

NON-TAXATION AND REPRESENTATION:  
AN ESSAY ON DISTRIBUTION, REDISTRIBUTION,  
AND POLITICAL STABILITY IN THE MODERN WORLD

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Dissertation submitted in partial fulfillment of  
the requirements for the degree of Doctor  
of Philosophy in the Department of  
Political Science in the Graduate School  
of Duke University

2007

ABSTRACT

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## Abstract

Drawing upon formal modeling, cross-national statistical analysis, and in-depth case studies, this dissertation explores the relationship between patterns of government revenue generation and political regime stability. Considering both tax and non-tax revenue (the latter of which includes foreign aid and revenue from state-owned natural resource enterprises), and building on recent redistributive theories of regime change, I use formal modeling to generate testable hypotheses about the impact of non-tax revenue on regime dynamics in both democratic and authoritarian regimes. *The central prediction is that rises (falls) in non-tax resources increase (decrease) the stability of authoritarian and democratic regimes, by reducing (increasing) redistributive conflicts in society.* I provide evidence supporting the implications of the theory for both redistribution and regime stability, drawing upon cross-national time-series statistical analysis as well as in-depth examination of three theoretically important cases: Bolivia, Mexico, and Kenya.

The research has important implications for three bodies of literature. First, it advances the broad literature on the political economy of redistribution. The existing literature has generally assumed that government revenues are raised solely by taxation, the source of redistributive conflict. I demonstrate that this is not a plausible assumption—*non-tax* revenue makes up about a quarter of government revenue on

average, and in some countries represents the large majority of government revenue—and that in fact non-tax revenue systematically decreases redistribution.

Second, building on this insight, I advance the literature on democratization by developing a theory of how government revenues—both their size and their source—factor into regime change. This work builds on and extends recent influential works that have focused on formally modeling the distributional dynamics underlying regime transitions.

Finally, the research sheds light on commonalities between literatures studying different areas of the world. In particular, it argues that there are similarities between insights developed in the literature on the “*rentier*” state—principally regarding how oil revenues affect regime dynamics—and those developed in the literature on foreign aid and political regimes. The reason is that oil revenues and aid are significant examples of a broader set of resources—non-tax revenues—whose importance has been underappreciated.

*For those who have taught me,  
especially Mom, Dad, and Marcela*

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When I was in sixth grade, I had an English teacher named Gail Kahn, and during the course of the year, there was an assignment I had not done for some reason—

probably I had been sick. Ms. Kahn was understanding, reminding me about it only occasionally as something I would need to finish before the year was done. Toward the end of the year—and thinking myself extremely clever—I calculated that even if I got a zero on that assignment, I would still get a good grade in her class. So the next time she reminded me about the assignment, I told her something to the effect of thank you for the reminder, but that I was fine with getting a zero on that assignment. I am older now, but I still think I would be unprepared for the holy terror that rained down on me on that day. Oh, I was definitely getting a zero, all right, and I would also do the assignment and do it well.

My other teacher that year—in science and math—was Larry Barfield, perhaps the most creative teacher I have ever known. Above the blackboard in Mr. Barfield’s classroom was a motto written in large block letters: “Strive not to equal, but to excel.” I have a ferociously bad memory, but I can still vividly remember Mr. Barfield explaining to us the meaning of these words, just as I can remember that very moment in Ms. Kahn’s classroom. I long ago lost touch with both of them, but often I think of them and how they both instilled in me, at such an early age, the importance of integrity and pride in one’s work. It may seem odd that the acknowledgements of a PhD dissertation would thank two elementary school teachers, but I firmly believe in “cumulative causation”, and that the foundation of whatever success I have had in school was laid by these two teachers especially.

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# 1. Introduction

## *1.1 The prevalence of non-tax revenue around the world*

This is a dissertation about *non-tax revenue*, and particularly its effects on transitions between democratic and authoritarian regimes. As non-tax revenue is a new concept, particularly in the way I will be using it, it is helpful to begin with first principles. Simply put, non-tax revenue is what a government can spend that does not come from taxation. I will discuss some sources of this revenue in a moment, but let us begin in the aggregate.

Given this encompassing theoretical conception of non-tax revenue, the simplest way of calculating the aggregate value of such revenue is to subtract total tax revenue from total expenditures.<sup>1</sup> This gives a direct measure of the revenue other than tax revenue that the government can use to finance expenditures.<sup>2</sup> Analyzing the related descriptive statistics reveals that this kind of revenue is critical to many countries in the

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<sup>1</sup> This measure in fact comes directly from the formal models that appear in Chapters 2 and 3. Non-tax revenue defined in this way is available for 2055 observations over 118 countries, and the variable exhibits variance both cross-sectionally (a “between” standard deviation of 689 constant \$US per capita) and across time (a “within” standard deviation of \$582 per capita).

<sup>2</sup> The best available data on revenue is from the International Monetary Fund’s *Government Finance Statistics (GFS)*. Unfortunately for researchers interested in revenue over a long time period, the IMF (2001) recently changed the way it categorizes government finance. However, the data for the previous coding by the IMF (1986) is available over a time period of 1973-2001. Therefore, to attain a longer time-series, in this dissertation I use the previous coding of revenue and spending.

world. It accounts for an average of 27 percent of government expenditures, and in some countries it accounts for the large majority of expenditures, as Table 1 details.

**Table 1: The importance of non-tax revenue in some countries' revenue streams**  
*Percentage of total expenditures covered by non-tax revenue (100 = 100 percent)*

	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<b>Bahrain</b>	77	5	68	84
<b>Bhutan</b>	84	2	80	87
<b>Bolivia</b>	42	10	26	56
<b>Burundi</b>	44	6	34	56
<b>Congo, Rep.</b>	59	17	31	82
<b>Egypt</b>	44	6	35	61
<b>Ethiopia</b>	46	7	34	56
<b>Greece</b>	32	11	16	51
<b>Iran</b>	67	12	38	86
<b>Israel</b>	34	8	24	56
<b>Japan</b>	28	12	3	44
<b>Mali</b>	46	18	17	62
<b>Nepal</b>	54	7	43	65
<b>Nicaragua</b>	35	14	0	59
<b>Pakistan</b>	38	7	24	48
<b>Romania</b>	47	30	6	77
<b>Syria</b>	50	22	16	78

Note: Calculated using data from the IMF's *Government Finance Statistics*. Figures are for observations in my sample covering 1973-2001.

In addition to the fact that Table 1 lists countries from every region in the world, the careful reader might have noticed a multitude of Middle Eastern countries in the table. This is because a large source of the world's non-tax revenue is oil. The majority of government revenue generated from oil comes not through taxes (such as on foreign companies) but rather through state-owned companies. It has been estimated that 75

percent of the world's oil production and 90 percent of its reserves are in the hands of such state-owned companies (e.g. Ivanhoe, 2000). Oil revenues are therefore generally produced by entrepreneurial activity of the government, and thus a type of non-tax revenue.

Given the prominence of oil in international affairs, it is not surprising that scholars have generated a considerable amount of research about its effects on politics. The general conclusion of this literature has been that oil either leads to or stabilizes authoritarian regimes (useful reviews of the literature can be found in Ross 2001 and Smith 2004). That oil has some "very odd properties", to use Michael Ross's (2001) phrase, has become so widely accepted that oil-producing countries are generally considered exceptional in theories of political regime change. Cross-national statistical work on democratization has tended to ignore the oil-producing countries altogether (O'Donnell, et al., 1986; Przeworski, et al., 2000) or consider them as outliers to be treated with dummy variables (Barro, 1999). For their part, scholars of the effect of oil have been fully willing to accept this exceptionalism and have generated their own theories to explain resistance to democracy, largely focusing on the concept of the "*rentier state*" (Beblawi and Luciani, 1987; Mahdavy, 1970).

But are oil-dependent countries really exceptional? One of oil's most important effects seems to be the simple fact that it gives political regimes more money with which

to pursue their various strategies for staying in power.<sup>3</sup> As Nathan Jensen and Leonard Wantchekon (2004: 821) state, “The key mechanism linking authoritarian rule and resource dependence, both in democratic transition and democratic consolidation, is an incumbent’s discretion over the distribution of natural resource rents.” Similarly, Benjamin Smith (2004: 233) notes, “While scholars approach the political economy of oil from diverse methodological origins, the theoretical arguments about the structures and nature of the rentier state flow from *the state’s access to externally obtained revenues* from the sale of oil.”<sup>4</sup> By this argument, the ways in which governments use oil revenue are just a reflection of their preferences over the use of state finances.<sup>5</sup>

This way of thinking about the relationship between oil wealth and political regimes raises an important question: If it is oil *revenue* doing the work, why is oil revenue different from other kinds of revenue, particularly others that are also “externally obtained”? In fact, there may be a variety of such revenues, whose key

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<sup>3</sup> Though this is a central message of research on the *rentier* state, the particular arguments developed within this literature vary, as do governments’ strategies for staying in power, which range from “buying” political consensus to repressing various social groups (e.g. Anderson, 1995; Chaudhry, 1997; Karl, 1997; Moore, 1976; Shambayati, 1994). In addition, there are subtle differences in the hypothesized effects of oil revenues. Some (e.g. Ross 2001) argue that oil bolsters authoritarianism, whereas others (e.g. Smith 2004) suggest that it stabilizes all regimes.

<sup>4</sup> Emphasis added.

<sup>5</sup> It should be noted that while the rentier hypothesis, revolving around revenue, is the dominant strand in the oil literature, there are some hypotheses relating oil to political regimes that do not revolve around revenue. For example, oil’s dominance of the economy may lead to less emphasis on education and less urbanization, thereby breaking a possible “modernization” link between economic development and democratization (Ross 1999).

characteristic is that they are not derived from taxation but rather available mainly as “windfalls” to the government.

Along these lines, several scholars have suggested that the literature on oil revenues may have relevance for another external resource: foreign aid (see, for example, Bräutigam, 2000; Moore, 1998; and Therkildsen, 2002).<sup>6</sup> Research has indicated that, like oil revenue, foreign aid is a highly fungible resource (Feyzioglu, et al., 1998) and provides extra resources the government can use to distribute to its key constituencies without taxation (e.g. Bratton and van de Walle, 1997). For example, Nicolas van de Walle (2001, 240) has argued that democratization in Africa was encouraged by a fiscal crisis resulting from, among other things, an increased willingness on the part of donors to restrict aid to countries that did not respect human rights: “With fewer resources at their disposal and an increasingly decrepit state apparatus, leaders found it harder to sustain critical clientelist networks, with the result that the old political aristocracy was more likely to fractionalize.” However, to my knowledge, no one has directly tested statistically whether aid leads to increased regime stability.<sup>7</sup>

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<sup>6</sup> It is interesting to note in this context that Hussein Mahdavy’s original definition of a rentier state was a state that received substantial rents from “foreign individuals, concerns or governments” ((1970: 428, cited in Ross 2001)).

<sup>7</sup> There have been some works analyzing statistically the effect of aid on a country’s level of democracy. Goldsmith (2001) and Dunning (2004) find a small but significant positive correlation between level of democracy in Africa and aid as a percentage of GNP, but Knack (2004) finds no correlation between improvements in level of democracy and aid as a percentage of either GNP or government spending.

In the theory I will develop in this dissertation, non-tax revenue includes not only foreign aid and natural resource revenue attained through state-owned enterprises, but also borrowing (from abroad or the Central Bank) and all other revenue besides taxation (e.g. other state-owned enterprise revenue, fines, and so forth). Again, non-tax revenue is what the government can spend without having to tax its citizens. This is obviously quite a diverse category of revenue, and it should be noted at the outset that—despite scholars’ claims that aid and oil revenues might have something in common—asserting that they can be considered examples of a broad class of revenue with similar effects constitutes a hypothesis in its own right. Therefore I will take steps in my empirical analysis below to ensure that this hypothesis is valid.

However, if aggregating seemingly different forms of revenue into one category seems counter-intuitive at first, consider that research on taxation and political regimes has primarily focused on aggregate taxation, despite the evident differences that exist between various forms of taxes (e.g. Cheibub, 1998; Ross, 2004). Much insight, similarly, has been gained by focusing on aggregate government spending, discounting differences between various kinds of expenditure (e.g. Rodden, 2003; Rodrik, 1998).<sup>8</sup> Research on non-tax revenue to date (though not positioned as such) has instead focused primarily on disaggregated types of revenue, such as oil revenues or foreign aid. As in works that have focused on aggregate taxation and spending, this dissertation will offer

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<sup>8</sup>.

evidence that leverage on understanding certain phenomena can be gained by aggregating different kinds of non-tax revenue. And in fact, unlike the large majority of works focusing on aggregate taxation and spending, I will demonstrate that disaggregated forms of non-tax revenue do in fact have similar effects.

What are the implications if oil revenues are not particularly unique, except for the fact that they make up a large percentage of non-tax revenue? Table 2 illustrates the significance of changing our perspective. In the first column, it lists the regional averages of oil exports as a percent of GDP, the indicator commonly used in the cross-national statistical literature as a measure of oil dependence (e.g. Ross, 2001; Smith, 2004). One can see that by this measure, the Middle East truly is exceptional. Its oil dependence is five times the level of the next-closest region, and twenty times that of the least oil dependent region. However, our image of the Middle East as exceptional changes dramatically when one considers the dependence of other regions on non-tax revenue, as indicated in the last column of Table 2. The differences between a focus on non-tax revenue and one on oil may not be particularly significant *within* the Middle East, as non-tax revenue makes up the same amount of GDP in the Middle East as oil exports.<sup>9</sup> But now the difference between the ratio between the Middle East and the next region is only 1.5 to one, and the difference between the Middle East and the region with

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<sup>9</sup> The reason for this is that the non-tax revenue indicator excludes oil exports by private companies and includes foreign aid and other non-tax revenues.

the least non-tax revenue is only about four to one. Suddenly, the Middle East does not look so different from other regions.

**Table 2: The importance of non-tax revenue, in economic terms**

*All variables are as a percent of GDP (100 = 100 percent)*

	<b>Oil exports</b>	<b>Tax revenues</b>	<b>State-owned enterprise revenue</b>	<b>Foreign aid</b>	<b>Total non-tax revenues</b>
<b>Middle East and North Africa</b>	20	17	15	3	20
<b>South Asia</b>	1	12	5	4	13
<b>Sub-Saharan Africa</b>	4	18	3	2	9
<b>Europe and Central Asia</b>	2	29	4	1	7
<b>Latin America and Caribbean</b>	4	18	3	1	6
<b>East Asia and Pacific</b>	4	16	3	1	5

NOTE: Regional breakdowns are as defined by the World Bank. Oil exports as a share of GDP are from the World Bank. "Tax revenues" as defined by the IMF's (1986) *Government Finance Statistics (GFS)* are "compulsory, unrequited payments to government" (p. 118). "State-owned enterprise revenue" is approximated here by the variable "non-tax revenue" in the *GFS*. While this category also includes administrative fees and charges, the majority of this revenue is the government's "entrepreneurial and property income". "Foreign aid" is the "grants" variable in the *GFS*, and includes "all nonrepayable unrequited payments received from other governments or programs, for general budget support, or any other purpose" (p. 130). "Total non-tax revenues" are as defined in the text.

Many countries—in every region of the world—rely on non-tax revenue. Table 2 serves notice that the geographical extension of a theory of non-tax revenue is likely to be different—and much broader—than a theory focused on a certain kind of non-tax revenue, like oil revenue. And certainly it indicates that we cannot continue to exclude countries dependent on non-tax revenue from our broader theoretical and empirical



work on political regime transitions.

This dissertation is therefore an attempt to bring these countries—and this revenue—into a broader theoretical framework of regime transitions.

## ***1.2 Building a theory of non-tax revenue***

This dissertation builds on a distinguished body of work in political science that focuses on redistributive conflicts as central to regime change. While they differ in their particular arguments, this approach includes important work by (among others) Barrington Moore (1966); Goran Therborn (1977); Ruth and David Collier (Collier, 1999; Collier and Collier, 1991); and Dietrich Rueschemeyer, Evelyne Huber Stephens, and John Stephens (1992). Because the more recent contributions of Daron Acemoglu and James Robinson (2001; 2006), Carles Boix (2003), and Adam Przeworski (2005) have specifically modeled the ways in which government revenue interacts with demands from society in the context of political regime transitions, they provide a useful framework on which to build.

In order to understand the background of the hypotheses that will be generated here, it is necessary to recognize five defining aspects of these theories. First, these theories assume that political regimes are essentially a way of allocating resources in society (Kitschelt, 1992). As such—almost by definition—conflict over the political regime is conflict about the nature and extent of redistribution in society. Second, these

theories tend to assume that conflict over redistribution takes place between citizens and wealthy elites.<sup>10</sup> And third, they assume that the elites in society are a smaller group than the citizens. This characteristic is important because it leads to the association of dictatorial regimes with elites and democratic regimes with citizens. Dictatorial regimes are ones in which a minority group—the wealthy elites in society—have decision-making power over resource allocation. Democratic regimes are ones in which the citizens have that power.

The key implication is that transitions to democracy should generally involve (a) an incorporation of poorer elements into the country's electorate and (b) an improvement in the government's treatment of those parts of society. Although there are certainly exceptions, this is a plausible way of viewing the history of enfranchisement, which has generally been one of widening the electorate to include poorer groups in the "social hierarchy" (Jack and Lagunoff, 2006; Kousser, 1974). Furthermore, as these theories would predict, the expansion of the franchise has resulted in important policy changes. Peter Lindert (2004), for example, has carefully documented how the extension of suffrage rights to poorer social groups in western countries at the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> centuries led to an expansion of both social insurance and public education provision. Bruce Bueno de Mesquita and his

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<sup>10</sup> It may be noted that the central theoretical claims of the work by Acemoglu and Robinson are robust to the presence of other societal divisions (such as ethnic divisions), but it is important for their model that there are elites and citizens *within* these societal groups (see, e.g., Acemoglu and Robinson, 2006: 203-207). I will address this issue in Chapter 2.

co-authors (2003) have also provided support for this approach, showing that as the size of the winning coalition in a regime increases, so do important education and health indicators.

The fourth important characteristic of these theories of regime change is that redistribution is generally considered to be transfers from elites to citizens, and not the other way around.<sup>11</sup> It is a rather quick jump from this characteristic to the critical source of conflict in these theories: citizens prefer higher redistribution than elites. In fact, elites prefer no redistribution at all.

Together, these four characteristics lead to specific predictions about the source of threats to democracies and dictatorships. For dictatorships, the threat is from citizens, who are unhappy about the amount of transfers they are receiving. In the Acemoglu and Robinson (2006) theory, for example, dictatorships fall during transitory moments when citizens have solved their collective action problem and can mobilize against the elites. If the elites cannot credibly promise enough transfers to keep citizens from launching a revolution, elites democratize, thereby putting allocation decisions in the hands of the citizens. For democracies, the threat is exactly from those elites, who are now unhappy with the level of taxation and can threaten a coup. In the transitory moments when the rich solve their own collective action problem and mobilize against

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<sup>11</sup> Acemoglu and Robinson (2006: 107-109) do explore the possibility of targeted transfers, which would allow elites in nondemocracy to funnel all tax proceeds to themselves, and the citizens in a democracy to do similarly to themselves. The result is to increase the level of conflict in society, but the comparative statics are generally the same, particularly with regard to inequality.

the regime, citizens may not be able to credibly promise lower amounts of taxation of elites. In this scenario, the rich overthrow the democracy and impose a dictatorship.

Finally, and most important from the perspective of this dissertation, the fifth characteristic of these works is that they exclusively focus on *redistribution*. That is, they ignore the possibility of what might be called a “distributive” state (Delacroix, 1980). In particular, the models of Acemoglu and Robinson (2001; 2006), Boix (2003), and Przeworski (2005) all build off the benchmark model of redistribution by Allan Meltzer and Scott Richard (1981). The state has no resources of its own, but rather redistributes—through taxation—resources owned by the societal groups. Ignored is the possibility that the state might have resources of its own: non-tax revenues.

From the discussion above, however, we now know that states all over the world *do* have non-tax revenues. What predictions would arise within this theoretical framework regarding the effects of non-tax revenue? Answering this question—including testing the resulting predictions empirically—is the central endeavor of this dissertation.

### ***1.3 The argument and plan of the dissertation***

Briefly put, I argue that non-tax revenue should lead to greater regime stability in dictatorships *and* democracies. The “and” is emphasized because, while a revenue perspective reveals certain similarities between foreign aid and oil rents, it should be

noted that conventional wisdom about these two revenue sources often seems to imply opposite predictions about their effects on political regimes. This wisdom is reflected in the contrasting titles of two important recent studies: while Michael Ross (2001) asks “Does Oil Hinder Democracy?”, Stephen Knack (2004) asks “Does Foreign Aid Promote Democracy?” The prevailing assumption is that oil generally has negative (i.e. anti-democratic) implications for political regimes, while aid has positive ones, despite the efforts of some scholars discussed above. In other words, existing research regarding different kinds of non-tax revenue has tended to assume that certain kinds of revenue have what might be called “normative properties”. That is, these various revenues have *independent* effects, pushing a country either toward dictatorship (in the case of oil for example) or toward democracy (in the case of aid). This dissertation takes a different approach, arguing that the effect of these revenues in terms of dictatorships and democracies is very much contextual: they stabilize the regime in which they appear.

Chapters 2 and 3 establish the theoretical foundations of the dissertation. In Chapter 2 I demonstrate formally that non-tax revenue reduces redistributive conflict in societies. I first do this in a scenario in which there are only poorer citizens and richer elites in a society, and then expand the analysis to include a middle class and other social (such as ethnic or religious) divisions. The finding that non-tax revenue reduces redistributive conflict across these different settings is essential to the theory of this dissertation, because of the centrality of redistributive conflict in regime changes

within the literature on which I build.

In Chapter 3, I build a game-theoretic model of revenue and regime change, using the framework of Acemoglu and Robinson (2006). As I explain in the chapter, because the redistributive conflicts underlying regime changes in democracies and dictatorships are similar in the Acemoglu and Robinson (2006) framework, demonstrating the effects of non-tax revenue in one of the regimes is sufficient for understanding its effects on regime changes overall. Therefore, while the model in Chapter 3 focuses explicitly on democratization, its results also give insights into non-tax revenue's effects on coups. The model allows the exploration of non-tax revenue's effect in the context of strategic interaction, and demonstrates the mechanisms behind its stabilizing effect in authoritarian regimes. In addition, I demonstrate that this revenue has a stabilizing effect even if a benevolent international donor is attaching policy conditions to their foreign aid.

Chapters 2 and 3 therefore establish a robust theoretical finding: that non-tax revenue should have stabilizing effects on democracies and dictatorships, and that it should do so by reducing redistributive conflict. The results of the theoretical work are three testable hypotheses. The first concerns the end result: the presence of non-tax revenue should lead to regime stability in both democracies and dictatorships. The second and third hypotheses concern the observable implications of the causal mechanism of reducing redistributive conflict: non-tax revenue should lead to certain

changes in the finances of democracies and dictatorships. In democracies, where the threat to the regime is from rich elites, non-tax revenue should lead to less taxation of those elites, so that they have less incentive to launch a coup. In dictatorships, where the threat is instead from lower- and middle-income citizens, non-tax revenue should lead to increased spending on poorer citizens, to reduce their desire to overthrow the regime.

Chapters 4 and 5 explore these three hypotheses empirically. Chapter 4 consists of cross-national time-series statistical analysis of all countries and years for which the necessary data are available (about 100 countries over the period 1973-2001). My key independent variable is an indicator of aggregate non-tax revenue, calculated using the International Monetary Fund's *Government Finance Statistics*. However, I also use indicators of subsets of non-tax revenue—such as foreign aid and state-owned enterprise revenue—to demonstrate that they have similar effects, validating the concept of aggregate non-tax revenue.

I use these non-tax revenue indicators in three sets of regressions. The first focuses on regime transitions, with a binary dependent variable of regime change as coded by the *Polity* dataset (Marshall and Jaggers, 2003). I use a variety of different control variables, and also test the robustness of the findings using the different coding of regime changes in Przeworski et al. (2000) and Bueno de Mesquita et al. (2003). Building off of recent work on government finance, the second set of regressions studies taxation of elites in democracies, and the third set analyzes social spending in

dictatorships. Again, I submit these results to a variety of robustness checks, including different statistical techniques. The results of all three sets of regressions are quite robust, indicating solid support for the hypotheses and the theoretical framework of the dissertation.

While the statistical results are indicative, in-depth analysis of carefully selected cases can give insight into dynamics asserted by formal models, and also reveal those models' shortcomings. In order both to illustrate the dynamics of my theory and explore avenues for future work, in Chapter 5 I analyze the experience of three countries with regard to non-tax revenue and regime stability. To study countries that give me maximum leverage on my theory, I followed King, Keohane, and Verba's (1994) advice to maximize variation on my key independent variable: non-tax revenue.<sup>12</sup> I looked for countries in my dataset that had experienced large rises or falls in non-tax revenue, and because I needed to observe both democracies and dictatorships, I then analyzed the large rises and falls to find out under what political regime they had occurred. Based on this analysis, I chose three countries and time periods: Mexico in the late 1970s and 1980s, Kenya in the late 1980s and early 1990s, and Bolivia from the mid-1980s to the mid-1990s. These countries also enable me to study different kinds of non-tax revenue sources. Mexico's principal source of non-tax revenue has been their state-owned oil

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<sup>12</sup> My case selection also matches van Evera's (1997) criteria for good cases: (a) comparatively data-rich, (b) have extreme values on the IV, (c) have large within-case variance on the IV, and (d) resemble current policy-problem cases.



company and borrowing. Bolivia has historically derived its non-tax revenue from foreign aid, tin and natural gas, and borrowing. Finally, Kenya's non-tax revenue has primarily come from foreign aid. Based on secondary literature and fieldwork in each of these countries, I analyze the effects of these rises and falls in non-tax revenue, looking at taxation and spending dynamics as well as the stability of the regime during these times.

The results of the empirical sections are a robust confirmation of the theoretical predictions through cross-national statistical analysis and an indication that the theoretical framework yields insight into the three different historical cases. The findings and their implications are discussed in the concluding chapter.

## 2. Non-tax revenue and preferences for redistribution

As discussed in Chapter 1, this dissertation builds on a body of work that analyzes the redistributive foundations of regime change. Because conflict over the political regime in this framework is determined by conflicts over redistribution, the principal factor that determines instability in countries is the difference between the redistribution level preferred by elites and that preferred by citizens. The greater is this difference, the more the elites in democracies will fight for a dictatorship, and the more citizens in a dictatorship will fight for a democracy.

Furthermore, since elites always prefer zero redistribution, the value that determines this difference is the level of redistribution preferred by citizens.<sup>1</sup> In other words, the level of redistributive conflict is analogous to citizens' preferred level of redistribution. This chapter explores non-tax revenue's effect on that preferred level, first exploring a situation in which there are only elites and citizens and then expanding the complexity of societal divisions. By showing that non-tax revenue reduces preferences for redistribution, the chapter lays the foundations for the rest of the dissertation.

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<sup>1</sup> As mentioned in the introductory chapter, redistribution here is defined as transfers from elites to citizens.

## 2.1 The basic setup

I start by defining an individual's utility as

$$U^i = c^i + K(S) \quad (1)$$

where  $U^i$  is the utility of an individual,  $c^i$  is her consumption, and  $S$  is per capita government spending.  $K(\cdot)$  is a function such that  $K: [0, \infty) \rightarrow \mathfrak{R}_+$ , where  $K(0) = 0$  so that there is no utility gained from no expenditure;  $K'(\cdot) > 0$ , so utility is increasing in the level of spending; and  $K''(\cdot) < 0$  to capture the diminishing returns to government size due to the economic distortions it can create (Alesina, et al., 2002; Landau, 1985). Consumption for an individual is assumed to be equal to:

$$c^i = (1 - \tau)y^i \quad (2)$$

where  $\tau$  is a proportional income tax levied on all citizens and  $y^i$  is individual  $i$ 's pre-tax income.

Government spending is assumed to be financed by tax revenues and non-tax revenues. It therefore equals:

$$S = \frac{1}{n} \left[ \sum_{i=1}^n \tau y^i \right] + N = \tau \bar{y} + N, \quad (3)$$

where  $n$  is the number of people in the society,  $\bar{y}$  is the average income in the economy, and  $N$  is the per capita amount of non-tax resources.

Plugging equations (2) and (3) into (1) yields the indirect utility function:

$$V^i = (1 - \tau)y^i + K(\tau\bar{y} + N)$$

The conditions on  $K(\cdot)$  imply that  $V^i$  is a strictly concave function, which is a sufficient condition for preferences to be single-peaked.<sup>2</sup> At this point, without loss of generality, I use an example of a strictly concave function for the sake of presentation. I define  $V^i$  as:

$$V^i = (1 - \tau)y^i + \ln(\tau\bar{y} + N + 1) \quad (4)$$

I follow Acemoglu and Robinson (2006) and define the incomes of the elites and citizens as follows (where the population is normalized to one):<sup>3</sup>

$$y^c = \frac{\theta\bar{y}}{\lambda} \quad (5)$$

$$y^e = \frac{(1 - \theta)\bar{y}}{1 - \lambda} \quad (6)$$

Here,  $\lambda$  is the share of citizens in the population, and  $\theta$  is their share of the economy. Intuitively, the income of a citizen can be thought of as the share of the economy accruing to citizens, divided by the number of those citizens. Note that an increase in  $\theta$  represents a fall in inequality, and that since

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<sup>2</sup> It should also be noted that the construction of the  $K(\cdot)$  function implies that spending financed by  $\tau\bar{y}$  and  $N$  have exactly the same effect on individual utility. This may not be true. However, any functional form would work as long as  $\frac{\partial^2 K}{\partial \tau \partial N}$  is less than zero.

<sup>3</sup> Acemoglu and Robinson (2006: Chapter 9) show that these expressions can be derived from a standard Cobb-Douglas production function. In addition, while the expressions enter exogenously into the model, any disincentives to work caused by taxation are incorporated by Acemoglu and Robinson into a deadweight cost function. The  $K(\cdot)$  function in this paper can be seen as incorporating such deadweight costs.

$$y^e < \bar{y} < y^c, \quad (7)$$

$$\frac{\theta \bar{y}}{\lambda} < \frac{(1-\theta)\bar{y}}{1-\lambda}, \quad (8)$$

which implies that  $\theta < \lambda$ .

I can now plug equations (5) and (6) into (4) to attain the indirect utility function of elites and citizens in society:

$$V^e = (1-\tau) \frac{(1-\theta)\bar{y}}{1-\lambda} + \ln(\bar{y} + N + 1) \quad (9)$$

$$V^c = (1-\tau) \frac{\theta \bar{y}}{\lambda} + \ln(\bar{y} + N + 1) \quad (10)$$

To find the preferred tax rate of the elite, I need to solve equation (9) through unconstrained maximization. Taking the derivative of equation (9) with respect to  $\tau$ , we can see that:

$$\tau^e = \left(\frac{1}{\bar{y}}\right) \left(\frac{1-\lambda}{1-\theta} - N - 1\right). \quad (11)$$

Because  $\theta < \lambda$ ,  $\tau^e$  is always less than zero. In other words, the elite will never prefer a positive tax rate, and since tax rates are assumed to be nonnegative, the preferred tax rate of the elite is zero. This is in line with the characteristics of the theoretical approach on which this dissertation builds, as discussed in Chapter 1.

Proceeding similarly with equation (10) to find the preferred tax rate of citizens, we can see that:

$$\tau^c = \left(\frac{1}{\bar{y}}\right)\left(\frac{\lambda}{\theta} - N - 1\right). \quad (12)$$

Equation (12) is, in many ways, the formal theoretical foundation of this dissertation. It indicates that non-tax revenue tends to decrease the preferred tax rate of citizens.<sup>4</sup> As there are declining marginal returns to government revenue, when revenue increases because of increased revenues from natural resources and aid, the poor will prefer to keep more of their own money instead of having it taxed.<sup>5</sup> Because of the role of the preferred tax rate of citizens in redistributive theories of regime change, this equation predicts similar dynamics in both democracies and dictatorships. Non-tax revenue, by diminishing the preferred tax rate of citizens, reduces pressures for regime change in *both* dictatorships and democracies. The implication is that (a) societies with more non-tax revenue should have less redistributive pressure, all else equal and (b) therefore should be more stable. The models in the next chapter explore these dynamics

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<sup>4</sup> In addition, the poor's preferred tax rate increases with the share of the population that is poor ( $\lambda$ ) and with inequality (which goes up as  $\theta$  goes down). The first term of the right hand side of the equation indicates, however, that the effect of these various factors decreases as mean income in the society goes up. This implies, for example, that the effect of a given level of natural resources and aid on the poor's preferred tax rate will be less in richer democracies. In addition, the equation implies that the interaction between inequality and income level is crucial, echoing Meltzer and Richard's (1981: 923) finding that "the effect of absolute income on the size of government is conditional on relative income." One can see this in equation (5): if average income grows, it benefits the poor, but if average income growth coincides with a decrease in the poor's share of the economy (for example, if income growth coincides with increasing inequality), then the effect on the poor depends on the relative changes in each variable.

<sup>5</sup> The separability of income and transfers is not essential to the results. For example, if utility in equation (1) were instead  $U^i = [e^i]^\alpha [K(S)]^{\alpha-1}$ , the indirect utility function in equation (4) would be

$V^i = [(1 - \tau)y^i]^\alpha [K(\bar{y} + N)]^{\alpha-1}$ . The optimal tax rate for the poor would then

be  $\tau^p = 1 - \frac{\alpha[K(\bar{y} + N)]}{(1 - \alpha)K'(\bar{y} + N)}$ , and given the assumptions with regard to  $K(\cdot)$ , this is decreasing in  $N$ .

in more depth, with particular attention to dictatorships, but the finding in equation (12) is at their core.

In addition, equation (12) has two other important implications. First, studies of the effects on taxation of certain types of non-tax revenue—such as oil (Ross, 2001) and aid (Remmer, 2004)—have in fact demonstrated this relationship, finding an inverse relationship between taxation and their non-tax revenue of choice. However, they have interpreted the findings with a negative slant. This simple model suggests the normative interpretation of this evidence should be conditional on the type of political regime. In a democratic regime, a decline in tax revenue may *reflect* the preferences of citizens, rather than being evidence of the government’s withdrawal from society, as Ross (2001) argues.

Second, redistributive theories of regime change assume that the preferred tax rate of the poor will always be higher than that of the rich. Overall, equation (12) indicates that the preferred tax rate of the poor in a democracy will be positive if the following condition holds:

$$\frac{\lambda}{\theta} > N + 1 \tag{13}$$

For a given level of non-tax revenue, this condition is more likely to hold the higher is the share of poor people in an economy and the more inequality there is. Note, however, that under certain conditions, non-tax revenue can make the entire

redistributional argument about regime change moot: if equation (13) does not hold, the poor no longer prefer a positive tax rate, and there is no redistributional conflict at all. Within redistributional theories of regime change—which have not considered this situation—the implication would presumably be complete stability (obviously abstracting from other factors that could cause regime change).

## ***2.2 Non-tax revenue and redistribution in more complex settings***

While the previous section's model is illustrative, it obviously depicts an extremely simple societal cleavage structure, where the main division in society is between a richer class of elites and a poorer class of citizens. What would happen to the comparative statics of the findings if we were to allow a more complex model of societal structure? This section explores two examples, in order to demonstrate the model's robustness. First, I look at the effect of a middle class, and second I look at the effects of societal cleavages along ethnic lines.

### ***A middle class***

To extend the basic two-class model to include a third, I follow Acemoglu and Robinson (2006: 259-61) and say that the rich are of size  $\delta^r$ , the middle class is of size  $\delta^m$ , and the poor are of size  $\delta^p$ . I normalize the population so that these sizes sum to 1, and



assume that  $\delta^r < \delta^m < \delta^p$ . In words, the poor are more populous than the middle class, and the middle class more populous than the rich. Finally, let us say that group  $i$  has  $\theta^i$

share of the economy's total income, such that  $\sum_i \theta^i = 1$ . With this setup, we can define

the incomes of the members of each group:  $y^r = \frac{\theta^r}{\delta^r} \bar{y}$ ,  $y^m = \frac{\theta^m}{\delta^m} \bar{y}$ , and  $y^p = \frac{\theta^p}{\delta^p} \bar{y}$ .

Since  $y^r > y^m > y^p$  by definition (that is, the rich are wealthier than the middle class, who

are wealthier than the poor), we know that  $\frac{\theta^r}{\delta^r} > \frac{\theta^m}{\delta^m} > \frac{\theta^p}{\delta^p}$ .

With the setup the same as above, including the budget constraint in equation (3) and the example with the logarithmic utility function, I can derive the preferred tax rate of the members of each class in exactly the same way as I did above. It turns out that

$$\tau^i = \frac{1}{\bar{y}} \left( \frac{\delta^i}{\theta^i} - N - 1 \right)$$

It is straightforward to find from this equation that the preferred tax rate of the poor is higher than that of the middle class, which is higher than that of the rich. This is as we would expect.

More importantly, however, non-tax revenue diminishes *all* of the preferred tax rates. Using the same logic as in the previous section, this means that even if society is divided into more than two income-based classes (and the approach in this section could be applied to any number of classes), non-tax revenue can still diminish redistributive

conflicts. As such, it should also still stabilize political regimes.

### *Ethnic (and other) divisions*

Again following Acemoglu and Robinson (2006: 109-113), let us assume that society is not only stratified by income but also by some other characteristic—be it ethnicity, religion, or something else—and that income is redistributed along these lines rather than by income. Furthermore, let us say society can be divided into two groups according to this characteristic, and that while income is taxed proportionately as above, it is redistributed as transfers specific to each group.

The groups are X and Z. With population normalized to 1, there are  $\delta_x$  type Xs, and  $\delta_z$  type Zs, so that  $\delta_x + \delta_z = 1$ . With no loss of generality, I can assume that the Xs are in the majority, so that  $\delta_x > \delta_z$ . Within both of these groups, there are citizens and elites, so that every person in society can be distinguished along two dimensions: (a) whether he or she is a citizen or elite, and (b) whether he or she is X or Z. To capture this setup, each subdivision of society can be characterized by  $\partial_j^i$ , where  $i = c, e$  and  $j = X, Z$ . With this setup, I can define average income to be:

$$\bar{y} = \partial_x^c y_x^c + \partial_x^e y_x^e + \partial_z^c y_z^c + \partial_z^e y_z^e$$

Again without loss of generality, I can say that group X gets a share of total income equal to  $1 - \alpha$ , so that group Z gets  $\alpha$  of total income. Finally, and again without loss of

generality, we can say that the elites in group X get  $\alpha_x^e$  of group X's share of the income.

In sum, the income of each group in society can be defined as follows:

$$y_x^e = \frac{\alpha_x^e (1 - \alpha) \bar{y}}{\partial_x^e}$$

$$y_x^c = \frac{(1 - \alpha_x^e)(1 - \alpha) \bar{y}}{\partial_x^c}$$

$$y_z^e = \frac{\alpha_z^e (1 - \alpha) \bar{y}}{\partial_z^e}$$

$$y_z^c = \frac{(1 - \alpha_z^e)(1 - \alpha) \bar{y}}{\partial_z^c}$$

It will be important to note that since  $y_x^e > y_x^c$  by assumption (that is, elites are

wealthier than citizens), then  $\frac{\alpha_x^e}{\partial_x^e} > \frac{(1 - \alpha_x^e)}{\partial_x^c}$ , and one could derive a similar statement

for the members of group Z.

With this setup, let us say that the government can give different amounts of transfers to group X and group Z. The tax is the same tax used above: a linear tax on income. Defining the government transfer to each person in X as  $T_x$ , and the transfer to Z as  $T_z$ , the government budget constraint is:

$$\partial_x T_x + \partial_z T_z = \tau \bar{y} + N$$

Since group X members only receive  $T_x$ , their indirect utility function is:

$$V_x^i = (1 - \tau) y_x^i + K(T_x), \text{ or}$$

$$V_X^i = (1 - \tau)y_X^i + K\left(\frac{\bar{y} + N - \partial_Z T_Z}{\partial_X}\right)$$

for  $i = e, c$ . Obviously, since increases in  $T_Z$  only take away from  $T_X$  and diminish the utility of members of group  $X$ , those members' preferred level of  $T_Z$  is zero. If we make  $T_Z$  equal to zero in the above expression, we can find the preferred tax rate for elites and citizens within group  $X$ , again using the natural log as an example of  $K()$  and plugging in the values for their incomes above:

$$\tau_X^e = \left(\frac{1}{\bar{y}}\right)\left(\frac{\partial_X^e}{\alpha_X^e(1 - \alpha)} - N - 1\right)$$

$$\tau_X^c = \left(\frac{1}{\bar{y}}\right)\left(\frac{\partial_X^c}{(1 - \alpha_X^e)(1 - \alpha)} - N - 1\right)$$

Because  $\frac{\alpha_X^e}{\partial_X^e} > \frac{(1 - \alpha_X^e)}{\partial_X^c}$  (as mentioned above), note that in general the preferred

tax rate of citizens within group  $X$  will always be higher than that of elites, the benchmark result for redistributive theories of regime change.<sup>6</sup> Just as important, however, non-tax revenue again diminishes the preferred tax rate of citizens and elites. In other words, the general finding asserted above in a model of pure class cleavage still holds in this more complex model. Although I have only derived the preferred tax rates of members of  $X$ , one could easily do the same (and get similar results) for members of group  $Z$ .

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<sup>6</sup> As in the first section above, it is possible to derive a condition in which non-tax revenue eliminates the difference in preferred tax rates between elites and citizens.

## ***2.4 Summary***

This chapter has begun the formal analysis of the effect of non-tax revenue on regime stability, by investigating its effect on preferences for redistribution. In theories of regime change based on redistributive conflict, these preferences are central. I have shown that non-tax revenue lowers citizens' preferences for redistribution in a variety of different societal settings. The implication of this finding is that non-tax revenue should lower redistributive conflict in most societies. In fact, I demonstrated that at extreme levels, non-tax revenue can eliminate the redistributive cleavage completely. Within the body of work on which this dissertation is based, this implies that non-tax revenue should lead to greater regime stability in democracies and dictatorships. The following chapter explores these ideas in a more complex, game-theoretic model of democratic transition.

### 3. A game-theoretic model of revenue and regime change

This chapter develops a game-theoretic model of democratization that incorporates the effects of non-tax revenue, building on the models of regime change based on redistributive conflict in Acemoglu and Robinson (2006). The models of regime change in Acemoglu and Robinson's work are essentially symmetrical, in that the underlying dynamics of democratization and coups are very similar. The principal difference is that the elites are in power in authoritarian regimes, whereas the citizens are in power in democratic regimes. Therefore, while I focus in this chapter particularly on transitions to democracies, it would be straightforward to show that the results regarding non-tax revenue would also hold in dictatorships. This also follows (as do the results in this chapter) from the demonstration in the previous chapter that non-tax revenue diminishes redistributive conflict in societies.

In fact, in order to proceed with building a model of democratic transition within this framework, we must first assume that the redistributive conflict is indeed present in society. In simple terms, this means that there is a difference in the preferences for redistribution between elites and citizens, so that it matters which of them is in power. This requires assuming that equation (13) in Chapter 2 is true. Therefore, I begin by doing so:

**Assumption 1:**  $\frac{\lambda}{\theta} > N + 1$

Under this assumption, elites will want to avoid democratization if possible, because the redistribution they will face in a democracy will be higher than that in a dictatorship. This gives me the basic premise to build a model of democratization that incorporates the effects of non-tax revenue.

### ***3.1 Non-tax revenue and democratization***

I now develop the basic game-theoretic model of democratization depicted in Figure 1, which is similar in structure to Acemoglu and Robinson's (2006) basic model of democratization. The setting of the game is a nondemocratic country, so that the government is controlled by the rich elites and the poorer citizens are out of power. In addition, this is a "best-case scenario" (Morrison, 2007), in that government spending is assumed to go toward goods that improve the welfare of all citizens. In addition, there is no corruption and no repression on the part of the regime. I show that even in this best-case scenario, non-tax revenue diminishes the possibilities of democratization. As I will show in the next section, this is even true in the presence of policy conditions by donors that attempt to improve the policies of the government from the perspective of the poor.





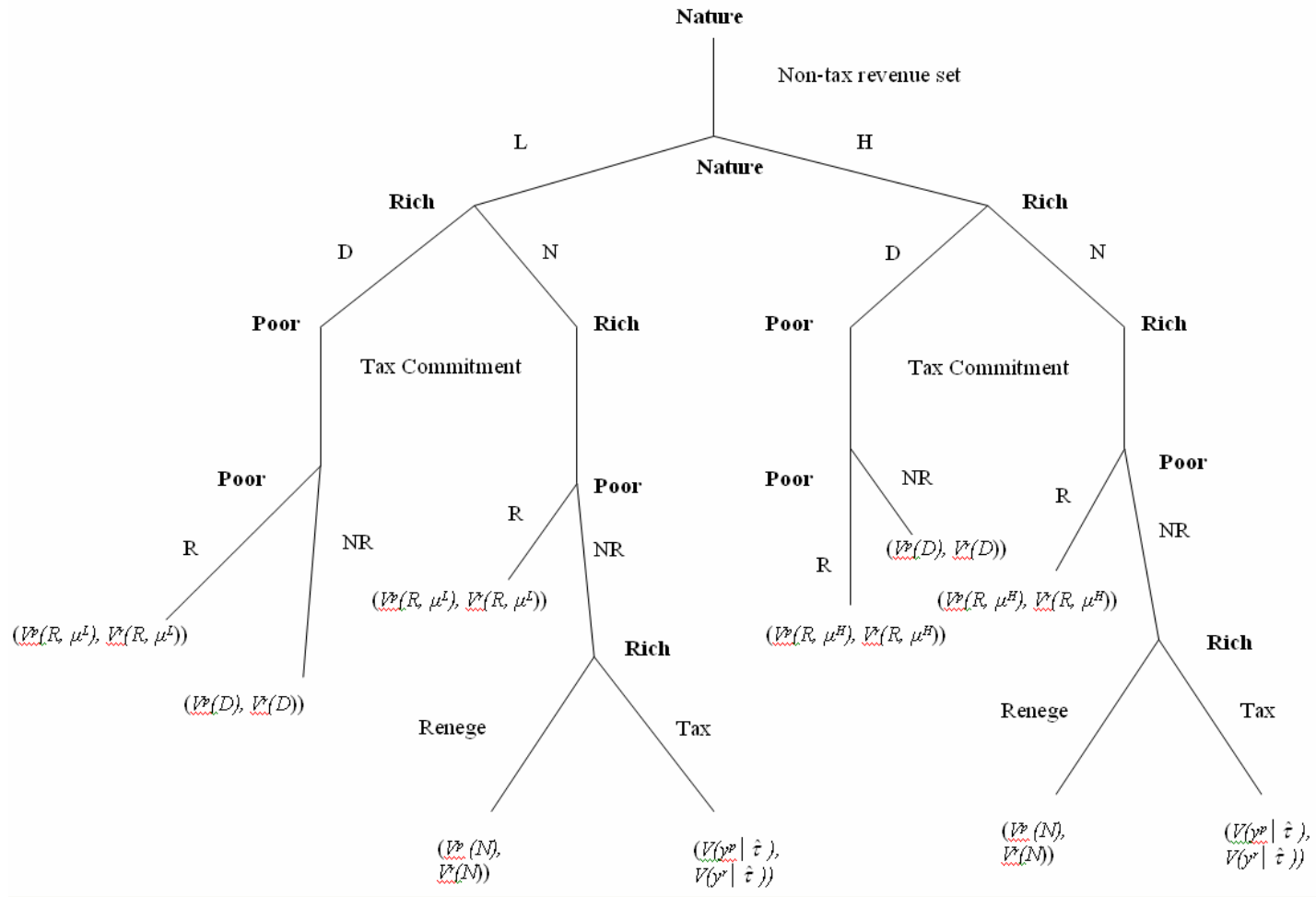


Figure 1: A basic model of democratization and non-tax revenue

The first two moves of the game are by Nature. The first sets the amount of non-tax revenue that the country will receive in the game. Once this level has been set, Nature chooses a state of “mobilization” of the poor. While scholars of democratization often to point to moments of mobilization as key to regime transition (e.g. Bratton and van de Walle, 1997; e.g. Przeworski, 1991), these moments are rare because of the collective action problems revolutionary movements face (Tullock, 1971). Acemoglu and Robinson (2006) include these collective action problems in their formulation by having Nature choose a state (S) of mobilization: high (H) or low (L). Acemoglu and Robinson (2006: 145) write that state H corresponds to “circumstances [that] are uniquely propitious for solving the collective-action problem [of the poor]—such as a harvest failure, a business-cycle depression, the end of a war, or some other economic, social, or political crisis.”

The rich’s response to this mobilization, and the corresponding threat of revolution, is either to democratize (D) or maintain a non-democracy (N). If they democratize, the resulting government sets the tax rate to that preferred by the median voter, who is assumed to be among the poor citizens (the assumption is that the citizens are a larger group than the elites). If the rich do not democratize, they still have the opportunity to redistribute some of their wealth through taxation, possibly avoiding the revolution. That is, they can set the tax rate above their most preferred rate (zero) in order to satiate the citizens. After this tax-setting move (in either a democracy or a non-

democracy), the poor decide whether to stage a revolution (R) or not (NR).

This decision by the poor is determined by what Acemoglu and Robinson term the “revolution constraint”. It is assumed that the poor have the option of launching a socialist revolution in which the economy’s wealth is distributed among the poor (as the authors point out, the point here is not to develop a realistic model of revolution, but rather to impose a constraint on the rich). Importantly, in a revolution the rich are left with nothing (i.e. their payoff is zero), so they prefer democratization to revolution:

$$V^r(R, \mu^S) = 0,$$

where  $S = L, H$ . The economy is assumed to be damaged during the revolution:

specifically,  $(1 - \mu)$  of the economy is destroyed. Since this remaining portion of the economy is divided amongst the poor, each poor person has an indirect utility of

$$V^p(R, \mu^S) = \frac{\mu^S \bar{y}}{\lambda}.$$

The variable  $\mu^S$  thus can be seen as akin to Nature’s decision about whether mobilization is high or not at the beginning of the game. If  $\mu^S$  is low, the chance of revolution will be low, because the returns to the poor from a revolution will be low (the economy will be largely destroyed). If, however,  $\mu^S$  is high, the returns from a revolution are higher.

A critical aspect of the Acemoglu and Robinson model is that the rich can renege on their promises after the revolutionary threat dies down. That is, if the poor decide

not to revolt, the rich can break their promise and set the tax rate back to zero. This is captured in the model by giving Nature a final move: with probability  $(1 - p)$  the government reneges on its pledge and sets a zero tax rate. This variable is crucial to Acemoglu and Robinson's theory, because it indicates that democratization occurs because it is a way for the rich to commit credibly to redistribution. Because they want to avoid revolution, it is in the rich's interest for the poor to believe their promises. If the poor do not, they will revolt, and the rich will be worse off. As such, perhaps counter-intuitively, a low ability for a nondemocratic regime to commit (i.e. a low value of  $p$ ) makes democratization more likely. It means that the rich are very likely to renege on their pledge, which means the expected return to the poor from not revolting is lower.

We can see this if we compare  $V^p(R, \mu^S)$  to the poor's expected utility when revolution does not take place. This expected utility is (note that from this point forward, I use "NTR" to refer to non-tax revenue, to distinguish it from "N" for non-democracy):

$$E[V^p] = p[(1 - \hat{\tau})\frac{\theta \bar{y}}{\lambda} + \ln(\hat{\tau} \bar{y} + NTR + 1)] + (1 - p)[\frac{\theta \bar{y}}{\lambda} + \ln(NTR + 1)]$$

With this equation, I can derive the specific form of the revolution constraint for this model:

$$\mu^S > p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}} \ln(\hat{\tau} \bar{y} + NTR + 1)] + (1 - p)[\theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1)] \quad (14)$$

When equation (14) holds, the benefit of revolution is more than the current utility of the

poor, and so the poor will revolt.

### *Equilibrium revolution*

We can examine the game in Figure 1 by solving for pure strategy subgame perfect Nash equilibria. Payoffs for the poor and rich are given at the end of each branch of the game tree, with the payoff for the poor coming first and the payoff for the rich coming second. Using backward induction, I look first at the decision by the poor to revolt. We know that neither democracies nor nondemocracies will set the tax rate above  $\tau^p$ , the preferred tax rate of the poor. In democracies this will be the rate set, and in nondemocracies the tax rate will only be lower. It is possible, however, that even the tax rate in democracy will not be enough to prevent revolution. This will be true when  $V^p(R, \mu^s) > V^p(D)$ , or equivalently,

$$\mu^s > (1 - \tau^p)\theta + \frac{\lambda}{\bar{y}} \ln(\tau^p \bar{y} + NTR + 1)$$

Plugging in for the equilibrium value of  $\tau^p$  in (11) above, I can write this condition as

$$\mu^s > \left(1 - \frac{\lambda}{\theta \bar{y}} + \frac{NTR + 1}{\bar{y}}\right)\theta + \frac{\lambda}{\bar{y}} \left[\ln\left(\frac{\lambda}{\theta}\right)\right]. \quad (15)$$

If this condition holds, even the poor's most preferred tax rate (and democratization) cannot prevent a revolution. There is "equilibrium revolution". Note that this situation is more likely to be avoided if the right side of the equation is higher.

The rather complicated expression on the right side of the equation has a straightforward interpretation for our variable of interest. Specifically, it increases as non-tax revenue increases, indicating that these resources can help quell revolutions in both democracies and nondemocracies.

I proceed from this point on by making an assumption that adds further importance to the first move of the game. In order to capture the effect of revolutionary threat on democratization, I assume, as Acemoglu and Robinson (2006) do, that revolution is only a threat when Nature chooses state H at the beginning of the game. This implies that the low state,  $\mu^L$ , will not be enough to foment revolution in a nondemocracy, even if the tax rate is zero. Plugging a zero tax rate into equation (14) above indicates that this means that I assume:

$$\mathbf{Assumption\ 2:} \quad \mu^L < \theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1). \quad (16)$$

By making this assumption, I know that if Nature moves “L”, the outcome of the game will be a nondemocracy in which the rich set the tax rate to zero. In other words, the payoffs will be  $(V(y^p \hat{\tau} = 0, u), V(y^r \hat{\tau} = 0, u))$ , where the payoff of the poor is listed first, and the payoff of the rich second.

### *Outcomes when mobilization is high*

With assumption 2, there are three possible situations, depending on the value of  $\mu^H$ . The first is if

$$\mu^H < \theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1). \quad (17)$$

If this is the case, then there is never revolution, because the poor are always better off in a nondemocracy than they would be if they revolted. Notice that as we saw above, non-tax revenue can act in this model to reduce the chance of revolution. The second possible situation is “equilibrium revolution”, if equation (15) holds in the high state:

$$\mu^H > \left(1 - \frac{\lambda}{\theta \bar{y}} + \frac{NTR + 1}{\bar{y}}\right) \theta + \frac{\lambda}{\bar{y}} \left[\ln\left(\frac{\lambda}{\theta}\right)\right] \quad (18)$$

If this is the case, there will be revolution, because there is no tax rate that can prevent it.

Finally, the third possible situation is if:

$$\theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1) < \mu^H < \left(1 - \frac{\lambda}{\theta \bar{y}} + \frac{NTR + 1}{\bar{y}}\right) \theta + \frac{\lambda}{\bar{y}} \left[\ln\left(\frac{\lambda}{\theta}\right)\right] \quad (19)$$

If condition (19) holds, then revolution is neither inevitable with any level of taxation nor avoidable with no taxation. In this situation, the possibility for democratization exists. The rich will attempt to promise a positive tax rate that avoids

revolution, but because of the possibility of them backtracking on their promise (the value of  $p$ ), they may have to democratize to avoid revolution. Specifically, the rich will set the tax rate so that the poor are indifferent between revolution and being in a nondemocracy. That tax rate is the one that meets the following condition:

$$\mu^H = p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}} \ln(\hat{\tau}\bar{y} + NTR + 1)] + (1 - p)[\theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1)] \quad (20)$$

Plugging in the poor's preferred tax rate (the highest tax rate that would exist in either regime) into (20) and comparing this to  $V^p(R, \mu^H)$ , I can solve for an important value of  $p$ :  $p^*$ .

$$p^* = \frac{\mu^H - \theta - \frac{\lambda}{\bar{y}} \ln(NTR + 1)}{\frac{\lambda}{\bar{y}} [\ln \frac{\lambda}{\theta} - \ln(NTR + 1)] - \theta (\frac{\lambda}{\theta \bar{y}} - \frac{NTR + 1}{\bar{y}})}$$

At  $p^*$ , the poor get the same payoff from their preferred tax rate as revolution. If  $p < p^*$ , the rich cannot make a commitment that is credible enough to avoid revolution. This means that the rich will democratize in order to avoid such an outcome. If  $p \geq p^*$ , then the elite can avoid democratization by setting a higher tax rate. This means that the higher is the value of  $p^*$ , the more likely is democratization. The Appendix of this chapter proves that as  $NTR$  rises,  $p^*$  falls—in other words, as non-tax revenue rises, democratization is less likely.

These results can be summarized as follows.



**Proposition 1:** The game described in this section has a unique pure strategy subgame perfect Nash equilibrium such that:

- a) There is no democratization when mobilization is low, and the rich set their most preferred tax rate (zero).
- b) If  $\mu^H < \theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1)$ , then even when mobilization is high, there is no democratization, and the rich set their most preferred tax rate (zero).
- c) If  $\theta + \frac{\lambda}{\bar{y}} \ln(NTR + 1) < \mu^H < \theta(1 - \frac{\lambda}{\theta \bar{y}} + \frac{NTR + 1}{\bar{y}}) + \frac{\lambda}{\bar{y}} [\ln(\frac{\lambda}{\theta})]$ , then the outcome depends on  $p$ . If  $p < p^*$ , the rich democratize in order to avoid revolution, because they cannot make a credible commitment to redistribution. If  $p \geq p^*$ , then the elite avoid democratization by promising a higher tax rate (more redistribution). Crucial to the argument in this dissertation, an increase in non-tax revenue makes the former outcome (democratization) less likely.
- d) If  $\mu^H > \theta(1 - \frac{\lambda}{\theta \bar{y}} + \frac{NTR + 1}{\bar{y}}) + \frac{\lambda}{\bar{y}} [\ln(\frac{\lambda}{\theta})]$ , then there is revolution, whether or not the rich democratize or not, and no matter which tax policy is put in place.

This model gives us our first look at the effects of non-tax revenue on democratization. Higher levels of inequality will necessitate a higher level of

redistribution to preserve nondemocracies. But higher levels of non-tax revenue can offset this need, leading to lower redistribution. What emerges from this first model is that as non-tax revenue increases, democratization is less likely.

### ***3.2 Incorporating conditional aid into the model***

Until this point, my model of non-tax revenue and democratization has ignored the possibility of non-tax revenue having any independent policy effects. However, as discussed in Chapter 1, one of the important sources of non-tax revenue in the world is foreign aid, which often comes with policy conditions attached to it. How would the effects of foreign aid change if one were to build these policy conditions into the model?

Formal models of donor-recipient relations are scarce, with some exceptions being the work of Mosley (1992) and Svensson (2000; 2003). These scholars assume, consistent with empirical studies of donor motivations (e.g. Mosley, et al., 1995), that donors have an implicit desire to lend money. The reason is that if they do not spend their allotment in a given year, it is unlikely that they will be given as much money in the following budget cycle. In addition, however, they also would like to extract policy concessions from the developing country government, in order to improve the policy environment (at least from the donor's perspective). The tension between these two goals is at the heart of why conditional aid has often been unsuccessful in promoting reform (Alesina and Dollar, 2000; Mosley, et al., 1995; World Bank, 1992). Recipient

countries know that donors will often want to give aid even if reforms are not put into place, so there is an attraction to promise reform, then go back on the promise, and probably get the aid money anyway.

Mosley (1992) analyzed this relationship and concluded that in the absence of debt, the equilibrium strategy for the donor to pursue is random punishment. That is, if the country deviates from its promise, the donors should withhold all funding with some positive probability, as opposed to punishing the country with a severity related to the extent of its deviations from the agreed reform program. I adopt this finding into the model, and the more complicated game is represented in Figure 2. After the government promises its tax rate, the donor gets a move in which it decides whether or not to agree to an aid deal. This aid deal is simple: if the government implements its promised tax, it gets the full amount of aid allocated by the donor management. If a deal is agreed to, and the government subsequently breaks its promise, there is a final move by Nature at the end of the game. If the government does not follow through with its pledge, the donor will withhold its funds with probability  $q$ . In other words,  $q$  is a measure of donor lending restraint. The higher is  $q$ , the more willing the donor is to withhold funds when policy conditions are not met.

To proceed with the model, I need to first to discern between two types of non-tax revenue. I will therefore assume that per capita non-tax revenue consists of an unconditional type ( $u$ ) and a conditional type ( $c$ ), so that  $NTR = u + c$ . Of course,  $c$  refers

in this case to conditional aid.

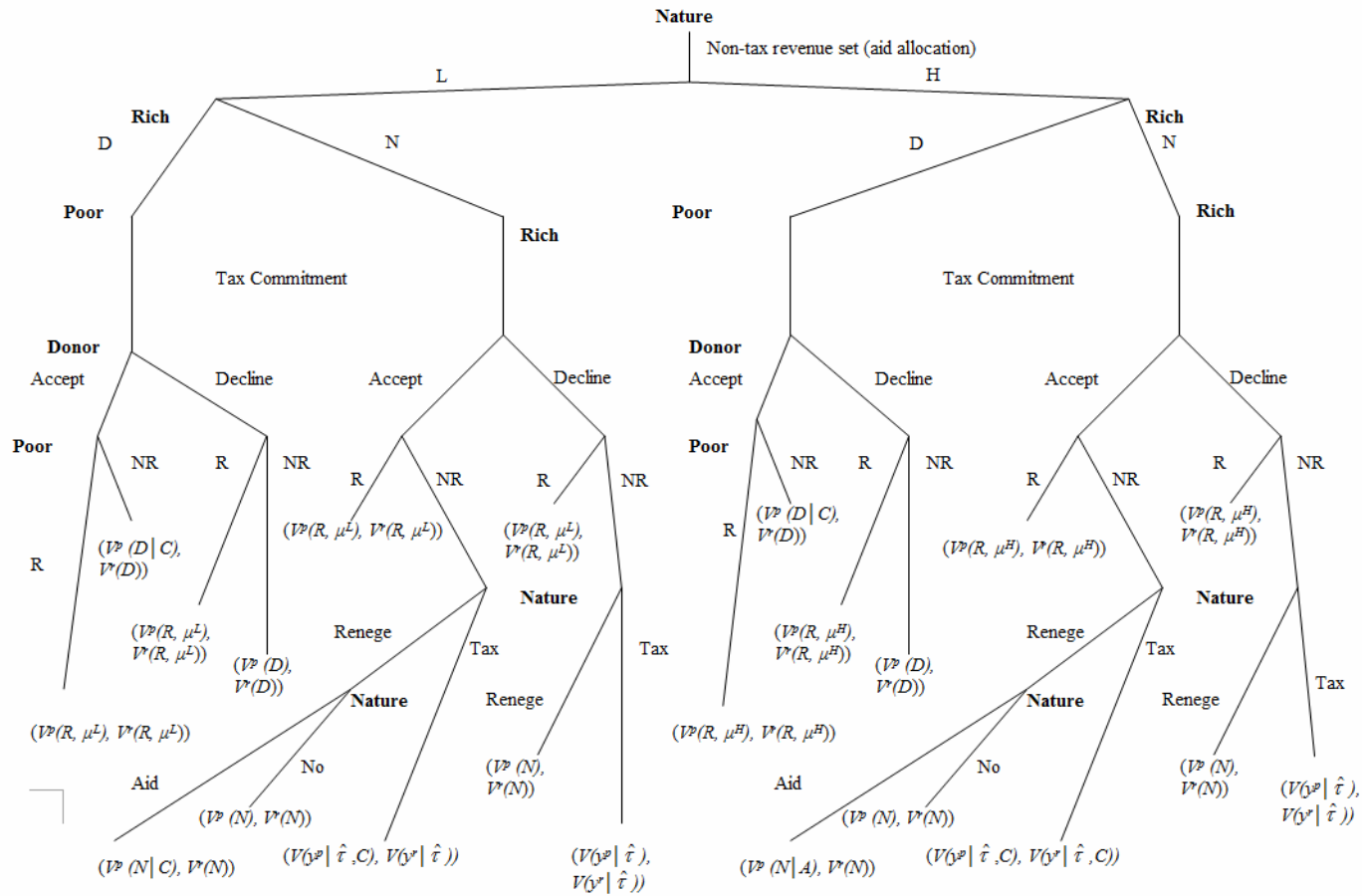


Figure 2: The democratization game with conditional aid

In line with the effort to generate a best-case scenario, I assume that the donor wants the government to adopt the tax rate that maximizes the utility of the poor. This assumption also allows me to know that if an aid deal is reached with a democracy, the aid will be delivered (because the promised tax rate will be implemented)—this means conditional aid in a democracy acts like unconditional non-tax revenue, and the above analysis of its effect on revolution (and redistribution) in democracies holds.

Specifically, I assume that the donor wants to maximize:

$$U^D = -(\hat{\tau} - \tau^P)^2 + c, \quad (21)$$

where  $U^D$  is the utility of the donor and  $c$  is the amount of per capita conditional aid given (for simplicity I assume that donors do not give both conditional and unconditional aid).

Note that this equation captures the fact that it is the *distance* from  $\tau^P$  that matters, not the particular value of  $\hat{\tau}$ . Thus the donor is not trying to increase redistribution to extreme levels. Note also that if I assume the donor's reserve value is zero, this formulation ensures that in a democracy, where there are no issues of commitment, an aid deal will be reached. This is because the first part of the equation will be zero, and any positive amount of aid will push the donor's utility above zero.

Taking into account both  $p$  and  $q$ , I can write the expected utility of the donor as follows:

$$E[U^D] = p[-(\hat{\tau} - \tau^P)^2 + c] + (1-p)[-(\tau^P)^2 + (1-q)c] \quad (22)$$

Using this formulation we can see a couple of things.<sup>1</sup> First, again assuming the donor's reserve value is zero, the donor will not agree to an aid deal unless:

$$p[-(\hat{\tau} - \tau^P)^2 + c] + (1-p)[-(\tau^P)^2 + (1-q)c] > 0 \quad (23)$$

Second, from (23) we can see that there is a condition in which no aid deal will ever be offered to a nondemocracy. This will only happen if equation (23) is not satisfied even if

$\tau^P = \hat{\tau}$ . This situation would occur if:

$$c < \frac{(1-p)(\tau^P)^2}{1-q+pq} \quad (24)$$

If the pre-set level of aid is below this amount, no aid deal will ever be offered.

Therefore I assume for the rest of the chapter:

$$\textbf{Assumption 3: } c \geq \frac{(1-p)(\tau^P)^2}{1-q+pq}$$

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<sup>1</sup> In addition, it can be shown that (23) implies the possibility of an internal tension for the donor. If the donor's restraint is low enough, then a higher level of aid pre-set by the donor bureaucracy enables an aid deal to be struck with a *lower* promised tax rate from the rich. This makes sense, as the low restraint means that the donor will likely give its money regardless of what the rich do. However, if donor restraint is high, the internal donor tension disappears: the higher the aid promised, the better the rich's promised tax policy has to be in order for a deal to go through. The proof of this is straightforward and available from the author.

## *Equilibrium revolution revisited*

As before, I solve the game for pure strategy subgame perfect Nash equilibria. Working with backward induction, we see that (as in the basic non-tax revenue model above) we need to begin with the decision by the poor about whether or not to revolt. First we need to rewrite equation (10) to take into account the discussion in this section. In other words, we need to capture the expected utility of the poor citizens given the probabilities  $p$  and  $q$ , which is:

$$E[V^p] = p[(1 - \hat{\tau})\frac{\theta\bar{y}}{\lambda} + \ln(\hat{\tau}\bar{y} + u + c + 1)] + (1 - p)[\frac{\theta\bar{y}}{\lambda} + q\ln(u + 1) + (1 - q)\ln(u + c + 1)]$$

Using this we can rewrite the revolution constraint from (14) as:

$$\begin{aligned} \mu^s > p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}}\ln(\hat{\tau}\bar{y} + u + c + 1)] + \\ (1 - p)[\theta + \frac{\lambda}{\bar{y}}(q\ln(u + 1) + (1 - q)\ln(u + c + 1))] \end{aligned} \quad (25)$$

To understand the difference between the effects of conditional and unconditional non-tax revenue, it is instructive for a moment to consider the situation in which there are no other sources of non-tax revenue besides conditional aid—that is,  $u = 0$ . In this case, equation (25) becomes:

$$\mu^s > p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}}\ln(\hat{\tau}\bar{y} + c + 1)] + (1 - p)[\theta + \frac{\lambda}{\bar{y}}(1 - q)\ln(c + 1)] \quad (26)$$

Recall now equation (14), the revolution constraint with unconditional non-tax revenue:



$$\mu^S > p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}} \ln(\hat{\tau}y + u + 1)] + (1 - p)[\theta + \frac{\lambda}{\bar{y}} \ln(u + 1)] \quad (14)$$

Comparing (26) and (13), it is easy to see that for a given level of  $\mu^S$ , a certain level of aid given unconditionally will have a greater dampening effect on revolution than the same level of aid given conditionally. The right hand side of (26) is less than that of (13), because of the discount factor of  $(1-q)$  resulting from the possibility that the aid will not be given. Because of the uncertainty associated with conditional aid, its benefits are discounted, making revolution and its certain payoffs more attractive, all else equal. With this in mind, we will proceed without the assumption that  $u = 0$ .

We will again assume here that revolution is only possible when Nature chooses state H. To assume this, we must find the poor's utility at their worst outcome—when the rich set a zero tax rate and no conditional aid deal is reached—and ensure that  $\mu^L$  is less than that. It turns out that this is exactly what Assumption 2 says, so we use it again:

$$\textbf{Assumption 2: } \mu^L < \theta + \frac{\lambda}{\bar{y}} \ln(u + 1) \quad (16)$$

This assumption performs the same role as before: now if Nature moves “L” at its second decision node, the rich will not democratize and will then set their tax rate to zero.

Will they receive aid? That question depends on the amount of aid allocated in

the bureaucracy and the ideal tax rate of the poor. In this case, since  $\hat{\tau} = 0$ , the utility of the donor will be (since the government is “offering” a zero tax rate, we assume that the promise cannot be broken, and thus aid is given with certainty if a deal is brokered between the government and donor):

$$U^D(\hat{\tau} = 0) = -(\tau^p)^2 + c$$

Thus, if  $\hat{\tau} = 0$ , there will only be a deal between donor and recipient if

$$c > (\tau^p)^2 \tag{27}$$

Therefore if equation (27) holds, there will be no reform and no democratization, and donors will give aid anyway. This might be the case, for example, if the internal bureaucracy of the donor set  $c$  very high for political reasons. The payoffs to the poor and rich will be  $(V(y^p \curvearrowright \hat{\tau} = 0, c), V(y^r \curvearrowright \hat{\tau} = 0))$ . If condition (27) does not hold, no aid will be offered, and the payoffs will be  $(V(y^p \curvearrowright \hat{\tau} = 0), V(y^r \curvearrowright \hat{\tau} = 0))$ .

### ***Outcomes when mobilization is high***

With assumption 2, there are three possible situations, depending on the specific value of  $\mu^H$ . The first is if:

$$\mu^H < \theta + \frac{\lambda}{\bar{y}} \ln(u + 1) \tag{28}$$

If (28) holds, there will be no democratization and no change in the tax rate, because there is no threat of revolution. Note, however, that conditional aid will still be given if

(27) holds.

The second scenario is “equilibrium revolution” — that is, if there is revolution even with the poor’s best tax rate and an aid deal. That is, expanding out equation (25) and inserting  $\tau^P$ ,

$$\begin{aligned} \mu^H &> \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)\right] + \\ &(1-p)\left(\frac{\lambda}{\bar{y}}\right)[q\ln(u+1) + (1-q)\ln(u+c+1)] \end{aligned} \quad (29)$$

In this situation, the poor will always revolt, and thus the payoffs will be  $(V^p(R, \mu^H), V^r(R, \mu^H))$  no matter if the government democratizes or not.

In the third scenario,

$$\begin{aligned} \theta + \frac{\lambda}{\bar{y}}\ln(u+1) &< \mu^H < \\ \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)\right] + \\ &(1-p)\left(\frac{\lambda}{\bar{y}}\right)[q\ln(u+1) + (1-q)\ln(u+c+1)]. \end{aligned} \quad (30)$$

If condition (30) holds, then revolution is neither inevitable with any level of taxation nor avoidable with no taxation. As in the simpler model depicted in Figure 1, the rich will choose a positive tax rate that makes the poor exactly indifferent between revolution and being in a nondemocracy.

Now, however, we must more finely tune the values of  $\mu^H$ . Note that the rich will never want conditional aid unless they need it to avoid revolution—it does not

benefit them, and it comes with conditions that will increase redistribution. It is therefore important to know when the rich will need conditional aid to avoid revolution and when they will not. By plugging a zero value for  $c$  into (30), we can find the condition under which the rich do not need a conditional aid deal to avoid revolution:

$$\theta + \frac{\lambda}{\bar{y}}(u+1) < \mu^H < \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[\ln(u+1)].$$

If this holds, democratization will not take place. The rich will compare the value of  $\hat{\tau}$  necessary to avoid revolution with and without a conditional aid deal and choose whichever is lowest. That is, they will solve *either* equation (20), the situation without a conditional aid deal,

$$\mu^H = p[(1-\hat{\tau})\theta + \frac{\lambda}{\bar{y}}\ln(\hat{\tau}\bar{y} + u + 1)] + (1-p)\left[\theta + \frac{\lambda}{\bar{y}}\ln(u+1)\right], \quad (20)$$

or

$$\begin{aligned} \mu^H = & p[(1-\hat{\tau})\theta + \frac{\lambda}{\bar{y}}\ln(\hat{\tau}\bar{y} + u + c + 1)] + \\ & (1-p)\left[\theta + \left(\frac{\lambda}{\bar{y}}\right)[q\ln(u+1) + (1-q)\ln(u+c+1)]\right], \end{aligned} \quad (31)$$

whichever value of  $\hat{\tau}$  is lower. Note that all of the parameters in (20) and (31) are known to the rich when they have to make their decision about which tax rate to promise. They can therefore calculate which  $\hat{\tau}$  is lower. If the  $\hat{\tau}$  that solves (20) is lower, the rich will promise it. If it meets the conditions for equation (23), an aid deal will be agreed. Even if an aid deal is not agreed, democratization and revolution will be

avoided. However, if the  $\hat{\tau}$  that solves (31) is lower, and it meets the conditions for (23), the lower  $\hat{\tau}$  will be put in place.

The other scenario is if the rich *need* conditional aid to avoid revolution. This is true if:

$$\begin{aligned} & \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[\ln(u+1)] < \\ \mu^H & < \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)\right] + \\ & (1-p)\left(\frac{\lambda}{\bar{y}}\right)[q\ln(u+1) + (1-q)\ln(u+c+1)]. \end{aligned} \quad (32)$$

In this situation the possibility for democratization exists. The key here is that the uncertainty of both the tax promise and the aid may make it impossible for the rich to satiate the poor with a promise of redistribution. We can see the condition under which this will happen by comparing the poor's expected utility from a revolution with their expected utility in a nondemocracy when the rich promise their preferred tax rate (remember from assumption 3 that this means that an aid deal will be reached). Similar to the unconditional model above, we can define a  $p^{**}$  such that when  $p = p^{**}$ , these utilities are equal. It is straightforward to find that:

$$p^{**} = \frac{\mu^H - \theta - \frac{\lambda}{\bar{y}}[q\ln(u+1) + (1-q)\ln(u+c+1)]}{\frac{\lambda}{\bar{y}}\left[\ln\left(\frac{\lambda}{\theta}\right) - q\ln(u+1) + (1-q)\ln(u+c+1)\right] - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)}$$

Again, this value of the credibility of the commitment by the rich is critical to the

analysis. If  $p < p^{**}$  and (32) holds, then the rich cannot make a commitment that is credible enough to avoid revolution. This means that the rich will democratize in order to avoid such an outcome. If  $p \geq p^{**}$ , then the elite can avoid democratization by setting a higher tax rate. The general effect of conditional aid, like the unconditional resources, is to lower the value of  $p^{**}$ . That is, conditional aid always lowers the chance for democratization (the proof is almost identical to that in the Appendix of this chapter). However, while the effect of conditional aid cannot be pro-democratization, the value of  $q$  works to alleviate some of these effects. That is,  $\frac{\partial p^{**}}{\partial q}$  is positive. This makes sense: if the rich need conditional aid in order to avoid revolution, more restraint from the donor will require a more credible commitment from the rich in order to avoid revolution.

If we assume that  $p \geq p^{**}$ , we know that the rich will set a tax rate so that the poor are indifferent between revolting and staying in a nondemocracy. This will be a tax rate,  $\hat{\tau}$ , that solves equation (31):

$$\begin{aligned} \mu^H = & p[(1 - \hat{\tau})\theta + \frac{\lambda}{\bar{y}} \ln(\hat{\tau}\bar{y} + u + c + 1)] + \\ & (1 - p)[\theta + (\frac{\lambda}{\bar{y}})[q \ln(u + 1) + (1 - q) \ln(u + c + 1)]. \end{aligned} \tag{31}$$

Note that if the tax rate that solves (31) does not meet the condition (23) for the donor loan, the rich will have to *increase* this tax rate until it meets condition (23). We

know from Assumption 3 that this will happen at a point at or below  $\tau^P$ . In this situation, donor involvement will raise redistribution and therefore the utility of the poor, but it will still not encourage democratization. If, however, the  $\hat{\tau}$  that solves (31) meets condition (23), that will be the tax rate set and there will be an aid deal. In fact, we can derive a perverse scenario in which conditional aid allotted is so high that the rich can promise *their* preferred tax rate (zero) and still avoid revolution. That is, knowing that the donor has  $c$  to give, the government can calculate the amount of taxes it needs in order for equation (31) to be met. If we set the tax rate to zero in (31), we can derive the condition that needs to be met to resist revolution without raising taxes:

$$c \geq e^{\frac{\bar{y}(\mu^H - \theta) - (q + pq)\ln(u+1)}{\lambda(1-q+pq)}} - u - 1 \quad (33)$$

If condition (33) is met, and equation (27) as well (so that the donor agrees to an aid deal even though the tax rate is zero), the status quo (nondemocracy and no redistribution) will be preserved as a result of the conditional aid promised. Note that this becomes more likely as the amount of unconditional resources available to the rich increase.

These results can be summarized as follows.

**Proposition 2:** The game described in this section, with both conditional and unconditional resources, has a unique pure strategy subgame perfect equilibrium such that:

a) There is no democratization when mobilization is low, and the rich set their most preferred tax rate (zero). If equation (27) holds, they will still get conditional aid.

b) If  $\mu^H < \theta + \frac{\lambda}{\bar{y}} \ln(u+1)$ , then even when mobilization is high, there is no democratization, and the rich set their most preferred tax rate (zero). If equation (27) holds, they will still get conditional aid.

c) If  $\theta + \frac{\lambda}{\bar{y}}(u+1) < \mu^H < \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[\ln(u+1)]$ ,

then there is no democratization, but the rich will have to redistribute more. The lower the amount of conditional aid promised, and the higher the donor restraint, the more the rich will have to redistribute.

d) If  $\theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[\ln(u+1)] < \mu^H$ , but

$$\mu^H < \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[q \ln(u+1) + (1-q) \ln(u+c+1)],$$

then democratization is possible. The outcome depends on whether or not  $p > p^{**}$ . If  $p < p^{**}$  and (32) holds, then the rich cannot make a commitment that is credible enough to avoid revolution. This means that the rich will democratize in order to avoid such an outcome. If  $p \geq p^{**}$ , then the elite



can avoid democratization by setting a higher tax rate. Conditional aid, like unconditional non-tax revenue, lowers the value of  $p^{**}$ . *That is, all non-tax revenue—even conditional foreign aid—reduces the possibility of democratization in these models.* However, higher values of donor restraint ( $q$ ) work to alleviate the effects of conditional aid.

e) If

$$\mu^H > \theta + p\left[\left(\frac{\lambda}{\bar{y}}\right)\ln\left(\frac{\lambda}{\theta}\right) - \theta\left(\frac{\lambda}{\theta\bar{y}} - \frac{u+c+1}{\bar{y}}\right)\right] + (1-p)\left(\frac{\lambda}{\bar{y}}\right)[q\ln(u+1) + (1-q)\ln(u+c+1)],$$

then the poor will always revolt (both in democracy and nondemocracy), and the outcome is revolution.

### **3.3 Summary**

In order to analyze further the effects of non-tax revenue on regime transitions, this chapter has developed a game-theoretic model of transitions to democracy, using the framework developed by Acemoglu and Robinson (2006). Because of the symmetric nature of their approach, in which transitions to democracies and authoritarian regimes are driven by the same underlying redistributive dynamics, the findings with respect to non-tax revenue in this Chapter on democratic transitions are also applicable to

transitions to authoritarian regimes (i.e. coups).

The principal finding is that non-tax revenue has a stabilizing effect on dictatorships. This is because it gives the regime more resources with which to appease citizens interested in greater redistribution. This finding is intuitive given Chapter 2's demonstration that non-tax revenue reduces redistributive conflicts, but the extensive form game in this chapter has given further confidence in this theoretical result. In an important additional finding, I have shown that even conditional aid—a form of non-tax revenue which one might have expected *a priori* to have effects different from other kinds of non-tax revenue—has stabilizing effects.

In sum, the theoretical analyses in this chapter and Chapter 2 have demonstrated in a variety of ways that non-tax revenue should have stabilizing effects in both democracies and non-democracies. However, because of the nature of the framework in which I am working, non-tax revenue's stabilizing effect works slightly differently in democracies and dictatorships. As shown in Chapter 2, non-tax revenue diminishes the preferred rate of redistribution of poorer citizens. Because democracies in this framework are overthrown by elites unhappy with the level of taxation, this is how non-tax revenue leads to more stability in democracies. In dictatorships, by contrast, the threat is instead from citizens who are unhappy with the level of benefits they are receiving from the government. As shown in Chapter 3, non-tax revenue's stabilizing effect in authoritarian regimes results from the ability to transfer more money to satisfy

these citizens. This set of hypotheses—the overall stabilizing effect of non-tax revenue and the specific ways it works in democracies and authoritarian regimes—are subjected to empirical testing in the following two chapters.

### 3.4 Appendix

The value for  $p^*$  is:

$$p^* = \frac{\mu^H - \theta - \frac{\lambda}{\bar{y}} \ln(NTR + 1)}{\frac{\lambda}{\bar{y}} [\ln \frac{\lambda}{\theta} - \ln(NTR + 1)] - \theta (\frac{\lambda}{\theta \bar{y}} - \frac{NTR + 1}{\bar{y}})}$$

We want to know  $\frac{\partial p^*}{\partial NTR}$ . Because of the possible range of  $p^*$  (between zero and

one) and the possible range of  $\mu^H$  laid out in equation (19), we know that both the numerator and denominator of  $p^*$  are positive, and that the numerator is less than or equal to the denominator. The derivative of the numerator with respect to  $NTR$  is

$$-\frac{\lambda}{\bar{y}(NTR + 1)},$$

and the derivative of the denominator with respect to  $NTR$  is

$$-\frac{\lambda}{\bar{y}(NTR + 1)} + \frac{\theta}{\bar{y}}.$$

The derivative of the numerator is negative, as is the derivative of the denominator (because of Assumption 1). Therefore, by the quotient rule, all we need

in order for  $\frac{\partial p^*}{\partial NTR}$  to be negative is that the absolute value of the derivative of the numerator is greater than the absolute value of the derivative of the denominator. In other words, we need that  $\frac{\lambda}{\bar{y}(NTR+1)} > \frac{\lambda}{\bar{y}(NTR+1)} - \frac{\theta}{\bar{y}}$ , and this is true.

## 4. Statistical analysis of the implications of the models

This chapter begins the empirical analysis of the hypotheses that arise from my theoretical work in Chapters 2 and 3, drawing upon a cross-sectional time-series dataset of all the countries and years for which the necessary data are available. As mentioned in a footnote in Chapter 1, the best available data on revenue is from the International Monetary Fund's *Government Finance Statistics (GFS)*. Unfortunately for researchers interested in revenue over a long time period, the IMF (2001) recently changed the way it categorizes government finance. However, the data for the previous coding by the IMF (1986) is available over a time period of 1973-2001. Therefore, to attain a longer time-series, in this dissertation I use the previous coding of revenue and spending. As reported in the regressions below, the dataset includes about 100 countries.

### 4.1 *The regime change hypothesis*

I begin the statistical analysis by establishing that the central hypothesis arising from the prior theoretical chapters holds: non-tax revenue should lead to greater regime stability for both democracies and authoritarian regimes. To assess this hypothesis, I draw upon a binary dependent variable (*Regime instability*) that takes a value of "1" if there is a regime change from one year to the next, and zero otherwise. Similar to Smith (2004) in his study of regime instability, a regime was considered to have changed if it

received a zero in Polity IV's *Durable* variable, which counts the number of years since the most recent regime change (Marshall and Jaggers, 2003). A regime change in Polity IV is defined by a change of three points or more in the *Polity* variable—which ranges from -10 (most authoritarian) to 10 (most democratic)—or the end of a transition period. By this definition, there are transitions in about five percent of the observations reported below.

The key independent variable in the model is *Non-tax revenue per capita*.<sup>1</sup> It is calculated, using the IMF's *GFS*, by subtracting tax revenue from total expenditures and dividing by total population as reported in the World Bank's *World Development Indicators*. It should be noted that if different kinds of non-tax revenue had different effects on regime stability, it would be difficult for me to find a significant result for this variable (e.g. variables with both negative and positive effects would be aggregated into one variable). However, to be sure that combining them into one indicator is justifiable, I begin my analyses by including various components of non-tax revenue separately in the regressions, as I will discuss shortly.

A simple logit regression of the regime instability dependent variable on non-tax revenue yields a negative and significant coefficient (indicating that non-tax revenue has a stabilizing effect), with a p-value of 0.024. However, it is important to control for other

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<sup>1</sup> The standardization by population is suggested directly by the formal models in Chapters 2 and 3. It captures the intuition that a given amount of revenue is less useful to regimes if it needs to be distributed among more people.

variables that might also be affecting regime stability, to ensure confidence in the results regarding non-tax revenue. I therefore generally use the same control variables as Smith (2004). First, I control for *Ethnolinguistic fractionalization*, since some scholars (e.g. Horowitz, 1985) have argued that social fragmentation increases regime instability. The measure I use is the probability that two randomly chosen individuals in a country do not speak the same language. Roeder (2001) provides observations of this variable for both 1961 and 1985. For all observations prior to and in 1980, I use the 1961 measure, and for all subsequent years I use the 1985 measure. Second, I control for the natural log level of, and growth in, *GDP per capita*, following many scholars who have shown a relationship between these indicators and regime stability (e.g. Lipset, 1959; Przeworski, et al., 2000; Remmer, 1991). Third, I control for the change in the percent of the population that is urban (*% Population Urban*), since some scholars have found that urbanization can be destabilizing for regimes (Huntington, 1968). Fourth, I include the level of population density, to control for the possibility of a relationship between population, land, and regime stability (Fearon and Laitin, 2003; Herbst, 2000). These last three variables come from the World Bank (2004).

The estimation technique used is logistic analysis with errors clustered by country. However, as Beck et al. (1998) have detailed, cross-sectional time-series data with a binary dependent variable are likely to violate the independence assumption of ordinary logistic analysis. Therefore, as recommended by Beck et al. (1998) and

implemented by Przeworski et al. (2000) and Smith (2004), I control for *Past regime instability* in a country, measured as the number of all past regime changes in that country in the sample. In addition, following Beck et al. (1998), I included cubic splines of the age of the political regime in a given year, to capture temporal dependence in the data.<sup>2</sup> F-tests revealed that these splines were necessary to include in the regressions. As Beck et al. (1998) detail, including these splines makes logistic analysis identical to survival analysis techniques.

I will discuss the results of the full regressions shortly, but before moving on to the study of an aggregate indicator of non-tax revenue, it should be noted that there is a hypothesis implicit even in the aggregate indicator. That hypothesis is that I can actually combine various kinds of non-tax revenue into one indicator without doing some injustice to the data. That is, I am implicitly hypothesizing that different kinds of non-tax revenue act similarly. This hypothesis also requires testing, and therefore before using the aggregate measure of non-tax revenue, I ran my regressions using a set of disaggregated indicators of non-tax revenue. These components are foreign aid, an indicator of state-owned enterprise revenue, and a residual category consisting of the aggregate non-tax revenue variable minus these two components (definitions are presented below Table 2. An important component of this third category is borrowing

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<sup>2</sup> Specifically, the age of a political regime was coded as the lagged value of the “durable” variable in Polity IV.



(e.g. deficit spending). These disaggregated components are available for a smaller set of observations than the aggregate non-tax revenue variable, which is calculated using two more widely available indicators (tax revenue and total spending). However, before using the aggregate indicator to achieve greater data coverage, we should be sure that we are not combining elements that do not belong together.

Table 3 reports the results. Column 1 reports the results of the regression with three categories of non-tax revenue entered separately. The coefficients on all three non-tax revenue components are negative and significant (a negative coefficient indicates a stabilizing effect), and a linear combination of the three coefficients is also negative and significant (with a p-value of 0.008). This result is important in its own right, as it demonstrates that foreign aid, state-owned enterprise revenue, and other kinds of non-tax revenue—including borrowing—have similar effects. While other scholars have suggested that foreign aid and oil revenues might have similar effects, this is the first systematic evidence to show that they do. In addition, the evidence indicates that even other kinds of non-tax revenue, such as borrowing, have similar effects. Overall, these results validate the theoretical approach of this dissertation.

**Table 3: Non-tax revenue's effect on regime instability***DV = 1 if regime changes in current year; 0 otherwise*

<i>Independent Variable</i>	1		2		3	
Non-tax rev. per capita <sub>t-1</sub>			-0.0007***	(0.0002)	-0.0009***	(0.0002)
GDP growth	-0.0534*	(0.0319)	-0.0565***	(0.0200)	-0.0552***	(0.0181)
GDP per capita (ln) <sub>t-1</sub>	0.0497	(0.1584)	-0.1922*	(0.1059)	0.0391	(0.1226)
Δ% Population Urban	0.3557	(0.3638)	0.5699**	(0.2491)	0.2014	(0.2334)
Ethnolinguistic Fractional.	0.3161	(0.6058)	-0.0315	(0.5412)	0.0710	(0.5294)
Population density (ln) <sub>t-1</sub>	-0.0632	(0.1211)	-0.0161	(0.0894)	0.0344	(0.0832)
Past regime instability	0.0888	(0.0579)	-0.0109	(0.0559)	0.0193	(0.0548)
Grants per capita <sub>t-1</sub>	-0.0175**	(0.0076)				
SOE rev. per capita <sub>t-1</sub>	-0.0016**	(0.0006)				
Other nontax rev. per capita <sub>t-1</sub>	-0.0012**	(0.0006)				
Polity <sub>t-1</sub>					-0.0700***	(0.0229)
Polity* Non-tax rev. per capita <sub>t-1</sub>					-0.0001***	(0.0000)
Regime age	-0.3470***	(0.0753)	-0.3704***	(0.0562)	-0.4067***	(0.0615)
Spline(1)	0.0013***	(0.0003)	0.0013***	(0.0002)	0.0014***	(0.0002)
Spline(2)	-0.0001**	(0.0000)	-0.0001***	(0.0000)	-0.0001***	(0.0000)
Constant	-1.576	(1.203)	0.4205	(0.9691)	-1.253	(1.084)
Observations (Countries)	1307 (98)		1808 (104)		1808 (104)	
Prob > $\chi^2$	0.0000		0.0000		0.0000	
Pseudo R-Squared	0.19		0.18		0.21	
AIC	425.97		667.00		647.85	
Area under ROC curve	0.827		0.810		0.833	
% Correctly classified	95.3		94.4		94.3	

NOTE: SOE rev is State-Owned Enterprise revenue. Table entries are logistic regression estimates with standard errors (in parenthesis) clustered by country. \*p ≤ 0 .10; \*\*p ≤ 0 .05; \*\*\*p ≤ 0 .01

It is worthwhile to take a moment to discuss the results with regard to borrowing. On the one hand, the fact that borrowing has an effect similar to foreign aid and other non-tax revenue may not be too surprising, as there is much evidence that loans to developing countries are often either forgiven or simply rolled over into new loans over the years (Birdsall, et al., 2003; Easterly, 2002). On the other hand, there certainly exist examples of countries that experience political instability due to financial crises brought on in part by extensive borrowing in previous years. This dissertation offers a particular perspective on such instability: it is caused in part by an inability to access non-tax revenue. The problem for the stability of regimes in the midst of (for example) a financial crisis is not, strictly speaking, that the government in power or its predecessors borrowed a lot of money in the past. The problem is that the government cannot borrow more *now*, because creditors have lost confidence that there is any hope for repayment.<sup>3</sup> This inability to borrow more would be reflected in a decline in my measure of non-tax revenue.

As I believe the results with the disaggregated non-tax revenue variables provide support for aggregating non-tax revenue, Column 2 reports the results with the aggregated non-tax revenue variable. In the much larger sample, non-tax revenue is

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<sup>3</sup> The result is a tradeoff for governments: a decision about when and how much to tap into credit markets, when tapping into them at the present moment may mean a lack of access in the future. This kind of tradeoff is also relevant to other kinds of non-tax revenue. For example, extracting more of a non-renewable resource today means less of it will be available in the future. Exploring how governments make these tradeoffs, and the possible implications for regime stability, is a very interesting avenue for future work.

negative and significant, indicating that non-tax revenue reduces regime instability as predicted. Again, in addition to the evidence in Column 1, it might be noted here that it would be difficult to find a significant coefficient on this aggregated variable if its disaggregated components did not each work similarly. With respect to the other independent variables, there is evidence that economic growth is stabilizing to political regimes while urbanization is destabilizing, consistent with prior literature. There is weaker evidence that political regimes in more developed societies are more stable.<sup>4</sup> The other variables do not reach standard levels of significance.

I submitted these results to a variety of robustness tests. First, I included a dummy variable in the regression that indicated whether the country belonged to the OECD, to be sure that the dynamics observed were not driven by rich countries.<sup>5</sup> Second, I included dummy variables marking the 1970s and 1980s to control for temporal effects. Third, to control for regional effects, I included dummy variables representing the different regions of the world. None of these additions had any impact on the important results. In addition, I tested whether the inclusion of the *change* in non-tax revenue made a difference. The lagged value of non-tax revenue remained negative and significant (with a p-value of 0.002), while the change variable was also negative and significant (with a p-value of 0.015).

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<sup>4</sup> The reason for the weakness of this evidence is probably that the level of development works differently in democracies and dictatorships, as discussed later in the text with regard to Table 7.

<sup>5</sup> I also ran the regression on a sample only of developing countries, with similar results.

I also explored whether the results were different for different types of regimes. Given that the existing literature on oil and aid has focused on transitions to democracy, we might expect the effect of non-tax revenue to be much stronger in dictatorships. I therefore included an interaction term of a country's *Polity* score and its level of non-tax revenue. The results of this regression are included in Column 3 of Table 3. They indicate that non-tax revenue has a stabilizing effect in both dictatorships and democracies. In fact, the effect is stronger for more democratic regimes. For a country with a *Polity* score of negative 7, a drop from the 90<sup>th</sup> percentile of non-tax revenue to the 10<sup>th</sup> percentile of non-tax revenue would increase the probability of a regime transition 132%. For a country with a positive 7 in the *Polity* ranking, the same drop would increase the probability of regime transition by 1171%.<sup>6</sup>

Finally, I repeated the regression in Column 2 using alternative codings of regime change. First, I used the coding of Przeworski et al. (2000), who define democracies as regimes with functioning elections. Specifically, a regime is coded as

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<sup>6</sup> These simulations were generated by the useful STATA command *prvalue*, written by Long and Freese (2006). The effect of non-tax revenue is negative and significant at all levels of the *Polity* score. At the suggestion of an anonymous reviewer, I also ran this regression including a dummy variable for "anocracies", coded as a regime between -5 and +5 on the *Polity* scale. These regimes are thought to be more unstable, and the concern was that they might account disproportionately for regime changes and confound the estimation of the effect of non-tax revenue in democracies and dictatorships. The anocracy variable was significant and indicated increased instability in these regimes, but non-tax revenue remained statistically significant and substantively important (simply excluding these anocracies from the regression yielded similar results). Specifically, in the regression with the anocracy dummy variable included, the change from the 90<sup>th</sup> percentile to the 10<sup>th</sup> percentile increased the probability of a transition in dictatorships by 103%, and the probability of a transition in democracies by 537%. In a regime coded as a zero on the *Polity* scale, the same drop increased the probability of a transition by 234%.

democratic if the chief executive is elected, the legislature is elected, there is more than one party, and incumbents lose elections. If all of these characteristics are not present, the regime is a dictatorship. There are therefore no “in-between” regimes—either a regime is a democracy or a dictatorship. Non-tax revenue in this regression was again negative and significant (with a p-value of 0.003). Second, I used the regime coding of Bueno de Mesquita et al. (2003), who focus on the size of the winning coalition in a political regime. Using various indicators from the Polity dataset, they create a five-point scale to represent coalition size. I considered a regime change any shift on this five-point scale, and with this binary dependent variable, the important aspects of my results were again unchanged.

## ***4.2 Exploring the causal mechanisms***

Having established a robust relationship between non-tax revenue and regime stability, in this section I explore the causal mechanisms suggested by my approach. Again, the theoretical framework suggests that threats to democracies come from wealthy elites, whereas threats to dictatorships come from citizens. Therefore, having seen that non-tax revenue leads to regime stability, we should also be able to observe that non-tax revenue leads to (a) less taxation of wealthy elites in democracies and (b) greater spending on poorer citizens in dictatorships.

To address these hypotheses, it is important to determine which taxes fall on the wealthy and what types of spending benefit citizens. Following Timmons (2005), I use

for my indicator of taxation on elites a measure of revenue from taxation of “income, profits, and capital gains”, a tax that falls heaviest on the rich. Similarly, I use social spending as an indicator of spending that benefits poorer citizens.<sup>7</sup> While the benefits of social spending often are hard to pinpoint, it is reasonable to use such spending to approximate more progressive government action. As Timmons reviews, “empirical data from the United States and elsewhere...show that lower-income groups systematically prefer more government involvement in healthcare, social welfare, industry, and the economy. Upper-income individuals, by contrast, do not need—and may not even want—government to provide basic public services” (2005: 541). As with non-tax revenue in the regime change regressions, both of these variables are standardized by population. They are calculated using the International Monetary Fund’s *GFS* data on revenue and spending, as well as data from the World Bank’s *World Development Indicators* on population.

The statistical estimations are based on the fixed-effects error-correction model that has become standard in recent research on government finance (Beck, 2001; Iverson and Cusack, 2000; Kaufman and Segura-Ubiergo, 2001; Remmer, 2004; Rodden, 2003; Wibbels, 2006). The equation estimated is as follows:

$$\Delta Y_{i,t} = \beta_0 + Y_{i,t-1}\beta_1 + X_{i,t-1}\beta_2 + \Delta X_{i,t} \beta_3 + \varepsilon_{i,t},$$

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<sup>7</sup> Specifically, social spending is spending on health, education, housing, and welfare.

in which  $Y_{i,t}$  is the revenue or spending variable in country  $i$  in time  $t$ ,  $X$  is a matrix of independent variables (including country fixed effects), and  $\Delta$  is the first difference operator. Therefore the dependent variable is the change in income tax revenue or social spending per capita from one year to the next.

Table 4 gives the descriptive statistics of these variables for the main regressions below.

**Table 4: Descriptive statistics of the taxation and spending dependent variables**

Variable		Mean	Std. Dev.	Min	Max
Change in income tax per capita	Overall	37.1	151.0	-824.8	789.6
	Between		37.4	-19.4	177.0
	Within		145.4	-784.6	753.8
Change in social spend. per capita	Overall	1.18	93.1	-1017.6	464.8
	Between		24.7	-104.8	114.0
	Within		89.3	-911.6	570.9

NOTE: These statistics refer to the dependent variables in the regressions in the second columns of Table 5 and Table 6.

As has been discussed elsewhere (e.g. Beck, 1991), this type of model assumes a moving equilibrium relationship between variables, and it allows the estimation of both permanent and transitory relationships. The coefficient on the lagged level of the dependent variable ( $\beta_1$ ) is an indicator of equilibrium properties—that is, it should be between -1 and 0, so that the effects of shocks in an exogenous variable are reduced over time and the system returns to equilibrium. The parameter of the lagged level of the



independent variable ( $\beta_2$ ) is an indicator of the permanent effect of a one-off change in that variable, while the parameter of the *change* variable ( $\beta_3$ ) is a measure of the transitory effect of that one-off change. In general, as Remmer (2004) and Rodden (2003) both note, the coefficient of interest is on the lagged value, which indicates the lasting effect of the variable in the long-term moving equilibrium. As is standard in the literature, the equation was estimated using ordinary least squares (OLS) with panel-corrected standard errors with panel-specific patterns of first-order autocorrelation, to accommodate the problems that plague cross-sectional time-series research designs, notably heteroskedasticity and serial correlation (Beck and Katz, 1995).

Again, the principal variable of interest is the non-tax revenue variable defined above (*Non-tax revenue per capita*). Since my objective is to estimate the impact of non-tax revenue on taxation and spending, I must also control for other factors that might affect government finance. Based on previous studies, I include four other control variables. Perhaps the most important is *GDP per capita*, to account for the effect of economic development on the size of the public sector in accordance with Wagner's Law (e.g. Boix, 2001). With only this variable and the non-tax variable as independent variables in the error-correction regression described above, the coefficient on lagged non-tax revenue is correctly signed and significant for both income tax in democracies (p-value of 0.030) and social spending in dictatorships (p-value of 0.001). Adding other control variables does not significantly alter the results. These variables include the percentage

of the population that is 65 years and older (*% population over 65*), since this tends to drive pensions and thereby social spending (e.g. Perotti, 1996); and trade dependence, measured as exports plus imports as a percent of GDP (*Trade/GDP*), building off work that asserts a relationship between trade openness and the size of the public sector (e.g. Rodrik, 1998). In addition, like Remmer (2004), in the regressions with taxation as the dependent variable, I include total government spending per capita as an independent variable, to isolate the effect of non-tax revenue from increases or decreases in taxation simply due to changes in spending needs. Similarly, in the spending regressions, I include total tax revenue per capita as a control. All of these variables are attained from the World Bank (2004). Finally, as is standard in this research area, I include country dummies (fixed effects) in all of the regressions to avoid bias due to omitted variables that help determine long-term cross-country differences in government activity (Beck, 2001; Hsiao, 2003; Rodden, 2003).<sup>8</sup>

Table 5 reports the results for the first set of estimations, which focus on democratic regimes. Following a convention established by prior research (e.g. Kadera, et al., 2003; Reiter, 2001; Rousseau, et al., 1996), the analysis is limited to countries scoring 7 or above on Polity IV's *Polity* measure of political regimes (discussed above). It may be noted, however, that the results of the statistical analysis are robust to changes in the *Polity* threshold.

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<sup>8</sup> I confirmed the need for fixed effects in the regressions using an F-test.

**Table 5: Non-tax revenue's effect on taxation of elites in democracies**

*DV: Change in per capita Revenue from Taxes on Income, Profits, or Capital Gains*

<i>Independent Variable</i>	1		2	
Non-tax rev. per capita <sub>t-1</sub>			-0.0466**	(0.0224)
GDP per capita <sub>t-1</sub>	0.0000	(0.0062)	0.0041	(0.0053)
% population over 65 <sub>t-1</sub>	16.39**	(6.755)	9.802	(6.080)
Trade/GDP <sub>t-1</sub>	-0.0836	(0.3551)	0.2549	(0.3542)
Total expenditures per capita <sub>t-1</sub>	0.0477**	(0.0197)	0.0299*	(0.0161)
Grants per capita <sub>t-1</sub>	-0.1336***	(0.0472)		
SOE rev. per capita <sub>t-1</sub>	-0.0895**	(0.0400)		
Other non-tax rev. per capita <sub>t-1</sub>	-0.0700***	(0.0261)		
ΔNon-tax rev. per capita			-0.4352***	(0.0252)
ΔGDP per capita	-0.0108	(0.0141)	-0.0096	(0.0123)
Δ% population over 65	45.53	(35.69)	80.13**	(34.30)
ΔTrade/GDP	0.6058	(0.3950)	0.7408**	(0.3687)
ΔTotal expenditures per capita	0.3396***	(0.0276)	0.3429***	(0.0273)
ΔGrants per capita	-0.3016***	(0.0791)		
ΔSOE rev. per capita	-0.5439***	(0.0607)		
ΔOther non-tax rev. per capita	-0.4296***	(0.0270)		
Income tax rev. per capita <sub>t-1</sub>	-0.1924***	(0.0407)	-0.1670***	(0.0345)
Constant	dropped		dropped	
Observations	768		990	
Countries	60		66	
R-Squared	0.56		0.58	
Prob > $\chi^2$	0.0000		0.0000	

NOTE: SOE rev is State-Owned Enterprise revenue. All regressions include fixed effects. Table entries are OLS estimates corrected for panel-specific autocorrelation. Panel-corrected standard errors are in parenthesis. \*p ≤ 0.10; \*\*p ≤ 0.05; \*\*\*p ≤ 0.01.

As with the regime change regressions, I first examined the results of a regression with the three disaggregated components of non-tax revenue. As shown in Column 1, the lagged values of all three components are negative and significant, and

the linear combination of the three coefficients is also negative and significant (with a p-value of 0.001), indicating again that combining the indicators into one variable is justified.

Column 2 reports the results of the model with the aggregated non-tax revenue indicator. The sample jumps from 769 to 991 observations, and aggregated non-tax revenue is negative and significant. With respect to the other independent variables, the coefficients for both the change and lagged level of total expenditures are statistically significant and consistent with theoretical expectation. Similarly, the lagged level of income tax revenue is significant and negative, with a value between 0 and -1 as required for equilibrium in the error correction model. None of the other level variables are significant, though there is evidence of some short-term effects of changes in the elderly population and openness to trade.

I subjected this model to a variety of robustness checks not reported here. The inclusion of an OECD dummy, decade dummies, and regional dummies had no effect on the main results. I also used different estimation techniques, as there is little consensus in the literature about the appropriate technique to use in this type of analysis. I first used generalized least squares with a panel-specific first-order autoregressive structure, and then used ordinary least squares with robust standard errors clustered by country. The important results were unchanged.

Finally, because income inequality plays an implicit role in the redistributive theoretical framework advanced above (in determining the demand for redistribution), I explored the effect of inequality in these regressions. Measures of inequality are of notoriously bad quality, and are only available for a subset of years and countries. For my measure of inequality, I used the Gini coefficient, employing the data of Dollar and Kraay (2002), who restrict their sample to income distribution measures based on nationally representative samples from the UN-WIDER (2000) World Income Database, Deininger and Squire (1996), Lundberg and Squire (2003), and Chen and Ravallion (2000). Even if I follow Boix (2001) and use the five-year average of the Gini coefficient, to minimize volatility in the measure and maximize the number of observations, my sample drops considerably. To address this problem, I ran a reduced form model, only including the non-tax revenue variable, GDP per capita, the measure of inequality, and the fixed effects. In this regression of 631 observations, inequality was positive but not significant (in both its change and lagged forms), while the non-tax revenue variable remained negative and significant. In sum, all of these regressions provide evidence that non-tax revenue leads to decreased taxation of elites in democracies.

I proceeded similarly with the regressions analyzing social spending in dictatorships (countries with a *Polity* score equal to or below 6), reported in Table 6.<sup>9</sup> I

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<sup>9</sup> In all of my analyses, I excluded all observations in which *Polity* coded the country as -77, which indicates a collapse of central state authority.

first ran the regression with the three separate components of non-tax revenue. As shown in Column 1, all of the components had positive and significant coefficients except the indicator of state-owned enterprise revenue, which was positive but not significant. However, a Wald test could not reject the hypothesis that the coefficients on these variables were equal. In addition, the linear combination of the three coefficients is positive and significant (with a p-value of 0.006), again providing evidence that combining the indicators into one variable is justified.

**Table 6: Non-tax revenue's effect on social spending in dictatorships**

*DV: Change in per capita spending on health, education, welfare, and housing*

<i>Independent Variable</i>	1	2
Non-tax rev. per capita <sub>t-1</sub>		0.2095*** (0.0418)
GDP per capita <sub>t-1</sub>	-0.0063 (0.0056)	-0.0289*** (0.0104)
% population over 65 <sub>t-1</sub>	0.4836 (3.486)	35.58*** (11.78)
Trade/GDP <sub>t-1</sub>	-0.2922*** (0.0984)	-0.3232* (0.1788)
Total tax revenue per capita <sub>t-1</sub>	0.2260*** (0.0472)	0.2641*** (0.0479)
Grants per capita <sub>t-1</sub>	0.2251** (0.0916)	
SOE rev. per capita <sub>t-1</sub>	0.0219 (0.0274)	
Other non-tax rev. per capita <sub>t-1</sub>	0.0454* (0.0239)	
ΔNon-tax rev. per capita		0.2412*** (0.0460)
ΔGDP per capita	-0.0193 (0.0151)	0.0532*** (0.0201)
Δ% population over 65	-9.889 (27.50)	182.2** (71.73)
ΔTrade/GDP	-0.2670*** (0.1020)	-0.3390* (0.2058)
ΔTotal tax revenue per capita	0.4464*** (0.0540)	0.4135*** (0.0570)
ΔGrants per capita	0.5658*** (0.1006)	
ΔSOE rev. per capita	0.2574*** (0.0309)	
ΔOther non-tax rev. per capita	0.2251*** (0.0241)	
Social spending per cap. <sub>.t-1</sub>	-0.2354*** (0.0890)	-0.5545*** (0.0823)
Constant	dropped	Dropped
Observations	339	569
Countries	45	55
R-Squared	0.78	0.82
Prob > $\chi^2$	0.0000	0.0000

NOTE: SOE rev is State-Owned Enterprise revenue. All regressions include fixed effects. Table entries are OLS estimates corrected for panel-specific autocorrelation. Panel-corrected standard errors are in parenthesis. \*p ≤ 0 .10; \*\*p ≤ 0 .05; \*\*\*p ≤ 0 .01.

Column 2 reports the results with the aggregated non-tax revenue variable. In the larger sample, the coefficient on the lagged indicator is positive and significant, indicating support for the hypothesis that non-tax revenue leads to higher social spending in dictatorships. With regard to the other independent variables, the coefficients for both the change and lagged level of tax revenue are statistically significant and consistent with theoretical expectation. This is particularly important since the redistributive framework upon which my theory is based would assume this relationship holds. In addition, the lagged level of social spending is significant and negative, with a value between 0 and -1 as required for equilibrium in the error correction model. There is also evidence that dictatorships respond to older populations with increased social spending, and that more economically open dictatorships tend to spend less. Interestingly, richer dictatorships (i.e. with higher GDP per capita) tend to spend less on social spending per capita than poorer dictatorships. Finally, there is also evidence that economic growth results in a short-term increase in social spending, as one would expect.

I submitted these results to the same robustness checks as the taxation regressions above. No substantive difference was observed with an OECD dummy variable, decade dummies, regional dummies, or different estimation techniques. I also ran a reduced form model with the inequality indicator, in which inequality was



positive and significant (with a p-value on the lagged term of 0.003). The results for the non-tax revenue variable were again unchanged.

These two sets of results—regarding elite taxation in democracies and social spending in dictatorships—provide support for my causal hypotheses linking non-tax revenue to regime stability. However, these are not the only hypotheses that might link non-tax revenue to regime stability, and it is important to consider alternatives. I will address here the three most evident alternative hypotheses related to government finance (my principal focus) and leave other hypotheses for future work. The alternative hypotheses within the arena of government finance are (a) non-tax revenue's effect on some other form of taxation (besides taxation of elites) is at the center of the relationship between non-tax revenue and democratic stability; (b) non-tax revenue's effect on some other form of spending (besides social spending) is at the center of the relationship between non-tax revenue and authoritarian stability; and (c) "booms" in non-tax revenue are more important than levels of such revenue.

I assessed these alternative hypotheses by dividing my sample into dictatorships and democracies and running the regime change regression (from Column 2 of Table 3) with additional control variables. The results are reported in Table 7.<sup>10</sup> For democracies,

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<sup>10</sup> I am grateful to Tim Büthe for pointing out that the dependent variable in these regressions does not necessarily only pick up transitions from democracy to dictatorship, and vice versa. For example, a regime coded as a -4 in the Polity dataset would be considered a dictatorship. In the Polity coding, this dictatorship would experience a "regime change" if it moved to a -7, but the new regime would be *more* authoritarian. A similar example would exist with democracies moving from 7 to 10 on the Polity scale. To ensure that these

I included the additional control variable of all tax revenue other than that raised from taxes on income, profits, and capital gains. The goal was to isolate the causal mechanism of non-tax revenue's effect on income tax, and rule out the possibility that non-tax revenue's effect was due to the reduction in other kinds of taxation. Non-tax revenue remained significant and positive. For dictatorships, I included the additional control variable of all non-social spending per capita. This includes, for example, spending on the military and other spending on government projects such as infrastructure. The goal was to isolate non-tax revenue's effect through social spending and rule out the possibility that non-tax revenue's effect was due to spending in other areas. Again, non-tax revenue remained significant. Finally, in both of these regressions, I included the change in non-tax revenue per capita, to account for a "boom" effect. The boom effects were insignificant in both of the regressions.

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types of changes were not affecting my results, I split the sample into dictatorships and democracies and limited the dependent variable to positive changes for dictatorships and negative changes for democracies. That is, regime changes in these regressions were only counted if dictatorships moved three or more points in a democratic direction, or democracies moved three or more points in an authoritarian direction. The main results were unchanged.

**Table 7: Testing some additional hypotheses with regard to regime instability**

*DV = 1 if regime changes in current year; 0 otherwise*

<i>Independent Variable</i>	<i>Democracies</i>		<i>Dictatorships</i>	
Non-tax rev. per capita <sub>t-1</sub>	-0.0021**	(0.0009)	-0.0004**	(0.0002)
GDP growth	-0.1446***	(0.0527)	-0.0541**	(0.0252)
GDP per capita (ln) <sub>t-1</sub>	-0.2422	(0.3836)	0.5689**	(0.2498)
Δ% Population Urban	1.367*	(0.7379)	-0.2212	(0.3686)
Ethnolinguistic Fractional.	3.955***	(1.502)	-0.0287	(0.7548)
Population density (ln) <sub>t-1</sub>	0.1537	(0.2955)	-0.1202	(0.1493)
Past regime instability	-0.3659	(0.3396)	0.0618	(0.0916)
Δ Non-tax rev. per capita	-0.0006	(0.0006)	-0.0006	(0.0004)
Non-income tax rev. per cap. <sub>t-1</sub>	0.0006**	(0.0003)		
Non-social spending per cap. <sub>t-1</sub>			-0.0004	(0.0004)
Regime age	-0.2472	(0.2676)	-0.4112***	(0.0728)
Spline(1)	0.0005	(0.0010)	0.0017***	(0.0004)
Spline(2)	0.0000	(0.0001)	-0.0002*	(0.0001)
Constant	-3.242	(3.034)	-4.070**	(1.874)
Observations	860		627	
Countries	57		57	
Prob > $\chi^2$	0.0000		0.0000	
Pseudo R-Squared	0.25		0.16	
AIC	72.17		366.83	
Area under ROC curve	0.881		0.768	
% Correctly classified	99.42		90.43	

NOTE: Table entries are logistic regression estimates with standard errors (in parenthesis) clustered by country. \*p ≤ 0 .10; \*\*p ≤ 0 .05; \*\*\*p ≤ 0 .01

In sum, while it is impossible to rule out other causal links between non-tax revenue and regime stability, there is considerable support for the causal hypotheses advanced in this paper. It is also interesting to note in passing some of the results of the

control variables in these regressions. For example, the variable for all other tax revenue (besides income tax) has a destabilizing effect in democracies, contrary to what might be suggested by the literature on taxation leading to representation. In addition, the split samples reveal opposite effects of higher income per capita: a stabilizing effect in democracies and a destabilizing one in dictatorships, similar to what would be predicted by modernization theory (e.g. Epstein, et al., 2006). Economic growth is stabilizing in both, whereas urbanization and ethnolinguistic fractionalization only seem to be destabilizing to democracies.

### ***4.3. Summary***

This chapter has analyzed statistically the empirical implications of the formal models in Chapters 2 and 3. Using a dataset that includes all countries and years for which data are available, covering the period 1973-2001, I have subjected my hypotheses to a variety of statistical tests and found that they are quite robust. The evidence indicates that non-tax revenue does lead to greater regime stability in both democracies and dictatorships, and through the particular causal mechanisms suggested by my theoretical approach.

## **5. Case Studies**

This chapter turns to analyzing the experiences of Mexico, Kenya, and Bolivia with non-tax revenue (the reader is referred to the Introduction for the selection criteria

that led to these cases). The general goal of these case studies is to view the specific ways in which dynamics suggested by my formal theory operate. They are, thus, “analytic narratives”, though not strictly in the sense advocated by Robert Bates and his co-authors (1998). In that work, the authors use formal theory in the context of case studies but acknowledge that their chapters “are problem driven, not theory driven....They are devoted to the exploration of cases, not to the elaboration of theory” (p. 11). The analytic narratives here are, instead, very much focused on the elaboration of theory. Unlike Bates, et al., I come to my cases with a theory developed deductively and tested on cross-national data.

Because of this prior analysis, I am not using the case studies to answer most of the questions Bates and his co-authors propose as useful questions for analytic narratives. However, it is useful to review those questions to demonstrate where my case studies fit into my overall analysis. The questions Bates and his co-authors (1998: 15-18) take to their case studies are the following:

- Do the assumptions fit the facts, as they are known?
- Do the conclusions follow from the premises?
- Do the theory’s implications find confirmation in the data?
- How well does the theory stand up by comparison with other explanations?
- How general is the explanation? Does it apply to other cases?

I am not using the case studies in this dissertation to study whether the conclusions of the model follow from its premises, because this was proven in Chapters 2 and 3 with my formal models. I am also not using the cases to see whether the implications of the model find confirmation in data, because I have shown this using cross-national time-series statistical analysis in Chapter 4. Similarly, this cross-national statistical analysis enabled me to compare my theory with other explanations, using control variables. And finally, that analysis also enabled me to see whether the explanation applies to many cases. The advantages of cross-national statistical analysis over case study analysis, in terms of exploring these kinds of questions, are well known (King, et al., 1994).

However, I *do* use the case studies in this dissertation for the first question that Bates, et al. pose: “Do the assumptions fit the facts, as they are known?” My theoretical model makes particular assumptions about the dynamics at work in regime transitions, and how those transitions should evolve. By building my model first and selecting my cases on the basis of changes in non-tax revenue—not on whether the dynamics of the model apparently apply—I have set myself a far more difficult task than Bates and his co-authors, who each base his or her model directly on his or her one case. To the extent that my theory has some explanatory power in each of my case studies, I hope to add a new interpretation to the histories of these countries, as well as provide some explanation of how the dynamics described in the model play out in the “real world”.

To the extent that there are other important dynamics at work in these countries, I hope to uncover new ways in which other scholars might build on the framework advanced here.

Given the role case studies play in my overall analysis, in embarking on the case studies it is important to be clear about the questions *I* will be trying to answer. I am specifically searching for answers to several questions about key assumptions in my theoretical model:

1. Does the model's foundational focus on redistribution and inequality have merit? Is this one of the principal cleavages in the societies under study? Can we observe regime tensions increase if inequality goes up?
2. Do authoritarian regimes principally serve the interests of richer elites, and democracies the interests of non-elites? Are dictatorships more threatened by the left, while democracies more threatened by elites?
3. If and when regime tensions increase, do we view authoritarian regimes attempting to diffuse the situation with social spending? Do we view democracies attempting to satiate the elite classes?
4. And, of course, can we observe the rise (fall) of non-tax revenue making this situation easier (more difficult) for either regime?

While the rest of the chapter is divided into sections addressing each country, each of the sections follows a similar pattern. A first sub-section broadly explores the

nature of the political regimes in each country. I give an historical overview of the country's modern political history, particularly focusing on the extent to which redistributive cleavages have played an important role. The second sub-section in each case study addresses the nature of threats to the particular regime in question, the responses by the regime, and the role of non-tax revenue in these responses.

The overall picture that emerges is that the theory's principal assumptions and hypotheses fit many of "the facts" in each of these countries. In some cases, the theory helps to illuminate dynamics in a country's history that have not been the focus of much previous scholarly work. However, not surprisingly, there are aspects of these countries' history that do not fit as easily into the theoretical framework. I examine these in the concluding section of the chapter.

## ***5.1 Mexico***

The 20<sup>th</sup> century political history of my first case study country, Mexico, is largely made up by the 70-year dictatorial rule of the *Partido Revolucionario Institucional* (Institutional Revolutionary Party, or PRI). While my particular focus will be on the role of non-tax revenue in this regime in the 1970s and 1980s, it is necessary to begin with an understanding of the regime's beginnings and evolution.



### *The nature of political regimes*

By the time of the Mexican Revolution in 1917, Mexico was already a highly unequal country. Under the dictatorship of Porfirio Díaz, who ruled Mexico almost consecutively from 1876 to 1911 (the exception being when Manuel González was President from 1880-84), Mexico's economy came to be controlled by a small group of capitalist landowners, foreign companies, and to a lesser extent national businessmen (Hamilton, 1982). The land market is particularly indicative of this trend, as Mexico's land was increasingly concentrated into large estates, continuing a process that began with the assignment of land by the Spanish crown to colonizers and their descendants. By 1910, most of the land in Mexico was held by just 0.006 percent of the population (Brachet-Márquez, 1994: 44). Similar extreme concentration also characterized most industries, with the power of a small number of groups and families crossing several sectors—from manufacturing to commerce to finance—and reaching across the nation.

This pattern of economic concentration almost certainly had impacts on the well-being of citizens in Mexico. While income inequality measures are unavailable for this time, one of the more important pieces on this topic is the work of López-Alonso (2007), who studies trends in adult height in Mexico. López-Alonso demonstrates that while the upper and upper middle classes were experiencing greatly improved "biological standards of living" from about 1870 through the beginning of the 20<sup>th</sup> century, the large majority of the Mexican population suffered a decline in such standards of living. Their

wellbeing then stagnated until social programs were launched in the 1930s under Lázaro Cárdenas (more on this below).

Certainly this inequality was a theme of the Mexican Revolution of 1917, in which citizens rebelled against an established elite order. As one would expect, however, the homogenous group of “citizens” depicted in the model is of course a simplification. In fact, the final stage of the Revolution itself was a civil war between the two principal revolutionary factions of the “citizens”. The one in the north of the country, led by Venustiano Carranza, primarily drew its leadership from the petty bourgeoisie. The one in the south, led by Emiliano Zapata, was principally supported by the peasantry. The ability of Carranza to secure working-class support through an agreement with the workers of the *Casa del Obrero Mundial* (which Carranza later broke) prevented an alliance between the urban proletariat and the peasantry that may have led to a different outcome for the Revolution (Hamilton, 1982). As it was, Carranza’s forces won out.

These divisions did not go away, and nor did the elite interests that had been so supportive of the Díaz regime. The subsequent two decades—until the end of the presidency of Lázaro Cárdenas in 1940—can largely be seen as a process of institution-building, during which various factions fought to establish control of the government. Post-revolutionary Mexico was characterized by competition between the remnants of the Porfirian elite, a peasantry mobilized by the Revolution, and various working class

organizations. In fact, it was in the midst of a crisis brought on by the tensions between these groups that President Plutarco Elias Calles in 1929 created the official party, the *Partido Nacional Revolucionario* (PNR), to provide a way of forming consensus among elites and establishing a powerful base to counteract regional *caudillos*. At the beginning of the 1930s, the PNR was evenly split between supporters of the more conservative Calles, and the more leftist supporters of Cárdenas.

In one of the more detailed treatments of this period, Nora Hamilton has argued that the presidency of Cárdenas—from 1934 to 1940—represented essentially a last gasp for progressive causes in Mexico. The emergence of Cárdenas' supporters in the PNR was due to several factors, including mobilization of peasants and workers because of the Depression and slow agrarian reform, as well as dissatisfaction within the party with party leadership. Cárdenas' presidency saw the promotion of labor rights, the end of much agricultural labor exploitation, the distribution of land to peasants and workers, and the nationalization of railroads and the petroleum industry (see, e.g., Ashby, 1963). However, his presidency was also a time when—partly in response to his own successes—conservative forces continued to gather strength.

In an effort to strengthen his position, in 1938 Cárdenas reorganized the PNR into a new official party—the *Partido de la Revolución Mexicana*—which replaced the geographic organization of the PNR with a representation based on sectors: labor, peasant, military, and popular. Apparently an effort to provide a check on elite

manipulation of the masses by giving the masses themselves a role in the party (Córdova, 1974), it is ironic that this re-organization seems to have provided the foundation for conservative dictatorial rule after Cárdenas. The organization not only separated labor and peasants—thereby hindering their cooperation—but also funneled their demands into party-managed confederations that by all accounts were essentially authoritarian in nature. As an example, Fidel Velázquez was head of the major labor confederation—the *Confederación de Trabajadores de México*—from the early 1940s until he died in 1997 (Minns, 2006).

As conservative strength grew within the party through the “military” and “popular” wings (the latter being principally middle-class elements such as teachers and state employees), and the voice of labor and peasants were managed by their respective confederations, the party turned to the right. Its first president, Luis Rodríguez, whose goal was the eventual socialization of production, was forced to resign by conservative elements in the party. When the election to succeed Cárdenas was between two mainly conservative candidates (Manuel Avila Camacho and General Juan Andréu Almazán), the stage for the next several decades was set. In the hands of the winner (Camacho) was a party apparatus almost ideally constructed for elite manipulation of the populace. As Hamilton wrote in 1982, “In the 1930’s, the state was still sufficiently dynamic for progressive groups within it to respond to peasant and worker mobilization. Since that time, conservative groups within the state have become consolidated, structures uniting

the state and dominant class interests at various levels have been considerably strengthened, and progressive groups and individuals brought into positions within the state apparatus have been easily isolated” (Hamilton, 1982: 279-80).

The responsiveness of the PRI to elite classes in society was reflected both in the composition of the party as well as its policies. Specific data on the elitist nature of the authoritarian regime are of course hard to come by, but a paper by Centeno and Maxfield (1992) is indicative. They examined the personal backgrounds of the Mexican bureaucratic elite and concluded in 1992, “As previous analysts have noted, the elite is becoming even less representative of the classes for which the Mexican Revolution was supposedly fought, and is increasingly monopolized by those born in Mexico City. If we analyse the data by either generational cohorts or date of entry into the bureaucracy, we note that both trends have been increasing since the 1950s. These findings lend some support to the contention that the educational criteria used for the entry into the public bureaucracy, and its meritocratic legitimation, are merely political veneers for the continuing inequality which pervades Mexican society” (p. 66; also see Camp, 1987; Lerner de Sheinbaum, 1983; Smith, 1979). A variety of other scholars— including Knight (1986) and Reynolds (1970)—have interpreted the PRI principally as “an alliance among elites for the distribution rather than the *redistribution* of wealth” (Purcell and Purcell, 1980).

Not surprisingly, given this understanding of the PRI regime, policies by the PRI generally contributed to widening inequality in Mexico. During the PRI's rule, it has been estimated that about 70% of the population experienced a diminished share of national income between 1950 and 1970 (Cockcroft, 1983). There is little doubt that much of this was a result of policy. For example, while Cárdenas had conducted major land reform and provided some government credit to 30% of those receiving land, by 1960 only 14% of these *ejidatarios* had access to credit. By the early 1980s, 85% of credit provided to agriculturalists was received by the wealthiest 0.5% of landowners (Cockcroft, 1983). In the working class, unions (such as the *Confederación General de Trabajadores* and the *Confederación de Trabajadores de México*, or CTM) were corrupted by the PRI and worked to undermine serious resistance and militant movements in the working class (Minns, 2006).

In 1950, the average income of the top five percent of Mexico's households was 22 times greater than that of the poorest 40 percent, and that of the next richest five percent was 5.2 times greater than the poorest 40 percent. Two decades later, the multiples had increased to 34 percent and 10.7 percent respectively (Felix, 1977). By 1970, two percent of farms accounted for 76% of arable land (Cockcroft, 1983). While income inequality seems to have diminished a bit in the 1970s (probably as a result of redistributive policies installed by Echeverría after the massive student protests in 1968), it generally worsened over the next two decades (Londoño and Székely, 2000).

## *Threats to the regime and responses*

How was the PRI able to survive in the midst of this inequality? Scholars have focused on a variety of factors, from the role of the PRI's decades of strong economic growth<sup>1</sup> (Hansen, 1974) to the PRI's use of institutions like barriers to candidate entry and a centralized election monitoring system (Molinar Horcasitas, 1991). One of the most important recent studies of the PRI—and one closely related to the argument in this dissertation—by Beatriz Magaloni (2006), who emphasizes the role of government spoils and patronage in the maintenance of what she considers to have been a “hegemonic-party regime”. Not surprisingly, given this emphasis, the resources available to the government (and the “cost” of incorporating different elements of society) are central to Magaloni's explanation of how the PRI was able to survive so long.

It is interesting to note that Magaloni specifically differentiates her work from the redistributive approach used in this dissertation. She writes, “In Boix (2003) and in Acemoglu and Robinson (2006), the distribution of income between rich and poor is *the* central battle of the politics of regime change.... In my approach...[t]he most divisive issue of the transition of these regimes is the pursuit of power and the spoils of office, not income redistribution from rich to poor” (p. 30-31). This passage's distinction

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<sup>1</sup> From 1945-1972, Mexico averaged 6.5% growth annually, and the rate was 5.5% from 1972-1981 (Thorp, 1998). However, from the 1980s, economic growth slowed considerably, to less than two percent, and yet the PRI managed to hold on to power for almost another twenty years.

between the “spoils of office” and redistributive issues illuminates the contribution of this dissertation, which is to demonstrate that the redistributive approach to regime change has ignored the possibility that governments often have many resources of their own to distribute.<sup>2</sup> However, I differ from Magaloni in concluding that this means that redistributive issues are not central to regime change. My interpretation is that distributive resources alleviate redistributive concerns, precisely because these distributive resources can be used to buy off poorer citizens in society (which Magaloni describes). As these distributive resources diminish, redistributive issues should become more prominent.

I believe the history of the PRI is consistent with this interpretation, and in fact so is Magaloni’s account of the PRI’s survival and demise. The PRI was able to survive in the midst of massive inequality by providing just enough to the lower and middle classes to keep them from revolting, similar to what would be predicted by the redistributive framework. The difference—detailed below—is that the PRI’s resources were largely distributive rather than redistributive.

Throughout the 1960s, unrest among lower and middle classes was growing in the country, and cracks began to appear in the PRI’s hold on power (Brachet-Márquez,

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<sup>2</sup> It is interesting that Magaloni refers to the “spoils of office” during the PRI regime at some points in her text, but at different points notes that these spoils—particularly oil revenues—were at one time “redistributed” from the rich, during the nationalization of the oil industry. While nationalizations are likely to be redistributive, it is also true that it is probably a stretch to conceptualize oil rents accruing to the government 40 years later as redistributive in nature. This raises an interesting area for future research, which is the question of when nationalized resources lose their “redistributive” character.

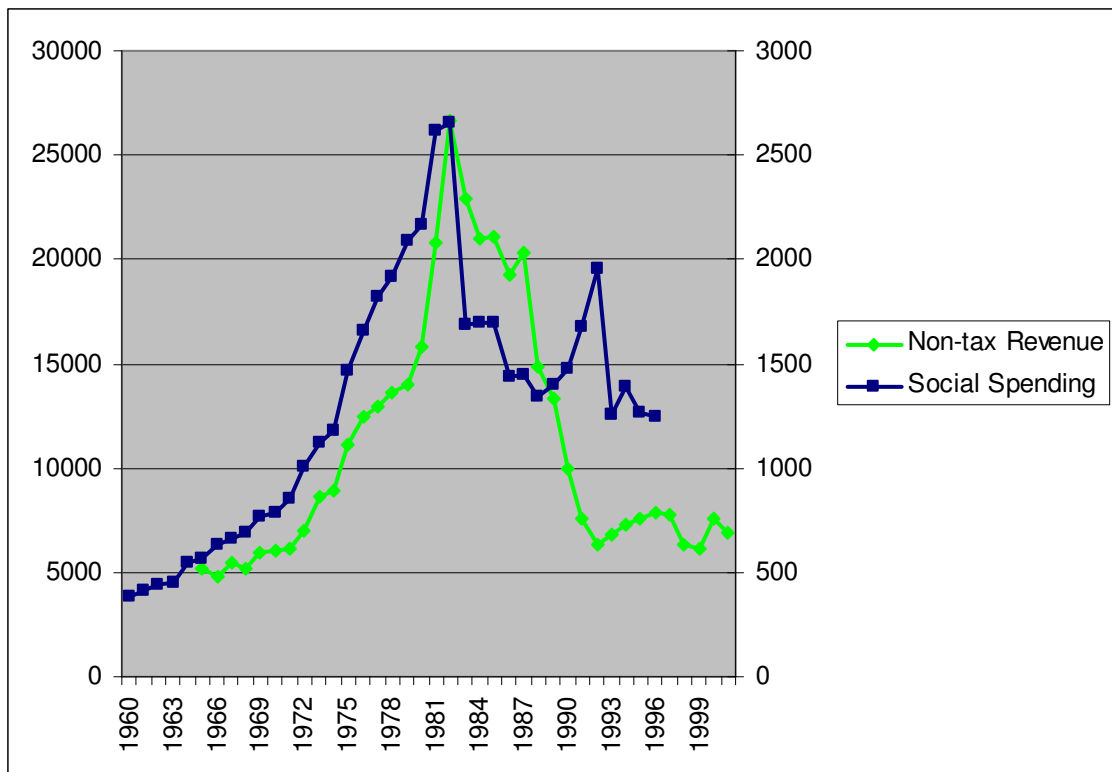


1994). Peasants began to seize land in the countryside and form their own independent organizations (such as the *Central Campesina Independiente* in 1963), and workers began to break away from the PRI's unions like the CTM (such as truck workers at the state-run diesel manufacturer in 1961). The PRI was increasingly under attack from urban workers, intellectuals, teachers, and students, and when hundreds of protesters were killed in Mexico City in 1968 before the Olympics, the regime had essentially lost all legitimacy. In 1970, the new president, Luis Echeverría, was elected by only about 37 percent of the electorate (Spalding, 1981)—25 percent of those who had voted had turned in blank ballots.

Echeverría's response to this pressure was very similar to the dynamic predicted by my model: he increased spending on the lower and middle classes in a variety of ways. Among these, the number of civil service jobs was doubled during the 1970-76 period, half of which was due to the expansion of basic education and technical education. In addition, the government created a "Social Solidarity" program, to partially include the rural population and urban poor in the social security system. The program was heavily linked to non-tax revenue, as sixty percent of the Social Solidarity program was to be financed by government deficit spending (Brachet-Márquez, 1994).

As Figure 3 shows, social spending per capita in Mexico continued to rise until the early 1980s, and throughout this period—and in fact throughout most of the period in the figure—this spending was consistently linked to the availability of non-tax

revenue per capita. Certainly this chart raises the question of whether the PRI would have survived if it had not been able to call on oil revenues and borrowing in order to finance all its spending. As George Philip (1980) presciently noted in 1980, “Political demands on the Mexican state are likely to increase just at a time when oil wealth may appear to provide a means by which they can be met. The Mexican government is already planning on a very large increase in public sector employment both to provide such essential services as education and health to a wider proportion of the population, and also to supplement the jobs created by private industry” (p. 480).



**Figure 3: Non-tax revenue and social spending per capita, in 2003 pesos**  
 (Source: Author’s calculations using data from INEGI (1999) and <http://www.inegi.gob.mx>)

Nevertheless, despite the efforts to increase spending, there is a sense that the PRI was barely holding off the increased pressure from society. Guillermo Trejo (2004) has examined press reports from 1977 to 2000, and demonstrated a general rise in protest among various sub-sets of Mexican populations. For example, he reports that the incidence of indigenous protest rose from about every 10 days in the 1970s to every three days in the 1980s, and to every two days in the 1990s. Trejo also places emphasis on the number of armed rebellions in Mexico during this time. By his estimates, 3000 citizens lost their life in conflict with the government between 1965 and 1976. And of course, during and after the 1994 uprising in Chiapas—by the Ejército Zapatista de Liberación Nacional (EZLN)—there were many more deaths: about 1000, by Trejo’s estimates.

Trejo makes an important argument regarding the effects of these armed struggles. While not diminishing the importance of social protest, he argues that the major electoral reforms that the PRI initiated can be directly linked to particular armed uprisings. The 1963 reform—which guaranteed five congressional seats to any party receiving 2.5 percent of the vote—can be linked to a fear that students and workers would unite behind the *Henriquista* rebels.<sup>3</sup> The 1977 reform—which introduced

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<sup>3</sup> The *Henriquistas* were supporters of Miguel Henríquez Guzmán, a Cárdenas follower and opposition candidate for the presidency in 1952. His candidacy—done in by electoral fraud and repression—was supported by several generals who had participated in the Revolution (Sánchez Gutiérrez, 1988).

proportional representation and legalized the Communist party—can be linked to the “first guerilla wave”, which started in the mid-1960s in Chihuahua and had its most powerful presence in Guerrero (where, in fact, the 1977 reform was announced). The 1994 and 1996 reforms—which made the Federal Electoral Institute independent and increased the role of electoral courts—can similarly be linked to the violent uprising in Chiapas in 1994 and the appearance of the Popular Revolutionary Army in Oaxaca, Guerrero, and elsewhere. As Trejo writes, “The evidence seems to demonstrate that, in the absence of a guerilla threat, the PRI elites reacted to pacific social mobilization with repression or social spending but without introducing real electoral reform. As evidence there are the 1980s: the years of greatest social unrest which, in the absence of guerilla threats, were not sufficiently powerful motivation for the elites to introduce electoral reforms in 1994 and 1996” (my translation).

This account of the democratic reforms in Mexico fits quite well into my theoretical model—with mobilization on the part of the citizens forcing either redistribution or reforms on the part of the authoritarian regime. However, it is important to note (using Figure 3) that the lack of democratic reforms between 1977 and 1994 coincides with a period in which Mexico was relatively flush with non-tax revenue per capita compared with earlier periods. When social spending began to fall along with non-tax revenue in the 1980s (and as the economic crisis hit), citizens increasingly took to protest (Carr and Anzaldúa Montoya, 1986; Davis and Brachet-Márquez, 1997;

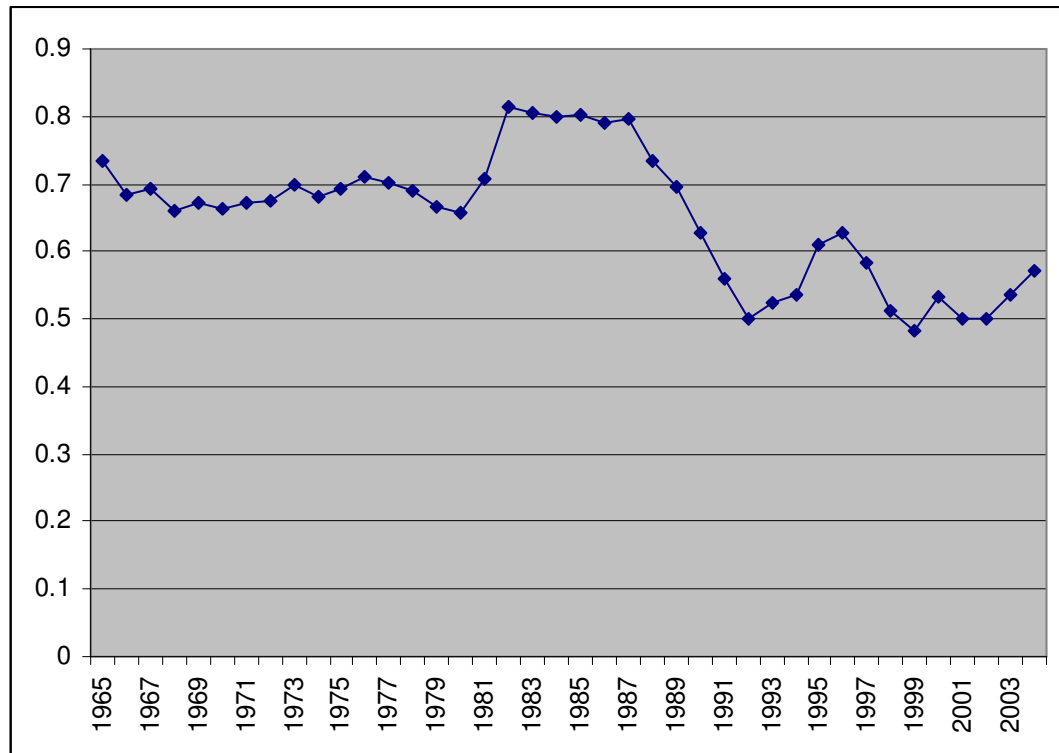
Williams, 2001). However, it was not until the early 1990s, when Mexico's non-tax revenue per capita had fallen to its early-1970s level, that the PRI again instituted a democratic reform. While it is certainly likely that violent action against the government played a crucial role, as Trejo argues, it is also likely that the government's democratic reforms were spurred by a decreased ability to respond to protest by social spending. Essentially, the PRI turned to its less desirable option (democratic reform) when the option of spending its way out of crisis became less viable.

In this context, it is illuminating how the PRI acted with regard to social spending as the party faced increased pressures and then declining resources. Beginning with López Portillo (1976-1982) and culminating with Salinas (1988-94), Presidents tried to gain some autonomy from the PRI unions who had come to control social spending. As Trejo and Jones (1998) write, "These two trends—growing union control of social policy and shrinking presidential power over welfare policy—were not problematic as long as the country enjoyed the longest economic expansion of the twentieth century and authoritarian rule was accepted. However, when the legitimacy of the regime was shattered by the 1968 student massacre and the 'Mexican miracle' came to an end, the constraints that the presidency faced in managing welfare policy autonomously became a fundamental problem for the sustainability of authoritarian rule" (p. 74).

This dynamic was behind the use of oil money for poverty alleviation projects directly controlled by the presidency under López Portillo, as well as the more dramatic creation of the National Solidarity Program (PRONASOL) by Salinas after the 1989 presidential election, one of the most contested in the PRI's history. An antipoverty program that was controlled exclusively by the President, PRONASOL was an erratic force against poverty, but its principal goal was political (Bruhn, 1997; Cornelius, et al., 1994; Fox, 1994). As Dresser (1994) has noted, "PRONASOL's strategy is to build a new coalition of support by denying the concept of class as an organizational factor of political life" (p. 147). It is in line with the assumptions of my theoretical approach—particularly linking the wellbeing of poorer citizens to democratic governments—that observers of these social transfers have concluded that their benefits to poor people have increased as Mexico has become more democratic (Diaz Cayeros, et al., Forthcoming).

In addition to these efforts at greater "efficiency" in the political use of social spending, it is interesting to note in Figure 3 that, beginning in the late 1980s, the PRI seems to have attempted to stop the overall decline in social spending per capita despite the fall in non-tax revenue per capita. Figure 4 demonstrates that this was accomplished as a result of an increase in the share of tax revenue financing government spending. Despite the large fluctuations in non-tax revenue shown in Figure 3, the share of spending financed by non-tax revenue was fairly stable until the late 1980s. Non-tax revenue financed about 70-80 percent of spending by the PRI. However, as regime

pressures increased, and non-tax revenue fell, the PRI attempted to compensate with increased tax revenue.



**Figure 4: Share of spending financed by non-tax revenue, Mexico 1965-2004**  
 (Source: Author's calculations using data from INEGI (1999) and <http://www.inegi.gob.mx>)

Nevertheless, despite its efforts to keep spending up, the PRI increasingly lost control as non-tax revenue fell. As a last indicator of the nature of the PRI, it is interesting to note how the party responded to the two major parties competing with it as the regime fell. The PRI was consistently more threatened by the more liberal *Partido de la Revolución Democrática* (PRD) party than it was by the more conservative *Partido Acción Nacional* (PAN) party. The first gubernatorial victory by an opposition party was

by the PAN in Baja California in 1989, after it had agreed not to contest electoral fraud in the 1988 presidential election of Carlos Salinas. As Magaloni (2006) writes, the relationship with Salinas arising from this agreement “enabled the PAN to obtain official recognition for many of its electoral victories at the local level and even to benefit from the so-called *concertaciones*: post-electoral bargains through which the president transferred the election from the PRI to the PAN, regardless of the actual vote count, when local elections had unclear or contested outcomes” (p. 90). Magaloni also provides evidence that the elites of the PRI and the PAN were more alike ideologically than the PRI and the PRD, at least since the mid-1980s. In fact, while business was closely aligned with the PRI during the 1980s and 1990s (Thacker, 2000; Ugalde, 1996), one interpretation of the PAN’s rise—and victory in the 2000 election, ending the PRI’s rule—is that business eventually decided that the PRI “offered basically the same economic and social program as the PAN but was much more tainted by charges that it was undemocratic and corrupt. Ironically, having eroded its mass base, the PRI was of less value to the bourgeoisie” (Minns, 2006).

By contrast, conflicts between the PRD and PRI often resulted in deaths. Magaloni (2006) notes that close to 500 PRD activists were murdered during electoral confrontations during the Salinas presidency alone. In an analysis of post-electoral conflicts in Mexico from 1989-2000, Eisenstadt (2004) found the PRD was involved in 59 percent of the conflicts but 80 percent of the deaths directly attributable to those



conflicts. Human rights organizations like Amnesty International and Americas Watch highlighted such violence, and Mexico's own National Human Rights Commission (Comisión Nacional de Derechos Humanos, 1994) concluded that two PRD city council members were killed in the early 1990s. The PRD's own documents (e.g. Partido de la Revolución Democrática, 1994, cited in Eisenstadt 2004) claim many more deaths. As Eisenstadt concludes, "PRD conflicts were much more severe than PAN conflicts....And while...about one-third of the conflicts by both *PRDístas* and *PANístas* yielded PRI-state concessions, the degree of concessions differed by magnitudes. In the case of the PAN, the *concertaciones* gave them governors and mayors of state capitals, while the PRD got proportional-representation city council seats in small towns and second-tier administrative jobs" (p. 140).

This comparison between the PRI's relationship with the PAN and that with the PRD is a useful note on which to end this examination of Mexico, because it indicates the challenges remaining for Mexico. It is useful to remember that my theory indicates that non-tax revenue is stabilizing for *both* authoritarian and democratic regimes. As such, just as the diminishing of non-tax revenue contributed to the fall of the PRI, the continuing fall of non-tax revenue is likely to cause problems for Mexico's new democracy. There is evidence that Mexico's oil deposits are rapidly decreasing (Luhnow, 2007), and the implications could be quite important for a country whose 2006 election was marked by a highly contentious election and post-electoral battle between

the PRD's Andrés Manuel López Obrador and the PAN's Felipe Calderón. López Obrador's opponents feared him to be the next Hugo Chávez, while his supporters were passionate about his appeals for more redistribution.

It should be noted that the traditional way of thinking about oil and political regimes (that oil leads to authoritarian regimes) would imply that the decline of oil in Mexico would have positive implications for the political regime. The approach of this dissertation would call for more caution. As Mexico's non-tax revenue continues to diminish, the redistributive conflicts—until now assuaged by the availability of these revenues—will likely come to the fore, as Mexico remains a vastly unequal country. Given the pressures this will put on the elites for increased taxation, it is far from clear that this bodes well for Mexico's new democracy.

## ***5.2 Kenya***

Kenya achieved its independence from Britain in 1963 and was subsequently ruled for 40 years by just two leaders: Jomo Kenyatta (until 1978) and Daniel Arap Moi (until 2002). Their party—the Kenya Africa National Union, or KANU—has been compared to Mexico's PRI, in that both were “hegemonic parties” using the distribution of resources to stay in power (Magaloni, 2006). In fact, this is not the only similarity between the two countries. As with Mexico, one must start with the colonial regime in Kenya to understand the formation of its “party-state” (Widner, 1992). As mentioned in the Mexico case study, Mexico's massive inequality has roots in Spanish colonial land

policies. Kenya's colonial history is more recent, and the effect of colonial policies is perhaps even clearer.

As will be discussed in this section, however, one of the more important differences between Kenya and Mexico is the extent to which ethnic politics has played a role. Though unfortunately the Kenyan government stopped reporting ethnicity information in their recent censuses, ostensibly for fear of political manipulation (Makoloo, 2005), we know that Kenya's population consists of over 40 different ethno-linguistic groups. Around the time of independence, the five largest groups were the Kikuyu (21% of the population), the Luo (14%), the Luhya (14%), the Kamba (11%), and the Kalenjin (11%).<sup>4</sup> These groups were and are spread throughout the country's eight provinces—shown in Figure 5—though they tend to concentrate in certain areas. For example, the Kikuyu are associated with Central Province, the Luo with Nyanza Province, and the Luhya with Western Province (e.g. Mutakha, 2006).<sup>5</sup> The Kikuyu's numbers and concentration in Central Province—next to Nairobi and in one of the best agricultural areas—placed them at the center of colonial politics and at a general economic advantage over other ethnic groups. Understanding post-independence Kenyan politics therefore requires an understanding of Kikuyu relations with the British in the pre-independence period.

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<sup>4</sup> These figures are from the population census in 1969, the first I know of that surveyed information about tribes. The source is Republic of Kenya (1979).

<sup>5</sup> These associations have led some to analyze Kenya's ethnic inequalities in terms of regional inequalities (e.g. Rothchild, 1969), though there is not an exact overlap.



**Figure 5: Map of Kenya's provinces**

(Map produced by the U.S. Central Intelligence Agency; Attained from the Perry-Castañeda Library Map Collection at the University of Texas at Austin)

## *The nature of political regimes*

Early in the 20<sup>th</sup> century, the British were searching for a way to avoid Kenya (and their other colonies) becoming an economic drain, as their initial projections regarding both the costs and returns of maintaining their colonies had been far off the mark (Mosley, 1983; Wolff, 1974). The colonial officers wanted a way to develop the country quickly, in order to provide a tax base, and they decided the best way was to import expertise and capital from abroad. An early program to promote the immigration of Indians was opposed by European settlers (Wolff, 1974), and eventually the focus became other whites from Europe and South Africa.<sup>6</sup> Between 1902 and 1906, the population of Europeans in Kenya more than tripled, from 506 to 1814.<sup>7</sup>

The reason these settlers came was land: the colonial government distributed massive amounts of it to attract them, and then provided subsidies to encourage the settlers to look for minerals and experiment with crops. Mosley (1983: 14) notes that the cost to settlers of this land was “nominal, and many cases zero”, and that at the upper end of the scale the individual allocations could be the size of “an average English county”. These concessions were made both to individuals and companies, which used their initial allocations to accumulate capital, purchase the surrounding areas, and attain

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<sup>6</sup> It is interesting that Wolff, citing Amery (1951), notes that “Joseph Chamberlain, after a visit to East Africa, apparently suggested to the Zionist Congress the possibility of a Jewish National Home in East Africa, but after some consideration the Zionists refused” (Wolff, 1974: 52-53)

<sup>7</sup> These numbers are from Table 3.3 in Wolff (1974), who cites Kuczynski (1949) and Remole (1959).

massive political influence in the country. Lord Delamere, for example, was given over 100,000 acres and used it to accumulate ultimately over one million acres (Mosley, 1983; Sorrenson, 1968). One indication of the power he attained in the colony is that the main avenue in Nairobi was named after him until independence (when it was given its current name, Kenyatta Avenue).

Because Europeans only wanted the best land (generally in Central and Nyanza provinces), and because the Kikuyu were among the tribes on the best land, the Kikuyu quickly lost out. In 1903 and 1904, the land of approximately 5000 Kikuyu was taken and distributed to about 200 European settlers (Wolff, 1974). The settlement was so severe that Bates (2005: 19) reports that the average size of the settler farm in 1905 was 5488 acres, while the average Kikuyu farm could not have exceeded 40 acres. Instead of being landowners, many Kikuyu became workers on European estates, usually in exchange for being able to graze their livestock on small plots around the estate.

However, not all Kikuyu found themselves worse off. As Bates' (2005) analysis highlighted, the British appropriation of land changed the relative scarcity of land and labor for the Kikuyu. Whereas land had previously been abundant and labor scarce, now land was far less available, and those Kikuyu who managed to hold onto their land in the reserves had new incentives. This change led to a profound switch in Kikuyu tribal relations. As Bates (2005: 28) wrote, "In Kikuyu society...kin relations had been defined inclusively; the larger the family, the more powerful and prestigious the family

head and the more certain his soul of repose. But now, with old lands crowded and rights to new lands no longer available, the incentives were to exclude: to restrictively define kin relations and thereby to circumscribe who was or was not entitled to claims on land." These legal battles took place both in tribal councils and colonial institutions, where generally the wealthy and more educated among the Kikuyu were able to mold legal changes to their advantage. Sorrenson (1967: 40) and Bates (2005: 31) both quote a Commissioner of Kiambu District (in Central Province), who wrote in 1941 that "hundreds, possibly even thousands of acres have changed hands...during the past ten or fifteen years, and most of this has gone into the hands of a very few people, including chiefs, tribunal elders, and the educated minority."

It is important to draw attention here to what the preceding discussion indicates: Kenyan society was becoming increasingly unequal along two cleavages. While there was massive inequality between native Africans and European settlers, inequality was also increasing *within* African ethnic groups. This dynamic was to become critical in the period of decolonization.

The situation in the Kikuyu reserves presented a major problem when Kikuyu farmworkers began to return to the reserves in the 1940s. The principal cause of this return was the increasingly common policy of European farmers preventing Kikuyu workers from grazing local cattle (Bates, 2005). Whereas previously the Kikuyu were allowed to graze their cattle on estate land in exchange for their labor, Europeans began

to outlaw this policy as they increasingly imported cattle from Europe (cattle that produced higher milk yields but were not resistant to diseases carried by local Kenyan cattle). As a result, many Kikuyu laborers were forced to sacrifice their cattle or their jobs. Those who lost their jobs returned to the reserves and encountered the newly exclusive tribal arrangements discussed above.

These jobless and landless farmworkers provided a ripe environment for radical action, and they were the foundation of the Mau Mau rebellion, a violent movement that lasted from 1952 to 1960. While the Mau Mau began as a civil war between poor and rich Kikuyu over the dynamics just described (Throup, 1987), it eventually became an anti-colonial movement and convinced much of the British elite that decolonization was inevitable. However, British commercial interests also realized their economic system was in danger, and that they needed to manage the decolonization process in a way that would allow them to conduct business even after independence. Wasserman (1976) describes in detail how this approach differentiated the commercial elites from the British landowners, who were far more concerned with preserving their own land. In the end, the commercial elites were able to accomplish their goal with a strategy of moderate land reform that diffused much of the pressure among Kenyans for land. As Wasserman (1976: 136) puts it, "the European...farmer was the fatted calf sacrificed on the altar of stability."



Key in this effort was an alliance between the British commercial elite and the nascent elite among native Kenyans, which had begun to emerge as a result of the land inequalities discussed above. As Wasserman (1976: 166) writes,

The [British commercial elites'] aim was to support and promote, economically, socially and politically, Africans with interests similar to those of the European community. The thrust of their policy became the building up of, and alignment with, a moderate African middle class. This class, given political authority, property rights, admission to the European economic system, and an expectation of prosperity, was to be a bulwark in the preservation of the colonial-established system and of the European interests within it.

There were three means by which the British accomplished this aim. The first was by directly supporting the Kenyan political leaders with philosophies in line with theirs. Critically, this included financing the Kenya African Democratic Union (KADU), a group of non-Kikuyu, rural-oriented leaders who were suspicious of the urban-oriented Kikuyu-led KANU. While differences between KADU and KANU leaders were apparent (perhaps most importantly the difference between KADU's preference for a decentralized government and KANU's desire for a strong central government), Wasserman indicates (p. 64) that it is unclear whether the differences would have crystallized into separate parties without European financing of KADU.

In fact, KADU dissolved soon after independence, as a byproduct of the second tool by which the British created an environment for the maintenance of the colonial economic system: the transfer of land. European land throughout the Highlands was bought by the government and transferred to Africans, reducing the pressure for land and also incorporating Africans into the economic system. The early land transfers were

aimed as much to non-Kikuyu as to Kikuyu, thereby creating elites among various important ethnic groups throughout the country. As Wasserman (1976: 173) writes, “The schemes provided a method of not only creating an African landed class, but also a way of integrating the nascent class into the political-economic system at the same time. The new settlers, through land titles, loan repayments, and some felt gratitude to the new government, were expected to acquire a vested interest against any radical transformation of society.” Bates (2005: 60-63) notes that the land reform schemes were also used by KANU political managers soon after independence to purchase the loyalty of the Kalenjin elite away from the KADU, resulting in KADU’s dissolution in 1964.

Wasserman’s mention of “loan repayments” in the passage just quoted is important, because it reflects the third tool by which the British ensured the maintenance of the colonial economic system: external finance. Even though the British had forcibly taken land during the colonial period, the settlers were compensated for their land in the reform process.<sup>8</sup> The money used to pay for this compensation came from loans from the World Bank and the British government. Interestingly, one of the main reasons the British were particularly keen on the land schemes being financed in

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<sup>8</sup> Wasserman details how one of the concerns among both the British commercial elites and the Kenyan nationalists was that the British farmers would simply leave Kenya—something they threatened often throughout the decolonization bargaining process. It was widely believed that this would have a devastating impact on the economy, because of their capital and knowledge. This dynamic runs contrary to the logic, for example, of Boix (2003), who argues that land and oil are “fixed” assets and can therefore be taxed at a much higher rate than “mobile” assets. The Kenyan decolonization indicates that all assets are to some extent mobile—farmers could, in the end, simply sell their land and move to buy land in some other country. That this land might be sold at a devalued price because of government actions does not distinguish it from other assets.

this way was because of the potential “‘socialization’ aspect of World Bank involvement (political and economic learning through supervision and ties)” (Wasserman, 1976: 157). The fact that the financing was through loans (and not grants) also insured an ongoing relationship with the Bank as well as a financial burden that would hopefully (in the Europeans’ minds) limit the economic policy possibilities of the newly independent government. This early experience with non-tax revenue was critical. As Wasserman (1976: 174) writes, “The solution of Kenya’s first major post-colonial conflict through external financial and technical assistance may also have set a precedent. The external orientation of Kenyan development strategy towards policies closely tied to international finance and assistance probably became consolidated in the decision-makers’ minds in this relatively fluid period. International funding emphasized a network of contacts, experience, and inclinations, by offering a readily-available solution to a serious domestic conflict.”

### *Threats to the regime and responses*

As a result of these actions, the Kenyan political economy at independence was not vastly different than it had been during colonial rule. Obviously an essential difference was that now Kenyans had replaced Europeans at the top of the political hierarchy. However, in terms of their desired economic policies, the new Kenyan elites were similar to their European counterparts. As Wasserman(1976: 175) writes, “The

nationalists' acceptance of responsibility for European land titles meant acquiescence to the most hated part of colonialism, and one whose reversal was a major impetus behind their movement. Consenting to the validity of land titles and to land transfers was the linchpin to the nationalists' acceptance of the continuity of the colonial system and their own role in maintaining that continuity."

This continuity persisted despite the elite's ethnic divisions. In fact, upon independence, Kenyatta moved to diffuse these divisions by incorporating different groups into his coalition. In addition to stabilizing his Kikuyu-centered coalition against threats from other groups, the incorporation of various ethnic groups had the critical function of diminishing the chances for any class-based threat to the regime. As Widner (1992: 41-42) describes, "At independence, class division and the leaders of class-based organization held greater power than they did only a few years later....The new government moved quickly and successfully to attenuate horizontal divisions, so that by the time it entered its second or third year, patron-client ties had become stronger elements in defining personal identities than incipient classes."<sup>9</sup>

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<sup>9</sup> It is interesting in this context to consider Hornsby's (1989) study of Kenya's National Assembly during the Kenyatta regime. He finds that "Members of Parliament form a clearly-defined and distinct group. They are male, middle-aged, well-educated, from high-status occupations (particularly business), and they hold or have held a large number of formal positions in the institutions of party, state, and local government. The tendency which appeared at independence for a democratisation of the legislature, with young, less-educated but politically-active representatives, has been wholly reversed since 1969. The élite now corresponds closely to that found in most other African and western states. The Assembly has been increasingly dominated by successful figures from other fields, particularly business and the administration, and it is clear that wealth has become the main route to power in Kenya, rather than *vice versa*" (pp. 295-296).

This blunting of class interests was achieved principally by organizing ways for political elites to distribute resources to their constituents. As mentioned above, land reform provided a way to buy elites into the KANU coalition. In addition, these elites were brought in through the use of postings in the central government (Sanger and Nottingham, 1964). As Widner (1992) discusses, the KANU regime was organized in a way that encouraged politicians to fight within the party for benefits for their constituents (also see Barkan, 1979). Due to the fact that district divisions overlapped often with ethnic divisions, this competition was often “ethnic” in nature. However, this ethnic competition was a useful mask of the true nature of the post-independence authoritarian regime, which essentially served to maintain an elite’s power in a highly unequal country.<sup>10</sup>

This interpretation of Kenyan politics is also given support by the fact that—seemingly against the prediction of the common assertion that Kenyan politics is essentially ethnic in nature—in the course of the KANU regime, the most virulent responses from the regime were reserved for movements ostensibly in the name of the

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<sup>10</sup> This interpretation of African politics is non uncommon in the literature. Sklar (1979), for example, argues that this pattern has been common throughout Africa. For example, “collaboration between regional power groups in Nigeria between 1962 and 1965 served to intensify class domination. Political regionalism was a conservative strategy that facilitated the use of ethnic and sectional prejudice by dominant class elements as a political weapon against challengers from below” (pp. 547-8). Similarly, van de Walle (2001: 119) writes, “Clearly, clientelism does reinforce loyalties to kith and kin. Just as clearly, the redistribution that is achieved or at least perceived to be achieved by such practices serves to blunt class consciousness....As a result, societies with pervasive clientelism are marked by the low salience of social class identities, despite often glaring social inequalities....Indeed it is ultimately more useful to think of the primary function of neopatrimonial politics in most African states as facilitating intra-elite accommodation in young, multiethnic and poorly integrated political systems.” Also see, among others, Clapham (1982) and Rothchild (1985).

poorer masses. Many scholars have argued that Kenyatta's KANU was relatively benign (e.g. Lonsdale, 1981), but it is clear that there were certain kinds of dissent that were not tolerated. The first example of this was in April 1966, when Jaramogi Oginga Odinga resigned from Kenyatta's cabinet and started a socialist party, the Kenya People's Union [KPU]. As Throup and Hornsby write (1998: 13), "The KPU's goal was to create a more left-wing party, to oppose the growing conservatism and Western orientation of the KANU leadership, and to try to replace the persistently ethnic basis of politics with a cleavage based on ideological, class or socioeconomic grounds." Kenyatta responded through institutional manipulations and brute force, so that the by-elections of 1966 resulted in the effective expulsion of most KPU supporters from the National Assembly. After stones were thrown at Kenyatta's car in October 1969 in an area of Odinga's supporters, Kenyatta's guards killed over 100 people in response, and the KPU was banned and its leaders arrested.

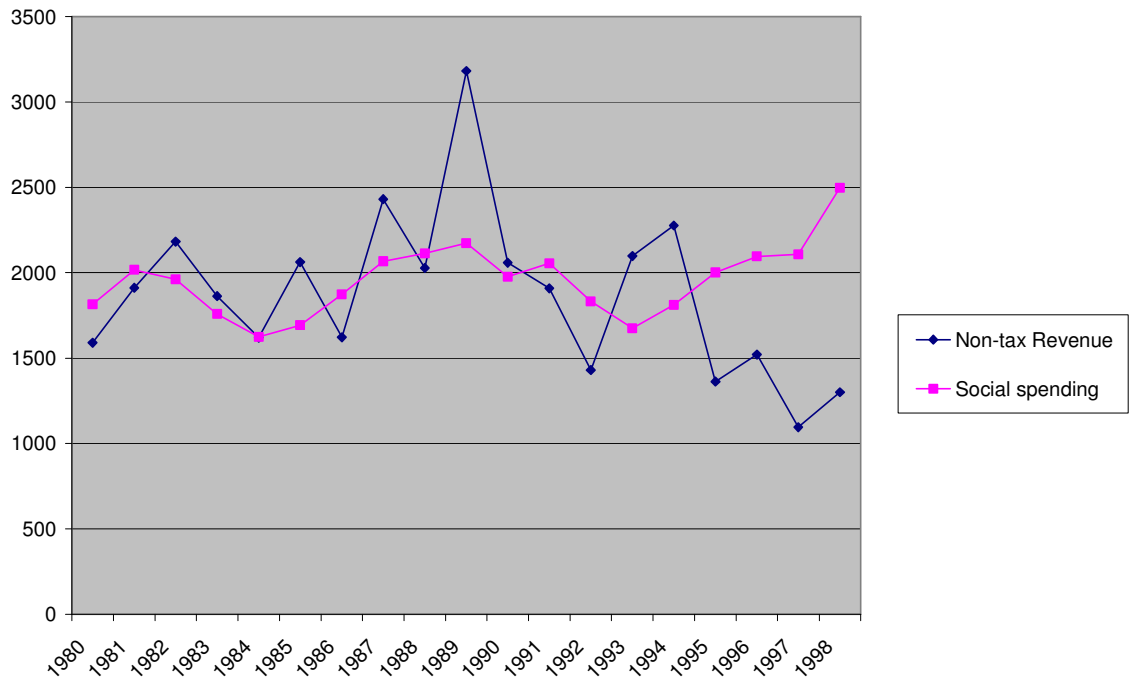
A similarly harsh response was imposed on Josiah Mwangi Kariuki in 1975. Kariuki had been a Mau Mau leader and became known as a consistent critic of the Kenyatta regime for leaving behind the poor man. He was in some ways even more threatening to the regime than Odinga, because he was Kikuyu (unlike Odinga, who was Luo). "Always a significant political figure, in the late 1960s he had become the leader of a growing opposition to Kenyatta's policies amongst his own Kikuyu supporters and a senior figure in the informal opposition, attempting to mobilize the

Kikuyu masses – the *masakani* (literally, the poor) – against the conspicuous wealth of the Kikuyu élite, especially Kenyatta’s relatives and close allies” (Throup and Hornsby, 1998: 19). In 1975, his dead body was found, having been badly beaten and then shot. The subsequent riots in Nairobi, principally by the poorer masses Kariuki had supported, provoked a harsh crackdown from the regime, and “thereafter the government’s critics both in and out of Parliament found life much more difficult” (Throup, 1993: 379).

This systematic elimination of class-based pressures for redistribution is reflected in Figure 6, which shows how flat per capita social spending in Kenya has been during the time for which we have data. Given the argument of this dissertation, I would have expected that this figure would show that non-tax revenue—particularly foreign aid, in Kenya’s case—had enabled the regime to stay in power through its funding of social spending. However, social spending does not vary much over the time period in question, and certainly not as closely with non-tax revenue as in the case of Mexico. I believe one of the reasons for this is the blunting of class interests just discussed.<sup>11</sup> In terms of the model presented in Chapter 3, this would be represented in the poor’s (in)ability to mobilize against the regime.

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<sup>11</sup> This would be in line with a much-too-small body of work examining the effects of ethnic divides on pressures for redistribution (Austen-Smith and Wallerstein, 2003; Fernández and Levy, 2005; Keefer and Khemani, 2005; Morrison, 2006; Roemer, 1998)



**Figure 6: Per capita spending and revenue in Kenya, in constant shillings**

Not surprisingly, Kenya is almost certainly more unequal today than it was at independence. Income inequality data before the 1990s does not exist, but some surveys of landholdings around the time of independence are indicative. In its survey of landholdings in 1960/61, for example, the Kenya African Agricultural Sample Census found that agricultural holdings of over ten acres, which accounted for 25% of all holdings in terms of number, occupied 65% of the land in use. By contrast, landholdings below five acres, accounting for 50.7% of all holdings, covered just 15.6 percent of the land in use (Kitching, 1980). By 1999, Odhiambo (2004) reports, the richest 10 percent of



the population controlled about 43 percent of the income, while the poorest 50 percent controlled about 14 percent of it. At that point, the Gini coefficient had risen from 0.45 in 1994, to 0.49 in 1997, to 0.57 in 1999. This made it one of the top 10 most unequal countries in the world. As Gavin Williams (1987: 639) wrote, "What is striking about many African countries is how little trickles down to the worse off through the patronage network and how much sticks to a few hands at the top."

Thus far, we have established that in certain important ways, the theoretical framework discussed above finds resonance in Kenya. Specifically, in answer to the first two questions outlined at the beginning of this chapter, redistribution and inequality are clearly important cleavages in Kenya, and the authoritarian regime there principally served the interests of richer elites. However, we observe in Kenya the potentially harsh effects of ethnic divisions on pressures for redistribution. If we were to interpret Kenya in the context of the model put forward in Chapter 3, the emphasis would be on the inability of the masses to act collectively, instead of non-tax revenue. In a highly unequal society, elites have managed to dispel class-based pressures for redistribution by aligning politics along ethnic lines.

Nevertheless, as noted in Chapter 2, non-tax revenue's stabilizing effects should still be present in societies in which class-based cleavages are combined with ethnic or other cleavages. And in fact, it is still possible to identify a role for non-tax revenue in Kenya's transition. In fact, many scholars point to aid donors as having played an

important role in Moi's 1991 decision to allow the political opposition to participate in democratic elections. Although Moi would win the 1992 and 1997 elections, this move is often seen as the beginning of Kenya's long transition to democracy, which most scholars say was complete with the 2002 election. As Figure 6 indicates, Moi's decision was made during a drop in non-tax revenue, and in fact the date of his decision was only weeks after Kenya's donors decided to suspend \$350 million of new aid until corruption was alleviated and the political system liberalized.

The reader will remember that in Chapter 2, when ethnic divisions were analyzed, the importance of differences between elites and citizens *within* ethnic groups was emphasized. Within the framework of my theory, the fact that a severe drop in non-tax revenue in Kenya (or the concern about that drop) coincided with a move toward democracy, despite the lack of class-based pressures there, would seem to point to the importance of intra-ethnic group relationships. In fact, recent work on ethnic conflict in Africa has highlighted the redistributive nature of these relationships (e.g. Azam, 2001). And as I will discuss now, there is evidence of the importance of this intra-ethnic group redistribution, and the battle between elites who needed access to state resources to satisfy their constituents.

Moi had proven to be a break from the Kenyatta regime, in that he tended to emphasize his own Kalenjin over other ethnic groups, and much of the patron-client system developed under the Kenyatta regime was broken (Barkan and Chege, 1989;

Hornsby and Throup, 1992). While non-tax revenue was booming into the late 1980s, he was able “to use cash to cement his allies”, rather than rely extensively on coercion (Throup and Hornsby, 1998: 42). However, by the beginning of the 1990s, a series of factors had conspired against Moi. The economic crisis of the 1980s—when industrial production stalled and earnings from coffee, teal, and tourism fell—combined with a population growth rate over four percent to put great pressure on state resources.

Using government data I collected in Kenya, I analyzed per capita curative health spending during this time period to see where Moi chose to spend his resources. These data are line-item projects that are listed by region, and though curative health spending is only one area of the total health budget, it constitutes the majority of spending in most years. Using the overlap between ethnic groups and regions, Barkan and Chege (1989) demonstrated how it was possible to analyze which ethnic groups were benefiting from government spending. Using their same methodology (in terms of which groups and regions were part of which stronghold), Table 8 indicates that as non-tax revenue began to fall in the early 1990s, Moi seems to have put as much of this fall as possible on Kikuyu strongholds instead of his own Kalenjin stronghold. The severity of the declines also hints that an even further decline in non-tax revenue almost certainly would have cut into Moi’s social spending on the citizens within his own base. The framework of this dissertation would suggest that this would have been destabilizing to Moi, and the West’s resumption of aid prolonged his rule (Brown, 2001).

**Table 8: Per capita curative health spending in Kenya, in constant shillings**

	1985/86	1988/89	1992/93
Kenyatta stronghold	1746	2974	1057
Moi stronghold	905	3038	2690
Rest of country	2105	7606	6811

In sum, Kenya confirms some of the dynamics of my theory of non-tax revenue and regime transitions, including the overall redistributive cleavage and the stabilizing effect of non-tax revenue, while also highlighting the importance of other parts of the model—notably, the ability of the poorer citizens to mobilize against the elite. In Kenya, ethnic divisions have worked against such mobilization, and the occasional effort to organize across ethnic groups was suppressed strongly. In fact, class politics continued through the 1990s, despite Kenya’s ethnic veneer. The first party registered after Moi’s declaration of 1992 elections—the Forum for the Restoration of Democracy (FORD)—was led by Jaramogi Oginga Odinga, the man who had earlier tried to form the socialist KPU and was now in his eighties. As FORD began to compete with KANU in the 1992 election, a split appeared in KANU. Upon learning that he was going to be fired as Moi’s Minister of Finance, Mwai Kibaki (who had previously been Moi’s Vice President) resigned from the government and announced he would form the

Democratic Party of Kenya (DP). Throup and Hornsby (1998: 98) provide an illuminating analysis of the DP:

It seemed that the DP leaders were motivated by two forces: personal ambition and class interest. The Kikuyu élite found it impossible to believe that Oginga Odinga, the former KPU leader and most prominent left-winger in independent Kenya's first government, could be relied upon to lead the nation. Many old-guard DP leaders behaved as if they had a natural right to govern. Moi had 'stolen' their power and endangered their personal wealth: they were determined that they should not lose out again, letting power slip out of Kalenjin hands only to be captured by the Luo who, after their experience under Kenyatta, had even less reason to favour the Kikuyu élite. Quite apart from their sense of 'Divine' Right, exemplified by a belief in their own technocratic and entrepreneurial abilities, the DP leaders represented, far more than either KANU or FORD, the interests of Kenya's indigenous bourgeoisie. It was singularly appropriate that Njenga Karume, identified as Kenya's most successful entrepreneur and representative of indigenous capital by Nicola Swainson, should be one of the DP's leading members and its main financier. The DP, far more than the radical FORD or the clientalist KANU, was the party of big business, favouring economic liberalization and the privatization of inefficient parastatals.

The division between DP and FORD—combined with the split that occurred within FORD along ethnic lines (evidence again of the leftist coalition having trouble overcoming ethnic divides)—were to be such that the divided opposition allowed Moi to win the election in 1992, and the same problems occurred again when Moi won the 1997 election. When Moi finally stood down, it was his former vice-President Kibaki who won. Indeed, though Kibaki won under a different party banner (the National Rainbow Coalition, or NARC), Murunga and Nasong'o (2006) have recently argued that the disillusion of most Kenyans with the Kibaki regime is the unsurprising result of the

similarities between KANU's and Kibaki's class-interests and way of running politics.<sup>12</sup>

Arguably, Kenya's democratic transition continues to this day.

### ***5.3 Bolivia***

In many ways Bolivia is the most difficult case in this chapter. Mexico's case study revolves around the PRI and its rule of the country for seventy years. Kenya's case study revolves around the colonial regime and the rule of two KANU leaders (Kenyatta and Moi) for forty years. In these case studies, the longevity of the regimes indicates an institutionalization that makes their overall patterns easier to discern. Bolivia, by contrast, experienced more than 170 coups d'état between 1825 and the democratic election in 1982 (Van Cott, 2000: 131).

Nevertheless, it is interesting to note that Herbert S. Klein, a prominent historian of Bolivia, has called the period from 1880 to 1936, a period during which many of these coups d'état took place, an era "of remarkable continuity and stability" (Klein, 2003: 154). This seemingly paradoxical comment makes sense in the light of Klein's argument that this was a period during which—as in most of the history of Bolivia—governments alternated between groups of elites, and that the violence was "usually dominated by civilians of a particular party, was quite clearly limited to an urban and elite environment, and involved little bloodshed" (ibid.).

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<sup>12</sup> In fact, an observer of the 2007 election—in which Kibaki is fighting for re-election against the son of Oginga Odinga—might be forgiven for wondering how much has changed in Kenyan politics.

This case study will attempt to make a similar argument: that despite Bolivia's frequent government transitions, broad patterns can be discerned that resemble some of the dynamics in my theoretical framework. Ending with the democratic transition of 1982, the first part will track some of the major political changes of the 19<sup>th</sup> and 20<sup>th</sup> centuries in Bolivia, establishing that the general pattern has been one of white, elite, dictatorial rule over poor, largely indigenous peoples. The second part of the case study concerns the democratic regime, and particularly the role of non-tax revenue in its general stability since 1982. As the democracy among my case studies, my theoretical prediction for Bolivia would be that the democratic regime, which has not been overthrown, was responsive to lower and middle-income classes and used non-tax revenue to respond to threats from the rich as they arose. Like Kenya, Bolivia will indicate ways in which the redistributive cleavage can be attenuated.

### *The nature of political regimes*

Like Mexico and Kenya, Bolivia has long been an unequal country. Bolivia's first census was conducted in 1846, and it was found that among 2.1 million people, only 22,000 were attending school (10% of the schoolage population). Only seven percent of the population was literate in Spanish (Klein, 2003). Successive booms in guano, nitrate, silver, and tin created a small class of (Spanish-speaking) elites over the course of the 19<sup>th</sup> and early 20<sup>th</sup> centuries, so that by 1950 (on the eve of the Bolivian revolution discussed below), 8-10 percent of all farmers held almost 95 percent of land (Rivera Cusicanqui,

1987; Russett, 1964), and Bolivia had the highest Gini index of land concentration in Latin America (World Bank, 1978).

This inequality was certainly reflected in Bolivia's governance, and from its elite-led declaration of independence from Spain in 1825 until its revolution in 1952, the country was ruled by a small group of elites who alternated power among each other, often violently. A passage from Klein (2003: 148-9) is worth quoting at length:

The republican governments established after 1825 were constructed on the base of a small percentage of the national population and for all intents and purposes were representative of only the Spanish-speaking literates of the republic, at best only a quarter of the population. Given the literacy requirements for voting and the financial restrictions for holding office, the Bolivian regime was in every sense of the word a limited-participation political system with the electoral base ranging from thirty thousand to forty thousand persons in the period to 1900.

In terms of the Indian peasant masses there was nothing democratic or participatory about the republican governments that existed after 1880. In this respect, the regimes if anything were more exploitative than the previous caudillo rule, if only because the economic expansion of the white elite was always at the cost of the Indians, either as miners or as landed agriculturalists. Nor was there any dispute about this among the elite, who were deeply concerned about keeping the Indian masses out of politics and denying them access to arms or any other effective means of protest....Until well into the twentieth century, politics was the exclusive concern of only 10 to 20 percent of the national population even as participant observers, let alone formal actors.

The Chaco War between Bolivia and Paraguay in the early 1930s—"a corrupt, bloody, and bottomless defeat and disaster for Bolivia" (Klein 2003: 179)—proved to be a major disruptive force against the traditional system. Over 65,000 Bolivians were killed, deserted, or died in captivity, which for Bolivia's total population was a casualty ratio equivalent to what European nations suffered in World War I (Klein 2003: 183). Minor parties had already begun to emerge in the 1920s that raised the problems and potentials



of class conflict for the first time, and the disillusion among the population after the Chaco War led to increasing protest against the system. “Indian uprisings, for example, became less classic caste wars and more social protest movements in which pan-Indian rights were the prime issue. The increasing class consciousness on the part of Indian peasants was matched by a more radical Marxist commitment of both labor organizers and young radicals” (Klein 2003: 185). In 1934, in Argentina, the Revolutionary Workers’ Party was formed by radical exiles, the first party of the Chaco generation and what was to become the vanguard of the revolutionary movement.

A military coup by Chaco generals in 1936 brought to rule David Toro and his “military socialism”. Toro oversaw the nationalization of the Standard Oil Company of Bolivia, which became the state oil monopoly *Yacimientos Petroliferos Fiscales de Bolivia* (YPFB). This was the first confiscation of a major North American multinational company in Latin America (preceding Mexico’s nationalization by a year).<sup>13</sup> Toro also oversaw the constitutional convention of 1938, which adopted a constitution in the mold of “social constitutionalism” (originally arising in the Mexican Constitution of 1917), which limited some property rights and committed the state to providing health, education, and welfare for all of its citizens. Not surprisingly, this period also saw the

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<sup>13</sup> A person I interviewed in Bolivia pointed out that Bolivia has a remarkable history of “firsts” in Latin America. While this comment was in the context of a discussion regarding Bolivia’s status as the first country in Latin America with a poverty reduction strategy paper (Morrison and Singer, 2007), Bolivia was also the first Spanish American colony to declare independence (1809) and (as will be discussed below) the first case of hyperinflation not arising in the aftermath of a foreign war, civil war, or political revolution.

formation of the Centralist Party by the tin miners, in an attempt to defend their broader class interests. "Thus, the era of military socialism marked the end of the traditional political system that had been created after 1880 and saw the transition from a classic intraclass republican regime, with limited participation, to one based on class politics, with a major struggle developing over the participation of the lower classes in national political life." (Klein 2003: 195).

Several parties began to emerge during this time, the most important of which would be the *Movimiento Nacionalista Revolucionario* (MNR). The MNR began as a white middle-class party, with two parties to the left of it and more interested in the Indian peasantry than the MNR. In late 1943, the MNR took power in a military coup and ruthlessly persecuted leftist movements (as well as more conservative movements), assassinating leaders and jailing followers. Their leader, Major Gualberto Villarroel, was eventually thrown out by a popular revolt and hung from a lamppost in the central plaza of La Paz, with the MNR discredited and the leftist *Partido de la Izquierda Revolucionario* (PIR) coming to power. The PIR, fearing its own overthrow by more traditional elements, repressed the rapidly growing union activity in the country and even massacred striking mineworkers. The MNR, discredited by its time in power, took the opportunity to re-form itself, distancing itself from the military and building strong links with organized labor. By 1949, it was again a force in national politics, leading increasingly militant labor activity across the country, and the government was resorting

to repression and committing electoral fraud to prevent the party's advance. When the MNR won the elections of 1951, the party was outlawed as a "communist" organization, and it decided the only way it could take power was through arming the population and taking on the army. The resulting conflict was surprisingly swift: after three days of fighting in 1952 (April 9-12), Bolivia had experienced its revolution, an overthrow of the traditional political parties by a party of "radical middle-class elements and revolutionary workers" (Klein 2003: 207-8).

While the long-lasting effects of the revolution continue to be debated (see the analyses in Grindle and Domingo, 2003), there is no doubt that its effects in the short term were significant. The MNR immediately removed the literacy requirements for voting, instantly establishing universal suffrage. The regime also moved against the military, leading to a situation in which the armed civilian population, including peasants and workers, were better armed than the police and army. This contributed to increasingly militant activity in the countryside against elite land-owners, and in an effort to quell the masses, the MNR instituted a massive Agrarian Reform in 1953, essentially confiscating all hacienda lands without compensation and granting the land to Indian workers through worker and peasant organizations. Within two years of the reform law, 49 percent of farm families had received land (World Bank, 1978). The reform was eventually to result in the transfer of between a third and 40 percent of the country to peasants (Klein, 2001; World Bank, 1996). Rural education was also greatly

expanded (Albó, 1983), major mines were nationalized, and Indian peasants were incorporated into strengthened local unions and communal organizations, as much to control them as to provide them representation in the party (Dunkerley, 1984).

Like the Mexican revolution, Bolivia's revolution sparked a counter-reaction from more conservative forces, and in 1964 the military took power again, holding it until the democratic transition of 1982.<sup>14</sup> The general switch to pro-elite policies under military administration has been documented by Susan Eckstein, among others, in her study of agricultural support in the wake of land reform. "Although postrevolutionary governments...always allocated some capital to big farmers and some to peasants, successive governments [post-1964] gradually abandoned the policy of support of the latter. They abandoned a class that helped make the revolution for a class they helped create. Moreover, they helped turn latifundistas into agrarian capitalists.... Thus, while no post-1952 government has compelled peasants to give up the land they won by revolution, regimes increasingly have used state financial resources to help a group of nascent capitalists strengthen themselves as a class" (Eckstein, 1983: 116).<sup>15</sup>

The agricultural and industrial elite that resulted from these policies—residing principally in Santa Cruz (see Figure 7)—was instrumental in placing a fellow *cruceño*,

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<sup>14</sup> The parallels between the Mexican and Bolivian revolution are many but beyond the scope of this case study. See, for example, Eckstein (1976) and Knight (2003).

<sup>15</sup> It is interesting to note that the MNR itself, internally divided between peasants, workers, and middle classes, and sensing threats from conservative forces, established a minimum plot size for properties in 1962 (Zondag, 1966).

Hugo Bánzer, in power in 1971 (Sandoval, 2003). As Malloy and Gamarra (1987: 102) write, “The action of 1971 was clearly aimed at crushing the political power of the labor left and making Bolivia safer for the private sector. Fear of the left was so virulent, especially among the military, that the violence directed at the left was also unprecedented. The level of bloodshed and repression, especially in the wake of the coup, was such that the left and labor were indeed cowed.” Santa Cruz agrobusinesses subsequently received two-thirds of the agricultural credit given by Bolivia’s Agricultural Bank under Bánzer—loans that were essentially never collected (Conaghan and Malloy, 1994). Thanks to this and other preferential policies, economic growth in Santa Cruz far outpaced growth rates for the national economy during the *Banzerato* (Eaton, 2007).



Nevertheless, while advancing many of the interests of the capitalist class, Bánzer continued an important trend of Bolivia's post-revolutionary military rule: de-institutionalization. He increasingly relied more on patron-client relations than on general relations with a private sector class, finding little use for parties when he had the military, and by 1978 there were few institutional channels to or from the government. When the international economy began to fail and Bolivia's exports to fall drastically, the economy entered a crisis, leaving the country reeling under massive debt. Bánzer's hold on power became increasingly unstable, and he called for elections in 1978. As Malloy and Gamarra (1987: 108) write, "Bánzer in effect was looking for a new formula by which to reconstruct his hold on power and perhaps re-legitimize his regime both nationally and internationally."

Calling elections in a de-institutionalized system led to an extremely chaotic period. Bánzer gave way to General Pereda Asbun,<sup>16</sup> who in November 1978 was overthrown himself by a group of "institutionalist" officers, who called for a new round of elections in July 1979. A resurrection of old parties occurred, and rather remarkably, various forces aligned themselves in an "almost complete polarization between right

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<sup>16</sup> Klein (2003: 234) writes that Bánzer gave up "any pretense of attempting to maintain himself in office. He announced that General Pereda Asbun would be his successor." Malloy and Gamarra (1987: 110) write that Frustrated by their failed attempt to rig the election so as to make Pereda the winner, the factions behind him announced a coup, dumped Bánzer, and installed Pereda in the presidential palace."

and left” (Malloy and Gamarra 1987: 111). The main left candidate (though to the right of several smaller factions) was Hernán Siles and his coalition consisting of *Unidad Democrática Popular* (UDP), a leftist faction of the MNR, a new party called the *Movimiento de la Izquierda Revolucionaria* (MIR), the Bolivian communist party, and some other smaller groups. On the right were two candidates: Victor Paz Estenssoro and his part of the MNR, as well as the ex-dictator Bánzer at the head of a new party, *Acción Democrática Nacionalista* (ADN). A thin win by Siles led to negotiations in Congress, due to Bolivia’s electoral laws (see Singer and Morrison, 2004, for a discussion), and the parties decided to put an old *MNRista*, Wálter Guevara, in office for one year.

Not surprisingly, Guevara’s hold on power was extremely tentative.<sup>17</sup> In November, a coup was attempted against him, and when he resisted, hundreds were killed in fighting in La Paz. A negotiation in Congress led to another compromise leader, Lydia Gueiler, who became Bolivia’s first female president. Elections were held again in June 1980, with the same candidates and coalitions as in 1979—this time Siles’ margin of victory was higher but still not an overall majority. While Congress was debating the situation, General Luis García Meza seized power and launched a remarkably brutal period of power, including the assassination of nine leaders of the *MIR* as well as paramilitary death squads that acted not only against organized labor but

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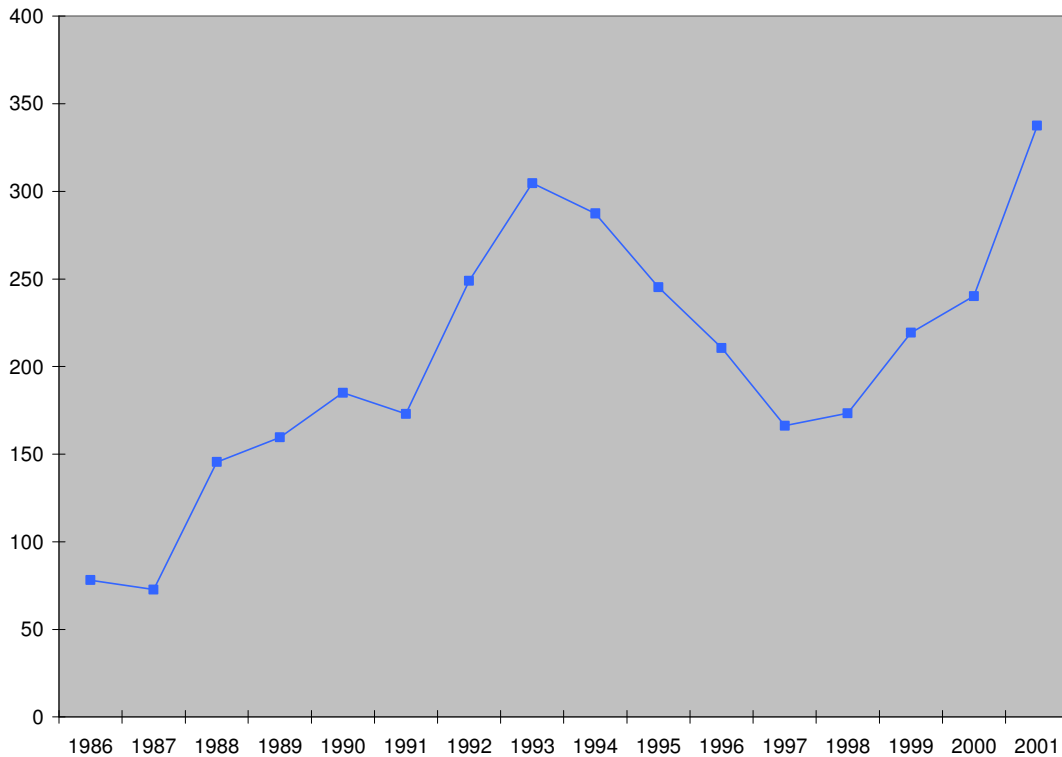
<sup>17</sup> Malloy and Gamarra (1987: 112) write, “Almost at once, civil groups plotted with military factions to mount a coup. Indeed, in a verbal tour de force that revealed the politicians’ willingness to play with formalisms, there was even talk of a ‘constitutional’ coup in which the Congress would back and legitimate a new de facto regime.”



various other groups in society as well. For almost two years, García Meza essentially terrorized the country and ran the economy into the ground, becoming active in the cocaine trade and essentially emptying the coffers of the government. When he was finally overthrown in late 1981 by institutionalist-oriented officers, Bolivia's economy was in tatters. Congress reconvened and decided against holding another election— instead, they simply decided to resume where they had left off in 1980, after the election, and named Siles the new President. In this inauspicious way began Bolivia's current democracy.

### *Threats to the regime and responses*

Bolivia's democracy has survived for 25 years now, and one could argue that it has never seriously been threatened by a return to authoritarianism. This is of course rather astonishing given the instability just recounted, and the continuing large cleavages in society that underlay much of the political conflict of the 20<sup>th</sup> century. My theory would have predicted that this recent stability has been underwritten by a large increase in non-tax revenue, which has reduced redistributive tensions in society. And in fact, Figure 8 indicates that the available data show that non-tax revenue did rise sharply beginning a few years after the democratic transition. And indeed successive democratic governments did not move to redistribute money from the rich.



**Figure 8: Real non-tax revenue per capita, Bolivia**

Source: International Monetary Fund (various years)

However, it would almost certainly be inaccurate to attribute the democratic regime's lack of redistributive policies to non-tax revenue. The experience of Siles and the UDP after taking office was likely far more important. As mentioned above, Siles inherited a shattered economy: an annual inflation rate of 300%, an inability to borrow on international markets (even from the World Bank and IMF), and a negative growth rate (real GNP fell 6.6 percent in 1982). In an effort to meet various demands from society in the context of an economy in crisis, the Siles government began to print money, leading to a 1000% increase in the total stock of money in circulation between

1980 and 1984. The result was disastrous: between the first quarter of 1982 and the fourth quarter of 1985, Bolivia experienced the highest inflation in the history of Latin America (Morales, 1987). Between August 1984 and August 1985, prices rose 20,000 percent, and during the final months (May-August 1985), inflation registered an annual rate of 60,000 percent (Sachs, 1987). In fact, Sachs (1987) noted that the Bolivian inflation episode from April 1984 to September 1985 was “the only case in thirty-five years of a ‘true’ hyperinflation, applying Phillip Cagan’s 1956 classic definition of price increases exceeding 50 percent per month”.<sup>18</sup> He also remarked that Bolivia’s is the only case of hyperinflation that did not arise in the aftermath of a foreign war, civil war, or political revolution. Unable to govern, Siles was convinced to call early elections in July 1985 (with the excuse that he had actually been elected in 1980 and it was therefore time for him to relinquish power).

Perhaps reflecting society’s concern regarding the results thus far under a democratic regime, the former dictator Hugo Bánzer won a plurality in the 1985 election. However, negotiations in Congress led to the choosing of the MNR’s Víctor Paz Estenssoro as President. Now 77 years old, Paz Estenssoro had been the MNR’s last president before the coup of 1964, and his name was therefore still associated by peasants with the Agrarian Reform of 1953. “To the surprise of both enemies and friends” (Klein, 2003: 244), Paz Estenssoro proceeded to undertake an orthodox

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<sup>18</sup> See Cagan (1956).

stabilization program that has been called, from different perspectives, “enormously ambitious” (Sachs, 1987: 281) and “one of the most draconian economic and social engineering initiatives launched in any Latin American country” (Gill, 2000: 12). The “New Economic Plan” (NEP) included devaluing the currency, establishing a free floating exchange rate, eliminating all wage and price controls, raising public sector prices, cutting government expenditures severely, and firing thousands of public sector employees and reducing the real wages of the rest. Paz Estenssoro acted swiftly against the resulting protests, breaking them up with force and jailing the leaders.

The government also enacted in 1986 a tax reform whose goal was purely fiscal expediency, and it achieved its goal: the tax intake of the Bolivian government increased substantially. Among other initiatives, the reform eliminated the personal income tax, the enterprise income tax, the inheritance tax, and all social security taxes, and instituted a value-added tax (VAT) with virtually no exceptions. While income taxes are generally thought to be more progressive and VATs less progressive, it is difficult to evaluate the reform’s overall effect on the progressivity of the tax system because of issues such as tax evasion (see, for example, Gemmell and Morrissey, 2005). Nevertheless, it is interesting to note that a future Central Bank Governor called the reform’s considerations of tax equity “absent” (Morales, 1987: 17), and a World Bank study noted that in the reform “equity considerations were given short shrift” (Thirsk, 1997: 44).

This lack of attention to equality would not be what my theoretical framework would predict, but it seems that the economic crisis temporarily made the inequality cleavage less salient in Bolivia. In fact, subsequent administrations were to continue to support the NEP. In 1989, not one of the three leading parties challenged the plan, and it is indicative that Jaime Paz Zamorra of the leftist MIR took the presidency in alliance with the party supposedly on the opposite side of the political spectrum, the conservative ADN (the former dictator Bánzer's party). In 1993, the presidency was taken by Gonzalo Sánchez de Lozada, and as an architect of some of the reforms of the 1980s, he not surprisingly continued the reform agenda. Spatz (2006: 12), using the index of economic reform devised by Lora (2001), notes that "By Latin American standards, Bolivia was a 'star performer' or—to use the words of the critics—a 'model pupil of the IMF and World Bank.' Starting from a below-average aggregated structural reform index in 1985, it had caught up to the regional average by 1986 and overtaken all other Latin American countries by 1996."

It is probably true that these reforms would have been politically impossible without massive inflows of foreign aid to Bolivia. Between 1982 and 1992, the value of foreign aid to Bolivia increased tenfold (Crabtree, 2001). Much of this went directly into programs designed to alleviate the social cost of the economic reforms (according to Klein 2003, unemployment reached 20%) and thereby diffuse political conflict. Key among these was the *Fondo Social de Emergencia* (FSE) in 1986, which by 1990 (when it

closed) had financed \$200 million worth of projects. A full \$180 million of that money came directly from foreign donations and concessional credits (Velazco Reckling, 2000).

The FSE and the various other social programs that followed it through the 1990s were really stopgap measures, preventing perhaps a total catastrophe but proving largely ineffective in bettering the lives of the poor (Velazco Reckling, 2000). Studies have come to inconclusive results with regard to how poverty and inequality in Bolivia have evolved during the period of structural reforms, due to complications of data availability and measurement, but neither have probably changed dramatically (see Thiele, 2003, for a review of the literature). Not surprisingly, in 1997 Bolivia was still a highly unequal country, with a Gini index around 0.57 (World Bank, 2000), about the same as Kenya's. It was also still extremely poor: in 2001, the government classified 59 percent of the national population as poor, and 24 percent indigent (Klein, 2003).

Given the lack of progress for most of the population, it is not surprising that Bolivia's population began to be disenchanted with the neoliberal reform agenda, and to feel unrepresented by the parties that continued to pursue it. This dissatisfaction manifested itself most clearly in a rising indigenous movement. Part of the MNR's strategy in the 1950s had been to downplay any reference to Bolivia's multiethnic indigenous population and rather to emphasize their common interests as "peasants" (Yashar, 2005). However, as the corporatist networks of the MNR and the military regime began to crumble over the 1970s and particularly with the weakening of the

national worker’s union in the 1980s, rural communities looked for other forms of representation. Class and ethnicity overlap a great deal in Bolivia, as evidenced by Table 9, with indigenous people making up more than half the population.<sup>19</sup> When leftist rhetoric was discredited by the hyperinflation experience, ethnic appeals became more credible, and ethnic parties made gains in every election since 1985 (Gisselquist, 2005). These parties were significantly helped by a major decentralization reform in 1994, which led to municipal elections for the first time (Van Cott, 2000; 2005), and in the 2002 election, one of them—*Movimiento al Socialismo* (MAS)—stunned the country by almost winning a plurality in the national election (Singer and Morrison, 2004).

**Table 9: Welfare of Bolivia’s indigenous and non-indigenous populations**

		<b>Indigenous</b>	<b>Non-indigenous</b>
<b>Illiteracy Rate</b>	1976	44.5	18.3
	1992	27.0	7.2
	2001	19.6	4.5
<b>Average years of schooling</b>	1976	2.8	5.7
	1992	4.8	8.7
	2001	5.8	10.0
<b>Infant mortality rate</b>	1976	171	112
	1992	87	56
	2001	75	52

*Source:* Gray Molina (2007), based on data from Bolivia’s National Statistical Institute

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<sup>19</sup> According to Seligson (2003), Bolivia has South America’s highest percentage of people identifying themselves as indigenous.

In 2003, major protests led by MAS, among others, brought down the government of Sánchez de Lozada, who had been elected a second time in 2002 by a narrow margin. The protests were nominally over a tax increase to close the budget deficit, but pressure over Sánchez de Lozada's policies had been growing rapidly (months earlier, almost sixty people had died when Sánchez de Lozada ordered the army to control protests over his proposal to export natural gas through Chile). Vice-President Carlos Mesa took over the presidency, but he too had to resign in June 2005. Elections six months later brought an astonishing result: with the highest voting participation in the history of the country (an 84.5% turnout rate), Evo Morales of the MAS became not only the first indigenous leader in Bolivia's history, but with 54% of the vote also the first presidential candidate to win a straight majority since Bolivia's democratic transition (Singer, 2007).

To put it bluntly, the inequality cleavage is back in Bolivia. In less than two years since his election, Morales has moved to nationalize the oil and gas industry and pushed through a bill that could lead to the redistribution of 20 million hectares of land. In an interesting recent article, Kent Eaton (2007) notes that in past decades, the rich elites would almost certainly have moved against Morales with a coup. Now, in a different international climate, they are pursuing a strategy of regional autonomy. The development of Santa Cruz discussed above has led to a situation where the region



holds a massive amount of the country's wealth, and at the time of writing, it is unclear if Morales will be able to hold the country together.

Regardless of the extreme salience of the inequality cleavage now, the Bolivian case indicates another way it can be attenuated. Bolivia's transition to democracy has not been accompanied by greater redistribution from the rich to the poor, and threats from the rich did not arise until quite recently. It is plausible that non-tax revenue—particularly foreign aid—stabilized the democratic regime during this time. However, for much of Bolivia's experience with democracy, it is interesting that the use of non-tax revenue resembled its use under Mexico's authoritarian PRI, funding social programs to keep restless citizens from revolting. A tax reform initiated after the transition—which my theory would have predicted would lead to greater progressivity in the tax system—was not progressive at all. As such, some of the foundational assumptions of my theoretical model do not seem to hold in Bolivia during this time.

I argue that the reason for this is that the transition to democracy in Bolivia occurred under truly special circumstances. The first government, leftist in nature, oversaw one of the worst inflation episodes the world has ever seen (partly due to the mismanagement of the authoritarian regime). This discredited the left and gave a "honeymoon" to conservative parties embarking on a harsh structural adjustment program. In fact, even when the leftist party came to power four years later, it maintained essentially the same set of conservative policies. It was followed

subsequently by governments of a centrist party and a conservative party, neither of whom deviated from the “neoliberal” set of policies.

In sum, like Kenya, Bolivia illustrates non-tax revenue’s stabilizing effect but also demonstrates how redistributive cleavages can be attenuated in highly unequal countries. However, unlike Kenya, where the ethnic divisions that have made cross-class coalitions difficult seem more enduring, recent trends in Bolivia indicate that the redistributive cleavage is arising again. In the absence of foreign aid or some other source of non-tax revenue, my theory would predict that Bolivia’s democracy is threatened, either by a coup or, as Eaton (2007) has suggested, through a virtual secession by the richer regions of the country.

## ***5.4 Summary***

These three case studies have enriched our understanding of how the dynamics suggested by my theoretical framework play out in different countries. In conclusion, it is useful to revisit the questions posed at the beginning of the chapter.

*Does the model’s foundational focus on redistribution and inequality have merit?* I found evidence that this was an important cleavage in all three case studies, though its salience varied across both countries and time. It was most prominent throughout the study of Mexico, and it was highly salient in Bolivia before the 1980s and has re-emerged recently. One of the important themes of the case studies of Kenya and Bolivia, however, was that this cleavage can sometimes be attenuated. In Kenya’s case this was

achieved by the manipulation of ethnic identities, whereas in Bolivia it happened because of the hyperinflation of the mid-1980s. During these times, it was difficult for the theoretical model proposed in this dissertation to account for political dynamics. Nevertheless, even in Kenya, there was important evidence of the salience of the redistributive cleavage *within* ethnic groups, as suggested in Chapter 2. Broadly then, the cases confirm the utility of the overall focus on redistribution and inequality.

*Do authoritarian regimes principally serve the interests of richer elites, and democracies the interests of non-elites?* The answer to this question closely matched that of when the redistributive cleavage was present. The studies of the authoritarian regimes in Mexico, Kenya, and Bolivia all indicated the extent to which they served the interests of richer elites and were threatened by the lower- and middle-classes. More problematic was the study of democracies among my case studies. The one closely studied democracy among my studies was Bolivia's, and this was during a time when the redistributive cleavage was not present. As such, it is perhaps not surprising that the democracy in Bolivia looked very different than what would have expected given my theoretical framework. It is, however, suggestive that Bolivia's democracy has taken a decidedly different turn now that the redistributive cleavage has regained salience, and that the regime is highly threatened by rich elites.

*If and when regime tensions increase, do we view authoritarian regimes attempting to diffuse the situation with social spending? Do we view democracies attempting to satiate the elite*

*classes?* Again, when the redistributive cleavage was present, this was largely what was observed. This was clearly seen in Mexico, where the PRI funneled oil revenues and borrowed funds into social programs, and even in Kenya, where despite the redistributive cleavage being attenuated by ethnic tensions, there was evidence of the importance Moi put on continuing social spending to his own ethnic group. Again the story was more complicated in Bolivia, where the democratic regime seemed more worried about lower and middle classes than the elites. However, this seems to have changed in recent years, as the regime faces threats of secession from rich elites in Santa Cruz.

*And, of course, can we observe the rise (fall) of non-tax revenue making this situation easier (more difficult) for either regime?* The stabilizing effect of non-tax revenue was apparent in each of the three cases. It was perhaps clearest in Mexico, where the best data was available and indicated that the PRI's fortunes followed rises and falls in such revenue quite closely. However, even in Kenya, where the redistributive pressures on the regime were not as sharp, the withdrawal of foreign aid in 1991 was largely attributed to beginning the democratic transition. And in Bolivia, non-tax revenues were instrumental in providing social programs targeted at the large numbers of people negatively affected by the economic reforms and potentially sources of threat for the neoliberal regime. Certainly there was nothing in the case studies to indicate that these various kinds of non-tax revenue would have anything other than a stabilizing effect.

## 6. Conclusion

More than 85 years ago, Joseph Schumpeter (1918 (1991): 101) wrote, “The public finances are one of the best starting points for an investigation of society, especially though not exclusively of its political life”. In this tradition, scholars have produced major statements on the relationship between revenue and political regimes (e.g. Brennan and Buchanan, 1980; Levi, 1988; Musgrave, 1959). One of the more well known literatures in this tradition is the “taxation and representation” literature, arguing that citizens will demand some sort of participation in government before they pay taxes, and that this explains why European monarchs were forced to relinquish some authority in their own countries and in their colonies (Hoffman and Norberg, 1994; North and Weingast, 1989).<sup>1</sup> However, these works—like the vast majority of work on the politics of taxation and spending—largely ignore the fact that much government revenue comes from non-tax sources.

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<sup>1</sup> Curiously, this theory has recently been re-interpreted as implying that “taxation leads to representation” (Ross, 2004: 229). That is, there has been a shift from the focus on the *need* for revenues—and the representation bargain that monarchs made to raise tax revenues—to an idea that taxation in and of itself will lead to pressures for representation. That is, the dependent and independent variable in the original phrase have been switched. Perhaps the strangest form of this interpretation is the idea that “the lower the level of taxation, the less reason for the public to demand representation” (Huntington, 1991). Evaluating this claim systematically is beyond the scope of this dissertation, but it should be noted that even if it were true, the results in Table 7 indicate that taxation is also destabilizing for *democracies*. The implication is that taxation—as the taking of money from people—is likely to be contentious and potentially destabilizing in all political regimes.

One of the goals of this dissertation has been to demonstrate the need to move beyond this exclusive focus on taxation. As I showed in Chapter 1, a large share of government revenue around the world—and the majority of revenue in many countries—comes from *non-tax* sources. Existing studies of this revenue to date have focused on oil revenues, foreign aid, or other *types* of non-tax revenue, rather than examining the possibility that these various kinds of revenues might work similarly with regard to certain phenomena such as political stability. Our understanding of the systematic effects this revenue has thus remained limited.

In an effort to improve this understanding, I have focused here on *non-taxation* and representation—how the availability of non-tax revenue affects transitions from democracies to dictatorships, and vice versa.

## ***6.1 The argument revisited***

Based on theories of regime change that focus on redistributive conflicts, I have developed a theoretical framework for understanding why we should expect various kinds of non-tax revenue to increase regime stability in both democracies and dictatorships. In Chapter 2, I presented the basics of my theoretical modeling, building on the framework of Acemoglu and Robinson (2006). In this framework—and in the general literature on which this dissertation is based—the source of conflict over political regimes is the difference in preferences regarding levels of redistribution.

Citizens prefer higher levels of redistribution, while elites generally prefer none. In Chapter 2, I demonstrated that non-tax revenue should systematically diminish these differences, by lowering citizens' preferred rate of redistribution. While initially showing this to be true in a society with only two classes, I subsequently demonstrated it should also be true in societies with more than two economic classes, and in societies in which the income cleavage is paired with an additional societal cleavage like ethnicity. This robust theoretical result set the stage for the rest of the dissertation.

In Chapter 3, I developed a game-theoretic model of democratization, incorporating non-tax revenue into the strategic interaction between elites and citizens. Again using the framework of Acemoglu and Robinson (2006), I showed what the results in Chapter 2 implied: if regime transitions are determined by conflicts over redistribution, non-tax revenue diminishes the likelihood of transition. In order to test the robustness of the results, I added an additional player to Acemoglu and Robinson's framework, including an international donor who put conditions on its foreign aid. One might have expected *a priori* that conditional foreign aid would work differently than other kinds of non-tax revenue, but I demonstrated that this is not true even with a benevolent donor. In sum, Chapters 2 and 3 present a wide-ranging set of formal theoretical results supporting the central contention of this dissertation: *non-tax revenue should stabilize political regimes.*

In addition, because of the nature of threats to political regimes in this theoretical framework, Chapters 2 and 3 make certain predictions about what we should observe if non-tax revenue leads to political regime stability. In authoritarian regimes, where the threat is from lower- and middle-class citizens, non-tax revenue should be associated with greater spending on those citizens. In democratic regimes, where the threat is instead from wealthy elites, non-tax revenue should be associated with less taxation of elites. Chapters 4 and 5 explored these hypotheses both statistically and through in-depth historical case studies.

In Chapter 4, I analyzed a dataset consisting of all countries and years for which the necessary data are available—about 100 countries from the early 1970s to the late 1990s—demonstrating that the theoretical predictions hold up under a variety of empirical operationalizations. Non-tax revenue is associated with higher levels of regime stability in both democracies and dictatorships, and is also associated with less taxation of elites in democracies and greater social spending in dictatorships. One of the most important findings of this chapter was that different kinds of non-tax revenue—such as foreign aid, revenue from state-owned enterprises, and borrowing—all work similarly with regard to regime stability and the causal mechanisms. This finding is critical in validating the overall approach of this dissertation.

Finally, in Chapter 5, I turned to in-depth historical case studies of three countries—Mexico, Kenya, and Bolivia—and compared the experiences of these



countries with non-tax revenue to the predictions of my theoretical framework. In all three countries, I found evidence of the redistributive cleavage central to the literature on which I build, though this was stronger in certain countries and time periods than in others. In fact, one of the interesting themes of the case studies of Kenya and Bolivia is the way in which the redistributive cleavage can be attenuated—in Kenya this happened due to the exploitation of ethnic divisions by political leaders, while in Bolivia this happened after the country's hyperinflation of the mid-1980s. More importantly for this dissertation, however, there was evidence of the stabilizing effects of non-tax revenue in each of the case studies.

## ***6.2 Implications and future research***

In addition to the implications of its findings for the study of political regime stability, this dissertation suggests some important new directions for the study of the political economy of government revenue. One of these implications concerns the aggregation and dis-aggregation of revenue types. Scholars studying non-tax revenue have in general focused on disaggregated types of it: oil revenues, foreign aid, borrowing, and so forth. In contrast, political scientists studying tax revenue have usually ignored disaggregated types of it, such as taxes on the rich or poor, and focused

instead on aggregate tax revenue.<sup>2</sup> This latter approach has also generally been taken with regard to government spending, though an important exception is the study of social spending. This dissertation offers evidence that leverage may be gained from taking new approaches to tax and non-tax revenue, disaggregating the former while aggregating the latter. At the very least, propositions suggesting that certain types of non-tax revenue act differently than others need to be defended, not assumed, as do propositions about aggregating tax revenue.

Another implication of this dissertation for future research concerns our assumptions about the likely effects of revenue. As discussed in the Introduction, existing research regarding different kinds of non-tax revenue has tended to assume that certain kinds of revenue have what might be called “normative properties”. That is, these various revenues have *independent* effects, pushing a country either toward dictatorship (in the case of oil for example) or toward democracy (in the case of aid). A similar approach is implied in the “taxation leads to representation” argument mentioned at the beginning of this Conclusion. This dissertation has taken a different approach, arguing that the effect of these revenues in terms of dictatorships and democracies is very much contextual: they stabilize the regime in which they appear. The results in Table 3 and Table 7—showing that non-tax revenues are stabilizing in *both*

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<sup>2</sup> An important exception is Timmons (2005).

dictatorships and democracies—provide support for this latter approach, and not the “normative” one.

From a policy perspective, this different approach has quite important consequences. For example, an approach that assumed foreign aid has democratic properties would imply that politicians interested in promoting democracy should favor giving aid to dictatorships. The findings of this dissertation suggest precisely the opposite. While policymakers might be able to devise various modalities of aid that could avoid the stabilizing effects demonstrated in this paper, it should be emphasized that most of the current modalities do not (Morrison, 2007). The key aspect of non-tax revenue in this theory is that it enables a dictatorship to spend money to satiate poorer citizens. Most aid works this way. Even with conditions attached, it is generally in the form of money that either goes directly to the government or bypasses the government and goes to projects that ostensibly benefit citizens. Conditionality attached to such aid has usually been ineffective, and far more focused on economic conditions than on political ones (see, e.g., Collier, 1997). One aid modality that may be exceptional is “technical assistance”, which is often provided by donors in the form of people (i.e. experts), not money (see Collier, 2006; Gibson and Hoffman, 2007). However, this kind of aid makes up a clear minority of global aid flows.

The policy implications of the approach of this dissertation are also apparent with regard to oil. As an example, consider Mexico, a new democracy whose oil

deposits are rapidly decreasing (Luhnow, 2007). The traditional perspective—arguing that oil rents hinder democratization—would predict that the decline in oil revenues would have a positive effect on Mexico’s political regime. The perspective offered by this paper would call for more caution. As Mexico’s oil revenues continue to decline, there is likely to be increased pressure from citizens to redistribute resources from Mexico’s elite. According to my theoretical framework, this will lead to problems for Mexico’s young democracy.

While these policy examples of aid and oil are important in their own right, one of the central findings of this paper is the interchangeability of these and other resources. The implications of shifts in the availability of oil or aid revenues for political stability in developing regions of the world therefore need to be assessed in relationship to broader patterns of international financial flows. According to the World Bank (2007: 36), for example, the last several years have seen a massive decline in net official lending to developing countries. Given the documented impact of non-tax revenue, one might anticipate rising instability and conflict in the developing world; however, this article emphasizes the importance of focusing on *all* non-tax revenue. The World Bank explains in the same report that the decline in official lending has been driven by high oil prices, which have allowed major oil-exporting countries (such as Algeria, Nigeria, and Russia) to rapidly repay their debt and alleviated the need for further official borrowing. This broader perspective would indicate that non-tax revenue has not

declined, and that therefore regimes in the developing world are not necessarily becoming less stable.

In fact, there are indications that non-tax revenue sources seem to be proliferating around the world, resulting in shifting patterns of international influence and regional stability. In Latin America, the obvious example is Venezuela's Hugo Chavez, whose influence both within and outside the region revolves around the provision of non-tax revenue to other countries. His proposal to form a regional "Bank of the South" (paid for and run by Latin American countries only)—as an alternative to the International Monetary Fund, the World Bank, and the Inter-American Development Bank—can be seen in a similar light. In Asia, the desire to maintain exclusive control over large sources of non-tax revenue was almost certainly behind the United States' vigorous resistance to the idea of an "Asian Monetary Fund" in the wake of the region's financial crisis in the late 1990s (Lipsky, 2003). In May 2007, finance ministers from 13 Asian nations brought the main ideas of this Fund to fruition, agreeing to pool part of their \$2.7 trillion of foreign-exchange reserves to prevent future economic crises. And in Africa, where European countries and the United States have long dominated the purse strings, a major new player has entered the non-tax revenue game: China. In late 2006, China promised \$5 billion in soft loans and grants to African states over the following three years. That average of \$1.67 billion annually would have made China the fourth largest bilateral donor in Africa over the period of 2001-2005 (behind the United States,

the United Kingdom, and France).<sup>3</sup> Already western countries are complaining that China's influence will undermine their goals in the region, particularly with regard to democratization (McGreal, 2007). However, China is only one of several new sources of finance for African and other governments, as low-income countries have begun to access international debt markets in several ways (World Bank, 2007).

What is likely to be the effect on international systemic stability of new and increasing sources of government finance, besides a likely decline in the influence of international financial institutions and the western donors that have dominated them? This dissertation suggests that these new resources are likely to have a stabilizing effect on the world's regimes, as both democracies and dictatorships access increased non-tax revenues. The implication would be a period of less regime transition, reducing a major source of political uncertainty and conflict in the developing world. A specific testing of this hypothesis is of course beyond the scope of this work, but it should be noted that much work on international finance and political regimes has explored whether financial flows are pro- or anti-democratic in general (e.g. Rudra, 2005). This dissertation indicates the possibility that, at least for flows to governments, this question might be poorly formulated. Like other non-tax revenues, they may simply have stabilizing effects on whatever regime they enter.

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<sup>3</sup> This comparison is made using data on overseas development assistance from the OECD (2007).

These policy and research implications to one side, the arguments here will hopefully spur work toward a more complete theory of political regimes and revenue. Now that scholars working on case studies of oil (e.g. Chaudhry, 1997) and aid (e.g. van de Walle, 2001) have demonstrated how the availability of non-tax revenue affects taxation and spending decisions, and as cross-national statistical studies of taxation and spending have explored the influence of oil, aid, and other non-tax revenues (e.g. Cheibub, 1998; Remmer, 2004; Rodden, 2003), it is apparent that a revenue approach to political regimes that focuses only on taxation is incomplete. Such a significant portion of government revenues are derived from non-tax sources that any research that deals with government finance, from theories of redistribution to theories of state-building, needs to take such revenues into account. The implications are clear for the important literature linking redistributive pressures to political regime change. Future theoretical and empirical work will need to account for the importance of non-tax revenues and their stabilizing impact on political regimes.

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## Biography

Born in Washington, DC, on February 25, 1973, Kevin Morrison is currently a Fellow at Princeton University's Center for Globalization and Governance and a Non-Resident Fellow at Columbia University's Committee on Global Thought. He has an M.A. in economics (Duke University, 2004), an M.Sc. in development studies (London School of Economics, 1997), and a B.A. in political science (Emory University, 1995).

His interest is the political economy of developing countries, with a particular focus on Latin America and Africa. He is a co-author (with Ravi Kanbur and Todd Sandler) of *The Future of Development Assistance: Common Pools and International Public Goods* (Johns Hopkins University Press, 1999), and he was a member of the core team of authors of the World Bank's *World Development Report 2000/01: Attacking Poverty*, writing the chapters on the international actions necessary for poverty reduction. He is also the author of the following works:

"Inequality and Deliberative Development: Revisiting Bolivia's Experience with the PRSP" (with Matthew M. Singer). *Development Policy Review* 25(6): 721-740.

"Natural Resources, Aid, and Democratization: A Best-Case Scenario." *Public Choice* 131: 365-386 (June 2007).

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He has been the recipient of the following honors, scholarships, and fellowships:

- Evan Frankel Fellowship, Duke University, 2006-07.
- National Science Foundation Dissertation Improvement Grant, 2005-06
- Foreign Language and Area Studies (FLAS) Fellowship, 2005-06
- Duke University Vertical Integration Grant, Summer 2005
- Duke University Graduate Award for International Research, 2005
- Best Theme Paper Award, Program for the Study of Democracy, Institutions, and Political Economy (DIPE), Duke University, 2004
- Graduate Research & Training Fellowship, Duke Center for International Studies, 2004
- National Science Foundation Graduate Research Fellowship, 2001
- James B. Duke Fellowship, Duke University, 2001
- Phi Beta Kappa, Elected Fall 1994.
- Robert W. Woodruff Scholarship, Emory University, 1991