation of stabilisation suggests that non-central entities spend or absorb a greater proportion of the resources that influence the amount of economic activity. This activity is reflected in macroeconomic aggregates, such as employment, inflation, and growth.²²

In allocation policy, governments choose to direct resources towards one activity or another, for example, shifting resources from agriculture to industry or from one region to another. Generally, governments strive for the use of resources that generates the greatest amount of wealth and services for a given amount of spending and taxing, i.e. provides allocation efficiency. Fiscal decentralisation of allocation suggests that non-central units spend or extract a greater proportion of the resources that influence allocative efficiency.²³

In distribution policy, governments choose to channel wealth, which is the return to economic activity, to a particular group, region, or set of individuals. It is difficult to determine the optimal distribution of wealth, but most fiscal federal theories focus on

²⁰ Theories of fiscal federalism begin from the assumption that fiscal interventions are necessary in the very specific cases in which government intervention improves on market operation. For example, normal market operations can produce instability (as in cases of financial panic), can misallocate resources (as in cases of monopoly or oligopoly), and can poorly distribute resources. For more detail, Stiglitz (1989: 9-89) provides an excellent discussion.

²¹ Thus, a system can be fiscally decentralised without administrative decentralisation if the use of local funds is set at the central level.

²² Shah (1999) argues that fiscal decentralisation may not prejudice stabilisation, though most observers suggest that it will (DeMello, 2000).

²³ It is in allocation policy that most observers argue that decentralised systems hold an advantage (Tanzi, 1995).

moving towards a more equal distribution of wealth. Fiscal decentralisation of distribution suggests that non-central entities spend or raise a larger proportion of resources that influence who gets what.²⁴

Public administration. Public administration theories dealing with decentralisation broadly focus on achieving modern bureaucracies, which are perceived as efficient, capable, and rational (Weber 1968, esp. 926-939 and 956-989). There is significant debate about whether these goals operate in tandem or if there are trade-offs, and the combination will probably depend on individual cases. The specific challenge of decentralisation, however, is to locate administrative authority at the level of government that will optimise efficiency, capacity, and rationality.

Definition 2: Systems that are administratively decentralised locate a greater proportion of administrative autonomy at a level other than the centre.

In terms of administrative efficiency, governments seek to match policy packages of taxes and services to the preferences of citizens. For example, some citizens prefer a package of high taxes and high services, while others prefer low taxes and low services. More administratively decentralised systems grant non-central entities greater autonomy in deciding what policy package to offer.

In terms of capacity, governments seek to effectively attain the goals of their programs. For example, governments seeking to improve literacy can use multiple strategies, from pre-school preparation to adult literacy campaigns. More administratively decentralised systems grant non-central entities greater autonomy in deciding how they are to attain goals.

In terms of administrative rationality, governments seek to obey the norms of rational-legal authority, in which personnel are professional, oriented by rules and make decisions according to rational norms. This differs from systems operating according to patrimonial or charismatic forms of authority. More administratively decentralised systems grant non-central entities greater autonomy in setting the orientations of their administrations.

The amount of administrative decentralisation varies continuously across systems, from systems in which the centre grants little autonomy to those in which the centre grants large amounts. Previous literature has categorised administrative decentralisation in terms of break-points along the continuum that describe amounts of autonomy. The three most commonly used break-points are labelled deconcentration, delegation, and devolution (see Rondinelli, 1990).²⁵ Deconcentration involves the least amount of autonomy, delegation slightly more, and devolution the most.

²⁴ There are some who argue that decentralised systems will generate a more just distribution of wealth (Galasso, 1999; Pauly, 1973), but they are in the minority (Bardhan, 2000).

²⁵ It should be noted that some applications of the categories differentiate a syndrome of characteristics. These applications mark the distinctions across categories in terms of a host of factors, and not simply in terms of different levels of autonomy. Also, some form of privatisation is often included as another category (Rondinelli, 1990).

Deconcentration refers to a central government that disperses responsibility for a policy to its field offices. This transfer changes the spatial and geographical distribution of authority, but does not significantly change the autonomy of the entity that receives the authority. Under deconcentration arrangements, the central government retains authority over the field office, and exercises that authority through the hierarchical channels of the central government bureaucracy. Deconcentration allows only moderately more autonomy than centralised systems.

By contrast, delegation transfers policy responsibility to local governments or semiautonomous organisations who are not controlled by the central government but remain accountable to it.²⁶ The main difference between deconcentration and delegation is that the central government must exercise its control through the contractual relation that enforces accountability on the part of local government. This represents a slightly higher level of administrative autonomy for local entities than under deconcentration.

Finally, under devolution, the central government allows quasi-autonomous local units of government to exercise power and control over the policy responsibility being transferred.²⁷ Compared to the other two types of administrative decentralisation, devolution provides the greatest degree of autonomy to the local unit. The local unit is only accountable to the central government in so far as the central government can impose its will by threatening to withhold resources or responsibility that the local unit needs.

The concept that discriminates among these categories of administrative decentralisation is the relationship between the central government and the entity that receives power and resources. Deconcentration involves a bureaucratic, hierarchical relationship; delegation involves a contractual relationship; and devolution involves an arm's length relationship.²⁸ The differences in kind among these relationships, between hierarchy, contract, or arm's length, are a syndrome of factors. The best way to summarise that syndrome is in paying attention to the degree of autonomy granted by the central government. Such a simplification perhaps misses some of the conceptual richness of the different relationships, but is sufficient if the underlying

²⁶ Both delegation and deconcentration open the potential for a principal-agent problem, created by the self-interested behavior of the entity that receives the decentralised power and resources. Of course, in the case of deconcentration, the agent may be easier to control, as it is simply the field office of a central government hierarchy. Delegation introduces increased possibility of divergence between interests of the central government principal and the local government/semiautonomous agent.

²⁷ Arguments about democratic decentralisation tend to include accountability to the local population as part of its argument. "Whilst increased participation had a positive impact on the performance of decentralized institutions, adequate resources for councils were also essential, and - as we shall see - the social and political contexts within which decentralization was undertaken also influenced outcomes. But the most critical determinant was the existence of a combination of all these factors with effective mechanisms of institutional and popular accountability. It is those mechanisms which provided - and are likely to provide more generally - the crucial link between enhanced participation and enhanced institutional performance." (Crook and Manor, 1998: 21).

²⁸ It should be noted that all three types of administrative decentralisation can be analysed using economic theories of principal-agent, moral hazard, and adverse selection techniques. Under all arrangements besides centralisation, central governments have imperfect information about non-central units and the capacity or effort they will dedicate to assigned tasks. In terms of achieving administrative goals, this imperfect information is what makes central governments nervous about ceding autonomy - they do not know for sure what the outcome will be.

concern is to distinguish between systems with more or less decentralisation. The categories, quite simply, represent break-points along a continuum from more administratively decentralised to less administratively decentralised systems.²⁹

Political Decentralisation. Political science theories dealing with decentralisation focus on mobilisation, organisation, articulation, participation, contestation, and aggregation of interests. All political systems must resolve the challenges of institutionalising these processes, and the way in which this occurs will depend on individual contexts. The specific challenge of decentralisation, however, is to resolve these political functions at the level of government that allows the greatest degree of institutionalisation.

Definition 3: Systems that are politically decentralised institutionalise a greater proportion of these political functions at a level other than the centre.³⁰

The best way to summarise these functions might be in terms of representation, which refers to the way political institutions “map the multiplicity of citizen interests onto policy decisions” (Litvack, et al, 2000: 6). To have an impact on policy, interests in society must be mobilised, organised, and articulated through institutions that carry interests to the state (Berger, 1983). Some systems of representation operate through civil society institutions, such as NGOs, social movements, or interest organisations. Other systems of representation, such as political parties, aim to bring interests directly into positions of official political power through elections. Finally, some systems of representation bring interests into direct negotiation with the state bureaucracy, as in corporatist bargaining.³¹ All systems of representation are bounded by institutions of the state itself, which set the rules for representation and thus shape what issues get politicised and how. Under politically decentralised systems citizens define interests and form identities on the basis of local concerns, and organisations such as parties and social movements operate locally and compete over local issues and in local elections.

An additional aspect of political decentralisation involves protecting local interests and institutions from central government intrusions. For some, central governments inevitably attempt to expand their prerogatives with respect to local authority and in general (Levi, 1988). Politically powerful local institutions act as a counterweight to this expansion. To exercise this counterweight function, local political authorities require institutions that give them representation and veto power at the national level. Examples of mechanisms that institutionalise these processes are regionally oriented upper houses of parliament or constitutional provisions for regional autonomy.³²

²⁹ Simplifying the syndrome of characteristics into the single dimension of autonomy becomes more complicated when we consider other aspects of decentralisation at the same time. For example, the level of autonomy becomes unclear when we compare a local government with significant resources (fiscal decentralisation) and deconcentrated authority (administrative centralisation) to a local authority with few resources (fiscal centralisation) but devolved authority (administrative decentralisation). Correct measurement of autonomy requires taking into account the interrelationship of the dimensions.

³⁰ Linz and Stepan (2000) examine the impact of political decentralisation in federal systems.

³¹ For an analysis of different systems of economic interest aggregation, see Schmitter (1971; 1974; 1977).

³² A special kind of political decentralisation might be found in federal systems. Most definitions of federalism include a criterion that local jurisdictions must have a guarantee of local political

Interrelations Among the Dimensions. The preceding discussion of theoretical approaches to decentralisation provides clear dimensions for analysis: fiscal decentralisation, administrative decentralisation, and political decentralisation. What is not clear, but still pertinent, is the degree to which these dimensions are interrelated. This interrelationship contributes to conceptual confusion, as decentralisation along one dimension may influence or cross-over into decentralisation along another dimension. There are also measurement effects of ignoring the interrelationship, as measures will overestimate or underestimate the amount of decentralisation in a case if they do not account for the interrelationship among dimensions.

First, we can consider the range of possible ways that dimensions could interact. One possible pattern is that increasing decentralisation on one dimension leads to an increase in decentralisation in another dimension. A second pattern is that increasing decentralisation on one dimension leads to a decrease in decentralisation on another dimension. With three dimensions, there are six different combinations.³³

Without getting too caught up in speculation, it makes sense to describe how a few of these interactions might operate. For example, fiscal decentralisation might generate greater administrative decentralisation. This would occur if local units used increased resources for a power grab and asserted administrative autonomy from the centre.³⁴ Alternatively, fiscal decentralisation might lead to less administrative decentralisation. This would occur if central governments systematically tried to counteract any release of resources with an increase in bureaucratic or regulatory controls.³⁵ Similar scenarios could be described for the relationships between each dimension.

A graphical representation of the three dimensions might display three circles in which the edges cross. Each circle represents the space addressed by a dimension of decentralisation, and the fact that the circles are not concentric suggests that there are important conceptual distinctions between their core definitions. Still, one cannot help but realise that there are ways in which the dimensions interact, and these are represented as the regions in which the circles overlap.

—Insert Diagram One, ‘Overlapping Dimensions’ Here—

sovereignty that operates and protects them from forces at the national level. For a further discussion, see Schneider (2001: especially Chapter 1).

³³ Three times two gives the number of relationships. For example, changes in fiscal decentralisation can be either positively or negatively related to changes in administrative decentralisation and/or political decentralisation, and changes in administrative decentralisation can be either positively or negatively related to political decentralisation. Additional possibilities will not be examined here. For example, the interaction could be more complex, in which decentralisation along two dimensions augments or offsets decentralisation along the third. Alternatively, decentralisation along one dimension might augment decentralisation along another, but this relationship might not work in reverse. These possibilities are more difficult to test statistically and have therefore been left out of the current exercise. More detailed comparative case study might be capable of drawing out some of the subtlety.

³⁴ In Brazil, decentralised fiscal resources meant that local governments were de facto implementing tasks that were constitutionally attributed to the central level (Afonso, 1996).

³⁵ In West Bengal, decentralised administrative autonomy gave local governments control over tax bases that they used to increase their share of resources (D. Bandyopadhyay, personal communication).

Measuring Different Aspects of Decentralisation

Even if one accepts the conceptual argument that there should be three unique but interrelated dimensions to decentralisation, empirical measurement and confirmation remains a difficult task. There are three questions to answer:

- First, to what degree can the decentralisation concept be understood in terms of fiscal decentralisation, administrative decentralisation, and political decentralisation? In other words, do we really need all three dimensions, or alternatively, might there be others?
- Second, to what degree and in what ways are these dimensions related to one another?
- Third, is the measurement of decentralisation dimensions sophisticated enough to produce a meaningful scale? Can we design a measure that validly and accurately allows us to order or rank countries in terms of amounts of decentralisation?

We begin with the conceptual definitions from above:

Definition 1: Systems that are fiscally decentralised locate a greater proportion of fiscal resources at a level other than the centre.

Definition 2: Systems that are administratively decentralised locate a greater proportion of administrative autonomy at a level other than the centre.

Definition 3: Systems that are politically decentralised institutionalise a greater proportion of political functions at a level other than the centre.

In short, decentralised systems are those in which a greater proportion of the functions related to each of the dimensions are performed at the local level. To identify the dimensions, calculate their interrelationships, and measure case scores on each, it is necessary to measure and test indicators for each.

Fiscal Decentralisation

Expenditures and revenues form the two main components of fiscal activity.³⁶ These two elements are central to any system of public finance, and they summarise the total amount of money that governments put into or take out of an economy as well as where governments put the money and where they take it from. The current study hypothesises that the best indicator for the level of fiscal centralisation or decentralisation is the share of subnational expenditures and revenues.

The choice of focusing on fiscal instruments rather than regulatory or financial policies is partly methodological and partly substantive. Governments influence the amount of wealth in society and its distribution through various instruments, though fiscal instruments are the easiest to measure with cross-national statistics. Regulatory instruments are built into the formal and informal institutions that govern civil society and private sector behaviour; thus, they are extremely complex and context specific. Financial instruments are similarly difficult to measure with statistics, and their

³⁶ Others have focused on different aspects of fiscal decentralisation. Some choose to focus on the relationship between expenditures and allocated revenues ('vertical imbalance') to get a sense for the fiscal pressure that is being put on lower (or upper) levels of government. Some pay attention to the nature of inter-governmental transfers to understand the impact on lower government behavior (Nice, 1987; Ahmad, 1997). The current application is focused on the authority relations between levels of government, in which the nature of resource transfers is an indicator of administrative decentralisation.

impact on distribution is not so direct as fiscal policy. Fiscal policy offers the most accessible window into levels of fiscal decentralisation. Decentralisation of regulatory or financial mechanisms will have to be taken up in closer country studies.

Despite being easier to measure, fiscal instruments still present some methodological difficulties. Though the IMF attempts to standardise its definition of decentralisation, it is extremely difficult to attain accurate measurement using self-reported statistics.³⁷ What is measured as a local expenditure or revenue in one context may be scored as a nationally controlled resource in another.

Nevertheless, there are several advantages to a focus on revenues and expenditures. First, revenues and expenditures offer the best measures available without detailed study of each and every country. Second, errors are not likely to be correlated with other variables of interest thus they introduce no bias into estimation. Finally, by using both expenditures and revenues, we tap into the main aspects implied by the concept of fiscal decentralisation. The key attribute that defines fiscal decentralisation is the fiscal impact of sub-national governments relative to the overall impact of government. The current project hypothesises that sub-national expenditures and revenues as a percentage of total expenditures and revenues provide useful measures of this concept. The indicators are related but not exactly the same, as empirical testing will show. Expenditures focus on the amount of government activity that sub-national governments undertake, and revenues focus on the quantity of resources that pass through them.

Expenditures are all cash outlays made by a given level of government. They can be examined as a whole, over time, in terms of revenues, as a percentage of GDP, in distinct subsections, in subsections as a percentage of some other variable, in constant values, in current values, or as done here, as a percentage of all government outlays. Each treatment cuts a slightly different perspective on spending policy, but sub-national expenditures as a percentage of total expenditures is the most appropriate to gauge decentralisation.³⁸ There are some drawbacks to expenditures as a percentage of total expenditures, as they miss those expenditures that do not appear as cash outlays, such as credit guarantees, nor does this measurement distinguish among expenditures mandated by the central government as opposed to those that are decided wholly locally. Still, sub-national expenditures as a percentage of total expenditure focuses on the fiscal power exercised by lower governments as opposed to that exercised by central governments. A larger proportion of the expenditures spent by lower level governments indicates shifting fiscal expenditure power away from the central government.

The revenue side of fiscal decentralisation is composed of all cash inflows to sub-national governments, including taxes, loans, and grants. As in the case of expenditures, these can be examined in a number of ways and with respect to other variables, and each treatment offers a different view of revenue policy. Similar to the choice for expenditures, the indicator chosen is sub-national revenue as a percentage

³⁷ See Government Finance Statistics Handbook (2000) for a description of the statistical details. Also, see Byskov (2001) for a discussion of the reliability and validity of the data.

³⁸ The results of the factor analysis are robust to different measures. For example, measuring sub-national expenditures and revenues as a percentage of GDP also load heavily on a single dimension, though these indicators relate more to the impact of local governments on the economy.

of total government revenue, which focuses on the fiscal revenues in the hands of sub-national governments as opposed to those revenues in the hands of the centre.³⁹ A larger proportion of revenues collected by sub-national governments indicates shifting fiscal revenue away from the central government.

Administrative Decentralisation

As discussed above, the concept that discriminates among degrees of administrative decentralisation is the autonomy granted by the central government to other levels of government. Despite interesting differences in kind (deconcentration, delegation, devolution), the current measurement seeks a continuous measurement of the one dimension that underlies administrative decentralisation: autonomy.

One way to measure levels of local administrative autonomy is in the control exercised over local revenue. This is different from the total amount of resources, which is more a measure of wealth than a measure of control. As mentioned before, sub-national revenues are a combination of taxes, transfers, grants and loans. Taxes offer the greatest degree of autonomy, grants and loans offer somewhat less, and discretionary transfers probably offer the least. Transfers, even supposedly automatic ones, can be withheld, and grants and loans generally arrive with conditions or with expenditures earmarked.⁴⁰ Two measures are hypothesised for administrative decentralisation. The first measure is percentage of total grants and revenues accounted for by taxes. The second measure is the percentage of total grants and revenues not accounted for by transfers. The hypothesis here is that a larger proportion of revenues raised through taxation and less obtained through transfers indicates greater local administrative autonomy.⁴¹

Political Decentralisation

³⁹ There are some drawbacks to this specification, which does not distinguish for example between revenues over which lower levels of government have total control, such as block grants, and revenues that are tied to central government priorities, such as ear-marked transfers. This distinction will be taken into account below, however, in measuring the degree of administrative autonomy exercised by sub-national governments.

⁴⁰ The kind of revenue is at best only a rough indicator of the amount of administrative control. Grants and loans can arrive either with conditions or without them. Though unconditional loans or grants (block grants) suggest local control, the fact that the centre can withhold them implies some limitation of local autonomy. Own-taxes are probably the most controllable form of local revenue, though even in these revenues, the centre can exert some authority by earmarking tax streams to certain expenditures.

⁴¹ It might even be argued that this measure picks up some of the differences in kind implied by deconcentration, delegation, and devolution. Under deconcentration, local resources show up simply within the central bureaucracy; there are likely to be few, if any, local taxes; and the score on this measure will be a low one. Under delegation, there is likely to be a low level of local taxation, and a high level of resource transfer that are likely to come with strings attached, such as matching grants, ear-marked grants or discretionary grants. The use of these types of transfers is easily controlled by the central government, even when they delegate some autonomy over implementation to lower levels of government. In the case of devolution, those transfers that occur are more likely to be in the form of block grants or revenue-sharing, which indicate that local levels have significant autonomy. These types of grants limit the capacity of the central government to intervene in what lower levels of government do. A greater proportion of revenues, however, is likely to come from taxation, which grants the most autonomy (Nice, 1987; Winkler, 1994). In the future, case studies will be used to draw out some of the distinctions among types of transfers.

Political decentralisation focuses on the degree to which political functions are institutionalised at the local level. The two key political functions measured here are representation and checks on the central government.

In elections, the electorate votes, the votes are aggregated, and politicians take power. Elections at the local level indicate that some portion of representative activity is being undertaken at the local level and force parties to organise for local contests. Candidates must compete and make appeals in local jurisdictions, and citizens participate at the local level. Citizens may organise and participate through non-electoral channels, but these are harder to characterise, and probably do not have as direct an impact on representation. Of course, simply holding elections does not automatically mean that national forces do not overwhelm local ones, but local elections at least increase the likelihood that some political functions will be decentralised.⁴² The existence of elections at the municipal level or the state/provincial level is hypothesised here as an indicator of political decentralisation.

A second set of political functions is related to checking the power of central government. Legislative oversight, independent judiciaries, and organised interests act to restrain central governments. More relevant to the issue of decentralisation, national territories can be fragmented into regional jurisdictions in which local authorities have capacity to check the power of the central government.⁴³ Perhaps the greatest local check on central power occurs in polities in which geographic portions of the nation have autonomous, legal jurisdiction designated in the constitution. For the central government to exercise authority in these regions, it must negotiate and bargain first with local authorities. The existence of constitutionally designated, autonomous regions is hypothesised here as an additional indicator of political decentralisation.

Though there are other political functions, the electoral component and the check on central government power are the most valid indicators of political decentralisation as they tap into fundamental aspects of political authority. Elections address the issue of representation, which is the way interests gain possession of legislative and executive power. Regional autonomy addresses the existence of local checks on central government political authority. Table One displays the concepts, measures and sources used for the different dimensions of decentralisation.

—Insert Table One ‘Decentralisation Dimensions and Indicators’ Here—

Research Design

The current project proposes a measurement model for decentralisation, and endeavours to test that model. This task is made difficult by the fact that the dimensions are difficult to measure, and any metric for one dimension is likely to simultaneously pick up elements of the others. In part, this is because there are causal relationships among the dimensions (political decentralisation may contribute to fiscal

⁴² Literature on federalism has paid particular attention to the way decentralisation interacts with partisan politics and elections (Grodzins, 1960).

⁴³ The literature on ‘market-preserving federalism’ has emphasised the importance of decentralisation to limiting government size (Weingast, 1995; Qian, 1997). Oates, by contrast, makes the argument that decentralisation may not counteract tendencies of central governments to expand (Oates, 1985).

decentralisation etc.), but also because any quantitative measure is likely to be somewhat imprecise. No single indicator can capture the decentralisation concept fully, and no simple combination of indicators, such as an average or an index, can capture the multidimensionality of the concept. What is to be done?

The model proposed here conceptualises decentralisation as three distinct but interrelated dimensions that can be measured using the seven indicators described above. Factor analytic techniques applied to the indicators can calculate the unique and interrelated characteristics of the different dimensions of decentralisation and test whether the model is accurate. This technique of proposing and testing a measurement model using factor analysis is known as confirmatory factor analysis, and it rests on the intuition that underlying concepts, such as the dimensions of decentralisation, are difficult to measure, but they are manifest in empirically observed indicators.⁴⁴

The specific hypotheses to be tested are 1) that decentralisation consists of three abstract dimensions; and 2) each of the seven indicators is closely related to one of the three dimensions. To test the first hypothesis, confirmatory factor analysis separates the unique characteristics of each indicator from the characteristics shared with other indicators. If the most statistically accurate grouping of shared characteristics divides the indicators into three clusters, the analysis confirms that there are three underlying dimensions, as opposed to two or four (or some other number).⁴⁵

Next, factor analysis uses the correlations among the variables to find the size of the impact of underlying dimensions. The shared characteristics can be divided into the portion explained by each dimension, given as a factor coefficient for each dimension. If the model is correct, the largest factor coefficients should relate indicators to the dimension they are hypothesised to measure. For example, the largest factor coefficient on sub-national percentage of expenditures should be the coefficient related to the fiscal decentralisation dimension. These steps confirm the measurement model. They also produce improved and more precise measures of the concepts.

This is possible because the analysis generates factor coefficients relating each indicator to all the dimensions. Partly, this is because the measures are imprecise, and they will pick up some of the impact of other dimensions. In addition, the coefficients reflect the fact that the dimensions are related. For example, politically decentralised systems might find local political weight used to allocate more resources to lower levels of government. As a result, part of the sub-national revenues indicator should

⁴⁴ For a more thorough discussion of factor analytic techniques, see Kim and Mueller (1978); Long (1983); or Bollen (1989). For an application, see Brady (1990).

⁴⁵ Confirmatory factor analysis tests the marginal increase in variance explained by adding another dimension against the variance explained by randomly organising the data. The statistic used to show the relative amount of variance explained by the dimensions is called the eigenvalue, and eigenvalues below one suggest that there is little marginal increase from adding more dimensions (Kim and Mueller, 1978: 32-37). An additional method of confirming the number of dimensions is graphical, in which the eigenvalues of each added dimension are graphed, called a scree plot. When the graph begins to flatten, i.e. adding dimensions is explaining little more of the data, then there is little marginal benefit to adding dimensions. It is possible to use exploratory factor analysis to discover how many dimensions exist, and simply add dimensions until the eigenvalue drops below one or the scree plot flattens. Here there are strong hypotheses that three dimensions should exist, so confirmatory factor analysis is used.

not be attributed to fiscal decentralisation but reflects characteristics derived from the political decentralisation dimension.

Factor analysis uses this information to improve measurement in ways that simple aggregation or indexes cannot. Factor analysis separates the impact of each dimension and calculates its size in the factor coefficients. This allows us to use only the information from each indicator that is relevant to a single dimension and ultimately obtain better measures of the dimensions.

A second output of the analysis is an accurate measurement of each dimension in each case. The factor coefficient measures the intensity of the relationship between each variable and each dimension and can be multiplied by each case score on each variable. The sum of the coefficients times the case scores gives a factor score for each case on each dimension. In other words, we can produce a measure of fiscal decentralisation, administrative decentralisation, and political decentralisation in each case. In fact, this measure is superior to other methods of measurement that do not take as many indicators into account and/or that do not attempt to separate the unique and shared characteristics of each indicator.⁴⁶

Cases and Data

The current project applied confirmatory factor analysis to decentralisation data collected from 108 countries in 1996. The data included fiscal indicators from IMF Government Finance Statistics, obtained from the World Bank website on decentralisation, and filled in missing values with data from the 2001 IMF hardcopy publication where available. Other data were collected in the Database of Political Indicators collected by researchers at the World Bank and the Government of Switzerland. Missing political data was obtained from country constitutions, Library of Congress Country Facts, and the CIA Factbook.⁴⁷

In cases in which there was no fiscal data available from 1996 but data from other years in the 1990s were available, linear trends obtained through regression analysis of available data filled the 1996 data. As most fiscal indicators are variables that change incrementally over time, if at all (expenditures, revenues, etc.) this practice was not likely to change the results. The findings were robust to using data from a single year data alone (1995, 1996, 1997), but pooling the data into a single year increased the number of cases available.

Special care was also taken with relation to indicators that were related to variables that might confound the analysis, such as the type of regime. This was particularly the case for the political decentralisation indicators that focused on elections and electoral rules. Some non-democracies held elections and data was therefore available on the political decentralisation indicators. Nevertheless, some might argue that the representation that occurs in non-democracies, however decentralised, is substantively

⁴⁶ The equation for each observed variable is given by: $X_i = \sum_j b_{ij}F_j + d_iU_i$

The observed variable is 'X'; 'F' is a common factor shared by two or more variables; and 'U' is a factor unique to a given variable. The correlation between the observed variable and the shared factor is 'b', and 'd' is the correlation between the unique factor and the observed variable. The subscript i indicates the observed variable and the subscript j indicates the common factor.

⁴⁷ Websites listed in the bibliography.

different than that occurring in democracies. A local election in which the national government is authoritarian or in which only one party competes can hardly be called competitive, and probably does a poor job of decentralising political functions.⁴⁸ To address this issue, the analysis was conducted after removing non-democracies. No significant changes in results occurred.⁴⁹

Factor Analysis

Confirmatory factor analysis was used to test the hypothesis that three dimensions of decentralisation (fiscal, administrative, and political) that underlay measureable indicators. The seven indicators were: 1) sub-national expenditures as a percentage of expenditures; 2) sub-national revenues as a percentage of total revenue items; 3) the relative importance of tax as a percentage of sub-national revenues; 4) the relative importance of transfers as a percentage of sub-national revenues; 5) the existence of municipal elections; 6) the existence of state or provincial elections; and 7) the existence of autonomous regions. The hypothesis was that the first two indicators mostly measured fiscal decentralisation; the third and fourth indicators measured administrative decentralisation; and the last three indicators measured political decentralisation.⁵⁰

The number of cases with data available on all indicators was 68. Among these cases, the mean percentage of expenditures as a percentage of total expenditures was 22.27 and the mean percentage of revenues was 17.24. The mean percentage of subnational revenues from taxes was 44.65 and the mean percentage from transfers was 34.60. 58 of the cases had no autonomous regions, 12 had no municipal elections, and 26 had no state elections.

Principle factor analysis of the data confirmed the assertion that three dimensions most appropriately organised the data. The eigenvalue for the third dimension was 1.001 with a cumulative percent of variance explained of 76.57% (see Table Two).⁵¹

—Insert Table Two ‘Eigenvalues’ Here—

A second test of the hypothesis that three dimensions underlie the data is a scree plot of the eigenvalues. If the plot appears to level off, it indicates that increasing the number of dimensions adds little marginal difference in the variance explained. Indeed, in the current case, the scree plot does appear to level off after the third dimension (See Diagram Two).

⁴⁸ On the other hand, local elections and representative processes can be a key factor in politically decentralising an authoritarian regime. For example, in Brazil, local elections forced military leaders to consider local and regional pressures, even though the national executive was controlled through undemocratic means. See Hagopian (1996).

⁴⁹ The results were robust to excluding non-democracies. Using an indicator of democracy from the Polity IV database, eleven non-democratic cases were excluded from the analysis. Confirmatory factor analysis results on the democratic cases alone produced few differences from the analysis of all cases together. Three dimensions underlay the data, and factor coefficients and factor scores changed only slightly.

⁵⁰ The importance of transfers was reversed to keep the signs positive.

⁵¹ The scree plot did not show a significant change in the amount of variance explained by each dimension. Each added dimension appeared to explain about as much as the next, though the eigenvalues did drop far below one after the third dimension.

—Insert Diagram Two ‘Scree Plot’ Here—

Next, the covariances among the variables were used to measure the relationship between variables and underlying dimensions.⁵² As expected, sub-national expenditures as a percentage of total expenditures and sub-national revenues as a percentage of total revenues were highly correlated with each other and with what was labelled the ‘fiscal decentralisation’ dimension. The factor coefficient of sub-national expenditures as a percentage of total revenues was .957 and the coefficient of sub-national revenues as a percentage of total revenues was .933.

Also as expected, the relative importance of tax and transfer revenues as a percentage of sub-national revenues were most highly correlated with each other and with what was labelled the ‘administrative decentralisation’ dimension. The factor coefficient of tax revenues as a percentage of local revenues was .885 and the coefficient of non-transfer income as a percentage of local revenues was .852.

Finally, municipal elections, state elections, and regional autonomy were most closely related to each other and to the third dimension, which has been labelled ‘political decentralisation’. The factor coefficient of municipal elections was .466, the factor coefficient of state elections was .834, and the factor coefficient of regional autonomy was .655 (see Table Three).

—Insert Table Three ‘Decentralisation Dimensions, Indicators, and Factor Coefficients’ Here—

Factor analysis also allows us to determine the degree to which the dimensions are related to one another. Given the nature of the decentralisation concept, in which one kind of decentralisation is expected to influence other kinds, correlation among the dimensions was expected. Nevertheless, the factor analysis showed that the correlation between the dimensions was relatively small. Only in the case of the correlation between fiscal decentralisation and political decentralisation was the component correlation coefficient larger than .10. Every one unit increase in fiscal decentralisation correlated with a .13 increase in political decentralisation. The correlations between the other dimensions did not exceed .05. Though this result was somewhat surprising, it supported the assumption that the dimensions could be analysed as though they were orthogonal.

The graphical model in Diagram Three displays the nature and intensity of the relationship between dimensions and variables. The three latent dimensions are the ovalar items to the right. The five observed variables are the squares to the left. The intensity of the relationship between the variables and the dimensions is given by the factor coefficient, ‘b’. The first subscript indicates the observed variable and the second subscript indicates the factor. For example, b_{11} refers to the relationship between the first variable (subnational expenditures as a percentage of total expenditures) and the first dimension (fiscal decentralisation). In all, there are twenty-one coefficients indicating the strength of the relationship between each of the seven observed variables and each of the three abstract dimensions. The diagram provides a

⁵² The solution was rotated to obtain orthogonal factors using a varimax rotation technique.

measurement model of the decentralisation concept, in which three abstract dimensions are measured using seven observable variables. Table three above has all the factor coefficients.

—Insert Diagram Three ‘Measurement Model’ Here—

A three dimensional diagram offers a second way to display the intensity of the relationship between each indicator and the dimensions. In Diagram Four, the three abstract dimensions are displayed orthogonally, and the indicators are shown as points according to their factor coefficient. As one would expect, the fiscal decentralisation indicators cluster together and extend farthest along the first dimension. The administrative decentralisation variables also cluster together but extend farthest along the second dimension. Finally, the political decentralisation variables cluster together and farthest along the third dimension. For example, regional autonomy is mostly related to political decentralisation (factor coefficient of .655), but it is somewhat related to administrative decentralisation (factor coefficient of -.211) and fiscal decentralisation (factor coefficient of .449). In the diagram, it is located at the coordinates (-.211, .449, .655). The diagram shows that the indicators largely measure one of the dimensions and can be clustered according to this principal component, but the effects of other dimensions also spill-over into each indicator. This spill-over can be explained as a result of the fact that the dimensions are related to one another and also because the indicators are only imperfect measures of any single dimension.

—Insert Diagram Four ‘Indicators in Three Dimensional Space’ Here—

Finally, the factor coefficients for each variable were used to obtain a score for each case along each dimension. For each case, the factor scores are the sum of the products of the factor coefficients and the indicator scores. To make them easier to interpret, the factor scores were normalised to a zero to one scale, and can be read in terms of decentralisation units. Thus, Albania has a score of .35 fiscal decentralisation units, 0 administrative decentralisation units, and .42 political decentralisation units. Appendix One displays the factor score on each dimension for the different countries in the study. The average amount of fiscal decentralisation, on a zero to one scale, was .43. The average amount of administrative decentralisation was .46, and the average amount of political decentralisation was .45.⁵³

There were a number of patterns evident in the factor scores. Some countries were high on all three dimensions (e.g. Canada), some were located in the middle on all three (e.g. Finland), and some were lower on all three (e.g. Guatemala). Diagram Five uses the factor scores to plot a ‘radar’ diagram of decentralisation. The three dimensions are displayed orthogonally, and the country factor scores are marked along each dimension. Plotting the high, medium, and low countries listed above gives a general idea of the amount of decentralisation in each country.⁵⁴

⁵³ The factor scores are not completely straightforward to interpret, but they do provide an interval measure of the dimensions. The difference between a country that scores .1 and another that scores .2 is the same magnitude as the difference between countries that score .6 and .7. On the other hand, zero indicates that a country was simply the least decentralised among the sample; zero does not mean that local jurisdictions had no resources, autonomy, or political functions.

⁵⁴ It is not accurate to use factor scores to compare the amount of decentralisation along one dimension to the amount of decentralisation along another dimension because the dimensions are measured

—Insert Diagram Five ‘Radar Diagram of Low-Medium-High Countries’ Here—

A different pattern emerges when one considers that some countries score high on one dimension and low on the others. Georgia has a high amount of administrative decentralisation and lower amount otherwise. Italy, by contrast, has a high amount of political decentralisation and a lower amount otherwise. Finally, Canada has a high amount of fiscal decentralisation and a lower amount otherwise. A second radar diagram displays this pattern for the three countries listed.

—Insert Diagram Six ‘Radar Diagram of Countries Scoring High on One Dimension’ Here—

Conclusions and Avenues for Future Research

These last two diagrams suggest an interesting direction for future research. If countries vary in their degree of decentralisation, and if the amount of decentralisation varies across dimensions within individual cases, then the unique, and sometimes independent causal importance of different kinds of decentralisation can be measured and tested with new accuracy. Key research questions in the study of decentralisation come into view. What causes countries to decentralise, and what causes them to decentralise along one dimension and not another? Further, what impact does decentralisation have on important social outcomes such as participation, accountability, and redistribution? What are the impacts of different kinds of decentralisation on these outcomes?⁵⁵

Systematic measurement of complex concepts is not simple, yet it is important. Increasingly, statistical indicators for complex phenomena have become available, but conceptual confusion clouds our understanding of how to use them. The current project proposed a measurement model of decentralisation based on a conceptualisation of three separate dimensions of decentralisation. It tested and confirmed the model using data on seven indicators collected from a large number of countries. The output of the study is an improved measurement of decentralisation that allows questions to be asked in a more rigorous analytic fashion.

according to different units. For example, fiscal decentralisation units are distinct from political decentralisation units.

⁵⁵ This is the topic of a forthcoming paper in which the author examines the impact of different kinds of decentralisation on the poor.

Diagram 1. Overlapping Dimensions

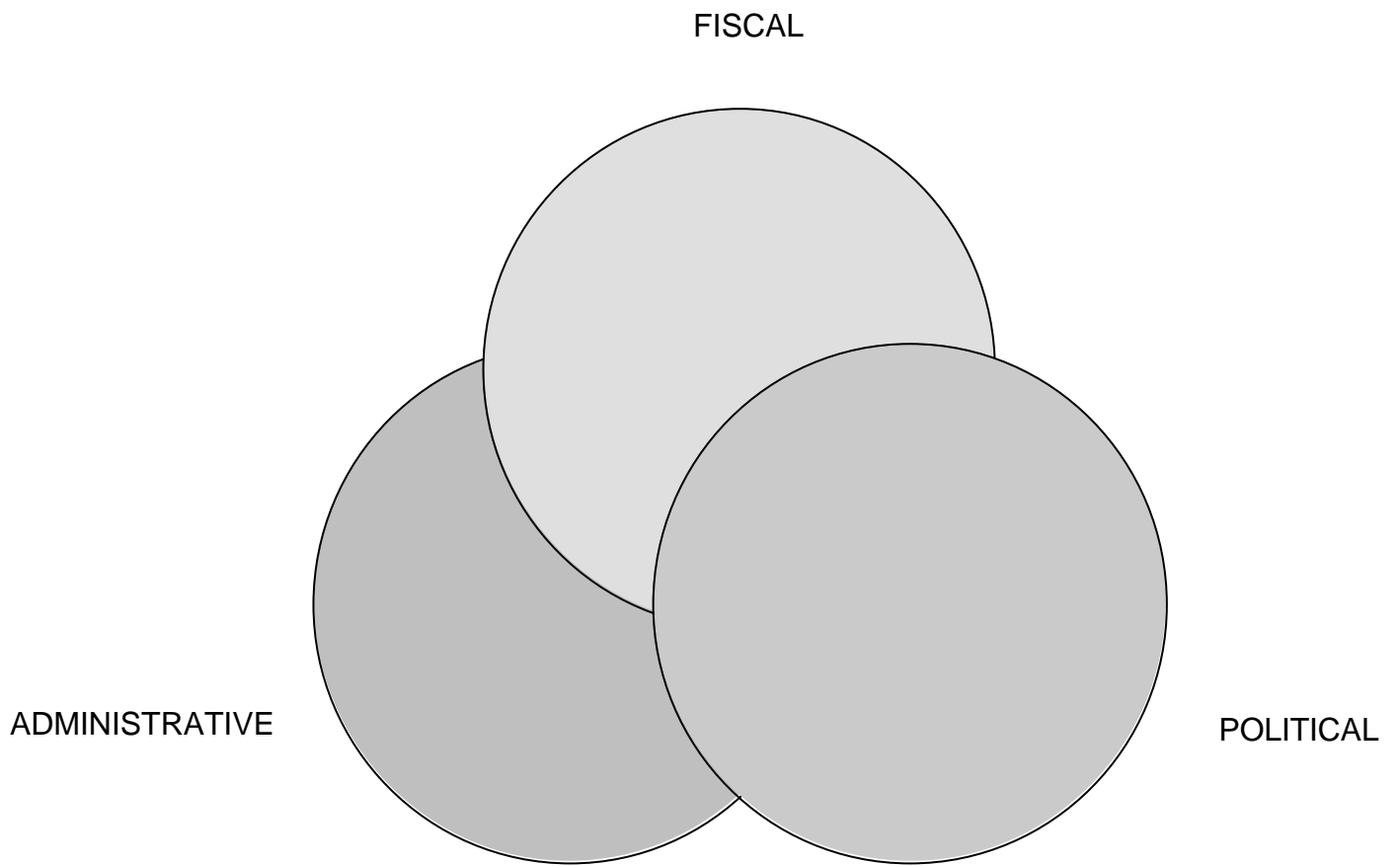


Table 1. Decentralisation Dimensions and Indicators

Dimension	Indicator	Source
Fiscal Decentralisation	Sub-national Expenditures as Percent of Total Expenditures	Decentralisation Statistics. World Bank Website. IMF Government Finance Statistics.
Fiscal Decentralisation	Sub-national Revenues as Percent of Total Revenues	Decentralisation Statistics. World Bank Website. IMF Government Finance Statistics.
Administrative Decentralisation	Taxation as a Percentage of sub-national grants and revenues.	Decentralisation Statistics. World Bank Website. IMF Government Finance Statistics.
Administrative Decentralisation	Transfers as a Percentage of sub-national grants and revenues.	Decentralisation Statistics. World Bank Website. IMF Government Finance Statistics.
Political Decentralisation	Municipal Elections	Database of Political Institutions. Country Constitutions. Library of Congress Country Facts. CIA World Factbook.
Political Decentralisation	State Elections	Database of Political Institutions. Country Constitutions. Library of Congress Country Facts. CIA World Factbook.
Political Decentralisation	Regional Autonomy	Database of Political Institutions. Country Constitutions. Library of Congress Country Facts. CIA World Factbook.

Table 2. Eigenvalues

Component	Initial Eigenvalue	Cumulative % of Variance Explained
1	2.473	35.32
2	1.887	62.28
3	1.001	76.57
4	.952	90.17
5	.492	97.21
6	.163	99.53
7	.033	100

Diagram 2. Scree Plot

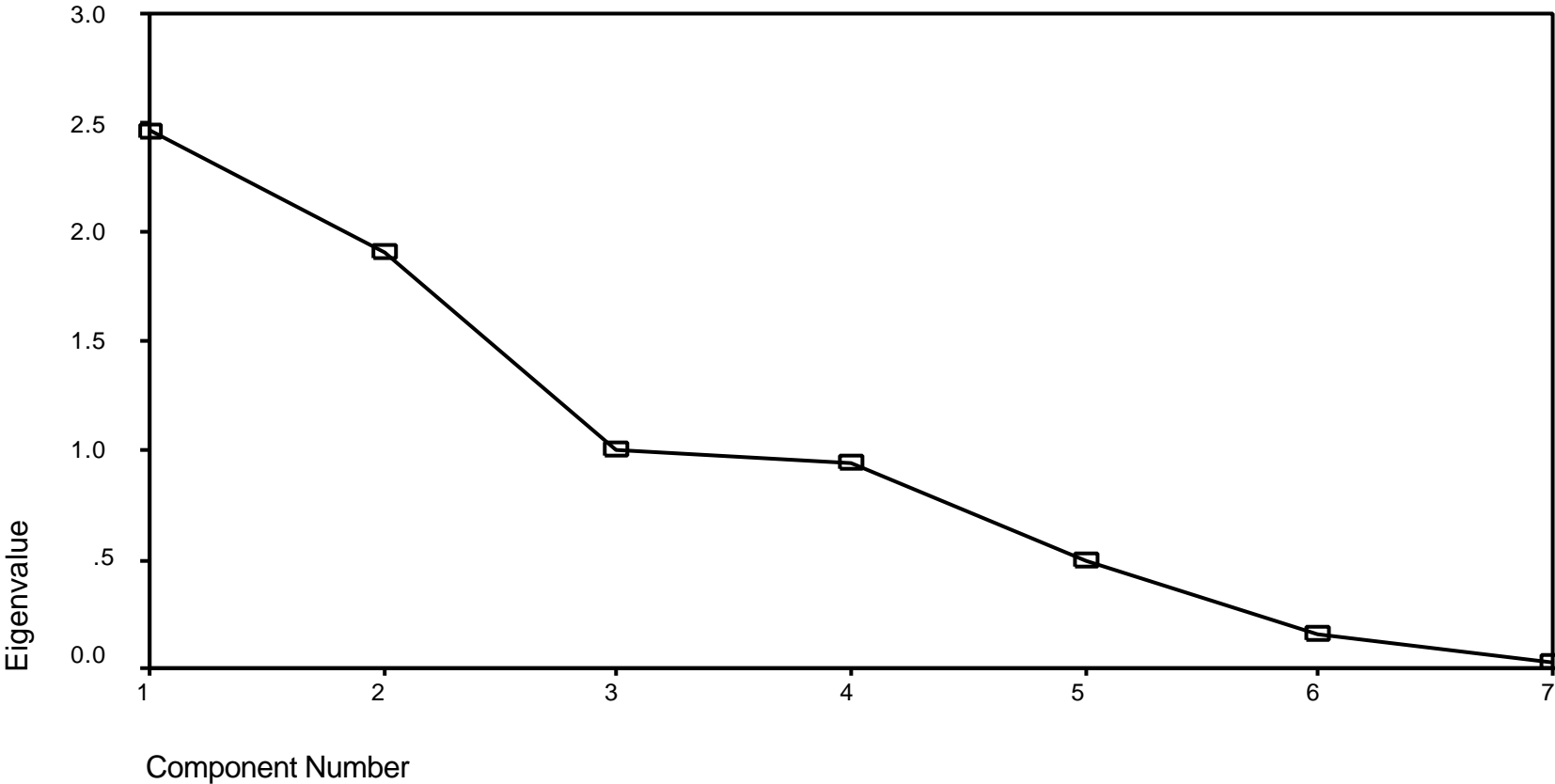


Table 3. Decentralisation Dimensions, Indicators, and Factor Coefficients

Dimension	Observed Variable	Coefficient	Factor Coefficient
Fiscal Decentralisation	Sub-national Expenditure Percent	b ₁₁	.957
Fiscal Decentralisation	Sub-national Revenue Percent	b ₂₁	.933
Administrative Decentralisation	Sub-national Tax Percent	b ₃₁	.275
Administrative Decentralisation	Sub-national Transfer Percent	b ₄₁	7.53E-02
Political Decentralisation	Municipal Elections	b ₅₁	.048
Political Decentralisation	State Elections	b ₆₁	.449
Political Decentralisation	Regional Autonomy	b ₇₁	-.128
Fiscal Decentralisation	Sub-national Expenditure Percent	b ₁₂	2.94E-02
Fiscal Decentralisation	Sub-national Revenue Percent	b ₂₂	.294
Administrative Decentralisation	Sub-national Tax Percent	b ₃₂	.885
Administrative Decentralisation	Sub-national Transfer Percent	b ₄₂	.852
Political Decentralisation	Municipal Elections	b ₅₂	-.105
Political Decentralisation	State Elections	b ₆₂	-.211
Political Decentralisation	Regional Autonomy	b ₇₂	.473
Fiscal Decentralisation	Sub-national Expenditure Percent	b ₁₃	.124
Fiscal Decentralisation	Sub-national Revenue Percent	b ₂₃	4.12E-02
Administrative Decentralisation	Sub-national Tax Percent	b ₃₃	-6.49E-02
Administrative Decentralisation	Sub-national Transfer Percent	b ₄₃	-.225
Political Decentralisation	Municipal Elections	b ₅₃	.834
Political Decentralisation	State Elections	b ₆₃	.655
Political Decentralisation	Regional Autonomy	b ₇₃	.446

Diagram 3. Measurement Model of Decentralisation

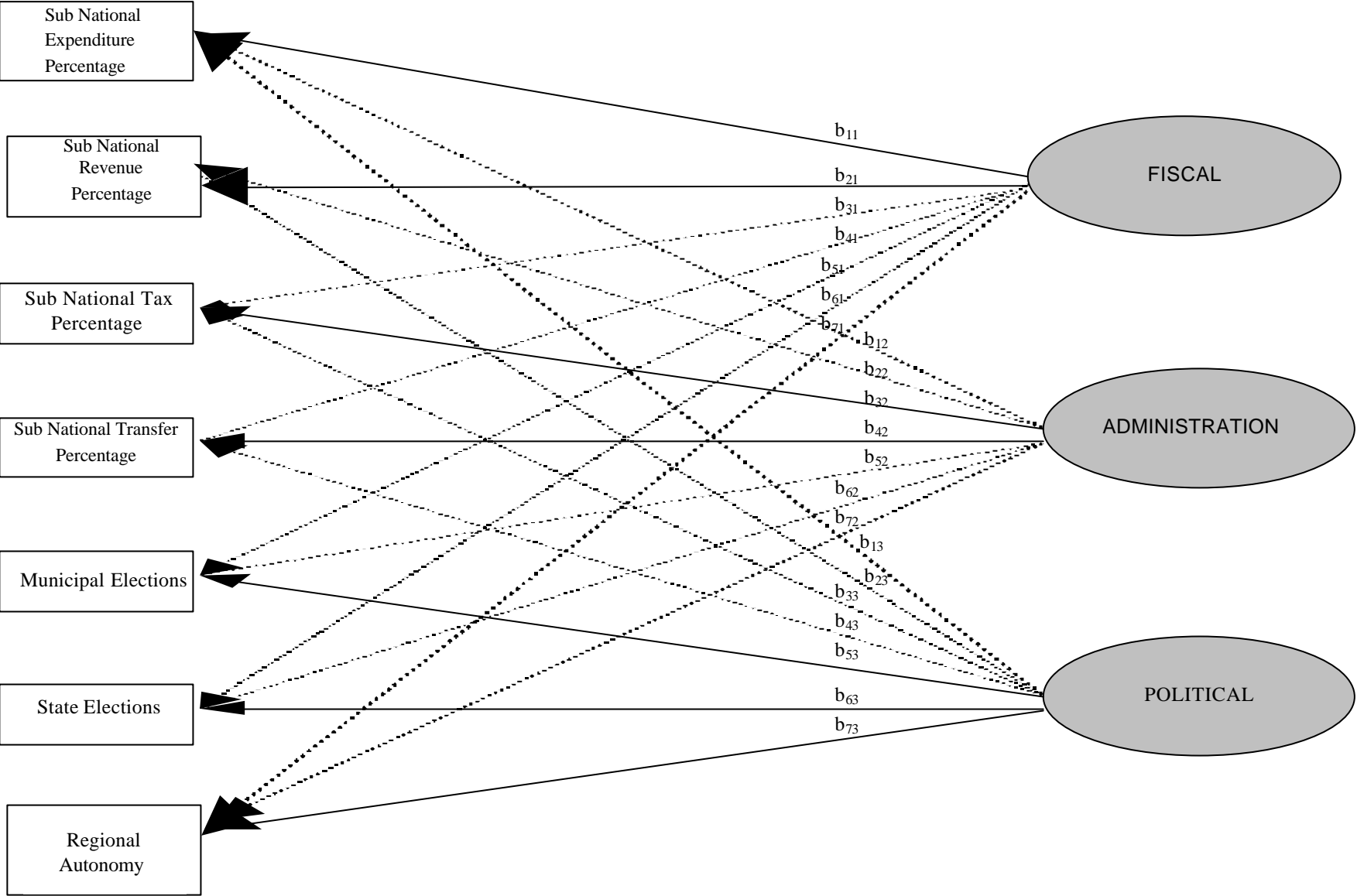


Diagram 4. Factor Coefficients in Three Dimensional Space

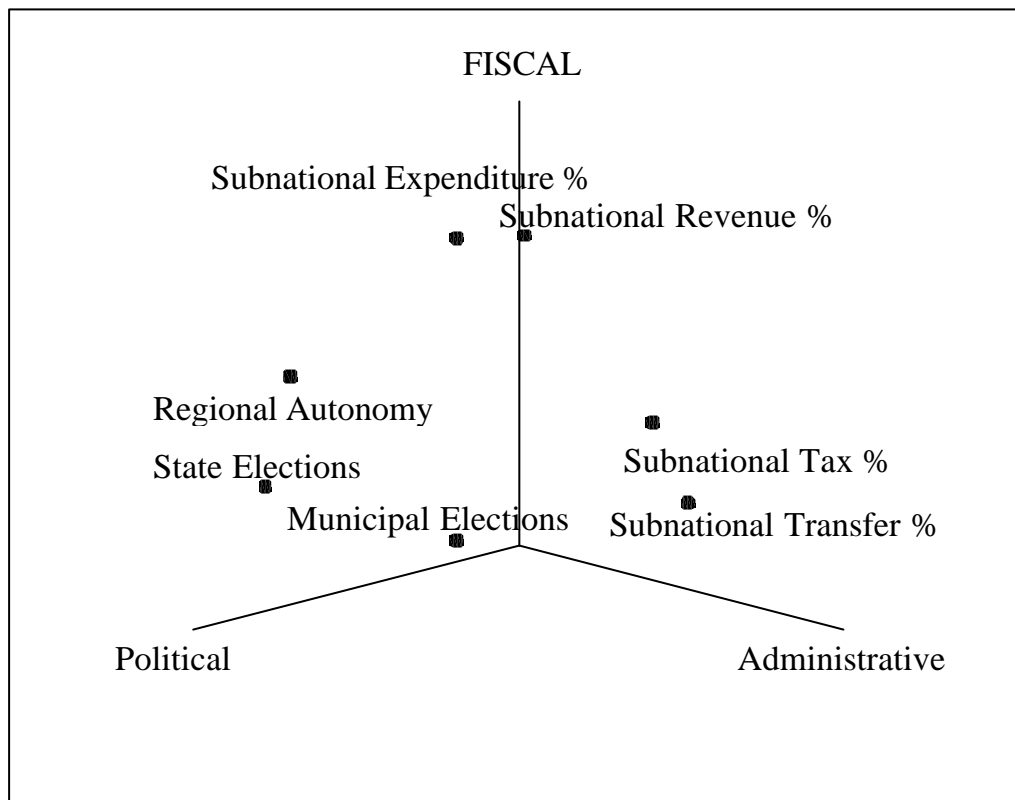


Diagram 5. Radar Diagram of Decentralisation in Low-Medium-High Countries

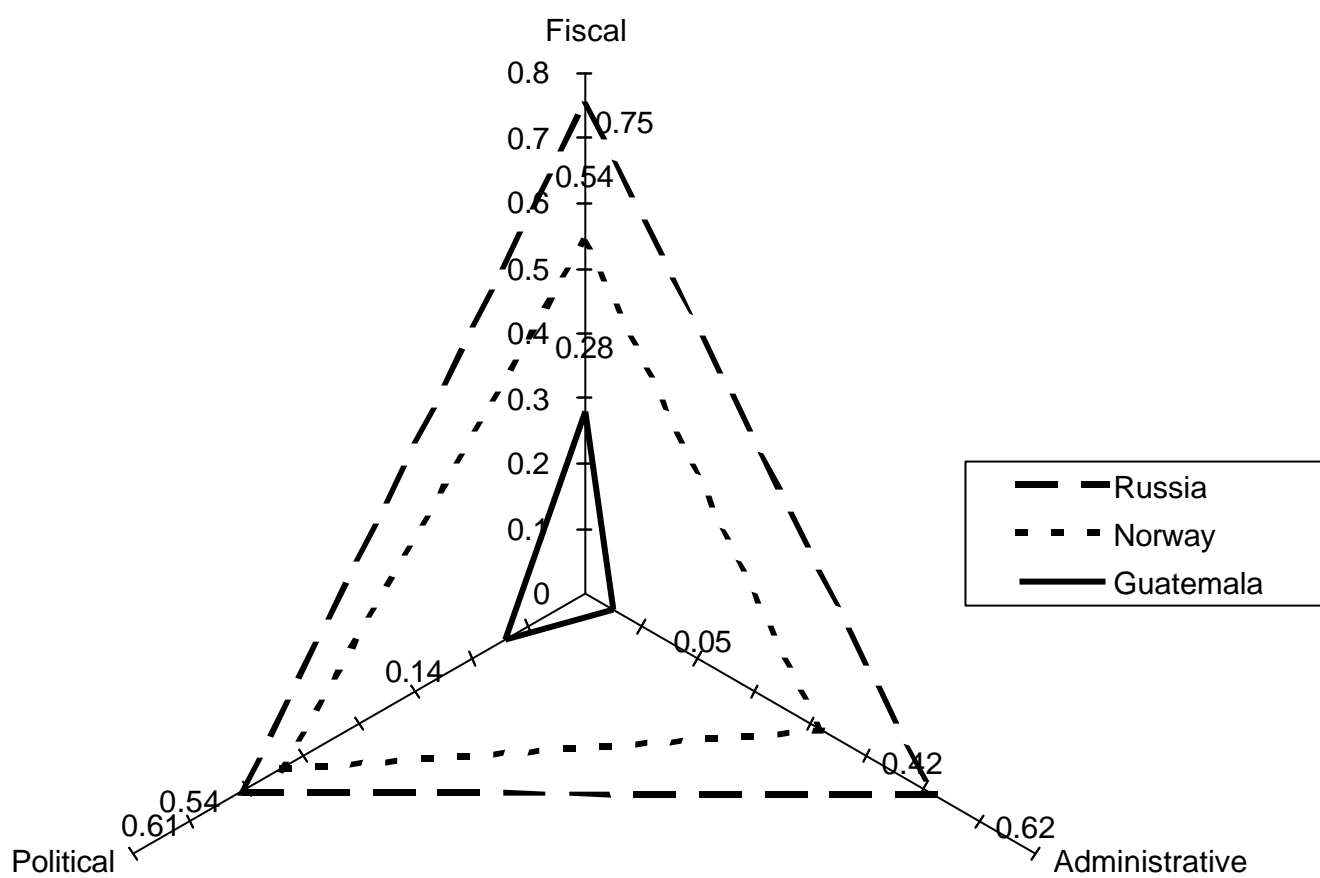
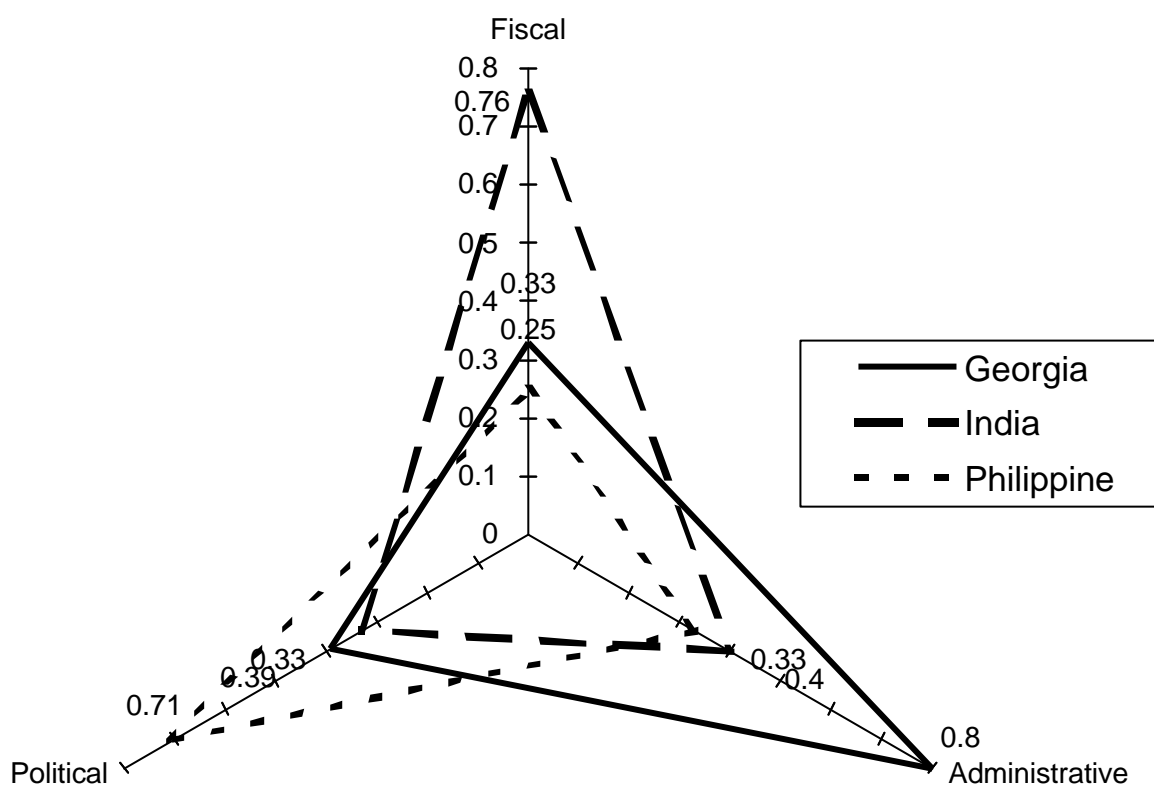


Diagram 6. Radar Diagram of Decentralisation in Low-High-High and High-Low-High Countries



Appendix 1. Factor Scores from Confirmatory Factor Analysis – Countries and Decentralisation Dimensions

Country	Fiscal Decentralisation	Administrative Decentralisation	Political Decentralisation
Albania	0.35	0.00	0.42
Argentina	0.77	0.60	0.61
Australia	0.76	0.33	0.44
Austria	0.63	0.45	0.46
Azerbaijan	0.36	0.77	0.39
Belarus	0.56	0.54	0.08
Belgium	0.34	0.31	0.52
Bolivia	0.47	0.35	0.45
Botswana	0.19	0.13	0.45
Brazil	0.69	0.40	0.63
Bulgaria	0.35	0.48	0.69
Canada	1.00	0.50	0.57
Chile	0.24	0.73	0.30
Croatia	0.36	0.60	0.20
Czech Rep.	0.46	0.41	0.38
Denmark	0.75	0.38	0.62
Dom. Rep.	0.10	0.50	0.48
Estonia	0.40	0.60	0.28
Fiji	0.19	0.63	0.12
Finland	0.62	0.50	0.23
France	0.37	0.47	0.57
FRG/German	0.73	0.47	0.62
Georgia	0.33	0.80	0.39
Guatemala	0.28	0.05	0.14
Hungary	0.37	0.28	0.46
Iceland	0.47	0.61	0.54
India	0.76	0.40	0.33
Indonesia	0.27	0.22	0.31
Ireland	0.43	0.05	0.69
Israel	0.34	0.35	0.40
Italy	0.25	0.45	1.00
Kazakhstan	0.56	0.66	0.36
Kenya	0.19	0.56	0.11
Kyrgyzstan	0.51	0.44	0.18
Latvia	0.47	0.60	0.26
Lithuania	0.53	0.59	0.37
Luxembourg	0.32	0.41	0.29
Malaysia	0.41	0.32	0.19
Mauritius	0.16	0.30	0.51
Mexico	0.54	0.48	0.65
Moldova	0.45	0.86	0.55
Mongolia	0.61	0.40	0.36
Neth. Antil	0.92	0.78	0.00

Netherland	0.44	0.15	0.39
Nicaragua	0.05	0.96	0.78
Norway	0.54	0.42	0.54
Panama	0.00	1.00	0.90
Paraguay	0.14	0.63	0.30
Peru	0.37	0.10	0.41
Philippine	0.25	0.33	0.71
Poland	0.42	0.40	0.38
Portugal	0.27	0.44	0.29
PRC	0.82	0.65	0.60
Romania	0.27	0.52	0.48
Russia	0.75	0.62	0.61
S. Africa	0.56	0.04	0.67
Senegal	0.36	0.45	0.22
Slovakia	0.28	0.55	0.68
Slovenia	0.28	0.59	0.29
Spain	0.38	0.49	0.98
Sweden	0.63	0.66	0.35
Switzerlan	0.85	0.45	0.59
Tajikistan	0.45	0.73	0.67
Thailand	0.21	0.55	0.48
Trinidad-T	0.18	0.02	0.52
UK	0.41	0.12	0.69
USA	0.84	0.41	0.60
Zimbabwe	0.32	0.41	0.09

References

- Afonso, Jose Roberto Rodrigues. 1996. Descentralizar e Depois Estabilizar: A Complexa Experiencia Brasileira. *Revista do BNDES* 3 (5):31-62.
- Ahmad, Ehtisham. 1996. *Financing Decentralized Expenditures: An International Comparison of Grants*. Cheltenham, U.K.: Edward Elgar.
- Bardhan, Pranab, and Dilip Mookherjee. 2000. *Relative Capture of Local and Central Governments: An Essay in the Political Economy of Decentralization*. Unpublished.
- Berger, Suzanne. 1983. *Organizing Interests in Western Europe: Pluralism, Corporatism, and the Transformation of Politics*. New York: Cambridge University Press.
- Bird, R.M. 1993. Threading the Fiscal Labyrinth: Some Issues in Fiscal Decentralization. *National Tax Journal* 46 (junho).
- Bollen, Kenneth A. 1989. *Structural Equation Models with Latent Variables*. New York: John Wiley.
- Brady, Henry. 1990. Traits versus Issues: Factor versus Ideal Point Analysis of Candidate Thermometer Readings. *Political Analysis* 2:97-129.
- Burki, Javed, Guillermo Perry, and William Dillinger. 1999. *Beyond the Center: Decentralizing the State*. Washington, D.C.: The World Bank Group.
- Byskov, Steen. 2002. Measuring the Levels of Decentralization: The Strengths and Weaknesses of the Government Finance Statistics World Bank, 2001 [cited 5/27/2002 2002]. Available from <http://www1.worldbank.org/publicsector/decentralization/decent.doc>.
- Campbell, Tim E.J. 1997. *Innovation and Risk Taking: The Engine of Reform in Local Government in Latin America and the Caribbean*. Washington, D.C.: World Bank Group.
- Cheema, G. Shabbir, and Dennis A. Rondinelli. 1983. *Implementing Decentralization Policies: An Introduction*, edited by G. S. Cheema and D. A. Rondinelli. Beverly Hills: Sage Publications.
- Cohen, John M., and Stephen B. Peterson. 1996. *Methodological Issues in the Analysis of Decentralization*. Cambridge: Harvard Institute for International Development.
- Cohen, John M., and Stephen B. Peterson. 1997. *Administrative Decentralization: A New Framework for Improved Governance, Accountability, and Performance*. Cambridge, MA: Harvard Institute for International Development.
- Collier, David, and James E. Mahon. 1993. Conceptual 'Stretching' Revisited: Adapting Categories in Comparative Analysis. *American Political Science Review* 87 (4 (December)):845-855.
- Collier, David, and Robert Adcock. 1999. Democracy and Dichotomies: A Pragmatic Approach to Choices about Concepts. *Annual Review of Political Science* 2:537-563.
- Crook, Richard C., and James Manor. 1998. *Democracy and Decentralization in South Asia and West Africa: Participation, Accountability, and Performance*. Cambridge: Cambridge University Press.
- Ehdaie, Jaber. 1994. Fiscal Decentralization and the Size of Government: An Extension with Evidence from Cross-Country Data. In *World Bank: Policy Research Working Paper*.
- Fox, Jonathan, and Josefina Aranda. 1996. *Decentralization and Rural Development in Mexico: Community Participation in Oaxaca's Municipal Funds Program*.

- Monograph Series, 42. San Diego: Center for U.S.-Mexico Studies, University of California at San Diego.
- Fukasaku, K, and Ricardo Hausmann. 1998. *Democracy, Decentralization, and Deficits in Latin America*. Washington, D.C.: The Inter-American Development Bank.
- Galasso, Emanuela, and Martin Ravallion. 1999. *Distributional Outcomes of a Decentralized Welfare Program*. Washington, D.C.: The World Bank.
- Grindle, Merrilee. 2000. *Audacious Reforms: Institutional Invention and Democracy in Latin America*. Baltimore: Johns Hopkins University Press.
- Grodzins, Morton. 1960. American Political Parties and the American Political System. *Western Political Quarterly* XIII (4):974-998.
- Hagopian, Francis. 1996. *Traditional Politics and Regime Change in Brazil*, Cambridge Studies in Comparative Politics. Cambridge: Cambridge University Press.
- Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New Haven: Yale University Press.
- International Monetary Fund. 2000. *Government Finance Statistics Handbook*. Washington, D.C.: IMF.
- Kim, Jae-On, and Charles W. Mueller. 1978. *Introduction to Factor Analysis: What it is and How To Do It*. Vol. 13, Quantitative Applications in the Social Sciences. Beverly Hills: Sage Publications.
- Lakoff, George. 1987. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago: Chicago University Press.
- Leonard, David K., and Dale Rogers Marshall. 1982. *Institutions of Rural Development for the Poor: Decentralization and Organizational Linkages*, Research Series (University of California at Berkeley). Berkeley: Institute for International Studies.
- Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press.
- Linz, Juan, and Alfred Stepan. 2000. *Inequality Inducing and Inequality Reducing Federalism: With Special Reference to the Classic Outlier - The U.S.A.* Quebec City: World Congress of the International Political Science Association.
- Litvack, Jennie. 1998. *Rethinking Decentralization in Developing Countries*. Washington, D.C.: The World Bank.
- Litvack, Jennie, Junaid Ahmad, and Richard Bird. 2000. *Rethinking Decentralization at the World Bank*. Washington, D.C.: The World Bank.
- Long, J. Scott. 1983. *Confirmatory Factor Analysis: A Preface to LISREL*. Edited by Sage, Sage Monographs. Los Angeles: Sage Publications.
- Manor, James. 1999. *The Political Economy of Democratic Decentralization*. Washington, D.C.: World Bank Group.
- Musgrave, Richard A. 1958. *Multi-Level Finance*, edited by R. A. Musgrave. New York: McGraw-Hill.
- Nice, David C., and Patricia Fredericksen. 1995. *Politics of Intergovernmental Relations*. New York: Thomas Learning.
- Oates, Wallace. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Oates, Wallace. 1985. Searching for Leviathan: An Empirical Study. *American Economic Review* 75:748-757.
- Pauly, Mark V. 1973. Income Redistribution as a Local Public Good. *Journal of Public Economics* 2:35-58.

- Prud'Homme, Remy. 1995. The Dangers of Decentralization. *World Bank Research Observer* 10 (2):201-220.
- Qian, Y.Y. 1997. Federalism as a Commitment to Preserving Market Incentives. In *Journal of Economic Perspectives*.
- Rondinelli, Dennis, et al. 1981. Government Decentralization in Comparative Perspective: Developing Countries. *International Review of Administrative Science* 47 (2).
- Rondinelli, Dennis, John R. Nellis, and G. Shabbir Cheema. 1984. *Decentralization in Developing Countries: A Review of Recent Experience*. Washington, D.C.: World Bank.
- Rondinelli, Dennis A., James S. McCullough, and Ronald W. Johnson. 1989. Analyzing Decentralization Policies in Developing Countries: A Political-Economy Approach. *Development and Change* 20 (1):57-87.
- Rondinelli, Dennis. 1990. Decentralization, Territorial Power, and the State: A Critical Response. *Development and Change* 21 (3):491-500.
- Samoff, Joel. 1990. Decentralization: The Politics of Intervention. *Development and Change* XXI (3).
- Samuels, David J. 2000. The Gubernatorial Coattails Effect: Federalism and Congressional Elections in Brazil. *Journal of Politics* 62 (1):240-253.
- Sartori, Giovanni. 1970. Concept Misformation in Comparative Politics. *American Political Science Review* 64 (4 (December)):1033-1053.
- Schmitter, Philippe C. 1971. *Interest Conflict and Political Change in Brazil*. Stanford: Stanford University Press.
- Schmitter, Philippe C. 1974. Still the Century of Corporatism? *Review of Politics* 36 (1 (January)):85-131.
- Schmitter, Philippe C. 1977. Modes of Interest Intermediation and Models of Societal Change in Western Europe. *Comparative Political Studies* 10:7-38.
- Schneider, Aaron. 2001. *Federalism Against Markets: Local Political Struggle and Fiscal Adjustment in Brazil*, University of California, Berkeley.
- Shah, Anwar. 1999. Fiscal Federalism and Macroeconomic Governance: For Better or For Worse? In *World Bank Working Paper*.
- Snyder, Richard. 1999. *Scaling Down: The Subnational Comparative Method*.
- Sola, Lourdes. 1991. Heterodox Shock in Brazil- Tecnicos, Politicians and Democracy. *Journal of Latin American Studies* V (23):163-195.
- Stiglitz, Joseph, and Arnold Heertje. 1989. *The Economic Role of the State*. Oxford: Blackwell.
- Tanzi, Vito. 1995. Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects, May 1-2, 1995, at Washington, D.C.
- Wallis, Malcolm. 1991. Local Government and Development: A Guide to the Literature. *Environment & Urbanisation* III (1):121-9.
- Weber, Max. 1968. *Bureaucracy*. Berkeley: University of California Press.
- Weingast, Barry R. 1995. The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development. In *Journal of Law, Economics, and Organization*.
- Winkler, Donald R. 1994. *The Design and Administration of Intergovernmental Transfers: Fiscal Decentralization in Latin America*. Washington, D.C.: World Bank.
- World Bank Group. 2000. *World Development Report: Entering the 21st Century*. Washington, D.C.: World Bank Group.

Yilmaz, Serdar, and Robert D. Ebel. 2002. On the Measurement and Impact Fiscal Decentralization. Washington, D.C.: World Bank.

Websites

<http://www1.worldbank.org/publicsector/decentralization/dataondecen.htm>
<http://lcweb2.loc.gov/frd/cs/cshome.html#toc>
<http://confinder.richmond.edu/>
<http://www.cia.gov/cia/publications/factbook/indexgeo.html>
<http://paradocs.pols.columbia.edu/datavine/BrowseFrameSet.jsp?dsetID=100>
<http://www.bsos.umd.edu/cidcm/inscr/polity/>