

## The time inconsistency of long constitutions: Evidence from the world

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**Abstract.** This article analyses the mechanisms establishing time consistency of constitutions. It explains why shorter and more locked constitutions are more likely to be time consistent (change less) and that long constitutions are more time inconsistent (change more, despite locking). Empirical evidence from all of 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 inter-relationship, a measure of time inconsistency (a combination of locking and amendment rate) is developed and it is demonstrated that it is connected with the length of constitutions. The article shows how time inconsistency is incompatible with theories of ‘constitutional amendment culture’ not only at the theoretical level, but also empirically. Finally, the article proves that the empirical finding that the length of constitutions is related to lower per capita income and higher corruption are not only in agreement with time inconsistency arguments, but this also extends beyond OECD countries to all democracies.

**Keywords:** constitutions; constitutional revisions; veto players; time inconsistency; amendments

### Introduction

This article 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 constitutions may also include other elements.<sup>1</sup> 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 required, 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 commonsense argument for the creation of a constitution, this logic is not confirmed empirically by analyses of constitutional locking and amendment data – and it 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’ (i.e., 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 article is organised as follows. First, I present the interaction, in game form, between the founders of a constitution and the subsequent generations that may choose to revise it. Then, I explore 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. I go on to empirically examine the combination of three elements of constitutions in 92<sup>2</sup> democratic countries (scoring > 6 on the 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 (Anckar & Karvonen 2002; Lijphart 1999; Lorenz 2005; Lutz 1994; Rasch & Congleton 2006) to cover all 92 democratic countries in a consistent way. My measures depart from the Comparative Constitutions Project (CCP) (Elkins et al. 2009; also used by Tsebelis & Nardi 2016), which includes institutional as well as economic and social variables (like ethnic fractionalization and economic development). Bucur and Rasch (2017) criticise results based on non-institutional measures arguing: ‘The more difficult the procedure, the less frequent changes to the constitution become.’ Tsebelis and Nardi (2016) surprisingly find a positive relationship in the Organisation for Economic Cooperation and Development (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. Ginsburg and Melton (2015) depart from these measures separating institutional from social and economic variables, and argue 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’ (a 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 final part of the article I examine the implications of the time inconsistency argument, and find that claims by Tsebelis and Nardi (2016) that, in OECD countries, constitutional length is associated with lower per capita gross domestic product (GDP) and higher corruption are corroborated in all 92 democracies.

### **The intergenerational constitutional game**

The founders of each 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 interaction among political actors, these rules have to be known and respected (and therefore seen 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 regards to the time horizon of constitutions: either one anchored to and shaped by the citizens it serves, or one that stands the test of time. The former perspective represents that of Thomas

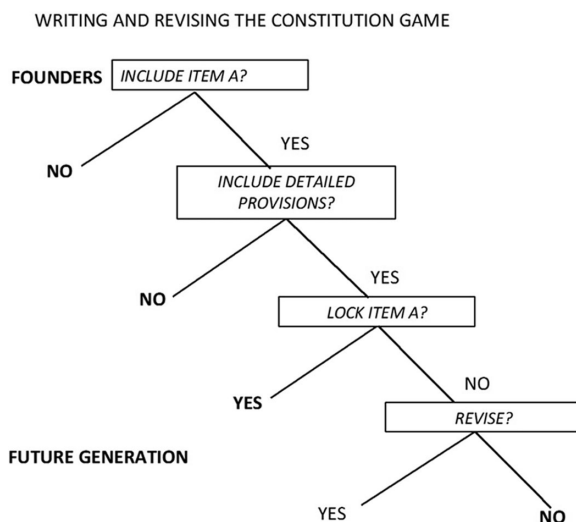


Figure 1. Writing and revising the constitution game.

Jefferson; the latter 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 by their forbearers through an enduring document?

Jefferson supported 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 re-evaluating) constitutional bargains every generation (about every nineteen years), which is, as Elkins et al. (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 favour of longevity. A government worthy of respect, in Madison's view, is one that is both faithful to its citizens' wishes, as well as one that remains steadfast in the face of short-lived fads and whimsical ideas. Additionally, longstanding constitutions 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 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 the locking mechanisms are different not only across countries, but even inside the same constitution (usually articles are divided into two groups: the ones that are not amendable and the ones that can be amended under specific rules). Of the 92 democratic constitutions included in my sample and coded by the 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 revision will be higher the less locked the constitution is (a topic I turn to later in this article).<sup>3</sup>

In the figure I have indicated with bold letters all the choices that lead to sub-game perfect equilibria in this game form. One choice that does not lead to such 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 sub-game perfect is ‘time inconsistent’. Economic theory has, since Kydland and Prescott’s (1977) Nobel Prize winning article, ‘Rules Rather than Discretion’, held 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 who 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 and medical regulations.

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.<sup>4</sup> On the basis of Figure 1, one can see that long constitutions (involving many and detailed provisions) may lead to time inconsistent outcomes. Despite their locking, they may lead future generations to overcome the obstacles and revise the constitution.

### **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 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); the 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 the introduction of 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.

I will explain the impact of such requirements. Assume a seven-member body that requires a qualified majority of five or six 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) decision-making rule, is the ‘core’ (Berl et al. 1976). In the

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

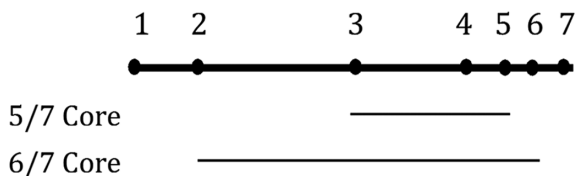


Figure 2. Constitutional core with 5/7 or 6/7 qualified majority.

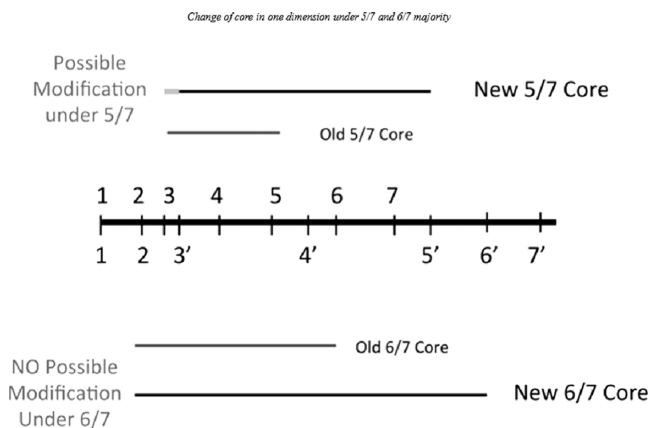


Figure 3. Change of core in one dimension under 5/7 and 6/7 majority.

remainder of this article, since constitutional amendment 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).

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 of it. 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).<sup>5</sup> Figure 3 presents such a modification: five of the seven members of Figure 2 have changed and moved to the right (some significantly so, like Players 5, 6 and 7, who moved beyond the previous political space, since points 5', 6' and 7' are beyond 7). This is a political shift so radical that it is difficult to imagine in any real polity except during a revolution.

## CORE WITH ALTERNATIVE CONSTITUTIONAL PROVISIONS

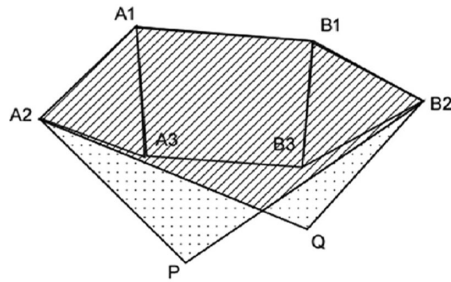


Figure 4. Core with alternative constitutional provisions.

Despite this shift, there is considerable overlap between the old  $5/7$  core and the new  $5/7$  core. If constitutional amendment requires a  $5/7$  majority, the only provisions that could be revised are those falling in the  $(3, 3')$  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 cases of multiple bodies, multiple dimensions and differences in opinion of members of the same party. There are two reasons why I am generalising in all these dimensions. First, doing so addresses arguments that the ideological distance between chambers affects 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. The second reason for generalizing is to address arguments 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.

To simplify matters, consider a constitution that requires for its modification a  $3/4$  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  $3/4$  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  $3/4$  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 the argument in Tsebelis' (2016) argument) while the difference of opinions of the two legislators will decrease the size of the core (Negretto's (2012) argument).

## Implications and data collection

The above analysis leads to two major conclusions: constitutional amendments are out of (perfect) equilibrium behaviour; and such amendments are a difficult enterprise. However, neither of these conclusions is 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.

### *Constitutional amendments are out of equilibrium*

The text of a 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 the 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 status quo constitutional policy. For instance, writing about the American case, Ackerman (1991) argues that justices make amendment-level decisions in cases when public opinion clamours for change. Given that ratification in three-quarters of the American states is required for formal amendment, he argues, even strong movements in favour of constitutional change are often stymied. In order to placate the public, then, judges make monumental decisions that essentially ‘amend’ the constitution. Cases like the 1954 *Brown v. Board of Education* 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 a formal constitutional amendment. In his book, *The People Themselves*, Kramer (2004) 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 constitutional policy – not the courts. Whittington (2009) echoes a similar sentiment, though from an originalist perspective: 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, my argument 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 decision making. 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 needed change. In terms of judicial decision making, 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).

*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 (1890: 137) put it: ‘[The] [a]mending clause ... describes and regulates ... amending power. This is the most important part of the constitution.’

*Amendments cannot be explained by ‘amendment culture’*

In a recent article, Ginsburg and Melton (2015) depart from the measures of constitutional flexibility they had proposed in their pioneering book, *The Endurance of National Constitutions* (Elkins et al. 2009) and CCP. The authors do so because measures of constitutional flexibility (or rigidity) have low correlation among them, 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, and defeat in war. Even in the constitutional variables, CCP has included a series of factors unrelated to amendment procedures, such as inclusiveness, an indicator for a unitary executive, parliamentary power and judicial review. These variables are included because of the authors’ 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 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*’ (Ginsburg & Melton 2015: 707; emphasis added).



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 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.<sup>6</sup>

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 behaviour on the basis of rules that are not supposed to regulate their behaviour. For example, textbooks on French politics treat the Fourth and Fifth 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 (2015) 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 when the lagged variables have no plausible causal interpretation.<sup>7</sup>

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 an entire time-series analysis – just one step. It is likely, however, that the amendment rules of the current constitution will be dependent on the ones of the previous constitution, particularly if these rules are finely defined like Ginsburg and Melton have done (amendment threshold, number of proposers, number of approvers, multiple sessions required, judicial review are all independent variables).<sup>8</sup> 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 and ethnic divisions, which are not included in the particular Ginsburg and Melton model, but are present in the CCP analysis. I simulated a model like this<sup>9</sup> 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.

### **Time inconsistency and the necessary variables for empirical analysis**

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 (e.g., Elkins et al. 2009; Ginsburg & Melton 2015; see also Appendix Figure 1). As we saw above, the very reason that Ginsburg and Melton introduced their 'amendment culture' variable is the lack of a pronounced negative relationship between locking and amendment frequency generated by equilibrium analysis. Second, there is a strong relationship between length of constitution and frequency of amendments (Elkins et al. 2009; Lutz 1994, 2006; Negretto 2012; see Appendix Figure 2).<sup>10</sup> This relationship is considered to be 'obvious' since more provisions will generate more need for revisions (see Lijphart 1999: 207; Lutz 1994: 357, 359; Rasch & Congleton 2006: 542). If these findings are taken separately from each other, they generate misleading impressions (as we saw in the Ginsburg and Melton analysis).

The real question is whether constitutional rigidity compensates for the multiplicity of provisions – that is, whether locking a constitution protects against the need to revise it frequently. For this reason, I calculate time inconsistency in two steps: first, I calculate an expected frequency of amendments on the basis of institutions; and second, I find the difference between actual frequency of amendments and the expected one (on institutional grounds). The actual frequency is the number of years a constitution was changed over its democratic lifetime.<sup>11</sup> 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). This difference between actual and expected (on institutional grounds) frequency is the measure of time inconsistency.

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).

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 the same year, they are counted as one because most likely they happened in the same constitutional revision. How amendments are characterised 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 et al. 2011), or the success rate of amendment attempts (as Lutz (1994) uses for his index of amendment difficulty). There are, as Rasch (2008) emphasises, many different ways one might operationalise 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 a few words may have a large impact on how the country functions, as in the case of Spain's amendment to Article 135 of its constitution (balanced budget for public organisations). This sentiment is echoed in the work by Elkins et al. (2009: 56), who show that while there is a wide variance in 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).

I have created new measures of 'constitutional rigidity'. Many measures of constitutional rigidity exist already – most of them based on constitutional rules alone (Anckar & Karvonen 2002; Rasch & Congleton 2006; Lijphart 1999; Lorenz 2005; Lutz 1994). The CCP dataset (Elkins et al. 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 than 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. Earlier in this article 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 these arguments to be correct, it was not feasible to collect such information for all 92 countries.<sup>12</sup> Another omission I make is to exclude from my calculations time delays, 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.

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. 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 related to federalism). In these cases, the more stringent requirement is used. For example, in Burundi, 4/5 of members in the lower house must approve, while 2/3 of members in the upper house must give their assent. Here, I use the 4/5 threshold for both houses for simplicity. Thresholds range from a simple majority (represented as 50) to 80 per cent as described in Burundi.

Table 1. Time inconsistency as a function of constitution length

DV: Time Inconsistency	OECD <i>Measure 1</i>	DEMOC <i>Measure 1</i>	OECD <i>Measure 2</i>	DEMOC <i>Measure 2</i>	OECD <i>Measure 3</i>	DEMOC <i>Measure 3</i>
Log Length	0.516*** (0.140)	0.276*** (0.083)	0.523*** (0.139)	0.283*** (0.082)	0.489** (0.140)	0.274*** (0.083)
Constant	-2.148*** (0.580)	-1.180*** (0.355)	-2.176*** (0.576)	-1.211*** (0.354)	-2.012** (0.582)	-1.175*** (0.358)
R <sup>2</sup>	0.314	0.113	0.322	0.119	0.289	0.111

Note: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

A second way of measuring rigidity is to use a categorical variable (1 for 50 per cent, 2 for 60 per cent, 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, including Switzerland, which requires approval in both houses and the cantons, as well as the people. The values for this variable range from 1 to 4.

Such variables have been used by the literature for a limited number of countries, and produced conflicting results: Ferejohn (1997: 523) examined 30 countries and found no evidence that referendums or approval by the states (i.e., the number of veto players) has any impact on the frequency of amendments, while Rasch and Congleton (2006) examined 19 countries and 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.

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.<sup>13</sup>

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 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 a higher combination of rigidity and frequency of amendment.

### **Other correlations of length (GDP per capita, corruption)**

As I have indicated earlier in this article, constitutional revisions have high requirements. Yet, 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.

#### *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 behaviour. Second, constitutions can contain aspirational goals, such as the right to work (included in many post Second World War 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, indicates that long constitutions are restrictive because a country would not undertake the significant or formidable efforts required for amendments if they were not deemed necessary. In other words, constitutional amendments are more likely to be made on restrictive provisions – not on innocuous ones. On the other hand, it is conceivable that new issues of wide agreement (like equality of women) are included at some point in old constitutions. Such provisions may or may not be enforceable. Chile is in the process of writing a new constitution, and there are debates whether it should include free education as one of the rights. Obviously, such an inclusion cannot possibly resolve the financial dimension of the problem. It will certainly invite judicial activism as a first step reaction, but then, it could also lead to responses by the political system to the remarks (and decisions) of the judiciary. Ginsburg and Melton (2015: 690) demonstrate that the number of constitutional amendments across the world has dramatically increased since the middle of the last century, and they attribute this to the fact that the 'rate of social and technological change is high and likely to continue to accelerate' (Ginsburg & Melton 2015: 688).

The inclusion of more issues or more restrictions leads to the question of whether length is mainly the result of many topics with little discussion, very detailed discussion of a few topics, or some combination of both. The CCP dataset makes the distinction between the 'scope' of a constitution (i.e., the number of selected subjects included in it) and its 'detail' (i.e., 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  $R^2$  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 (i.e., address more subjects); therefore, I can use the

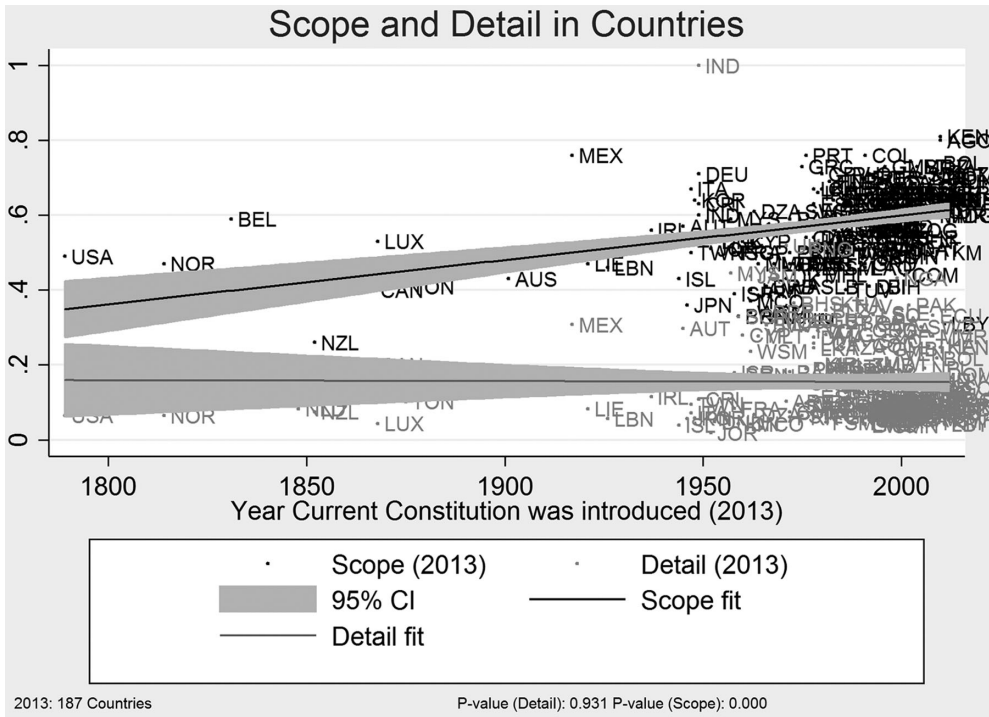


Figure 5. Scope and detail in countries.

Table 2. Constitutional length as a function of country characteristics

DV: Log Length	OECD	DEMOC	OECD	DEMOC
Detail (calc)	3.467*** (0.49)	1.774*** (0.43)	3.424*** (0.53)	1.766*** (0.44)
Federalism	-0.043 (0.06)	-0.041 (0.04)	-0.045 (0.06)	-0.041 (0.04)
Age of Democracy	-0.003* (0.00)	-0.003*** (0.00)	-0.003 (0.00)	-0.003** (0.00)
Legal Origins	0.091 (0.08)	0.035 (0.06)	0.100 (0.11)	0.037 (0.06)
# Amendments			0.000 (0.00)	0.000 (0.00)
Constant	3.894*** (0.10)	4.089*** (0.09)	3.900*** (0.11)	4.089*** (0.09)
R <sup>2</sup>	0.8583	0.7521	0.8585	0.7521
N	32	88	32	88

Note: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

age of the constitution as a proxy for scope, provided this variable is uncorrelated with detail. Figure 5 indicates that this is the case in all the countries of the world (regardless of whether they are a democracy or not).

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 Appendix Figure 1) examines the variables associated in the literature with length of constitutions, focusing first upon OECD member countries (to re-examine Tsebelis & Nardi (2016) with more recent data)

Table 3. GDP per capita as a function of constitutional length, and economic variables

DV: logGDP	OECD	DEMOC	OECD	DEMOC
Length (log)	-0.29** (0.10)	-0.46** (0.15)	-0.267* (0.16)	-0.215* (0.099)
Education			0.0008 (0.007)	0.007*** (0.002)
Natural Resources			0.002 (0.007)	-0.004 (0.005)
Trade			0.0008 (0.0006)	0.0003 (0.001)
Investment			-0.014* (0.006)	-0.013+ (0.008)
Constant	5.73*** (0.43)	6.04*** (0.65)	5.821*** (0.466)	5.035*** (0.524)
R <sup>2</sup>	0.2605	0.0805	0.422	0.312
N	32	90	30	68

Note: +p < 0.1; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001 on two-tailed t tests.

and 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 democracies is associated with length, while it is independent from length in OECD countries. The conclusion is that across all democratic countries of the world, constitutional length is associated with more restrictions ('detail' in Table 2), more amendments (Appendix Figure 2) and with more time inconsistency (Figure 5 and Appendix Figure 3).

#### *What is associated with constitutional length?*

For long constitutions to be more time inconsistent (i.e., 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.

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 generalised dissatisfaction and frequent 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 Appendix Figure 4). This relationship maintains high significance even if one controls for the usual economic variables of natural resources, trade and investment, as well as education.<sup>14</sup>

With respect to corruption, Tsebelis and Nardi (2016) argue that causal links could be pointing in both directions. On the one hand, 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 detailed provisions in order to prevent or reduce the influence of organised interests. Figure 6 depicts the strong correlation (significant at the 0.001 level) between constitutional length and corruption.

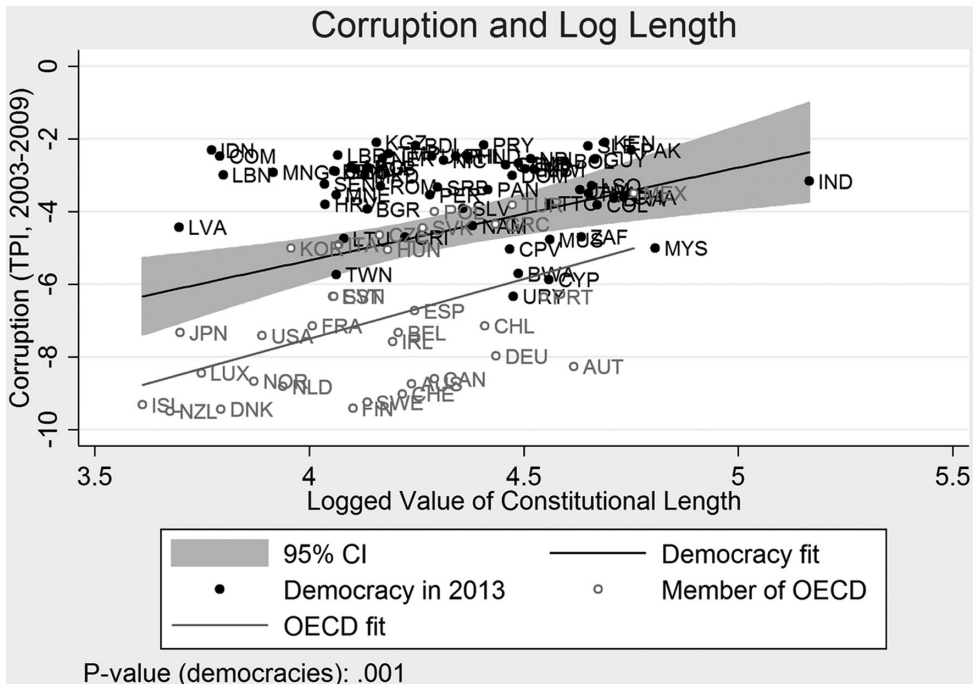


Figure 6. Corruption and log length.

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. This expectation is corroborated in both Table 3 (significance of length for all democracies is lower than for OECD countries) and Figure 6 (slope of democratic countries is lower than OECD).

In Table 4, I include corruption as an independent control variable (in addition to the education and the economic ones). First, I replicate Tsebelis and Nardi’s results (in column 3 for OECD countries with the updated 2013 data) and expand to all democracies (in column 4). This inclusion removes the statistical significance of length on GDP, just as in the Tsebelis and Nardi (2016). Tsebelis and Nardi then used ‘detail’ instead of length (along with number of amendments) as their independent variable. Table 5 replicates those results and demonstrates that they hold not only for OECD, but for all democratic countries.

However, the Tsebelis and Nardi tests are very stringent because they assume independence of length and corruption, which is a mistaken assumption as Figure 6 indicates. Consequently, length (or detail) will have both a direct and indirect (via corruption) effect on GDP per capita. The correct way, statistically speaking, of estimating the aggregate effect would be through mediation analysis. I will not pursue this enterprise here. Suffice it to say that statistical significance of ‘length’ or ‘detail’ will increase.



Table 4. GDP per capita as a function of length, economic variables, education and corruption

DV: logGDP	OECD	DEMOC	OECD	DEMOC
Length (log)	-0.267* (0.16)	-0.215* (0.099)	-0.070 (0.100)	-0.028 (0.078)
Education	0.0008 (0.007)	0.007*** (0.002)	0.000008 (0.0009)	0.003* (0.001)
Natural Resources	0.002 (0.007)	-0.004 (0.005)	-0.001 (0.008)	0.0004 (0.004)
Trade	0.0008 (0.0006)	0.0003 (0.001)	0.0009 (0.0005)	0.0005 (0.0005)
Investment	-0.014* (0.006)	-0.013+ (0.008)	-0.004 (0.006)	-0.003 (0.005)
Corruption (TPI)			-0.053*** (0.011)	-0.109*** (0.011)
Constant	5.821*** (0.466)	5.035*** (0.524)	4.464*** (0.544)	3.643*** (0.425)
R <sup>2</sup>	0.422	0.312	0.672	0.741
N	30	68	30	68

Note: +p < 0.1; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001 on two-tailed t tests.

Table 5. GDP per capita regressed on detail, corruption and other variables

DV: logGDP	OECD	DEMOC	OECD	DEMOC
Detail	-0.959* (0.297)	-0.200 (0.163)	-0.547* (0.260)	-0.362* (0.168)
# Amendments	0.009** (0.002)	0.001 (0.002)	0.004* (0.001)	0.001 (0.001)
Education	0.009 (0.001)	0.002* (0.001)	-0.0007 (0.0008)	0.002* (0.001)
Natural Resources	-0.005 (0.005)	0.0007 (0.004)	-0.010* (0.005)	-0.005 (0.004)
Trade	0.0006 (0.0006)	0.0005 (0.005)	-0.0002 (0.0004)	-0.0001 (0.0004)
Investment	0.002 (0.006)	-0.002 (0.004)		
Savings			0.009* (0.003)	0.009*** (0.002)
Corruption (TPI)	-0.045*** (0.011)	-0.107*** (0.013)	-0.039*** (0.012)	-0.080*** (0.011)
Constant	4.166*** (0.190)	3.556*** (0.139)	4.120*** (0.124)	3.565*** (0.100)
R <sup>2</sup>	0.759	0.745	0.815	0.804
N	30	68	30	68

Note: +p < 0.1; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001 on two-tailed t tests.

## Conclusions

This article demonstrates that long constitutions are restrictive. Given the difficulty of performing constitutional revisions, such revisions are not likely to be undertaken without reason. They are likely to affect enforceable provisions that are hindering government majorities from acting the way 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. 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, I have shown here 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.

I began with an equilibrium analysis of the constitutional amendment provisions and showed 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 (1890: 137) called the rules governing formal amendments ‘the most important part of a constitution.’ 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 & Melton 2015). My answer to the puzzle is that one must first consider the length of the constitution and see 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; emphasis added) say, for instance:

Along with our co-author 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 like the United Kingdom, where Parliament can change any law it wants by a simple majority. However, this is not true about 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.

As well as criticism of the theoretical foundations and the empirical accuracy of the Ginsburg and Melton argument presented in this article, a study of constitutional amendments in Mexico and Brazil provides a concrete foundation for the differences in approach of time inconsistency versus 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; emphasis added) 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*. They argue that there is a high percentage of policy-making provisions inside the constitution, and create a new measure of constitutional provisions resulting in the finding that 30 per cent of them are policy-related.’<sup>15</sup> With respect to the Mexican constitution, the analysis is similar:

[A]t 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 & Valadés 2016: 6)

The analysis presented in this article 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).<sup>16</sup> With respect to constitutions, the analogy would be that ‘a constitution is Peter sober while the electorate is Peter drunk’ (Holmes 1988: 195–196). Both Hayek (2006 [1960]: 157) and Elster (2000) raise objections to such an approach. I argue that, given the difficulty of constitutional change, adopted constitutional amendments were 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. It would be more reasonable to reduce the restrictive provisions (reduce the length), instead of locking the constitutions more. Dixon (2014) has divided constitution writing into ‘codified’ and ‘framework’ style approaches, and provides legal arguments in favour 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 documents. 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 that their effectiveness is undermined. Length and locking of constitutions is not a matter of culture, but of arrogance and a lack of restriction on the part of constitution writers. To quote Jeremy Waldron:

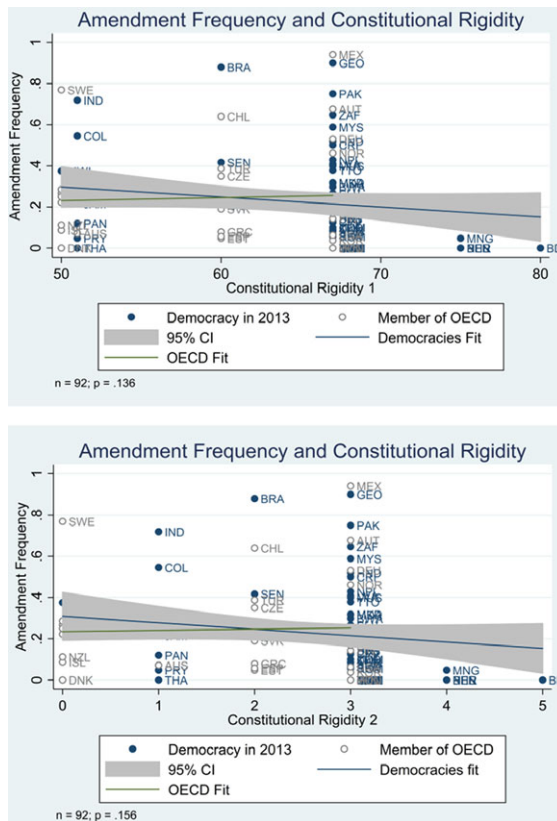
To embody a right in an entrenched constitutional document is to adopt a certain attitude towards one’s fellow citizens. That attitude is best summed up as a combination of self-assurance and mistrust: self-assurance in the proponent’s conviction that what he is putting forward really is a matter of fundamental right and that he has captured it adequately in the particular formulation he is propounding; and mistrust, implicit in his view that any alternative conception that might be concocted by elected legislators

next year or in ten years' time is so likely to be wrong-headed or ill motivated that his own formulation is to be elevated immediately beyond the reach of ordinary legislative revision. (Waldron 1999: 221–222)

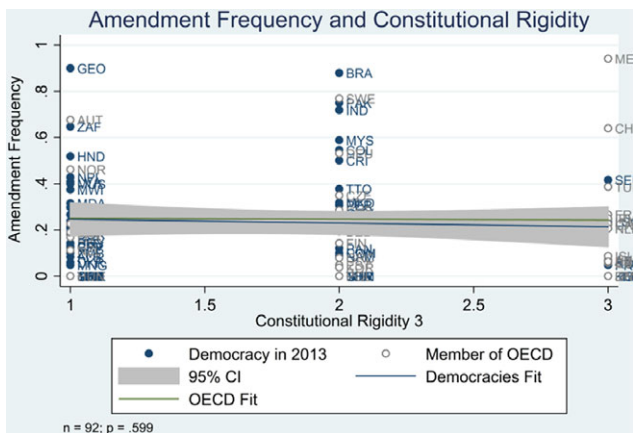
**Acknowledgements**

This paper was presented in the Quality of Government Institute at the University of Gothenburg, the University of Chicago and the Kellogg Institute at Notre Dame. I thank the participants for their comments. I would also like to thank the Kellogg Institute for its financial support through its fellowship programme. I thank Julio Ríos-Figueroa, Dominic Nardi and Vassilis Tzevelekos for their insightful comments. Finally, I thank Jean Clipperton, Jesse Crosson and Heather Elliott for very efficient research assistance. The dataset used in the analysis, as well as the explanation of variables, can be found online at: <http://sites.lsa.umich.edu/tsebelis/data/constitutional-data/>

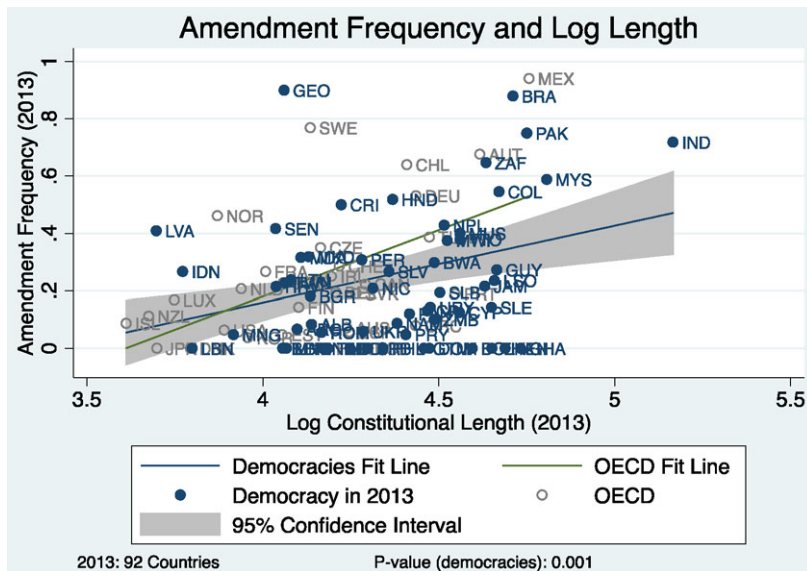
**Appendix**



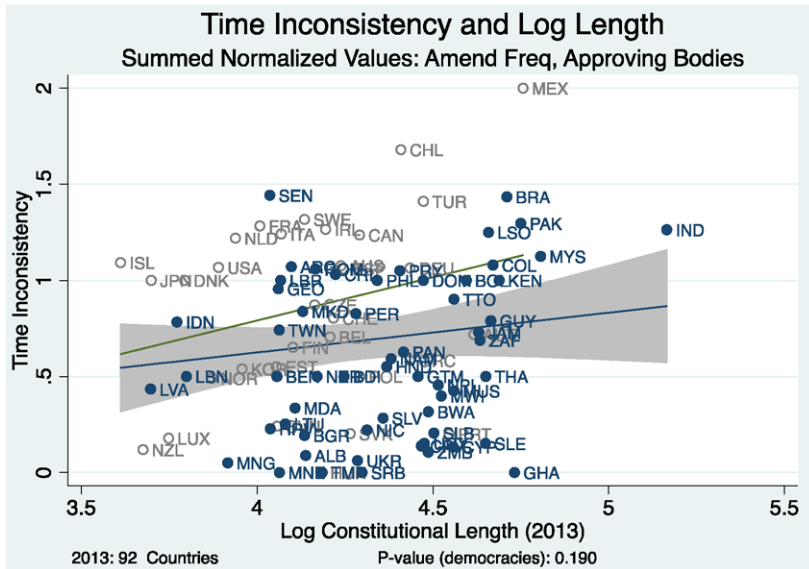
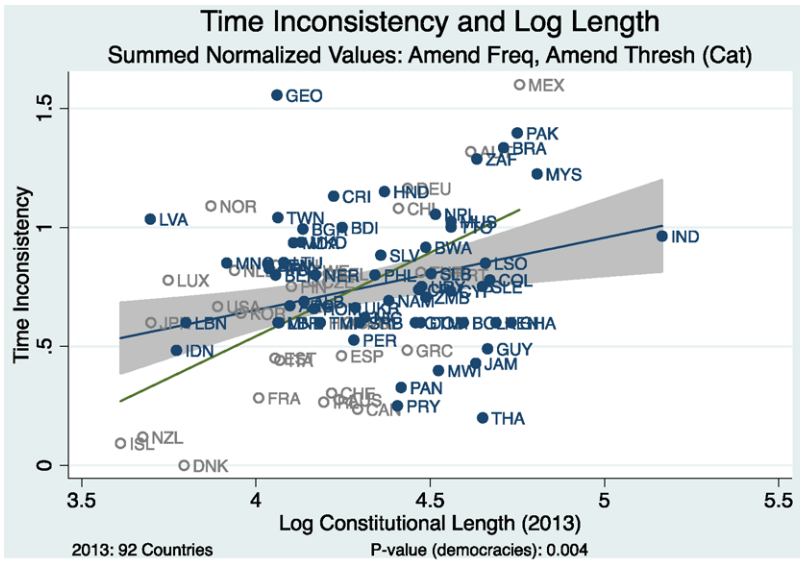
Appendix Figure 1. Amendment frequency as a function of three different measures of constitutional rigidity. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



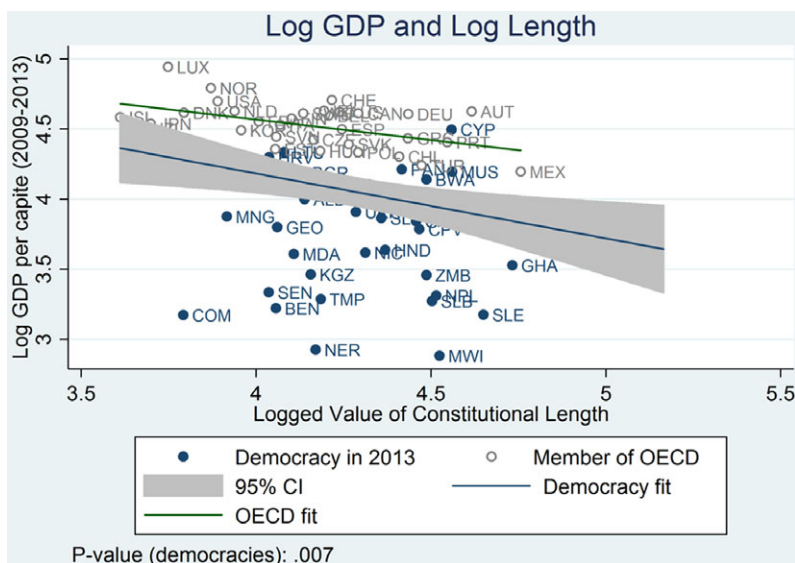
Appendix Figure 1. Continued.



Appendix Figure 2. Amendment frequency as a function of log constitutional length in 2013. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



Appendix Figure 3. Two additional measures of time inconsistency, as a function of log constitutional length in 2013. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



Appendix Figure 4. Average log GDP as a function of log constitutional length. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

## Notes

1. Like transitory provisions (Denmark, Portugal) or idiosyncratic elements, such as the description of the flag (Spain, Turkey) or the national anthem (Hungary, El Salvador).
2. The majority of analyses consider 92 democratic countries. New Zealand, which has a collection of documents rather than one constitution, is incorporated into the analyses, when data are available.
3. In this article I will 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).
4. Typically in this literature, the player with time-inconsistent preferences (that prefers to make one decision *ex ante* but changes his or 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, which can also find itself in front of an unfortunate provision that requires fast modification. The creation of collective inter-temporal actors like 'government' or 'nation' takes care of this same player restriction.
5. Think, for example, the recognition of women's rights (although in the United States the issue did not succeed to clear the constitutional barriers), or, more recently, gay rights.
6. A consequential example of the importance of rules versus culture comes from the history of the European Union. A large volume of scholarly papers have identified a 'preference for unanimity' in the EU (e.g., Tsebelis 2012: 52). According to this literature, unanimous decisions are much more frequent than formal models would predict. Aus (2008) calls these persistent findings the 'rationalist puzzle'. Yet, the consensus-oriented EU was unable to change its decision-making 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 per cent qualified majority of the Council in the weighted system at the time. In order to modify it downward to 65 per cent, it 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. 2012.)

7. Which is exactly what I argued earlier in this article.
8. For example, with respect to institutional provisions, Cheibub et al. (2014) find serial correlations among constitutions.
9. I created a dependent variable  $DV(t-1)$  that was a function of  $O(t-1)$  (omitted variable) and a series of institutional dummies ( $A(t-1)$ ,  $B(t-1)$ ,  $C(t-1)$ ). Then, I created  $DV(t)$ , which was a function of  $DV(t-1)$  as well as  $O(t)$ ,  $A(t)$ ,  $B(t)$ ,  $C(t)$ , where all of these variables were serially correlated with their previous values. Finally, I estimated:  $DV(t) = DV(t-1) + A(t) + B(t) + C(t)$ . The only significant coefficient was  $DV(t-1)$ , which was significantly inflated over its true value (i.e. the value I constructed the variable).
10. 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).
11. Polity2 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 countries 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 (2016), 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.
12. In actuality, I doubt whether accurate information can be collected, because the relevant positions of the actors are not in a left-right dimension, but along the issue of the constitutional revision under consideration (environment, or powers of the president, etc.), which consequently depend on both the subject matter and the particular revision.
13. 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 normalising 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 3.
14. Data on education are not available for all democratic countries, which is why the number of observations is reduced when education is used as a control variable.
15. I thank Rogerio Arantes for familiarising me with his work.
16. Similarly, philosophy speaks about the ‘weakness of will’ (*akrasia* in Plato’s *Protagoras*; Plato 2008: 180–183).

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