The Durability of Constitutions in Changing Environments: A Study on Constitutional Stability in Latin America
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Abstract

Political scientists often consider constitutions and their various designs as key variables for explaining a wide range of relevant outcomes, such as the stability and quality of democracy, economic performance, or the rate of policy change across political regimes. The validity of this claim rests on the assumption that constitutions are a stable set of rules that become self-enforcing over time. Constitutional stability is, however, subject to variation. I argue that this variation depends on specific institutions and on the relative stability of the political environment that the constitution is supposed to regulate. Using a duration analysis of constitutions in 18 Latin American countries between 1946 and 2000, this paper finds that while the lifespan of constitutions is negatively affected by political and social instability, institutions that prevent the concentration of power and protect the constitution as a “fundamental law” decrease the risk of constitutional replacement. It also shows that for the Latin American region, the durability of constitutions tends to decrease rather than increase over time.

Resumen

Los politólogos han considerado a las constituciones y sus varios diseños como variables claves para explicar un amplio abanico de resultados relevantes, como la estabilidad y la calidad de la democracia, el desempeño económico, o la capacidad de cambio de políticas públicas de distintos regímenes. La validez de este argumento descansa en el supuesto de que las constituciones son un conjunto de reglas estables que se tornan autosostenibles con el tiempo. Sin embargo, la estabilidad de las constituciones variaría enormemente entre países. Argumento que esta variación depende de las instituciones que la propia constitución crea y de la estabilidad relativa del ambiente político que la constitución intenta regular. Utilizando un análisis de la duración de las constituciones entre 1946 y 2000 en América Latina, este trabajo encuentra que la expectativa de vida de las constituciones disminuye con la inestabilidad política y social, y aumenta cuando existen instituciones que impiden la concentración de poder y que protegen a la constitución como “ley fundamental”. También se demuestra que, para la región latinoamericana, la duración de las constituciones tiende a disminuir en lugar de aumentar en el tiempo.
Introduction

It has become commonplace among political scientists to claim that constitutions have a causal effect on a wide range of significant political outcomes, such as democratic stability, the rule of law or economic development. The validity of this claim rests on the assumption that constitutions are a stable set of rules that become self-enforcing over time. Constitutional stability is, however, subject to variation. While some constitutions persist without major formal change through a series of crises, other constitutions are replaced every few years. What makes constitutions endure in some contexts and not in others?

I argue that the durability of constitutions depends on specific institutions and on the relative stability of the political environment that the constitution is supposed to regulate. To test this hypothesis, I use a duration analysis of constitutions, both authoritarian and democratic, in 18 countries of Latin America during the period 1946-2000. This analysis shows that while the risk of constitutional replacement increases with changes in the distribution of power among political actors, it decreases with institutions that prevent the concentration of power and protect the constitution as a “fundamental law”. It also shows that for the Latin American region, the durability of constitutions tends to decrease rather than increase over time.

The paper is organized as follows. I start by analyzing the concept of constitutional stability. In Section 1, I discuss the different theories that have attempted to explain constitutional stability. Section 2 provides descriptive data on the frequency of constitutional replacements in Latin American countries and tests the hypotheses outlined in the previous section with a duration analysis of constitutions in 18 countries of Latin America from 1946 to 2000. I conclude with a discussion of the findings of this paper and the avenues of research that it opens for the future.

1. The concept of constitutional stability

For the purposes of this paper I restrict the concept of constitution to a written document so named.¹ This document contains a set of rules which aim at regulating the channels of access to principal government positions, the allocation of powers among different branches of government, and the rights of citizens. Most constitutions also include rules establishing procedures for
their own amendment and the conditions under which constitutional provisions can be suspended.

Constitutional stability is more difficult to define and measure. The lifetime of constitutions can be affected by different events and it is not apparent which should count as indicators of instability. From a formal, legal point of view, constitutions can be altered by means of amendment, interpretation, and replacement. One could also argue that the suspension of all or part of its provisions is a form of alteration.

At one extreme, constitutions are stable if after creation they can be said to be renegotiation-proof (Shepsle, 1986: 142). This means that even as experience unfolds and previous uncertainties are resolved, no decisive coalition of agents desires an alteration of the arrangements. From this perspective, any transformation of the original agreement may affect the stability of constitutions. This concept of constitutional stability, however, is probably unrealistic.

Constitutions are not immutable. They need to be and often are altered over time to respond to changes in the political, economic, or social environment under which they operate. The key point is whether the alteration implies the legal abrogation of the existing constitution. Amendment procedures, for instance, have been designed for the purpose of adapting the constitution to new circumstances without affecting its legal continuity. The same happens when a constitutional court is authorized to decide on the meaning and scope of constitutional provisions. In these two cases possible modifications to the constitutional order take place according to a pre-existing procedure established by the constitution itself.

The situation is different with constitutional replacement. In this case, whether or not procedural forms are observed, institutional reformers decide that a new constitution should be created. This decision could very well be based on merely symbolic reasons, such as signaling the transition to democracy, with little or no substantive change in relation to the previous constitution. Nevertheless, replacements constitute a clear case of discontinuity and should obviously count as indicators of constitutional instability.

The irregular suspension of the constitution by the leaders of a military or civilian coup is perhaps the hardest case to classify. Clearly enough, the suspension compromises the continuity of the constitution. The problem, however, is that the irregular suspension of the constitution generally coincides with the transition from a democratic to an authoritarian regime. In other words, suspensions may be highly correlated with regime change, indicating political rather than constitutional instability.

For these reasons, I define constitutional stability as the durability, in legal terms, of the original constitution. In this view, the lifespan of a constitution is the length of time that passes between its enactment and its
formal replacement by another constitution. The longer a constitution survives without being replaced, the more stable it is.

Even in this narrow definition, constitutional stability is a crucial concept in political science. The durability of constitutions is an important component of constitutionalism. As Elster points out, constitutionalism is a “spirit” or “state of mind” consisting in the willingness that political life be restricted by standing rules that are not themselves the subject of ongoing political struggle (Elster, 1991: 9). Clearly, if constitutions are frequently replaced, it is unlikely that political elites or citizens will regard the constitution as a superior law that stands above the short-term interests of partisan actors.

The durability of constitutions is also assumed when political scientists attribute to constitutions important effects in political life. Several authors argue that it makes a difference for democratic stability whether the constitution is parliamentary or presidential, whether electoral rules are restrictive or inclusive and whether executives are weak or strong (Linz, 1978, 1994; Shugart and Carey, 1992; Jones, 1995; Mainwaring and Shugart, 1997). Similar aspects of constitutional design have also been isolated as causal factors affecting the quality of democracy (Liphart, 1999; Powell, 2000; Colomer, 2001), economic policy and economic performance (Persson and Tabellini, 2003; North and Weingast, 1989), or the rate of policy change in political regimes (Tsebelis, 1995, 2001; Cox and McCubbins, 2001). However, if constitutions change as ordinary laws do, they are not likely to function as important independent variables to explain these outcomes (Alexander, 2001).

Yet there is no explicit and accepted explanation of what makes constitutions endure. Theoretical works on the nature of constitutions see constitutional stability as a function of time. Comparative studies imply that the durability of constitutions is a function of specific variables that either increase or decrease the capacity of constitutions to survive. One set of arguments focuses on constitutional design. An alternate perspective emphasizes that constitutional stability depends on the dynamics of the social and political environment. I argue that both specific constitutional provisions and contextual factors should account for the different duration of constitutions across countries.

1.1. Constitutional stability and time
Political theorists suggest that constitutional stability is a self-enforcing equilibrium. According to Hardin, who first proposed this view, stable constitutions work like a convention that depends for its maintenance on its self-generating incentives and expectations. This means that once the relevant political actors have settled a constitutional arrangement, it is not

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2 In section 2 I define the criterion used to differentiate replacements from mere amendments.
likely to be in their interests to renege on the arrangement due to the internal costs of collective action for recoordination (Hardin, 1989: 113).

Not just any constitution is likely to become stable in this view. Stability is an attribute of constitutions that emerged from a massive act of coordination. This requires the successful resolution of the conflicts that are likely to arise among constitution makers over alternative constitutional arrangements. For this reason, the deeper the division between citizens and the political elite, the more difficult it is to solve this coordination problem. According to Weingast (1997), this explains why societies divided into overlapping cleavages of an economic, ethnic, or religious nature often suffer from chronic constitutional instability.

The equilibrium concept of constitutional stability implies positive time dependence. This means that once constitution makers coordinate on a particular arrangement, the probability of its being replaced should decrease in time. Or in other words, positive time dependence suggests that the longer a constitution is in force the more likely it is to last.\(^3\)

This assumption appears to fit the evolution of the US constitution well. It has survived a civil war, severe political and economic crises, and deep social transformations. The US constitution has lasted more than 200 years, and it seems increasingly unlikely that it will be replaced. Positive time dependency, however, does not seem an accurate description of the life cycle of constitutions in other regions of the world.

In the first place, we have to consider the case of constitutions that, through time, seem to become more rather than less at risk of being replaced. It is not uncommon to observe countries experiencing a sort of “constitutional fatigue” over time. The 1886 Colombian constitution, for instance, was replaced in 1991, after 105 years of being formally in force. The authority of this constitution, however, did not appear to be growing with every passing year. On the contrary, decades of mounting criticism of central aspects of the existing constitution as well as failed attempts to convene a constituent assembly preceded its eventual replacement in 1991.\(^4\)

There are also cases in which a pattern of constitutional stability is followed by one of instability. The 1830 constitution of Uruguay was in force for 86 years, until 1916. From that date to the present, however, Uruguay has had 5 different constitutions. Finally, remarkable constitutional stability can be achieved after past of recurrent instability. Costa Rica had 8 constitutions in the nineteenth century but only 2 in the twentieth century. In all these cases, it is not apparent how time affects the risk of constitutional replacement.

\(^{3}\) This is similar to the idea of “path dependence”, that is, a process of positive feedback or self-reinforcement that leads to rising costs of reversal over time (Pierson, 2001).

\(^{4}\) The first attempt to convene a constituent assembly to replace the constitution was made by President López Michelsen in 1975. See Sarabia Better (2003).
As Hardin and others have argued, constitutions imposed unilaterally in the midst of severe distributive conflicts may not be able to endure. But the opposite is not necessarily true. A constitution might have emerged as a coordinating device and been in force for a considerable period of time. This pattern, however, may change. At a given historical juncture, a decisive coalition may prefer an alternative institutional arrangement and find that the costs of maintaining the current constitution are higher than the costs of recoordinating on a new one. The equilibrium view of constitutional stability does not offer an adequate answer to why this might happen.

The different survival rates of constitutions around the world suggest that whether or not the costs of replacement exceed the costs of maintaining the existing constitution is a hypothesis that should be tested controlling for factors other than time. As we will see, there are good arguments to think that the incentives and opportunities of political actors to change the constitution may vary depending on specific constitutional provisions or on the social and political conditions under which constitutions exist.

1.2. Stability-inducing institutions
Starting with James Madison, several political scientists have argued that the durability of constitutions is a function of specific institutions that constitutions create. In this view, institutions that diffuse power, such as separate elections, bicameralism, executive veto, or federalism, may have a positive effect on the survival of constitutions because they deprive relevant political actors of the motives to change existing arrangements. Institutions that protect the constitution as a “higher law”, such as stringent amendment rules or constitutional adjudication, may have a similar effect by making constitutional change difficult or by creating an informal mechanism to adapt the constitution to changes in the political, social, or economic environment.

According to Przeworski (1991: 38), “constitutions that are observed and last for a long time are those that reduce the stakes of political battles.” In his view, constitutions that reinforce a temporary advantage do not endure beyond the conditions that generated the last political victory. For this reason, successful democracies are those in which institutions make it difficult to fortify a temporary advantage and where increasing returns to power are institutionally mitigated. Were it otherwise, losers would tend to fight back the first time they lose, for waiting would make it less likely that they would ever succeed (1991: 36).

Josep Colomer (2001, 2004) takes a similar position when he argues that restrictive institutions are more vulnerable to change than pluralistic institutions. According to this author (2001: 210), since restrictive rules create

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5 This argument does not need to apply to democratic regimes only. An authoritarian regime that has to accommodate a plurality of interests within the authoritarian elite may also achieve more constitutional stability over time with power-sharing than with power-concentrating institutions.
absolute winners and losers, some degree of uncertainty regarding future outcomes provides both incumbents and challengers with an incentive to adopt more inclusive institutions. Once created, pluralist institutions are not likely to face the same pressures for change because they produce widespread satisfaction among the relevant political actors. Pluralist democratic institutions “should obtain relatively high endogenous support and, as a consequence, they should have greater longevity than exclusive or simple institutions favoring the concentration of power” (2001: 211). In other words, only pluralist institutions are likely to remain stable in equilibrium.

If these arguments are correct, a constitution designed to diffuse power is likely to last longer than a constitution that concentrates power. In particular, power-sharing institutions such as inclusive electoral rules, bicameralism, executive veto and federalism should have a positive effect on the survival of constitutions.

Constitutional theorists emphasize that the durability of constitutions also depends on how stringent amendment rules are. Stringent amendment rules may induce stability by increasing the costs of change in terms of time and resources. In addition, if attempting but failing to change a constitution also carries a political cost, a cumbersome amendment procedure may discourage revisions by increasing the risk of failure (Shepsle, 1986).

A brief look at different amendment rules shows that the costs they impose on revising the constitution varies a great deal. At the lower end of the continuum there are cases of parliamentary supremacy, in which the legislature can amend the constitution by a simple majority vote. At the other extreme one finds constitutions where amendments require the vote of a qualified majority in a bicameral legislature plus some additional process of approval, such as a second vote in a different legislature, changes passed by a number of states, a constituent convention, or a popular referendum.

One should note, however, that the relation between amendment procedures and constitutional replacement is not obvious. Some constitutions allow only partial revisions and lack provisions regulating their own replacement. When this is the case, there may be an inverse relation between stringent amendment procedures and replacement. In particular, by increasing the costs of introducing partial revisions, a stringent amendment rule may provide incentives for bypassing the procedure and simply replacing the constitution.6

However, there are reasons to think of a positive relation between stringent amendment procedures and the longevity of constitutions. Several

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6 Several constitutions in Latin America have been replaced by popularly elected constituent assemblies as an alternative to congressional amendments. President Gaviria in 1990 and President Hugo Chávez in 1999 used this strategy to replace the 1886 Colombian constitution and 1961 Venezuelan constitution respectively. In both cases, the amendment procedure required the intervention of congress to approve the constitutional reform, and the proposal was likely to be rejected or delayed in this body. On this point, see Barros (2004).
Constitutions do not have a clear-cut distinction between amendments and replacements, so the same procedure is applied to both cases. In Argentina, for instance, any constitutional revision requires, first, a congressional law declaring the necessity of reform; and second, the popular election of a constituent assembly. Other constitutions have provisions that include an option between amending the constitution (partial reform) and replacing it (total reform), generally requiring the election of a constituent assembly or a referendum for the latter. This is the case with the 1987 Nicaraguan constitution. In this situation, we can simply take into account how the requirements for total (not partial) reform affect the risk of replacement.

One final institution that may affect the durability of constitutions is constitutional adjudication. Formal amendment and replacement of the entire document are the usual means by which constitutions are adapted to changes in the political, social, economic environment. An alternative method is constitutional adjudication (Lutz, 1995). A body authorized to arbitrate in constitutional controversies and decide on the constitutionality of laws and executive orders may introduce significant changes into the existing constitution without amending or replacing it (Ackerman, 1995, 1996). It does so by means of innovative interpretations that incorporate into the constitution rights, practices, or powers not provided for in the original text. If amending or replacing the constitution is too costly, political actors may rely on the interpretations of a special body responsible for constitutional adjudication to adapt the constitution to changing circumstances.

Constitutional adjudication can, however, only work as an alternative to constitutional amendment or replacement under certain conditions. The most important is that the constitutional adjudication body be invested with the power to make its decisions stand beyond the particular case at hand. A special body may be in charge of interpreting the constitution but its decisions may not have general effects, that is, effects beyond the case to be decided and the parties involved in the controversy. This weakens the impact of the decisions of the constitutional adjudication body as a means to change the constitution. By this standard, for instance, many countries in Latin America have only recently adopted an effective process of constitutional adjudication (Navia and Rios-Figueroa, 2005).

Following these arguments, one can derive a general hypothesis about the impact of constitutional design on the longevity of constitutions. This hypothesis can be formulated as follows: constitutional provisions that diffuse power or protect the constitution as a higher law, are likely to decrease the risk of constitutional replacement. This means that, other things being equal, constitutions are likely to last longer when they have inclusive electoral rules, bicameralism, presidential veto, federalism, stringent amendment rules and constitutional adjudication.
The durability of constitutions, however, cannot be explained solely by variables pertaining to constitutional design. The lifespan of constitutions may be directly determined by the political and social conditions under which constitutions exist. These events may also affect the selection of institutions under which constitutions are more or less likely to survive. Thus, if we do not take contextual factors into account, we may be either omitting a relevant set of variables or taking as the sole effect of institutions what is in part an effect of the conditions under which constitutions exist.

1.3. Constitutional stability and political change

A rich intellectual tradition in political science postulates that formal institutions emerge and change as a byproduct of political and social change. In this perspective, political actors would support a constitution in equilibrium only as long as the underlying configuration of interests and powers that sustains the equilibrium remains stable. Should the interests or resources of powerful actors change, so would the existing constitutional structure.

This analytic framework has been widely used for explaining the origins and change of important political institutions. It is implicit, for instance, in Rokkan’s account (1970) of the turn to proportional representation (PR) in Europe at the beginning of the twentieth century. According to Rokkan, the shift from plurality rule to PR resulted from convergence of the interests of long-established parties and new parties. While the rising working class wanted to lower the threshold of representation in order to gain access to legislatures, the most threatened of the old parties wanted to protect their positions against the new waves of mobilized workers. In other words, a political change that is exogenous to the existing institutions is the key variable that triggers institutional change. A similar argument has been made by authors who consider that transformations in the party system, such as the collapse of previously dominant parties or the emergence of new parties, precede changes in the electoral system and not the other way around.

The same explanation plays a part in various accounts of constitutional change during transitions to democracy. Robert Dahl (1971: 15-16), for instance, argued that inauguration of a democratic regime is impossible without rules of ‘mutual security’ between government and opposition. These are rules that establish effective limits on the potential to concentrate power and to act arbitrarily in regard to citizen rights. When rules of mutual security do not exist, the ruling elite may not be willing to tolerate opposition without first initiating a process of constitutional change that creates such guarantees (Przeworski, 1988).

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7 This explanation was later expanded by Lijphart (1992) and Boix (1999).
8 See Grum (1958) and Colomer (2004).
Barbara Geddes (1990) builds on this tradition to explain why some transitions to democracy simply restore a pre-authoritarian constitution while others create a new constitution. Geddes argues that transitions to democracy will promote the replacement of the existing constitution only if the new political environment (the party system, for instance) is substantively different from the pre-authoritarian one.

The idea that constitutions are created and changed as a reflection of political transformations makes sense if we consider the historical events that have usually triggered constitution-making processes. As Elster (1995) points out, constitutional change tends to occur in the wake of a crisis or exceptional circumstance of some sort, such as social and economic crises, revolutions, regime collapse, fear of regime collapse, reconstruction after war, or liberation from colonial rule. All these are important events with the potential to upset a pre-existing constitutional equilibrium.

A general hypothesis can be derived from these arguments, namely, that important changes in the political and social environment under which constitutions exist are likely to increase the risk of constitutional replacement. Other things being equal, constitutions should have shorter lives when countries experience regime transitions, changes in the party system, military coups and revolutions, and social mobilizations directed against the incumbent government or the political regime.

An explanation of constitutional stability, however, cannot rely on contextual factors alone. In order to determine whether changes in the environment affect the risk of constitutional replacement it is crucial to control for the effect of relevant aspects of constitutional design over time. This is so for two reasons. In the first place, institutions internal to the constitution may have a direct effect on its survival, as explained in the previous section. On the other hand, certain aspects of constitutional design may also generate the type of events that affect the durability of constitutions. The exclusion of constitutional design variables could then imply missing a potentially important part of the explanation or simply confusing as the sole effect of contextual conditions what is in part the effect of institutional variables.

In order to test the hypotheses outlined so far we need to perform a multivariate analysis with observations that have sufficient variation on the relevant independent variables. In particular, we need observations with different values on institutions but the same values on contextual variables as well as observations with different values on contextual variables but the same values on institutions. In the next section I perform this analysis using data on constitutional replacements in Latin America during the period 1946-2000.

9 This analysis only captures the direct effects that institutional and contextual variables have on the lifespan of constitution. On the indirect causality of these variables on constitutional survival, see Przeworski (2005).
2. The determinants of constitutional stability in Latin America

Whether constitutional stability is explained by time, constitutional design or the political and social environment can be tested empirically. The Latin American region is an excellent field of study to perform this test. In the first place, there are numerous observations. As shown in Table 1, 102 constitutions have been created in Latin American countries during the twentieth century. The number of constitutions per country in force in this period ranges from a low of 2 (Colombia and Mexico) to a high of 16 (Venezuela). On average, there have been 5.7 constitutions per country from 1900 to 2000.

<table>
<thead>
<tr>
<th>Country</th>
<th>Constitutions since independence</th>
<th>Constitutions 1900–2000</th>
<th>Average duration 1900–2000</th>
<th>Implemented in democratic years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>3</td>
<td>4</td>
<td>36.75</td>
<td>3</td>
</tr>
<tr>
<td>Bolivia</td>
<td>16</td>
<td>6</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Brazil</td>
<td>7</td>
<td>6</td>
<td>18.2</td>
<td>2</td>
</tr>
<tr>
<td>Chile</td>
<td>7</td>
<td>3</td>
<td>55.7</td>
<td>2</td>
</tr>
<tr>
<td>Colombia</td>
<td>7</td>
<td>2</td>
<td>57</td>
<td>2</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>12</td>
<td>4</td>
<td>32.25</td>
<td>1</td>
</tr>
<tr>
<td>Dom. Rep.</td>
<td>13</td>
<td>4</td>
<td>28.25</td>
<td>2</td>
</tr>
<tr>
<td>Ecuador</td>
<td>18</td>
<td>8</td>
<td>12.9</td>
<td>3</td>
</tr>
<tr>
<td>El Salvador</td>
<td>15</td>
<td>7</td>
<td>16.3</td>
<td>1</td>
</tr>
<tr>
<td>Guatemala</td>
<td>7</td>
<td>5</td>
<td>24.2</td>
<td>4</td>
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<tr>
<td>Honduras</td>
<td>14</td>
<td>8</td>
<td>13.25</td>
<td>3</td>
</tr>
<tr>
<td>Mexico</td>
<td>6</td>
<td>2</td>
<td>71</td>
<td>1</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>12</td>
<td>4</td>
<td>13.4</td>
<td>3</td>
</tr>
<tr>
<td>Panama</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Paraguay</td>
<td>6</td>
<td>4</td>
<td>32.5</td>
<td>1</td>
</tr>
<tr>
<td>Peru</td>
<td>13</td>
<td>5</td>
<td>26.6</td>
<td>2</td>
</tr>
<tr>
<td>Uruguay</td>
<td>6</td>
<td>6</td>
<td>28.3</td>
<td>5</td>
</tr>
<tr>
<td>Venezuela</td>
<td>26</td>
<td>16</td>
<td>6.3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>192</strong></td>
<td><strong>102</strong></td>
<td><strong>39</strong></td>
<td></td>
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<tr>
<td><strong>Mean</strong></td>
<td><strong>10.7</strong></td>
<td><strong>5.7</strong></td>
<td><strong>28.7</strong></td>
<td><strong>2.17</strong></td>
</tr>
</tbody>
</table>

Source: Author, based on Constituciones Hispanoamericanas (http://www.cervantesvirtual.com/portal/constituciones/), Political Database of the Americas (http://www.georgetown.edu/pdba) and country sources.

There is also variation in the durability of constitutions both across and within countries. The 1945 constitution of Ecuador lasted less than a year, while the 1886 constitution of Colombia lasted 105 years. Uruguay maintained
the 1830 constitution for 86 years, until 1916. Since 1917, however, the average duration of constitutions in that country has been 28.3 years.

Latin American countries offer an appropriate context to test hypotheses about constitutional stability because there is sufficient variation in terms of design and political conditions. While all constitutions have adopted a presidential structure of government, there is variation in terms of electoral rules, congressional structure, presidential powers, and state organization. They also operate in markedly different political environments. Costa Rica, Mexico and Colombia have been politically stable, whether under authoritarian or democratic conditions. Ecuador, on the other hand, has had highly unstable political regimes almost since its independence.

A final relevant feature of constitution making in Latin America is the fact that constitutions have been created and replaced in both democratic and authoritarian regimes. In fact, most constitutions in force during the twentieth century were enacted and implemented under non-democratic conditions. As shown in Table 1, only 39 out of 102 constitutions (38%) were implemented in democratic years. Most constitutional replacements occurred during non-democratic years.10

2.1. Data
I collected data on constitutional changes in 18 Latin American countries from 1946 to 2000.11 The dataset includes 990 observations, representing 62 constitutions, 44 of which were replaced during these years, and 18 of which were still surviving by 2000, when the observation period ends.12 Of the 62 constitutions, 26 were enacted in democratic and 36 in non-democratic years. The sample represents 61% of the total number of constitutions in force from 1900 to 2000, and includes 52% of the replacements that took place during the same period.13 The median survival time of the constitutions included in the sample is 18 years.

The database traces the ‘life’ of a constitution from the time it first comes under observation until it ‘fails’ or ‘dies’. Except for the first constitution that enters the study in each country, constitutions come under observation the year after enactment, which is the time they become at risk of being replaced. The event of interest is constitutional replacement, so an existing constitution is considered to ‘fail’ or ‘die’ the year a new constitution is enacted.14 Neither amendments nor provisional suspensions of the constitution are included here as failure events.

10 From 1945 to 2000, 26 out of 44 replacements (59%) took place in non-democratic years.
11 See appendix for data sources.
12 Some constitutions also had their origin before the first year of observation, 1946.
13 It should be noted that the decades 1940–50 and 1960–70 registered the most intense constitutional activity in the region during the twentieth century.
14 When a constitution is abrogated in one year and later restored during the period of observation, the restored constitution is counted as a new constitution.
In order to distinguish replacements from mere amendments, I have relied primarily on constitutional theory. The creation of a new constitution requires the direct intervention of the people who hold the original constituent power. Amendments or partial revisions can, in contrast, be made with the sole intervention of an ordinary congress, usually by qualified majority in one or two different legislatures. Following this distinction, a constitution is considered to be new when it emerges from any of these three sources: a popularly elected constituent assembly, an ordinary congress elected to act provisionally as a constituent assembly, or an ordinary congress whose reforms are subject to approval by popular referendum. This classification almost always coincides with the number of constitutions recognized by the legal community the respective country. When opinions diverge on the matter, I used the objective criterion as a guide.

Since we are interested in the risk of constitutional replacement, it is useful to estimate the hazard of this event before including any explanatory variables or before assuming the hazard has any particular form. Figure 1 shows the shape of the hazard function based on a life table of the constitutions included in the database with estimates of the hazards of constitutional replacement calculated in five-year intervals.

**FIGURE 1. ESTIMATED HAZARD OF CONSTITUTIONAL REPLACEMENT IN LATIN AMERICA (1946-2000)**

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15 See Ackerman (1995).
16 The hazard is here calculated as $d_j/b_j(n_j-w_j/2-d_j/2)$, where $d_j$ is the number of constitutions that failed within the interval, $b_j$ is the length of the interval, $n_j$ is the number of constitutions still alive at the start of the interval, and $w_j$ is the number of constitutions still surviving at the end of the interval.
The hazard estimates from which this figure is derived suggest that the probability of observing a replacement within each interval first decreases, then increases and decreases again, with an apparently constant upward trend after the seventh five-year interval. These hazard estimates do not provide a direct test of dependence of the hazard on time, for which we need a parametric modeling approach. They also become less reliable over time because there are fewer individuals (constitutions) at risk in the dataset.

This descriptive analysis, however, does provide prima facie evidence that there is no positive dependence between constitutional survival and time. On the contrary, it indicates that for the constitutions under analysis, the hazard of constitutional replacement does not decrease over time. I will return to this point later.

2.2. Explanatory variables
The dependent variable in this analysis is the number of years that constitutions remain in force before being replaced by another constitution. We want to know what factors explain the length of the observed duration of constitutions. The first set of covariates of theoretical interest are related to the hypothesis that constitutional provisions that diffuse power or protect the constitution as a higher law, are likely to decrease the risk of constitutional replacement. The variables selected to test this hypothesis are electoral rules, congressional structure, presidential veto, decentralization, amendment rules, and constitutional adjudication.

I have followed Shugart and Carey (1992) to distinguish between restrictive and inclusive electoral rules in a presidential regime. The most restrictive electoral rule is the election of presidents by plurality in concurrent congressional elections. The least restrictive is the election of presidents by majority rule. An intermediate category is the election of presidents by qualified plurality (that is, plurality with a minimum threshold) or by plurality rule in non-concurrent elections. Two variables have been included to reflect these categories. ELECRULE2 equals 1 when presidents are elected by plurality rule in non-concurrent elections or by qualified plurality and 0 otherwise. ELECRULE3 equals 1 if presidents are elected by majority rule and 0 otherwise. The election of presidents by plurality in concurrent congressional elections is used as the implicit comparison group.

I use BICAMERAL to measure whether congress has a bicameral structure. It is coded as 1 when congress is bicameral and 0 otherwise. VETO traces the impact of the veto powers of the president. It is coded as 1 when the president has a veto requiring a qualified majority override and 0 otherwise. DECENTR measures the effect of vertical separation of powers. It is coded as 1 when the constitution provides for the popular election of regional or provincial governors and 0 otherwise.
The stringency of amendment rules is measured with the variables QUALIFIED and ADDITIONAL. The first determines whether constitutional changes require a qualified majority vote in congress; the second whether the approval of a constituent assembly, local legislatures, the president or a popular referendum is required in addition to legislative approval. Both are dummy variables which equal 1 when the respective rule is present and 0 otherwise. Amendment procedures by simple majority in a unicameral legislature work as the implicit comparison group. ADJUDICATION measures the impact of a body responsible for constitutional adjudication. The variable is coded as 1 when a body with the power to interpret the constitution with general effects exists and 0 otherwise.17

If power-sharing institutions decrease the risk of constitutional replacement, one should expect the opposite effect from institutions that concentrate power. To test this effect I included two additional variables measuring the length of the presidential term in office and the restrictions placed on presidential reelection. TERM is a continuous variable indicating the length of the president’s term in office. REELECT2, REELECT3, REELECT4, REELECT5 are dummy variables measuring the levels of restriction placed on presidential reelection, namely, reelection after 2 terms, reelection after 1 term, one immediate reelection, and unlimited reelection. No reelection is the implicit comparison group.

The second set of covariates of theoretical interest are related to the hypothesis that important changes in the political and social environment under which constitutions exist are likely to increase the risk of constitutional replacement. The variables selected to test this hypothesis are regime transitions, changes in the party system, the interruption of governments by military coups, revolutions or popular uprisings, general strikes, antigovernment demonstrations, and guerrilla warfare.

TRANSITION traces the effect of regime change on formal constitutional replacements.18 The variable takes the value of 1 when a regime transition occurs, and 0 otherwise.19 The effects of regime transition on constitutional stability are considered to last 5 years from the end of the old regime.20 This means that regime transitions can only have an effect if a constitutional replacement occurs within that period.21

The second variable is INTERVENTION, which measures government instability. It indicates the termination of an incumbent government by means

17 The coding was based on Navia and Rios (2005) and data provided by Julio Ríos Figueroa.
18 While democratic parties may restore the pre-authoritarian constitution, authoritarian leaders may simply suspend the existing constitution without creating a new one.
19 The coding for regime transitions follows Przeworski et al. (2000).
20 This means that if the old regime ends, say, in 1979, the transition is considered to have an effect on constitutional stability if the existing constitution is replaced between that date and 1983.
21 In this and the other variables where the effect can be expected to occur within a period of time, I have tried a shorter (4) and longer (6) term without finding significant variations in the results.
of a military coup, a revolution or a civilian revolt. It is coded as 1 when interventions occur and 0 otherwise. The effects of the intervention are considered to last 5 years from the time the military coup, revolution or civilian revolt takes place.

PARTY CHANGE measures party system instability. The party system is considered to change when a new party or coalition obtains 20% or more of the popular vote in legislative elections within ten years of its first appearance in the electoral arena. The variable is coded as 1 when a new party or coalition wins 20% or more of the vote and 0 otherwise. The effect is considered to last 5 years from the time when the new party or coalition reaches the threshold.

ANTIGOVT, STRIKE, and GUERRILLA are measures of social conflict affecting the stability of the government and/or the political regime as recorded by Banks (2005). ANTIGOVT indicates the number of demonstrations per year of at least 100 people for the primary purpose of displaying or voicing opposition to government policies or authority. STRIKE measures the number of strikes per year of 1,000 or more industrial or service workers that involves more than one employer and that is aimed at national government policies or authority. GUERRILLA indicates any armed activity, sabotage, or bombings per year carried on by independent bands of citizens or irregular forces and aimed at the overthrow of the present regime.

Five additional control variables are considered. LEGACY controls for the influence of previous failures on the probability that the existing constitution will be replaced. It is coded as a numerical variable indicating the number of constitutions that have been replaced in a given year. THIRDWAVE is a dummy variable which measures the impact of different time periods on constitutional survival, with 1978, the starting point of the last wave of democratization in the region, as the dividing date. DIFFUSION measures the impact of the number of countries replacing their constitutions on the probability that another country will change its constitution within a particular geographical area. The numerical value of DIFFUSION is the percentage of countries in each sub-region that replaced their constitutions in five-year intervals. INFLATION and GROWTH are continuous variables measuring

---

22 The coding of military coups and civilian revolts was based on Smith (2005), Nohlen (2005), and The Cambridge History of Latin America, vols. 5, 6, 7, and 8.

23 In the absence of information about legislative elections, share of votes in presidential elections, share of seats in congress, or share of seats in constituent assemblies was used. Data on elections was collected from Nohlen (1993, 2005) and Inter-American Development Bank (2001). Data on political parties was collected from Nohlen (1993, 2005), Coppedge (1997), Mainwaring and Scully (1995), and Alcántara (2004).

24 This means that if a party starts to compete in 1979 and wins more than 20% of the popular vote in 1984, party change is considered to have an effect on constitutional stability if the constitution is replaced between that date and 1988.

25 Latin American countries were classified into three sub-regions: Southern, Andean, and Central and North. The Dominican Republic, the only Caribbean country considered, is included in the latter category.
the average rate of inflation and GDP growth in five-year intervals.\textsuperscript{26} They trace the impact of economic conditions on constitutional stability.

2.3. Method
I use a duration model to explore the factors that affect the probability that a country will replace its constitution. This model allows us to estimate the effect of variables on the hazard rate of an event (Allison, 1984; Box-Steefensmeier and Jones, 1997, 2044; Box-Steefensmeier and Zorn, 2001). Since we are interested in explaining the survival of constitutions, measured as the time in years from enactment to replacement, the hazard rate means in this case the ‘risk’ of replacement. Thus, the hazard rate tells us the likelihood that a constitution will be replaced between $t$ and $t + 1$ given that a replacement has not already occurred.

I start by using a Cox proportional hazard model (Cox, 1972), which makes the least restrictive assumptions about the shape and distribution of the hazard.\textsuperscript{27} This model allows us to model constitutional survival without having to specify \textit{a priori} the relationship between the event of interest—constitutional replacement—and time. It assumes that each covariate has a proportional and constant effect on the risk. This means, for instance, that if the occurrence of a regime transition increases the hazard of constitutional replacement by 20\%, this ratio is the same at one year, two years or at any point on the time scale.

An additional model, however, is required to determine whether the durability of constitutions is time-dependent. Theories of the constitution as a self-enforcing equilibrium postulate that the costs of change increase over time. If this hypothesis is correct, then, new constitutions should fail at higher rates than older ones. A Weibull model will allow us to test the null hypothesis of age independence and, if rejected, determine whether the mortality rate of constitutions is an increasing or decreasing function of time.

2.4. Results
Table 2 presents the results of the proportional hazard analysis.\textsuperscript{28} All regressions provide robust standard errors clustered by country, to control for possible correlation among observations within each country. All models are also stratified by whether the constitution was enacted in a democratic or in an authoritarian year. This provides a control for whether the constitution is

\textsuperscript{26} Data from the Oxford Latin American History Database (http://oxlad.qeh.ox.ac.uk/).
\textsuperscript{27} Parametric models, such as the Weibull or the exponential, require specifying a particular distributional form of the baseline hazard.
\textsuperscript{28} The Efron method for handling ties was used in all regressions.
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democratic or authoritarian while allowing the arbitrary functions of time to differ for each group of constitutions.  

The coefficients indicate whether an independent variable significantly increases or decreases the hazard rate, using standard errors to determine statistical significance. A positive coefficient indicates that the variable increases the hazard rate, which means that the presence of the variable increases the rate at which a constitution is likely to be replaced. A negative coefficient indicates that the variable decreases the rate at which the constitution is likely to be replaced.

\[ \text{This means that the hazards for each type of constitutions are not restricted to being proportional, unlike the case with the variables explicitly included in the models. This option is justified because several tests show that the variable measuring whether the constitution is democratic or authoritarian tends to interact with time.} \]
### TABLE 2. COX REGRESSIONS OF DURATION OF CONSTITUTIONS IN LATIN AMERICA, 1946–2000

**DEPENDENT VARIABLE: LIFESPAN OF CONSTITUTIONS**

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLES</th>
<th>MODEL 1</th>
<th>MODEL 2</th>
<th>MODEL 3</th>
<th>MODEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTITUTIONAL DESIGN VARIABLES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECRULE2</td>
<td>- .136 (.894)</td>
<td>- .369 (.568)</td>
<td>- .383 (.612)</td>
<td>- .404 (.628)</td>
</tr>
<tr>
<td>ELECRULE3</td>
<td>- .353 (.629)</td>
<td>- .465 (.360)</td>
<td>- .474 (.384)</td>
<td>- .513 (.392)</td>
</tr>
<tr>
<td>ELEC</td>
<td>.245 (.721)</td>
<td>.438 (.691)</td>
<td>.221 (.755)</td>
<td>.270 (.816)</td>
</tr>
<tr>
<td>BICAMERAL</td>
<td>- 1.650 (.402) ***</td>
<td>- 1.767 (.418) ***</td>
<td>- 1.658 (.436) ***</td>
<td>- 1.673 (.449) ***</td>
</tr>
<tr>
<td>DECENTR</td>
<td>1.247 (.565) **</td>
<td>.923 (.613)</td>
<td>1.044 (.536) *</td>
<td>1.119 (.571) *</td>
</tr>
<tr>
<td>QUALIFIED</td>
<td>- 310 (.681)</td>
<td>- 625 (.378) *</td>
<td>- 740 (.442) *</td>
<td>- 797 (.455) *</td>
</tr>
<tr>
<td>ADDITIONAL</td>
<td>.401 (.462)</td>
<td>.444 (.357)</td>
<td>.361 (.341)</td>
<td>.460 (.357)</td>
</tr>
<tr>
<td><strong>ADJUDICATION</strong></td>
<td>- 1.167 (.490) **</td>
<td>- 1.041 (.466) **</td>
<td>1.221 (.441) ***</td>
<td>1.137 (.418) ***</td>
</tr>
<tr>
<td>RELECT2</td>
<td>1.110 (1.198)</td>
<td>.279 (.863)</td>
<td>.406 (1.004)</td>
<td>.444 (1.079)</td>
</tr>
<tr>
<td>RELECT3</td>
<td>2.467 (.918) ***</td>
<td>1.99 (.646) ***</td>
<td>1.922 (.634) ***</td>
<td>1.933 (.625) ***</td>
</tr>
<tr>
<td>RELECT4</td>
<td>1.420 (1.160)</td>
<td>1.307 (1.128)</td>
<td>1.339 (1.046)</td>
<td>1.417 (1.068)</td>
</tr>
<tr>
<td>RELECT5</td>
<td>2.956 (1.790) *</td>
<td>2.609 (1.162) **</td>
<td>2.624 (1.189) **</td>
<td>2.603 (1.192) **</td>
</tr>
<tr>
<td>TERM</td>
<td>.278 (.272)</td>
<td>.306 (.268)</td>
<td>.406 (.321)</td>
<td>.435 (.260)</td>
</tr>
<tr>
<td><strong>POLITICAL STABILITY VARIABLES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSITION</td>
<td>-</td>
<td>.849 (.376) **</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>INTERVENTION</td>
<td>-</td>
<td>-</td>
<td>1.859 (.381) ***</td>
<td>1.873 (.381) ***</td>
</tr>
<tr>
<td>PARTYCHANGE</td>
<td>-</td>
<td>1.075 (.353) **</td>
<td>- .800 (.347) **</td>
<td>.722 (.321) **</td>
</tr>
<tr>
<td>ANTIVGOVT</td>
<td>-</td>
<td>239 (.092) ***</td>
<td>281 (.096) ***</td>
<td>.285 (.098) ***</td>
</tr>
<tr>
<td>STRIKE</td>
<td>-</td>
<td>288 (.104) ***</td>
<td>380 (.128) ***</td>
<td>.357 (.119) ***</td>
</tr>
<tr>
<td>GUERRILLA</td>
<td>-</td>
<td>-151 (.177)</td>
<td>-281 (.205)</td>
<td>-292 (.206)</td>
</tr>
<tr>
<td><strong>CONTROL VARIABLES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEGACY</td>
<td>.106 (.039) ***</td>
<td>.114 (.026) ***</td>
<td>.114 (.032) ***</td>
<td>.123 (.033) ***</td>
</tr>
<tr>
<td>THIRDWAVE</td>
<td>- .161 (.348)</td>
<td>- .652 (.469)</td>
<td>- .347 (.593)</td>
<td>- .303 (.718)</td>
</tr>
<tr>
<td>DIFFUSION</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.461 (.707) **</td>
</tr>
<tr>
<td>INFLATION</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.000 (.000)</td>
</tr>
<tr>
<td>GROWTH</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- .014 (.066)</td>
</tr>
<tr>
<td>LOG PSEUDO-LIKELIHOOD</td>
<td>-91.911</td>
<td>-82.815</td>
<td>-76.016</td>
<td>-75.324</td>
</tr>
</tbody>
</table>

N 990 990 990 990

Numbers in parenthesis are robust standard errors clustered by country.

*** p < 0.01; ** p < 0.05; * p < 0.1

Model 1 provides an initial test of the effect of institutional design on the durability of constitutions. Inclusive electoral rules have the expected...
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negative sign but their impact is not statistically different from zero. BICAMERAL, on the other hand, has a negative sign and is statistically significant at p < .01. This means that, compared to a unicameral congress, bicameralism systematically reduces the risk of constitutional replacement. This may be because a bicameral congress provides representation to a larger number of actors who have no interest in changing the constitution and/or because it makes more difficult to reach an agreement on the replacement of the existing constitution. Contrary to the prediction, VETO and DECENTR have positive signs and the latter is statistically significant at p < .05. One possible interpretation is that the existence of independent local authorities increases the demands for constitutional change to reallocate powers and jurisdictions between the central state and sub-national units.

None of the variables measuring the impact of amendment procedures have a systematic effect on the hazard rate of constitutional replacement. ADJUDICATION, however, has a negative sign and is statistically significant at p < .05. This suggests that having a body with the power to interpret the constitution with general effects does decrease the risk of constitutional replacement.

All the variables measuring power concentration have a positive sign. REELECT3 and REELECT5 are also statistically significant at p < .01 and p < .10 respectively. This means that, compared to the proscription of presidential reelection, provisions allowing the president to be reelected after one term or allowing the president to be reelected indefinitely systematically increase the hazard of replacement. The result makes sense, considering the prominence of term limits in many constitutional replacements in Latin America. Reelection after one term, for instance, has been the most common provision before a constitutional change replaced it by either more or less permissive reelection rules. Indefinite reelection, in turn, is often the target of constitutional changes that occur after the fall of dominant parties or after an authoritarian regime.

Among the control variables, LEGACY has a positive sign and is statistically significant at p < .01. This indicates that a past of constitutional instability increases the risk that existing constitutions will be replaced. This finding reflects that regular patterns of behavior affect expectations. Given a past of constitutional instability, political actors do not expect constitutions to survive for a long time which, in turn, accelerates demands for change. THIRDWAVE has a negative sign, indicating that the rate of constitutional replacement has shown a decreasing trend since 1978. The effect, however, is not statistically significant.

Model 2 adds all the variables measuring political instability except INTERVENTION. The impact of institutional variables remains the same as in

30 Specifically, 37 of the 62 constitutions included in the database had a provision allowing for presidential reelection after one term and 33 of them failed to survive.
Model 1, except for DECENTR, which is no longer statistically significant, and QUALMAJ, which becomes marginally significant. REELECT5 increased its significance level at p < .05. The coefficients of TRANSITION and PARTY CHANGE are statistically significant at the .05 and .01 level and have the expected positive sign. This means that regime transitions, either from or to democracy, and substantial transformations in the party system increase the risk of constitutional replacement. ANTIGOVT and STRIKE are also significant, at p < .01, indicating that an increase in the number of antigovernment demonstrations or general strikes per year is positively correlated with a higher risk of constitutional replacement.

Model 3 replaces the variable INTERVENTION for TRANSITION. This variable is significant at p < .01 and has a positive sign, indicating that the interruption of governments by means of military coups, revolutions or civilian revolts leads to an important increase in the hazard of constitutional replacement. The impact of the rest of the variables is similar to what we observe in Model 2.

Model 4 is the complete model, including controls for diffusion effects and economic conditions. Results for the constitutional design and political stability variables are the same as those of the previous model. Among the new control variables, only DIFFUSION is significant at p < .05, indicating that the number of countries replacing their constitutions in a particular geographical area may have an effect on the probability that a nearby country will also replace its constitution.

Based on the results of Model 4, we can calculate the effect of the most significant variables using hazard ratios. As shown in Table 3, the hazard of constitutional replacement decreases by 81, 55 and 68% respectively when the constitution provides for a bicameral congress, an amendment rule that requires a qualified majority to pass constitutional changes, and a constitutional court with the power to invalidate laws and acts of government with general effects. The hazard, however, increases by 591 and 1250% when the president can be reelected after one term or indefinitely. Among the political stability variables, the most impressive change in the hazard is created by the termination of governments by means of military coups, revolutions or civilian revolts. The occurrence of these events increases the hazard of constitutional replacement by 550%. The emergence of new parties, the occurrence of antigovernment demonstrations and general strikes increase the hazard by 106, 33 and 43% respectively.

\[31\] INTERVENTION correlates with TRANSITION because several transitions (either from or to democracy) occurred due to military coups that interrupted the existing government.

\[32\] For the discussion of a similar result using a different database, see Elkins, Ginsburg and Melton (2007).
I used a Weibull model to test whether the hazard of constitutional replacement is dependent on the age of constitutions. Unlike the Cox model, where the particular form of the hazard function is left unspecified, the Weibull model constrains the baseline hazard to be monotonically increasing or decreasing, or flat with respect to time. Table 4 shows the results of this model for the regression of column 4 of Table 2.
### TABLE 4. WEIBULL REGRESSION OF DURATION OF CONSTITUTIONS IN LATIN AMERICA, 1946–2000

**DEPENDENT VARIABLE: LIFESPAN OF CONSTITUTIONS**

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>ESTIMATE (STD. ERR.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTITUTIONAL DESIGN VARIABLES</strong></td>
<td></td>
</tr>
<tr>
<td>ELECRULE2</td>
<td>-.534 (.720)</td>
</tr>
<tr>
<td>ELECRULE3</td>
<td>-.169 (.420)</td>
</tr>
<tr>
<td>VETO</td>
<td>.508</td>
</tr>
<tr>
<td>SICAMERAL</td>
<td>-1.111 (.394)***</td>
</tr>
<tr>
<td>DECENTR</td>
<td>1.022 (.339)</td>
</tr>
<tr>
<td>QUALIFIED</td>
<td>.484 (.482)</td>
</tr>
<tr>
<td>ADDITIONAL</td>
<td>.123 (.366)</td>
</tr>
<tr>
<td>ADJUDICATION</td>
<td>- .701 (.424)*</td>
</tr>
<tr>
<td>REELECT2</td>
<td>.448 (.929)</td>
</tr>
<tr>
<td>REELECT3</td>
<td>1.641 (5.83)***</td>
</tr>
<tr>
<td>REELECT4</td>
<td>.905 (1.036)</td>
</tr>
<tr>
<td>REELECT5</td>
<td>1.917 (1.311)</td>
</tr>
<tr>
<td>TERM</td>
<td>.163 (.267)</td>
</tr>
<tr>
<td><strong>POLITICAL STABILITY VARIABLES</strong></td>
<td></td>
</tr>
<tr>
<td>INTERVENTION</td>
<td>1.639 (.418)***</td>
</tr>
<tr>
<td>PARTYCHANGE</td>
<td>.724 (.326)**</td>
</tr>
<tr>
<td>ANTIGOVT</td>
<td>.086 (.123)</td>
</tr>
<tr>
<td>STRIKE</td>
<td>.062 (118)</td>
</tr>
<tr>
<td>GUERRILLA</td>
<td>-.099 (.105)</td>
</tr>
<tr>
<td><strong>CONTROL VARIABLES</strong></td>
<td></td>
</tr>
<tr>
<td>LEGACY</td>
<td>.074 (.042) *</td>
</tr>
<tr>
<td>THIRDWAVE</td>
<td>-.072 (.484)</td>
</tr>
<tr>
<td>DIFFUSION</td>
<td>-.630 (.384) *</td>
</tr>
<tr>
<td>INFLATION</td>
<td>-.000 (.000)</td>
</tr>
<tr>
<td>GROWTH</td>
<td>.025 (.052)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-8.263 (2.594)***</td>
</tr>
<tr>
<td>LN_P parameter P</td>
<td>.434 (.074)***</td>
</tr>
<tr>
<td>LN_P</td>
<td>1.54 (.115)***</td>
</tr>
<tr>
<td>N</td>
<td>990</td>
</tr>
</tbody>
</table>

Numbers in parenthesis are robust standard errors clustered by country.

*** p < 0.01; ** p < 0.05; * p < 0.1

The coefficients of the relevant variables differ somewhat from those of the Cox regression, particularly ANTIGOVT and STRIKE. The main purpose of using the Weibull model, however, is to estimate the baseline hazard...
function, something we cannot do with a Cox regression. The null hypothesis is that the hazard of replacement is constant. This hypothesis is rejected at the 0.01 level. A Weibull regression also allows us to estimate whether the hazard is increasing or decreasing through time. This is indicated by the parameter $p$. If $p > 1$, the hazard is monotonically increasing; if $p < 1$ the hazard is monotonically decreasing. Table 4 shows that $p$ is 1.54. This means that, at least for Latin American constitutions from 1946 to 2000, the hazard of constitutional replacement increases monotonically with time. Figure 2 shows the shape of the hazard function.

![Figure 2. Estimated hazard based on Weibull regression](image)

Note that this result does not mean that the hazard of constitutional replacement is ever-increasing. It appears to have this shape due to the assumptions of the Weibull model. The real shape of the hazard rate may very well decrease and then increase over time, as suggested by the non-parametric estimate of the hazard shown in Figure 1. What the model indicates, however, is that the hazard is increasing overall, thus rejecting the hypothesis that there is a positive dependence between time and the lifespan of constitutions.

33 To see the impact of outliers, I ran the regression without the most (Colombia, Costa Rica and Mexico) and without the least stable (Ecuador, Nicaragua and Venezuela) countries. The estimate of the baseline hazard function did not change significantly.
A substantive interpretation of this result for the Latin American context is that time may only increase the survival of constitutions when the latter are perceived as binding documents that have a positive effect on social welfare. Constitutions that merely survive in the midst of government and regime instability, pervasive social conflict, and economic decline are likely to be seen as irrelevant or as contributing factors to performance failure. In either case, political elites will have incentives to change constitutions periodically to redistribute power or to create the hope of a new beginning among disillusioned citizens.
Conclusions

Several important works on political institutions assume that constitutions are a stable set of rules that constrain political actors. This assumption is questionable, however, since the lifespan of constitutions varies a great deal both within and across countries.

I have argued that the stability of constitutions should be explained as a function of specific variables that either increase or decrease the capacity of constitutions to survive, and not simply as a function of time. One group of potentially relevant variables is related to constitutional design itself. Another group of variables is related to the political environment that constitutions are meant to regulate.

Neither of these explanations has yet been scrutinized through empirical analysis. In this paper I have attempted a preliminary test using data on constitutional replacements in Latin America from 1946 to 2000. Overall, the results of the empirical analysis show that contextual factors, rather than constitutional provisions alone, may be crucial for explaining whether constitutions remain stable in equilibrium. In particular, regime transitions, transformations of the party system, irregular interruption of governments, and antigovernment demonstrations significantly increase the risk of constitutional replacement.

This finding makes sense from a comparative perspective. Countries like Colombia and Mexico have both had long-living constitutions in spite of the fact that these constitutions were very different in origins and design. What seems to be common to those countries however, is the relative stability of their political regimes and party systems and the absence or low number of governments interrupted by military coups or civilian revolts. On the other hand, Nicaragua has had a higher rate of constitutional instability than Costa Rica, in spite of the fact that both countries had very similar constitutions. The turbulent political history of Nicaragua compared to the relative social and political stability of Costa Rica since 1949 seem to provide an answer for their different trajectories.

The interruption of governments by military coups, civilian revolts, or revolutions has had the greatest effect in reducing the lifespan of constitutions in Latin America during the period under study. Of the constitutions that failed to survive from 1946 to 2000, 66% were replaced within a few years of a military coup, a civilian revolt or a revolution.

These events occurred under both democratic and authoritarian regimes. Some of these events are rare (revolutions) or may not occur in the future at the rate they occurred in the past (military coups). The region, however, still suffers from government instability. From 1978 to 2003, for instance, 15 presidents have been forced to resign or unilaterally decided to cut short
their constitutional terms. These events have already triggered processes of constitutional change (such as Peru in 1993, Ecuador in 1998, and Venezuela in 1999) suggesting that constitutional instability is likely to persist in the region.

The analysis also shows that variables related to constitutional design may have an important effect on the survival of constitutions. Bicameralism, for instance, appears to reduce the hazard of constitutional replacement, either because it provides politicians with more positions to compete for or because it makes the process of replacement more difficult. There is also evidence that the existence of a body responsible for interpreting the constitution and with the power to make decisions with general effects strengthens the capacity of constitutions to survive under changing political and social conditions. Some institutions also appear to reduce the lifespan of constitutions. Compared to the absolute proscription of presidential reelection, the possibility of reelection after one term significantly increases the risk of constitutional replacement. This provision is likely to promote constitutional replacements to make reelection more or less restrictive.

The analysis presented in this paper constitutes a preliminary step for improving our understanding of why some constitutions survive more than others. Several issues are obviously left unexplored. One of them is constitutional change under authoritarian regimes. It is not obvious why authoritarian leaders might care about constitution making if constitutions are supposed to be dead letter during their rule. It would also be useful to consider amendments in comparison to replacements to see whether they are explained by the same or different factors. This would allow us to be more specific about the exact impact of amendment rules on the frequency of replacements. These issues are part of a future research agenda.
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Acknowledgments

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Appendix

Data Sources on Constitutions and Constitutional Change


Country Profiles, http://lcweb2.loc.gov/


Latin American Historical Dictionaries, various countries (Metuchen, N.J: Scarecrow Press, Inc.)

Political Database of the Americas, http://pdba.georgetown.edu/Constitutions/constudies.html
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