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THE TIME INCONSISTENCY OF LONG CONSTITUTIONS: EVIDENCE FROM THE WORLD

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erankin3@nd.edu

# THE TIME INCONSISTENCY OF LONG CONSTITUTIONS: EVIDENCE FROM THE WORLD* 

## George Tsebelis

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George Tsebelis is the Anatol Rapoport Collegiate Professor of Political Science at the University of Michigan. His work uses game theoretic models to analyze the effects of institutions, mainly in Western European countries and the European Union but also in Latin America and Eastern Europe. He has authored four books - Nested Games: Rational Choice in Comparative Politics (University of California Press, 1991), Veto Players: How Political Institutions Work (Princeton University Press, 2002), Bicameralism (coauthored, Cambridge University Press, 1997) and Reforming the European Union: Realizing the Impossible (coauthored, Princeton University Press, 2013) - and edited several. A former Kellogg Institute visiting fellow, he is a member of the American Academy of Arts and Sciences.
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The dataset used in the analysis, together with an explanation of the variables, is available at: http://sites.lsa.umich.edu/tsebelis/data/constitutional-data/.


#### Abstract

This paper analyzes the mechanisms that establish time consistency of constitutions. It explains why shorter and more locked constitutions are more likely to be time consistent (change less), whereas long constitutions are more time inconsistent (change more, despite locking). Empirical evidence from all the democratic countries in the world indicates that the length and locking of constitutions are not independent criteria and that their combination leads to less time consistency. To address this interrelationship, I develop a measure of time inconsistency (a combination of locking and amendment rate) and show that it is connected with the length of constitutions. I show how time inconsistency is incompatible with theories of "constitutional amendment culture" (Ginsburg and Melton 2015), not only at the theoretical level but also empirically. Finally, I demonstrate that the empirical findings of Tsebelis and Nardi (2016) that length of constitutions is related to lower per capita income and higher corruption are not only in agreement with time inconsistency arguments but are corroborated beyond OECD countries to all democracies.


## RESUMEN

Este artículo analiza los mecanismos para determinar la consistencia temporal de las constituciones. Explica por qué es más probable que las constituciones más escuetas y más cerradas sean consistentes temporalmente (cambien menos) y que las constituciones más extensas sean más inconsistentes (cambien más, aún cuando sean cerradas). La evidencia empírica de todos los países democráticos en el mundo indica que la longitud y la cerrazón de las constituciones no son criterios independientes y que su combinación lleva a una menor inconsistencia temporal. Para tratar esta relación, desarrollo una medida de inconsistencia temporal (una combinación de la cerrazón y la tasa de enmiendas) y demuestro que esta inconsistencia está conectada con la longitud de las constituciones. Muestro cómo la inconsistencia temporal es incompatible con las teorías que postulan una "cultura de enmiendas constitucionales" (Ginsburg y Melton 2015) no solo en el plano teórico sino también empíriamente. Finalmente, demuestro que los hallazgos empíricos de Tsebelis y Nardi (2016), que indican que la longitud de las constituciones está relacionada con ingresos per capita más bajos y corrupción más alta, no solamente coinciden con los argumentos de inconsistencia temporal sino que se verifican, más allá de los países de la OCDE, en todas las democracias.

This paper studies constitutional revision provisions at the theoretical level. Country constitutions systematically involve two categories of items: individual rights; and the rules of the political game. The emphasis is on the word "systematically," because they may also include other elements. ${ }^{1}$ Individual rights and the rules of the political game in a democracy must be well known in advance and respected by all participants in the political game. That is, they require time consistency. For this reason, constitutions protect their text from change by making modification difficult. Indeed, constitutions include provisions requiring qualified majorities of one body or concurrent majorities of several bodies in order to be modified. Sometimes both restrictions are in force, and sometimes additional restrictions involving repeated votes, time constraints, or participation requirements are also present.

While locking in order to avoid modification seems to be a common-sense argument for the creation of a constitution, this logic is not confirmed empirically by analyses of constitutional locking and amendment data-and is sometimes even disputed theoretically in the literature. Rasch and Congleton (2006: 549), for example, argue: "Clearly, there may be much more to be learned about the relationship between amendment rates and amendment procedures." In a more forceful way, Ginsburg and Melton (2015: 691) dispute whether the amendment rules matter at all and "go on to develop a measure of amendment culture as an alternative to institutional factors that constrain amendment."

I develop a model that combines constitutional rigidity and amendment frequency into a concept called "time inconsistency" (that is the rate of change of constitutions, despite their locking). This model disputes the theoretical validity of the "amendment culture" argument. I find that time inconsistency correlates with the length of constitutions in all democratic countries.

The paper is organized in four parts. In the first part, I present the interaction, in game form, between the founders of a constitution and the subsequent generations who may choose to revise. In the second part, I examine the constitutional "locking" mechanisms and show their impact on the constitutional provisions. Because of locking, changes in constitutional provisions require overwhelming agreement in democratic countries. In the third part, I empirically examine

[^0]the combination of three elements of constitutions in $92^{2}$ democratic countries (scoring $>6$ in Polity 2 scale): constitutional rigidity (locking); amendment rate; and length of the constitution. I produce new measures of constitutional rigidity based on the constitutional restrictions of amendments. My measures extend previous institutional literature (Lijphart 2012; Lutz 1994;

Lorenz 2005; Anckar and Karvonen 2002; Rasch and Congleton 2006) to cover all 92 democratic countries in a consistent way. My measures depart from the Comparative Constitutions Project (Elkins, Ginsburg, and Melton 2009), also used by Tsebelis and Nardi (2016), in that they include not only institutional but also economic and social variables. ${ }^{3}$ Bucur and Rasch (forthcoming) have already criticized results based on non-institutional measures, ${ }^{4}$ and Ginsburg and Melton (2015) have departed from the measures separating institutional from social and economic variables and argued that constitutional restrictions do not matter at all for amendment frequency. Their argument is that amendment frequency can be explained by amendment culture. I develop the concept of time inconsistency (combination of constitutional rigidity and amendment frequency), measure it, and find that it is positively related to the length of a constitution. I argue that the time inconsistency approach is incompatible both theoretically and empirically with the amendment culture approach.

In the fourth part I examine implications of the time inconsistency argument and find that the claims of Tsebelis and Nardi (2016) - that in OECD countries constitutional length is associated with lower per capita GDP and higher corruption - are corroborated in all 92 democracies. However, my results, based on all 92 countries and expanding the data up to 2013 - Tsebelis and Nardi cover only up to 2006 - are weaker than those of Tsebelis and Nardi when controls for education and corruption are introduced.

[^1]
## THE INTERGENERATIONAL CONSTITUTIONAL GAME

The founders of every constitution want to generate a document that will regulate the interactions of the political game for generations to come. Whether it is the rights of citizens or the interactions among the political actors, these rules have to be known and respected (and therefore known to be stable) by all political actors. On the other hand, if unforeseeable circumstances arise, these constitutional rules have to permit amendment. This is why there are constitutional provisions about the requirements for a constitutional revision.

The theoretical debate in constitutional design is between two major options with regard to the time horizon of constitutions: either one that is anchored to and shaped by the citizens it represents; or one that stands the test of time. The former perspective represents that of Thomas Jefferson; the latter represents that of James Madison. The two addressed a fundamental question of the role played not only by a nation's governing document, a constitution, but also the relation of the governors to the governed: Who decides the rules of the game? Are the living to be ruled, as Jefferson argued, by themselves in a revisited document, or should they be ruled by their forbearers through an enduring document?

Jefferson supported the idea of a constitutional replacement every generation to allow citizens to revisit institutions and rules, adapting them to changing circumstances. He supported replacing (or at least some form of reevaluating) constitutional bargains every generation, about every 19 years - which is, as Elkins, Ginsburg, and Melton (2009: 129) note, the median survival time of constitutions in their sample. Madison, however, took issue with such a suggestion, arguing against instability and in favor of longevity. A government worthy of respect, in Madison's view, is one that is both faithful to its citizens' wishes and remains steadfast in the face of short-lived fads and whimsical ideas. Additionally, long-standing constitutions, according to Madison, are more stable and less susceptible to the "ambition or corruption of one" and the "sagacious, the enterprising, and the moneyed few" (Madison 1982 [1788]).

## FIGURE 1

## WRITING AND REVISING THE CONSTITUTION GAME



Figure 1 provides the game form of the considerations of founders and future generations. The founders have to decide on three different issues: 1) whether to include a subject matter in the constitution; 2) whether to include many provisions on the subject and make it restrictive; and 3) how much to lock it in order to protect it against revisions. Each country gives different answers to these questions. This is why subjects that exist in some constitutions are absent in others and why the locking mechanisms are different not only across countries but even inside the same constitution. (Usually articles are divided into two groups: those that are not amendable; and those that can be amended under specific rules.) Of the 92 democratic constitutions included in my sample and coded by the Comparative Constitutions Project (CCP), 35 contain provisions detailing non-amendable portions.

For future generations, the question of a constitutional revision may arise, and the occurrence will be more frequent the more subjects and detailed provisions the founders opted to incorporate. The success of such attempts at revisions will be higher the less locked the constitution is (a topic I turn to in the next section). ${ }^{5}$

I have indicated with bold letters all the choices that lead to subgame perfect equilibria in this game form. One choice that does not lead to such an equilibrium, however, is the combination of constitutional detail (including a large number of provisions) and a failure to lock them sufficiently, along with the willingness of future generations to modify the constitutional provisions.

The usual term in the economic literature for the description of such equilibria that are not subgame perfect is "time inconsistent." Economic theory has long underscored, since Kydland and Prescott's (1977) Nobel-winning article "Rules Rather than Discretion," that time inconsistency ought to be avoided in economic policy making. This is the standard reason that countries delegate monetary policy to central banks: to take it away from the hands of a government that will change preferences as a function of electoral cycles. This argument has been propagated in the creation of many other independent authorities as well, including environmental protection, mass media, medical regulations, and so on.

If institutions are created in order to avoid time inconsistency in policies, time inconsistency a fortiori should be avoided with respect to the rules of the game-that is, the constitution. In other words, constitutions that change often are subject to discretion rather than rules. ${ }^{6}$

On the basis of Figure 1, one can see that long constitutions (involving many and detailed provisions) may lead to time-inconsistent outcomes. That is, despite their locking, they may lead

[^2]future generations to overcome the obstacles and revise the constitution. In the next section, I focus specifically on these locking mechanisms.

## THEORY: "LOCKING" MECHANISMS AND THE PROTECTION OF CONSTITUTIONS

While ordinary legislation usually requires a simple majority to be approved, constitutional provisions are "locked," in that they require surmounting a wide variety of hurdles for their modification, such as: qualified majorities of a legislature or a constituent assembly (e.g., Portugal and South Africa); presence of a quorum (e.g., Belgium and Colombia); approval by several bodies (e.g., a house and a senate or an elected president, as in Mexico); a referendum (e.g. Switzerland); the same institution(s) to adopt the same text multiple times (e.g., Bulgaria and Brazil); and introducing an election between the two approvals (e.g., Finland and Sweden). They may also introduce several combinations of the above and/or permit alternative routes for approval of amendments. For example, the Italian constitution requires either simple majorities in both chambers of the legislature followed by a referendum or two-thirds majorities in both chambers.

FIGURE 2
CONSTITUTIONAL CORE WITH 5/7 OR 6/7 QUALIFIED MAJORITY


I will explain the impact of such requirements. Assume a 7-member body that requires a qualified majority of 5 or 6 members for an amendment to be adopted, as in Figure 2. Under a

5/7 majority, there is no possibility of adopting a proposal to the left of member 3 , or to the right of member 5, as long as members can introduce their own amendments. If the status quo is in the area $3-5$, it cannot be upset by an alternative proposal (there is no possible $5 / 7$ majority against it). If the status quo is outside this area, several points inside this interval can defeat it.

Under a 6/7 majority, this area expands to the 2-6 interval. The formal name of this area, where points cannot be defeated by applying the required (qualified majority) decisionmaking rule, is the "core" (Berl et al. 1976). In the remainder of this paper, since constitutional amendments require special conditions, I will refer to the "constitutional core."

To simplify matters, first I replicate the argument in Tsebelis and Nardi (2016) in one dimension; then I move to multiple dimensions and multiple approval bodies, as well as differences in opinions among members of the same party. I later explain how all these factors shape my strategy of empirical investigation (universe of cases, dependent variable, as well as exclusion of other variables existing in the literature).

## FIGURE 3

CHANGE OF CORE IN ONE DIMENSION UNDER 5/7 and 6/7 MAJORITY

## Possible <br> Modification _- New 5/7 Core <br> under 5/7

—— Old 5/7 Core


NO Possible
Modification _ New 6/7 Core under 6/7

The only way for constitutional revisions to become an option in a democratic polity is if a point that had been inside this core is now located outside. In other words, a constitutional revision can involve only points (and provisions) that used to be centrally located inside the body politic of a democratic country but are not anymore. This argument limits the analysis to democratic countries only, because any constitutional changes in an authoritarian regime are not predicated on a change in preferences of the population at large.

This change can occur only with significant modification of the positions of the individual players (or an exogenous shock that makes the previous positions no longer tenable). ${ }^{7}$ Figure 3 presents such a modification. In this figure, 5 of the 7 members of Figure 2 have changed and moved to the right (some significantly so, such as Players 5, 6, and 7, who moved beyond the previous political space, since points $5^{\prime}, 6^{\prime}$, and $7^{\prime}$ are beyond 7 ). This is a political shift so radical that it is difficult to imagine in any real polity except during a revolution.

Despite this shift, there is considerable overlap between the old 5/7 core and the new 5/7 core. If a constitutional amendment requires a $5 / 7$ majority, the only provisions that could be revised are those falling in the $\left(3,3^{\prime}\right)$ area. Yet if the required majority for constitutional revision is $6 / 7$, then there is no possibility of such a modification. Thus, even in the face of extreme changes in the political space, no change is possible under a $6 / 7$ majority. Constitutional change requires a point of the previous constitutional core (an article or section of the existing constitution) to be located outside the polity's current core.

Let me now move to multiple bodies and multiple dimensions as well as in differences of opinions of members of the same party. There are two reasons I am generalizing in all these dimensions. First, doing so addresses arguments that the ideological distance among chambers affect the size of the core. Indeed, as Tsebelis (2016) shows in the Italian context, changing the mode of election of the Senate is likely to increase its ideological distance from the House and make future constitutional revisions more difficult. Second, it addresses an argument made by Negretto (2012) that ideological diversity within parties may facilitate constitutional revisions, since necessary votes may be found by different legislators. Figure 4 demonstrates that both arguments are correct.

[^3]
## FIGURE 4

## CORE WITH ALTERNATIVE CONSTITUTIONAL PROVISIONS



To simplify matters, consider a constitution that requires for its modification a threefourths majority in both chambers (A and B) along with half of the members of a third body (either legislator P or legislator Q ). The constitutional core of legislature A is the whole triangle A (any point inside it cannot be modified by a three-fourths majority); Similarly, the constitutional core of legislature $B$ is the whole triangle $B$. In addition, any point between A and B cannot be modified by the required three-fourths bicameral majority. The bicameral core is thus area A1, B1, B2, B3, A3, A2. If the vote of legislator P was required, the shaded area extending to the point P would have been the constitutional core. An identical argument can be made about legislator Q. However, what is needed is only one of the two votes. As a result, the core (the set of points that cannot be modified) is the intersection of the two cores. The figure demonstrates that if the ideological distance of the two chambers increases (the legislatures A and B move away from each other), the constitutional core expands (in agreement with Tsebelis's 2016 argument), while the difference of opinions of the two legislators will decrease the size of the core (Negretto's argument).

## IMPLICATIONS AND DATA COLLECTION

The above analysis leads to two major conclusions: Section I implies that constitutional amendments are out of (perfect) equilibrium behavior. Section II indicates that such amendments are a difficult enterprise. However, none of these conclusions are uncontroversial in the literature; this is why I will discuss them in detail. I first address alternative approaches and then explain the implications for data collection.

1. Constitutional amendments are out of equilibrium.

According to Section I, the text of the constitution is supposed to be applied the way it is written. In case parts of it are unclear or imprecise and disputes are created, the interpretation is left to courts. If a major problem arises that the constitution is unable to address, a constitutional amendment is in order. This amendment has to be created on the basis of the rules specified inside the constitution (the locking mechanism).

Some scholars of constitutional law challenge the distinction between constitutional interpretation and constitutional amendment. In particular, they argue that major court decisions and major constitutional amendments are "functionally equivalent," in that they both change the status quo constitutional policy. For instance, writing about the US case, Ackerman (1991) argues that justices make amendment-level decisions in cases when public opinion clamors for change. Given that three-fourths of the American states are required for formal amendment, he argues, even strong movements in favor of constitutional change are often stymied. In order to placate the public, then, judges make monumental decisions that essentially "amend" the constitution. Cases such as the 1954 Brown v. Board of Education decision provide an example of this phenomenon.

Other scholars agree with and build upon Ackerman's assertion. Amar (1994) goes so far as to assert that citizens possess a "self-evident" right to amend their constitution-even outside the formal amendment process. According to Amar, Article V of the American constitution does not establish the formal amendment process as the only amendment process, thereby allowing for other means of constitutional amendment-presumably including major judicial interpretations - to achieve the same "status" as formal constitutional amendment. In his book, The People Themselves (2004), Kramer argues that, in fact, judges have gained too much constitutional authority through their power of interpretation. The people, he says, should have
the final "say" about the constitutional policy — not the courts. Whittington (2009) echoes this sentiment, though from an originalist perspective. That is, because judges have become so powerful-because judicial interpretation has risen so close to the consequentiality of formal amendment - judicial activism has actually depressed the people's propensity to push for constitutional amendment.

The notion that major judicial interpretations are functionally equivalent to constitutional amendment is not without its opponents, of course. In particular, most originalists resist such a strong view of judicial interpretation, instead arguing that justices provide only clarification - not policy change.

However, the argument I am making in Section I has nothing to do with "functional equivalence" (which I do not dispute) or judicial activism (which I cannot define) or the rules that should regulate judicial decisionmaking. I argue that judicial interpretation is inside the constitutional equilibrium, while constitutional amendment is not a (perfect) equilibrium. The constitution relies on judicial interpretation, while amendments imply that the text itself needs change. In terms of the judicial decisionmaking, even if judges interpret the constitution "inappropriately" according to analysts, they still behave in equilibrium, that is, on the basis of the powers ascribed to them by the constitution. In case the political system (people, elected representatives) disagree with the current constitutional equilibrium, they can move out of it and amend the constitution. This was the case, for example, in the "fair trial" constitutional act introduced in Italy in 1999 (Tsebelis 2016).
2. Constitutional amendments are difficult to achieve.

Constitutional amendments, by definition, are required to be outside the constitutional core in order to be successful. The larger the core, the more difficult it becomes to amend the constitution. Every restriction that a constitution has in place for its amendment will enlarge the core. Whether enlarging through qualified majorities, requiring approval by more than one body, asking for double votes within specified time intervals (or the opposite: preventing a second vote before some specific time), asking for elections to be held between two votes, requiring specific levels of participation, or any other means, such restrictions make constitutional amendments more difficult to achieve. Consequently, the rules of amendment are extremely important. As Burgess put it: "[The] [a]mending clause...describes and regulates...amending power. This is the
most important part of the constitution" (Burgess 1890: 137). Thus, as a consequence of points 1 and 2 :
3. Amendments cannot be the explained by "amendment culture."

In a recent article, Ginsburg and Melton (2015) depart from the measures of constitutional flexibility that they had proposed (with coauthor Elkins) in their pioneering book, The Endurance of National Constitutions (2009) and the Comparative Constitutions Project (CCP). The authors do so because measures of constitutional flexibility (or rigidity) have low correlation among themselves and they do not seem to affect the frequency of successful constitutional amendments. The CCP had created a measure of flexibility (or rigidity) involving not only constitutional provisions (like the rest of the literature) but also a series of additional variables, including ethnic heterogeneity, economic development, domestic crisis, economic crisis, territory gain or loss, defeat in war, and others. Even in the constitutional variables, CCP included a series of factors unrelated to amendment procedures, such as inclusiveness, an indicator for a unitary executive, parliamentary power, judicial review, and others. These variables are included because of the author's belief that constitutional rigidity is not only a theoretical matter but also an empirical one.

Given the low (and sometimes negative) correlation with other institutional measures of rigidity, Ginsburg and Melton (2015) decided to separate the institutional factors that most of the literature refers to (I will address this point below) and examine the possibility that "amendment culture" is instead responsible for constitutional amendments. In their words, "that attitude toward amendment will be expressed through amendment practices, and that these attitudes will endure in the form of norms that outlast any particular set of constitutions" (emphasis added) (Ginsburg and Melton 2015: 707).

However, whether or not actors have norms, habits, or "amendment culture" (to use Ginsburg and Melton terminology), they will nevertheless have to clear the constitutional thresholds in order to act upon these concepts - and they will certainly be frustrated by other actors with opposing interests, whose votes will be required according to the constitution. Therefore, the bottom line for the analysis in any democracy will have to be the constitutional provisions themselves. Due to the fact that the size of the core is generally quite large and the only parts of a constitution that can be amended are provisions that belong in the new core but
not in the old one (Figure 3), constitutional amendments are as difficult as the constitution specifies - even if there is a "constitutional culture" suggesting otherwise. In other words, culture may be in conflict with minor institutional provisions, but it certainly will not be in conflict with constitutional rules. ${ }^{8}$

Ginsburg and Melton approximate "amendment culture" by the frequency of amendments to the previous constitution. First, while "culture" is a very imprecise term, the particular choice although very creative may be objectionable to proponents of cultural approaches, because it essentially equates "culture" with "inertia." Second, and more important, this measurement is perplexing, as it makes little sense for political actors to determine their behavior on the basis of rules that are not supposed to regulate their behavior. For example, textbooks on French politics treat the IV and V Republics (after the constitutional change of 1958) as different countries, despite the fact that the French "culture" (whatever one might mean by the expression) was not significantly impacted. Thus, arguments about inertia (or in Ginsburg and Melton terms "amendment culture") cannot be part of an equilibrium analysis.

But, what if the basis of the Ginsburg and Melton argument is not theoretical validity but empirical accuracy? And what if this empirical accuracy matters more than equilibrium analysis? After all, in the empirical portion of their paper, Ginsburg and Melton regress the frequency of constitutional revisions on its lagged value (as well as on constitutional provisions of revision) and find strong and significant results for their lagged dependent variable (amendment culture) and insignificant results (including wrong signs) for the institutional variables.

The results, are disputable on empirical grounds. As Achen (2000:1) argues, "When one or more lagged values of the dependent variable are added 'as a control'...in many instances the autoregressive terms are strongly significant and the fit improves sharply, but the original sensible substantive effects of other variables disappear. This pattern frequently occurs even

[^4]when the lagged variables have no plausible causal interpretation." ${ }^{\prime 9}$ This result (as Achen demonstrates) occurs because, if there is a time trend, the inclusion of the lagged dependent variable picks the time trend up not only from the omitted variables but also from the included ones.

Ginsburg and Melton (2015) do not have a whole time series analysis-just one step. It is likely, however, that the amendment rules of the current constitution will be dependent on those of the previous constitution, particularly if these rules are finely defined as Ginsburg and Melton have done (amendment threshold, number of proposers, number of approvers, multiple sessions required, and judicial review are all independent variables). ${ }^{10}$ It is this serial dependence that is picked up by the amendment frequency of the previous constitution, as well as other omitted variables (such as economic development, ethnic divisions, etc., not included in the particular Ginsburg and Melton model but present in the CCP analysis). I simulated a model like this ${ }^{11}$ and confirmed Achen's expectations: the only variable that matters in the model is the lagged dependent variable, whose coefficient is inflated. The other variables (dummies, in my case) had no significance either and sometimes exhibited wrong signs. Thus, besides the lack of theoretical foundation, the results about inertia or "amendment culture" lack empirical validity.

I now turn to the requirements that the above analysis imposes on my data.
4. The necessary variables for empirical analysis.

The above theoretical arguments restrict the universe of my dataset to democracies only. Indeed, the argument that constitutional revisions require overwhelming support from the population or legislative bodies implies correspondence among preferences of the people and of legislators, or at least the independence of opinions of legislators. It cannot be argued that constitutional revisions in Gaddafi's Libya (if any) were approved by the overwhelming majority of the people. By considering all democracies, one significantly expands the universe of analysis of previous studies (with the exception of the CCP project).

[^5]Second, my dependent variable (frequency of revisions) measures how many times such procedures were successfully applied over the life of the country's current constitution. If several amendments occur in the same year, they are counted as one, because most likely they happened in the same constitutional revision. How amendments are characterized and evaluated has varied in the literature: other analyses try to identify how important changes were by identifying the average number of amendments over time (Lorenz 2005), measuring certain types of amendments only (Gutmann, Hayo, and Voigt 2011), or the success rate of amendment attempts (as Lutz 1994 uses for his index of amendment difficulty). There are, as B. E. Rasch (2008) emphasizes, many different ways one might operationalize the significance of amendment: by articles, words, or numbers of articles changed. Ginsburg and Melton (2015) illustrate how difficult it is to evaluate the substantive effect of amendments on a document when looking at the similarity of the document to itself before and after amendments: changing few words may have a large impact on how the country functions, as in the case of Spain's amendment to article 135 (balanced budget for public organizations). This sentiment is echoed in the work by Elkins, Ginsburg, and Melton (2009: 56), who show that while there is a wide variance for constitutional similarity before and after replacement, there is still considerable variation after amendments among some documents. My measure of frequency of revisions is the same as Negretto's (2012), as well as one of the two measures used by Ginsburg and Melton (2015).

Third, I have created new measures of "constitutional rigidity." Many measures of constitutional rigidity exist already, most of them based on constitutional rules alone (Lijphart 2012; Lutz 1994; Lorenz 2005; Anckar and Karvonen 2002; and Rasch and Congleton 2006). The CCP dataset (Elkins, Ginsburg, and Melton 2009) uses not only variables included in the constitution but other social and economic variables as well, as noted earlier. As a result, Ginsburg and Melton (2015: Table 3) find a negative correlation between the CCP measure of "amendment difficulty" and some of the institutional indicators produced by the other authors. Given that there has been no study using constitutional provisions alone that covers all democracies, I had to create new indicators. My data are calculated as of 2013 and include all (92) constitutions in effect in democracies in 2013.

While in many ways more complete that existing datasets, my data make a few omissions. First, the scope of the current enterprise (covering 92 countries) will lead me to omit policy positions. In Section II, I underscored arguments in the literature (e.g., Negretto, Tsebelis)
that focus not only on constitutional provisions but also on the policy positions of different actors (both collective and individual). While I believe those arguments to be correct, it was not feasible to collect such information for all 92 countries. ${ }^{12}$ Another omission I make is to exclude from my calculations time delays, or quorum requirements, or intermediate elections. While these amendment restrictions are consequential, they are not as important as the number of (institutional) actors involved in revision or the required majorities. I will use these two variables independently and try to triangulate the concept of constitutional rigidity in all 92 democratic countries that this article covers. So, I calculate new measures of "constitutional rigidity" in the following three ways.

First, I take the percentage requirement for constitutional revisions in the relevant legislative institution. For most countries, this value is the same, regardless of whether there is one house or two. (For example, Croatia requires two-thirds of members in each house to support a proposed change.) There are three notable exceptions: Burundi, Poland, and Austria. The first two have different thresholds for the two houses, while the third excludes the Senate from constitutional revisions (unless these are related to Federalism). In these cases, the more stringent requirement is used. For example, in Burundi, four-fifths of members in the lower house must approve, while two-thirds of members in the upper house must give their assent. Here, I use the four-fifths threshold for both houses for simplicity. Thresholds range from a simple majority (represented as 50 percent) to 80 percent as described in Burundi.

A second way of measuring rigidity is to use a categorical variable ( 1 for 50 percent, 2 for 60 percent, etc.). The values for this variable range from 1 to 5 .

A third means of capturing the rigidity of a constitution is to determine how many bodies are required to approve a constitutional change. For example, it may be that both legislative chambers and the head of state are required to approve amendments. In this case, the number of approving bodies would equal three. The addition of a public referendum adds an additional body. In these calculations, the focus is on amendments to constitutions that did not refer to domains with higher amendment thresholds. Some countries, such as Finland, require only one body's assent for changes (the unicameral Eduskunta), while other countries require many,

[^6]including Switzerland, which requires approval in both houses, the cantons, as well as the people. The values for this variable range from 1 to 4 .

Such variables have been used in the literature for a limited number of countries and have produced conflictual results: Ferejohn's (1997:523) examination of 30 countries finds no evidence that referendums or approval by the states (that is the number of veto players) have any impact on the frequency of amendments, while Rasch and Congleton's (2006) examination of 19 countries found that special majorities in the legislature have no discernible effect on amendment rates. My goal is that expanding the dataset to 92 countries, and using all three indicators, will permit me to get a better understanding of the underlying relationship.

There are two findings in the empirical literature replicated by my variables. First, the relation between constitutional rigidity and frequency of constitutional amendments is conflictual as demonstrated above, but also tenuous. (Elkins, Ginsburg, and Melton 2009; Ginsburg and Melton 2015; etc.; see also Appendix Figure A1). Second, there is a strong relationship between length of constitution and frequency of amendments (Elkins, Ginsburg, and Melton 2009; Lutz 1994 and 2006; Negretto 2012; and Figure A2 in the Appendix). ${ }^{13}$

However, these findings taken separately from each other are only part of the story. All the literature agrees that longer constitutions include more provisions and therefore generate a greater need for change. ${ }^{14}$ The real question is whether the internal provisions for amendment compensate for the multiplicity of provisions - that is, whether such internal provisions protect against the time inconsistency discussed in the first section of the paper. For this reason, I calculate time inconsistency in two steps. I first regress the frequency of amendments on the constitutional rigidity (the three different measures discussed above). Then, I calculate the difference between the actual frequency of amendments and the predicted (on the basis of amendment rigidity). I calculated amendment frequency as the number of years a constitution was changed over its democratic lifetime. ${ }^{15}$ Here again, if several articles were amended

[^7]together, they were counted as one event. I use democratic amendments to count how often the mechanism of constitutional change was activated in a successful way (unsuccessful attempts at modification are not counted).

The difference between actual and expected (on institutional grounds) frequency is the measure of time inconsistency. Table 1 demonstrates that for all three measures of rigidity, time inconsistency is highly dependent on the length of the constitution. Table 1 investigates the cases of both OECD countries and all democracies and shows that the expectations are consistent across the two sets of countries and across the three different ways that constitutional rigidity (and consequently time inconsistency) is measured. ${ }^{16}$

## TABLE 1



[^8]The variable of time inconsistency measures how many times a certain constitution was driven out of equilibrium, that is, was modified despite its locking. The Table indicates that the slope of OECD countries is steeper than that of other democracies. In other words, while constitutional rigidity increases with length in OECD countries, it remains practically constant across democratic countries. The frequency of amendments, however, increases with length across all democracies. As a result, there is a positive relationship between length and time inconsistency: overall, longer constitutions have an unexpectedly higher combination of rigidity and frequency of amendment. It is this discrepancy I will now consider.

## OTHER CORRELATIONS OF LENGTH (GDP PER CAPITA, CORRUPTION)

As Part II of this paper indicates, constitutional revisions have high requirements. Yet, as Part III indicates, long constitutions are more frequently changed and demonstrate higher time inconsistency. In order to explain this time inconsistency, one needs to first understand the characteristics of long constitutions and then identify other factors that are associated with them.

1. What is length?

Constitutions can include three different kinds of provisions. First, constitutional provisions can regulate technical or innocuous matters that do not influence political behavior. Second, constitutions can contain aspirational goals, such as the right to work (included in many post-World War II constitutions), which do not impose any specific obligations on the government and are consequently not judicially enforceable. (Unsurprisingly, none of these countries has completely eradicated unemployment.) Third, constitutions contain restrictive or prescriptive statements, such as sections detailing government structure and citizens' rights. While these three categories might be straightforward at the theoretical level, empirically there is no reliable way of distinguishing between constitutions that contain many substantive restrictions and those that are simply garrulous (Voigt 2009). Yet, the frequency of amendments, along with the difficulty of achieving such modifications (Section II), indicates that long constitutions are restrictive, because a country would not undertake the significant or formidable efforts required for amendments if these amendments were not deemed necessary. In other words, constitutional amendments are more likely to be made on restrictive provisions, not on innocuous ones.

Another question regarding length pertains to how words are distributed over topics in the constitution: are there many topics with little discussion, very detailed discussion of a few topics, or somewhere in between? The CCP dataset makes the distinction between the "scope" of a constitution, that is the number of selected subjects included in it, and its "detail," the number of words used to cover each subject on average. Obviously, the length of every constitution is the product of the two. Given this logical relationship, a regression predicting the length of a constitution, as a function of scope, detail, and their interaction, would provide a coefficient of one for the product term, and an $\mathrm{R}^{2}$ of 1 . In other words, both variables cannot be used in the same equation. Yet, it is known in the literature that more recent constitutions have larger scope (address more subjects); therefore, I can use the age of the constitution as a proxy for scope, provided this variable is uncorrelated with detail. As Figure 5 indicates, this is the case in all the countries of the world (regardless of whether a country is a democracy or not).

## FIGURE 5



Now it is possible to identify the characteristics associated with length using the age of the constitution as a proxy for its scope. Table 2 (as well as Figure A1 in the Appendix) examines the variables associated in the literature with length of constitutions, focusing first on OECD member countries (to reexamine Tsebelis and Nardi 2016, with more recent data) and then on all democracies. The variables I examine are age, detail, federalism, and legal origins. The difference between the data analysis for OECD countries and all democracies is that federalism in all democracies is associated with length, while it is independent of length in OECD countries. The conclusion is that across all democratic countries of the world, constitutional length is associated with more restrictions (Table 2 and Figure A2 in the Appendix) and with more time inconsistency (Figure 5 and Figure A3 in the Appendix).

\left.| TABLE 2 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | CONSTITUTIONAL LENGTH AS A FUNCTION OF |  |  |
|  | COUNTRY CHARACTERISTICS |  |  |$\right]$

2. What is associated with constitutional length?

For long constitutions to be more time inconsistent - that is, to exhibit a higher number of amendments, despite locking-it must be that they lead to serious impediments to the political game in the corresponding countries. Tsebelis and Nardi (2016) identified two important correlates of constitutional length in OECD countries: per capita GDP and corruption.

TABLE 3
GDP PER CAPITA AS A FUNCTION OF CONSTITUTIONAL LENGTH, AND ECONOMIC VARIABLES

| DV: logGDP | OECD | DEMOC | OECD | DEMOC |
| :--- | :--- | :--- | :--- | :--- |
| Length $(\log )$ | $-0.29^{* *}$ | $-0.46^{* *}$ | $-0.28^{*}$ | $-0.35^{*}$ |
|  | $(0.10)$ | $(0.15)$ | $(0.09)$ | $(0.16)$ |
| Natural Resources |  |  | 0.00 | -0.02 |
|  |  |  | $(0.01)$ | $(0.01)$ |
| Trade |  | 0.00 | 0.00 |  |
|  |  | $(0.00)$ | $(0.00)$ |  |
| Investment |  | $-0.01^{*}$ | -0.00 |  |
|  |  |  | $(0.01)$ | $(0.01)$ |
| Constant | $5.73^{* * *}$ | $6.04^{* * *}$ | $5.94^{* * *}$ | $5.50^{* * *}$ |
|  | $(0.43)$ | $(0.65)$ | $(0.38)$ | $(0.79)$ |
| $\mathrm{R}^{2}$ | 0.2605 | 0.0805 | 0.4087 | 0.1758 |
| N | 32 | 90 | 32 | 90 |

Long constitutions are restrictive and, as such, they prevent the adoption of policies desirable to the populations they regulate. This is the reason for frequent constitutional amendments. One aggregate variable that would cause generalized dissatisfaction, which might lead to constitutional revisions, would be low per capita GDP. Table 3 corroborates the inverse relationship between constitutional length and GDP per capita (a relationship depicted graphically in Figure A4 of the Appendix). In addition, with respect to corruption, Tsebelis and

Nardi (2016) argue that causal links could be pointing in both directions: it could be that founders are captured by special interests who are asking for additional detailed provisions to be locked so that their privileges would be guaranteed. Alternatively, it may be that virtuous founders tried to include provisions in order to prevent or reduce the influence of organized interests.

## TABLE 4

| GDP PER CAPITA AS A FUNCTION OF LENGTH, |  |  |
| :--- | :---: | :---: | :---: | :---: |
| ECONOMIC VARIABLES, EDUCATION, AND CORRUPTION |  |  |

Tsebelis and Nardi (2016) also anticipated that these relations would be clearer in OECD countries, because these countries respect their constitutions and, consequently, safer inferences can be made from the study of OECD countries. In Table 4 I include education and corruption as control variables (on top of the economic ones). This inclusion removes the statistical significance of length on GDP.

## CONCLUSIONS

This paper demonstrates that long constitutions are restrictive. Given the difficulty of performing constitutional revisions (Section II), such revisions are not likely to be undertaken without reason. They are likely to affect enforceable provisions that are hindering government majorities from acting in the way that they judge appropriate. In this sense, they are constraining majorities from deciding according to their wishes; they are confronting the democratic expression of the representatives of the people. So, long constitutions are not just garrulous (Voigt 2009). The fact that a constitution is revised may be because it was so designed; that is, it has not been locked enough. However, this paper shows that the length of constitutions across all democratic countries of the world is correlated with time inconsistency; that is, the combination of locking and amendment frequency.

The paper starts with an equilibrium analysis of the constitutional amendment provisions and shows that if constitutional amendments are to be successful in democracies, they require the support of large majorities. Indeed, more than a century ago, John Burgess called the rules governing formal amendments "the most important part of a constitution" (Burgess 1890: 137). Yet, constitutional rigidity has a low correlation with amendment frequency. This is a puzzle, and other authors have thus concluded that these rules do not matter at all and should be replaced by "amendment cultures" (Ginsburg and Melton 2015). My answer to the puzzle is that one must first consider the length of the constitution and recognize that this length has a significant impact on time inconsistency, that is, on the combination of locking and amendment frequency.

The usual means to eliminate time inconsistency in the literature is to delegate to an independent authority. This is not a possible solution in constitutional matters, because there is no higher authority than the people. If the people modify a constitution, despite the obstacles included by the founders, it means that there were either radically new conditions or a design flaw: potentially objectionable provisions were included in the constitution and were protected. These provisions were later considered impediments either because the conditions changed or because large majorities changed their minds. Therefore, the best way to reduce time inconsistency is to avoid policy making and locking through the constitution. Only rules that are widely accepted and not likely to be overturned should be locked.

This is not the only argument in the literature. Ginsburg and Melton (2015: 689) say, for instance, "Along with our coauthor Zachary Elkins, we have celebrated the virtues of what we might call statutory constitutions: those with flexible amendment thresholds that are fairly detailed. The constitutions of India, Mexico, and Brazil, to take three prominent examples, are amended nearly every year. Such constitutions have the virtue of being frequently changed through internal mechanisms, avoiding the costly route of a total replacement. In such countries, we argue that the stakes of amendment are lower, and so cultural resistance to amend is less than in societies where it is infrequent." It is true that the amendment process in India is particularly easy: it requires simple majorities in both chambers (with two-thirds of the members present). In this respect, formally, there is little difference between India and a country without a written constitution such as the UK where Parliament can change any law it wants to by a simple majority. However, this is not true of Brazil or Mexico. Both have long constitutions $(68,000$, and 57,000 words, respectively) and both constitutions are locked. For Brazil, a three-fifths majority is required in both chambers on two different occasions. For Mexico, the thresholds are even higher: two-thirds in both chambers, plus a majority of states. There may be unobjectionable amendments (women's rights), but for substantive (i.e., controversial) amendments, there will be political battles associated with changes, as well as attempts for amendments that are aborted because of the high institutional thresholds.

Besides the criticism of the theoretical foundations and the empirical accuracy of the Ginsburg and Melton argument I presented in Section III, a study of constitutional amendments in Mexico and Brazil will provide a concrete foundation for the differences in the approach of time inconsistency vs. amendment culture. For the time being, reference to local literature in Brazil and Mexico, indicates that it is highly unlikely that their constitutions deserve the celebration mentioned by Ginsburg and Melton. Analyzing the Brazilian Constitution, Couto and Arantes (2008) find that "The Brazilian constitution of 1988 presents a high rate of constitutional amending, with 62 amendments in twenty years (3.1 amendments per year); most of them sponsored by the Executive branch, aiming at implementing public policies" (Couto and Arantes 2008: 1; emphasis mine). They argue that there is a high percentage of policy-making provisions
inside the constitution. They create a new measure of constitutional provisions and find that 30 percent of them are policy related. ${ }^{17}$

With respect to the Mexican Constitution, the analysis is similar: "at present it is political parties who dominate the constitutional amendment process. They have strong incentives for including their political agreements to the last detail in the constitutional text, in order to put them beyond the reach of ordinary legislation, as well as outside the scope of judicial review. Nevertheless, these agreements are not always permanent, but are subject to revision in generally shorter periods, as is well illustrated by the electoral system" (Fix-Fierro and Valadés 2015: 6).

The analysis presented in this paper focuses on time inconsistency. The general approach in the time inconsistency literature is that at the beginning of the game, institutional measures (rules) should be taken to prevent time inconsistency from manifesting itself (discretion). ${ }^{18}$ With respect to constitutions, the analogy would be that "a constitution is Peter sober while the electorate is Peter drunk" (Holmes 1988: 195-96). Both Hayek (2006: 157) and Elster (2010) raise objections to such an approach. I argue that given the difficulty of constitutional change, adopted constitutional amendments are necessary and that the restrictions that were included in the original constitution are essentially undermining the essence of a document that sets the rules of the game. So, it would be more reasonable to reduce the restrictive provisions (reduce the length), instead of locking the constitutions more. R. Dixon (2014) has divided constitution writing into "codified-" and "framework-" styled approaches and provides legal arguments in favor of the latter style. I provide a similar empirically generated argument that long constitutions are restrictive. If my analysis is correct, the authors of the first constitution of a country should exercise constraint and not assume that they can lock anything they want in the constitution. Doing so leads to long, time-inconsistent constitutions. But this is a "retroactive" suggestion with 20/20 hindsight. A prospective suggestion would be to have the people who engage in constitutional revisions to take the time to prune their constitutions. In other words, if a certain provision is restrictive, it would be more efficient to just drop it instead of replacing it with a different one.

What the correlation of length with time inconsistency indicates is that too many things are locked in constitutions, with the result of undermining their effectiveness. So, length and

[^9]locking of constitutions is not a matter of culture but of arrogance and lack of restriction on the part of constitution writers. To use Jeremy Waldron's terms: "any alternative conception that might be concocted by elected legislators next year or in ten years' time is so likely to be wrongheaded or ill motivated that his own formulation is to be elevated immediately beyond the reach of ordinary legislative revision" (Waldron 1999: 222).

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[^0]:    ${ }^{1}$ For instance, transitory provisions (Denmark, Portugal) or idiosyncratic elements (such as the description of the flag (Spain, Turkey) or the national anthem (Hungary, El Salvador).

[^1]:    ${ }^{2}$ The majority of analyses consider 92 democratic countries. New Zealand, which has a collection of documents rather than one constitution, is incorporated in the analyses, when data are available.
    ${ }^{3}$ Like ethnic divisions, economic development, amendment rate, amendment rate squared, etc.
    4 "The more difficult the procedure, the less frequent changes to the constitution become. Tsebelis and Nardi (2016) surprisingly find a positive relationship in the OECD countries (significant only after control for length). Because they use the non-institutional measure of rigidity from CCP , their result is hard to trust" (Bucur and Rasch forthcoming).

[^2]:    ${ }^{5}$ In this paper I do not discuss the case of constitutions being so locked or circumstances changing so much as to lead to the adoption of a new constitution (as opposed to revisions).
    ${ }^{6}$ Typically in this literature, the player with time-inconsistent preferences (who prefers to make one decision ex ante but changes his/her mind when the time comes) remains the same but his or her preferences change. This is not, however, a necessary physical restriction. For example, the minister of finance may or may not change between the creation of an independent central bank and elections, but governments still anticipate time-inconsistent preferences between these two time periods. Thus, governments opt to create independent banks because preferences of the designated actor are likely to be time inconsistent. Similarly, in my analysis, the constitutional restrictions apply to all generations, including the one that made the constitution who can also find itself in front of an unfortunate provision that requires fast modification. The creation of collective inter-temporal actors such as "government" or "nation" takes care of this same player restriction.

[^3]:    ${ }^{7}$ Think, for example, of the recognition of women's rights (although in the United States the issue did not succeed in clearing the constitutional barriers) or, more recently, gay rights.

[^4]:    ${ }^{8}$ A consequential example of the importance of rules vs. culture comes from the history of the EU. A large volume of scholarly papers have identified a "preference for unanimity" in the EU (Tsebelis 2012: 52). According to this literature, unanimous decisions are much more frequent than formal models would predict. Aus (2008) has called these persistent findings the "rationalist puzzle." Yet, the consensus-oriented EU was unable to change its decisionmaking rules for decades, when unanimity was required. For instance, from the Treaty of Rome in 1957 to the Treaty of Nice in 2001, decisions required a 70-72 percent qualified majority of the Council in the weighted system at the time. Modifying it downward to 65 percent, took a constitutional convention and a series of attempts lasting for almost a decade. (For a history of this process, which ended with the Treaty of Lisbon, see Finke et al. 2014).

[^5]:    ${ }^{9}$ Which is exactly what I argued in the end of Section II.
    ${ }^{10}$ For example, with dummies $(\mathrm{A}(\mathrm{t}-1), \mathrm{B}(\mathrm{t}-1), \mathrm{C}(\mathrm{t}-1))$. Then, I created $\mathrm{DV}(\mathrm{t})$ which was a function of $\mathrm{DV}(\mathrm{t}-1)$ as well as $\mathrm{O}(\mathrm{t}), \mathrm{A}(\mathrm{t}), \mathrm{B}(\mathrm{t}), \mathrm{C}(\mathrm{t})$, where all of these variables were serially correlated with their previous values. Finally, I estimated: $D V(t)=D V(t-1)+A(t)+B(t)+C(t)$. The only significant coefficient was $D V(t-1)$, which was significantly inflated over its true value (that is, the value I gave when constructing the variable). Respect to institutional provisions Cheibub, Elkins, and Ginsburg (2014) do find serial correlations among constitutions.
    ${ }^{11}$ I created a dependent variable $\mathrm{DV}(\mathrm{t}-1)$ that was a function of $\mathrm{O}(\mathrm{t}-1)$ (omitted variable) and a series of institutional

[^6]:    ${ }^{12}$ In actuality, I doubt whether accurate information can be collected, because the relevant positions of the actors are not along a Left-Right dimension but to do with the issue of the constitutional revision under consideration (environment, the powers of the president, etc.).

[^7]:    ${ }^{13}$ This figure does not depend on any measurements, since the data do not depend on variables generated by researchers and are stable. (The 2013 data are almost identical with the 2006 data in Tsebelis and Nardi 2016.)
    ${ }^{14}$ See Lutz (1994: 357 and 359); Lijphart (2012: 207); Rasch and Congleton (2006: 542).
    ${ }^{15}$ Polity 2 scores were used to determine whether a country was democratic or not. Countries with scores of 6 or higher on the Polity2 variable were considered democracies. Countries included are limited to those that were democracies in 2013. Amendments during years of democracy (Polity2 at 6 or higher) were divided by the total number of democratic years (Polity2 at 6 or higher). Note that this is a departure from Tsebelis and Nardi (2014) (who use 5 instead of 6 as the cutoff point and consider only uninterrupted periods) but that the results here are consistent with their earlier findings for OECD member countries.

[^8]:    ${ }^{16}$ In a previous version I created a different measure of time inconsistency that was leading to the same conclusions. I added the frequency of amendments to constitutional rigidity (after normalizing both variables so that the units of measurement would not matter). The expectation was that the two variables should balance each other. That is, more locked constitutions should lead to fewer amendments over time. I thank one of the referees for objecting to the procedure, because it constrains the variables, and asking for additional analyses, and I thank Jesse Crosson for the suggestion of the alternative indicator. Results for the previous measure are included in the Appendix, Figure A3.

[^9]:    ${ }^{17}$ I thank Rogerio Arantes for familiarizing me with his work.
    ${ }^{18}$ Similarly, philosophy speaks about the "weakness of will" or akrasia as it is called in, for example, Plato's Protagoras (2008: 180-83).

