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Working Paper

Mapping constitutionally safeguarded judicial independence: A global survey

MAGKS Joint Discussion Paper Series in Economics, No. 34-2010

Provided in Cooperation with:

Faculty of Business Administration and Economics, University of Marburg

Suggested Citation: Hayo, Bernd; Voigt, Stefan (2010) : Mapping constitutionally safeguarded judicial independence: A global survey, MAGKS Joint Discussion Paper Series in Economics, No. 34-2010, Philipps-University Marburg, Faculty of Business Administration and Economics, Marburg

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MAGKS



**Joint Discussion Paper
Series in Economics**

by the Universities of
Aachen · Gießen · Göttingen
Kassel · Marburg · Siegen

ISSN 1867-3678

No. 34-2010

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This paper can be downloaded from
http://www.uni-marburg.de/fb02/makro/forschung/magkspapers/index_html%28magks%29

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Mapping Constitutionally Safeguarded Judicial Independence—A Global Survey

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Abstract:

De jure judicial independence (JI) is the single most important predictor of de facto JI. In this paper, we describe under what conditions countries are likely to include JI in their constitutions. We describe and analyze both their original choice in this regard as well as change over time using a newly constructed dataset comprised of 100 countries and covering the years between 1950 and 2005. Three results stand out. First, legal origins do have an impact on the likelihood of explicitly anchoring JI in the constitution: countries belonging to the common law tradition are less likely to implement JI in their constitutions (and those with a socialist tradition are more likely to do so). Correspondingly, former British colonies are less likely to address JI explicitly as are states in the Caribbean. Second, religion has a significant impact on whether JI is included in the constitution: societies experiencing a high level of religious fractionalization are not only less likely to anchor JI in their constitutions, but are also less likely to change their constitutions in that direction later on. Finally, Muslim countries are more likely to include mention of JI, whereas Protestant countries are less likely to do so. Third, the distribution of resources within societies has important—and largely unexpected—effects: a higher percentage of family farms, a wider distribution of education, and a higher percentage of urban dwellers are all connected with a lower likelihood of JI being mentioned in the constitution.

Key Terms: Judicial Independence, Constitutional Choice, Constitutional Change.

JEL classification: K10, N40.

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The results presented in this paper are the outcome of a substantial effort in coding constitutions. An encompassing project was originally started by Elkins *et al.* (2009). Regarding the coding of the variables presented here, most of the coding was done by a team of research assistants: Marc Berendsen, Dante Castillo, Nora El Bialy, Nora Heil, Jens Merte, and Max Thesing. The team was coordinated by Jerg Gutmann who also estimated the bivariate correlations. Their help is gratefully acknowledged. The paper was presented at a workshop on Constitutional Design at the Law School of the University of Chicago. Many participants helped to improve the paper, in particular Lee Epstein, Tom Ginsburg, David Law and Barry Weingast.

Mapping Constitutionally Safeguarded Judicial Independence—A Global Survey

1 Introduction

Research into both the consequences and the causes of judicial independence (JI) has made steady progress over the last several years. For example, in 2002, Burbank and Friedman (2002, 9) could claim that “[j]udicial independence exists primarily as a rhetorical notion rather than as a subject of sustained, organized study.” In another contribution to that same volume, Jennings Peretti (2002, 122) wrote: “We need precise measures of judicial independence and research that then tests its causes and consequences. For example, we cannot simply assume that tenure and salary protections guarantee judicial independence.”

Since then, there has been substantial progress in the field. Various indicators to make JI measurable have been proposed and it has been shown that *de facto* JI is robustly correlated with economic growth (Feld and Voigt 2003). Yet, wide gaps in our knowledge remain. This paper aims at narrowing two of them: (1) the role that constitutions play in safeguarding JI, and (2) how safeguarding JI has changed over time.

To achieve this, we document the ways 23 aspects of JI are safeguarded in the constitutional documents of as many as 100 countries. To see whether important changes have occurred over time, we code constitutions on an annual basis between 1950 (or the first year of a country’s independence) and 2005.

Whereas research shows that *de jure* JI—such as that guaranteed in the constitution—bears only little resemblance to *de facto* JI, *de jure* JI is still the single most important determinant of *de facto* JI (Hayo and Voigt 2007). The newly assembled dataset described in this paper can be used to determine the consequences of constitutionally safeguarded JI and, in particular, the consequences of changes in its protection over time.

In this paper, we describe how constitutions have evolved. We are particularly interested in illustrating long-term trends in the ways JI is safeguarded via the constitution. For instance, it has often been claimed that judicial review experienced a triumphal ascension after WW II (Ginsburg 2008 is a recent survey). It has also been suggested that the degree of JI might be correlated with the degree of democracy, or with per capita income, or with legal origins, and so forth. Our new database allows us to test all these claims.

Three results stand out. First, legal origins do have an impact on the likelihood of explicitly anchoring JI in the constitution: countries belonging to the common law

tradition are less likely to implement JI in their constitutions (and those with a socialist tradition are more likely to do so). Correspondingly, former British colonies are less likely to address JI explicitly as are states in the Caribbean. Second, religion has a significant impact on whether JI is included in the constitution: societies experiencing a high level of religious fractionalization are not only less likely to anchor JI in their constitutions, but are also less likely to change their constitutions in that direction later on. Finally, Muslim countries are more likely to include mention of JI, whereas Protestant countries are less likely to do so. Third, the distribution of resources within societies has important—and largely unexpected—effects: a higher percentage of family farms, a wider distribution of education, and a higher percentage of urban dwellers are all connected with a lower likelihood of JI being mentioned in the constitution.

The rest of this paper is organized as follows. Section 2 reiterates a number of conjectures for the purported relevance of JI. In Section 3, the newly assembled dataset is described in detail. Section 4 contains our analysis of the data; Section 5 concludes.

2 Some Conjectures

An independent judiciary is one means of solving the dilemma of the strong state. This dilemma, briefly, is that on the one hand, a state must be strong enough to protect private property rights; on the other hand, a state powerful enough to protect private property rights is also powerful enough to attenuate or completely disregard private property rights. Such a situation benefits no one. Citizens, who anticipate that their property rights may not be respected have less incentive to create wealth. The government, for its part, will receive lower tax income and will have to pay higher interest rates as a debtor. A state's formal strength thus turns into factual weakness. A judiciary that can adjudicate between state and citizens without any interference from the government can reduce this dilemma. If the judiciary is a neutral arbiter and its decisions are systematically implemented by the other government branches, aggregate investment will rise and the economy will grow more quickly. Thus, in principle, the judiciary is an institutional arrangement that solves the dilemma of the strong state. An independent judiciary is, in other words, a precommitment device that can turn government promises to respect private property rights into credible commitments.

JI implies that judges can expect their decisions to be implemented regardless of whether such decisions are in the interests of other government branches upon which the actual implementation depends. It further implies that judges—apart from their decisions not being implemented—are not subject to negative consequences as the result of their decisions, such as (a) being dismissed, (b) being paid less, or (c) losing

influence. Three archetypical situations in which the independent judiciary plays a crucial role can be distinguished:

- (1) In cases of conflict between private parties: if one of the parties to a voluntary contract believes that the other side has not fulfilled its obligations, impartial dispute resolution can be important. As long as both sides expect the judiciary to be impartial and hence immune from pressure by either of the contract partners or any other party, they can save on transaction costs while negotiating their contract. In general, lower transaction costs lead to more welfare-enhancing transactions.
- (2) In cases of conflict between government and citizens, the latter need an entity that can adjudicate who is in the right (i.e., who has acted according to the law). The judiciary performs this task as it helps ensure that the government is under the rule of law. This means not only that the judiciary ascertains whether newly passed legislation is constitutional, but that it also checks whether representatives of the state have followed the procedural devices intended to safeguard the rule of law.
- (3) In cases of conflict between various branches of the government: in the absence of an impartial arbiter, conflicts between government branches are most likely to develop into power games. An independent judiciary can keep these bodies “inside the lines” of the constitution and prevent resources being wasted.

Constitutional Provisions to Safeguard Judicial Independence

How can JI be formally safeguarded? The independence of judges relies on the stability of the set of provisions within which they operate. The stability of court powers and procedures depends on how difficult it is to change them. Powers and procedures explicitly spelled out in the constitution are often entrenched and more difficult to change than ordinary legislation. Moreover, by making specific powers and procedures part of the constitution, the constitutional assembly signals that it attributes a particular importance to them. This is why we restrict our analysis to constitutionally safeguarded JI. The implication of our approach is that the dataset presented here does not allow making any general statements about the development of *de facto* JI over time. The decision to concentrate on constitutionally safeguarded JI does not necessarily imply that such is better protected than JI safeguarded either by ordinary legislation or even informal conventions. *Ex ante*, we cannot exclude the possibility that constitutionally entrenched rules that are very costly to change suffer from a higher likelihood of becoming factually obsolete than ordinary legislation that can be modified at lower cost.

The appointment procedure for judges may have a notable effect on the court’s independence. As JI is, *inter alia*, intended to protect citizens from the illegitimate use

of power by other government branches, as well as to settle disputes between branches of government, it ought to be as independent as possible from the influence of these other branches. We hypothesize that the most independent procedure of judicial appointment is that undertaken by professionals (other judges or jurists). The least independent method is appointment by one powerful politician (e.g., prime minister or minister of justice).

Judicial tenure is crucial to the independence of the judiciary. We assume that judges are especially independent when they are appointed for life (or up to a mandatory retirement age) and cannot be removed from office, save by legal procedure. Judges are less independent if their terms are renewable because they have an incentive to please those who reappoint them.

Further, giving member of other branches of government the power to set judges' salaries gives judges an incentive to take the preferences of these members explicitly into account. General rules that judges' salary cannot be reduced increase J_I . There are at least three ways this can be done, namely, safeguarding nominal salaries, real salaries, or relative salaries. The first possibility offers little protection in an inflationary environment or over longer time periods. The second possibility ensures a constant absolute living standard, but could be detrimental to judges' social position in a high-growth economy. Finally, protecting the relative income position of judges over time protects their social position but does not insure a specific living standard.

Another component of judicial independence is the accessibility of the court and its ability to initiate proceedings. A court that is accessible only by executive or legislative officials will be less independent than a court accessible by every citizen claiming that his or her rights have been violated.

If the allocation of cases to members of the court is at the discretion of the chief justice, his or her influence will be substantially greater than that of other members of the court. Such an institutional environment creates incentives to bribe the chief justice. We expect independence to be greater if there is a general rule according to which cases are allocated to specific judges.

The competencies assigned to the constitutional court do not directly affect its independence. Yet, the highest courts must have a minimum number of competencies in order to act as a check on other government branches. If the constitution is interpreted as the most basic formal layer of rules restraining (and enabling) government, then it is crucial that the court have the power to decide whether legislation conforms to the constitution. This is sometimes called the power of constitutional or judicial review.

If courts are required to publish their decisions, such decisions can become subject to public debate, which increases the incentive for judges to present coherent and legally convincing arguments, thereby making it more difficult for representatives of other government branches to influence decisions. Transparency will be even higher if the courts also publish dissenting opinions based on forceful legal arguments.

3 Description of the New Database

The Comparative Constitutions Project (Elkins *et al.* 2009) contains 75 variables dealing with many aspects of the judiciary. We choose 23 variables that we believe are particularly relevant to how JI is safeguarded by constitutional provisions. The discussion in Section 2 serves as the basis for choosing the variables.

A first indication of the importance of JI is its explicit mention in the constitution. Consequently, we create a dummy variable determining whether the independence of central judicial organs is explicitly stated in the constitution (JUDIND). This variable is analyzed in greater detail in Section 4.

Appointment Procedure

Those with the power to nominate and/or appoint judges may be able to indirectly influence court decisions, for example, by appointing judges who have preferences similar to their own. Our first variable in this group simply indicates whether the process used to select judges of the highest ordinary court is specified in the constitution (HOCCJ).

Next we code those involved in nominating candidates for two different positions, namely: (1) the chief justice of the highest ordinary court (CHIEFNOM) and (2) the judges of the highest ordinary court (SUPNOM).

Actors involved in the nomination process can be considered as agenda setters for those who have the actual authority to make the appointments. Correspondingly, two variables deal with the identities of those who make the decisions within the given agenda, that is, those involved in approving nominations for (1) the chief of the highest ordinary court (CHIEFAP) and (2) the judges of the highest ordinary court (SUPAP).

In this paper, we use these variables primarily to identify the different ways of appointing judges at the constitutional level and their development over time. Providing systematic information for a large number of countries over time closes a significant gap in the literature. However, the database has also been compiled with a view to further research. For instance, it is possible to code variations of independence. One could combine the nomination and approval variables and code this aspect of

constitutionally safeguarded JI as low if a single person from the executive branch has the power to both nominate and approve a judicial candidate. We leave such possibilities to future research.

Judicial Tenure

The basic idea is that longer tenure implies more independence. We inquire into the maximum term length of three positions (chief judge [CHFTERM] and other members of the highest ordinary court [SUPTERM]). Additionally, we ask whether there are any term length restrictions (e.g., only one term allowed or no successive terms). We do this for the two judicial positions that are our focus, namely, the chief justice of the highest ordinary court (CHFTRMINM) and the other justices of that court (SUPTERMN).

The possibility of removing a judge from office before expiration of the term of duty is another important dimension determining the level of JI. We look at three aspects of removal, namely, whether there are any provisions for dismissing judges (JREM) and, if yes, under what conditions judges can be dismissed (JREMCON) and who has the power to suggest the dismissal of judges (JREMPRO).

Judicial Salaries

An effective way of limiting JI is to reduce the salary of judges. We therefore ask whether the constitution explicitly protects judicial salaries from government intervention (JUDSAL). More refined notions of salary protection as discussed above are unlikely to be found at the constitutional level.

Judicial Review

Some authors explicitly distinguish between JI and judicial review (e.g., La Porta *et al.* 2004). Since we are interested in a broad view of JI, we prefer to consider judicial review as simply one dimension of it. If an independent judiciary is considered to be a specific device for making government commitments credible, then judicial review appears to be an important aspect of that function: allowing a government to easily change legislation would result in a large loss of credibility. To make government promises credible, a reliable legal framework is necessary. Judicial review gives courts the power to monitor the compatibility between (newly passed) legislation and fundamental judicial principles as laid down in the constitution.

Legal systems can allocate the power of judicial review to different courts. Every court could be granted this competence or it could be restricted to a special court, such as the constitutional court (INTERP). Further, courts themselves are almost never agenda

setters. So it is interesting to know more about which official entities have the authority to ask courts to review the constitutionality of a piece of legislation (CHALLEG).

There are various models of judicial review. In some countries, it can occur only prior to the promulgation of a law; in other countries, it is the exact opposite. We include a variable that records at which stage of the legislative process bills can be reviewed for constitutionality (CHALSTAG). Our conjecture is that the judiciary is most independent from other branches of government if it has the power to review the constitutionality of statutes both before and after their promulgation. Further, there are different ways of dealing with laws that have been deemed unconstitutional: they can be voided in their entirety, they can be declared void only under certain conditions, and so on. This issue is covered by the variable CHALUNCON. Arguably, the judiciary is particularly independent if its decision automatically makes the law void (not only for the specific case at hand or after parliament has passed a new law overturning the old one).

Further, and going beyond the power of judicial review, we are interested in the competencies the highest ordinary court has other than reviewing legislation; including, for example, the supervision of elections, the impeachment of the executive, deciding on the constitutionality of political parties, and so forth (SUPPOW). *Ex ante*, the net effects of such competencies are unclear: on the one hand, granting the judiciary could increase its power and influence; on the other hand, however, if, due to such responsibilities, the court becomes drawn into highly disputed terrain, its reputation—and particularly its reputation for independence—could suffer. This variable additionally allows us to identify whether there is a trend away from (or toward) the core functions of the judiciary.

Publication of Decisions

Regarding publication of court decisions, we inquire into two aspects, namely: (i) whether the constitution provides for the publication of judicial opinions of the highest ordinary court (HOCOP) and (ii) whether reasons for decisions are constitutionally required and dissenting opinions allowed (HOCOPW). If the court is required to publish its opinions, transparency of its decision making is expected to increase. Hence, published opinions are expected to improve the reputation of the court, which, in turn, increases its *de facto* power as an independent political actor. The effect is expected to be even stronger if reasons for the opinions are given and dissenting opinions allowed. However, if dissenting opinions occur regularly and by more than one judge, public trust in legal decision making may be weakened.

To summarize, we have included all variables in Table 1.

Table 1: Overview over all variables used

Variable	Description
Judicial Independence Explicitly Mentioned?	
1. JUDIND	Does the constitution contain an explicit declaration regarding the independence of the central judicial organ(s)?
Appointment Procedure	
2. HOCCJ	Is the selection process specified for the chief justice or the other justices of the Highest Ordinary Court?
3/4. CHIEFNOM / SUPNOM	Who is involved in the nomination of the Chief Justice (/judges) of the Highest Ordinary Court?
5/6. CHIEFAP / SUPAP	Who is involved in the approval of nominations for the Chief Justice (/judges) of the Highest Ordinary Court?
Judicial Tenure	
7/8. CHFTERM / SUPTERM	What is the maximum term length for the Chief Justice (/judges) of the Highest Ordinary Court?
9/10. CHFTRMNM / SUPTERMNM	What restrictions are in place regarding the number of terms for the Chief Justice (/judges) of the Highest Ordinary Court?
11. JREM	Are there provisions for dismissing judges?
12. JREMCON	Under what conditions can judges be dismissed?
13. JREMPRO	Who can propose the dismissal of judges?
Judicial Salaries	
14. JUDSAL	Does the constitution explicitly state that judicial salaries are protected from governmental intervention?
Judicial Review	
15. INTERP	To whom does the constitution assign the responsibility for the interpretation of the constitution?
16. CHALLEG	Who has standing to initiate challenge to the constitutionality of legislation?
17. CHALSTAG	At what stage of the legislative process can bills be reviewed for constitutionality?
18. CHALUNCN	What is the effect of a determination of unconstitutionality?
Publication Requirements	
19. HOCOP	Does the constitution provide for judicial opinions of the Highest Ordinary Court?
20. HOCOPW	Which of the following is mentioned about opinions for the Highest Ordinary Court?
Additional Powers	
21. SUPPOW	What additional powers does the highest ordinary court have besides reviewing legislation?

4. Analysis of the Data

In this section, we restrict ourselves to analyzing just one of the 23 variables described in Section 3—whether the independence of the judiciary is explicitly mentioned in the constitution. After briefly describing the underlying dataset, we proceed to first investigate the bivariate correlation of explicit mention of JI in the constitution with a number of potentially interesting other variables and, second, look at the correlation between change in the JI variable and the other variables.

4.1 Our Dataset

Our analysis is based on a sample of 100 countries over the period 1950 to 2005. If the country under investigation became independent after 1950, we begin coding with the first year for which that country had its own constitution. The data cover a diverse group of countries with regard to geographic area, size, age, religious background, and state of economic development.

Table 2: Selection of Countries

Country	First year of constitution	Country	First year of constitution	Country	First year of constitution
Albania	1950	El Salvador	1950	Niger	1960
Andorra	1993	Equatorial Guinea	1968	Nigeria	1960
Angola	1975	Eritrea	1997	Norway	1950
Antigua and Barbuda	1981	Estonia	1992	Pakistan	1956
Argentina	1950	Ethiopia	1950	Panama	1950
Armenia	1995	France	1950	Paraguay	1950
Australia	1950	Gambia	1970	Peru	1950
Austria	1950	Georgia	1995	Poland	1950
Azerbaijan	1995	Germany	1950	Portugal	1950
Bahamas	1973	Ghana	1957	Romania	1991
Bangladesh	1972	Greece	1952	Singapore	1965
Barbados	1966	Grenada	1974	Slovakia	1992
Belarus	1994	Guatemala	1950	Slovenia	1991
Belgium	1950	Guinea	1958	Spain	1950
Belize	1981	Haiti	1950	Sri Lanka	1950
Bolivia	1950	Honduras	1950	St. Kitts and Nevis	1983
Botswana	1966	Hungary	1989	St. Vincent and the Grenadines	1979
Brazil	1950	Iceland	1950	Sweden	1950
Bulgaria	1950	India	1950	Syria	1950
Cameroon	1961	Indonesia	1950	Taiwan	1950
Canada	1950	Ireland	1950	Tajikistan	1994
Chile	1950	Italy	1950	Thailand	1950
China	1950	Jamaica	1962	Togo	1961
Colombia	1950	Japan	1950	Trinidad and Tobago	1962
Congo, Democratic Rep.	1964	Kenya	1963	Turkmenistan	1992
Congo	1961	Kyrgyzstan	1993	Ukraine	1996
Cuba	1950	Latvia	1991	United States	1950
Cyprus	1960	Lebanon	1950	Uruguay	1950
Czech Republic	1992	Lithuania	1992	Uzbekistan	1992
Denmark	1950	Luxembourg	1950	Venezuela	1950
Dominica	1978	Macedonia	1991	Yemen	1962
Dominican Republic	1950	Mexico	1950	Zimbabwe	1965
Ecuador	1950	Netherlands	1950		
Egypt	1950	Nicaragua	1950		

Note: Yemen comprises the Republic of North Yemen and the Arab Republic of Yemen (first year of constitution: 1990), as both constitutions contain a declaration on judicial independence.

In 2005, 81 countries mention JI in their constitutions, which is a clear majority; 19 countries do not. We observe constitutional change, i.e., a change regarding constitutional JI in an existing constitution, in 15 countries. Of those that changed their constitutions, 12 countries added specific references to JI over time (Belgium (1998), Canada (1960), Ecuador (1967), Equatorial Guinea (1982), Ethiopia (1955), Ghana (1969), Greece (1975), Indonesia (2001), Nigeria (1963), Peru (1979), Portugal (1976), and Sri Lanka (1972)). China removed constitutional JI temporarily between 1975 and 1982, as did Congo between 1969 and 1992 and Venezuela between 1953 and 1961. Thus, there has been a clear, if slow, trend toward anchoring JI in existing constitutions. As shown in Table 3, constitutional change takes place in all decades.

Table 3: Number of Countries Changing Constitutional Base of Judicial Independence

	1950s	1960s	1970s	1980s	1990s	2000s
Number of Changes	2	6	5	2	2	1

However, during the time period under investigation, new states were formed and new constitutions were drafted. A number of new states in the third world were created during the 1960s and 1970s and the fall of the Iron Curtain resulted in a surge of constitutional activity by transformation countries in the 1990s, particularly in Eastern Europe. Nevertheless, as reported in Table 4, half of the countries in our sample had their constitution in place before 1950.

Table 4: Age of Constitutions, Constitutional Change, and Judicial Independence

Age of Constitution	JI in Constitution	JI Not in Constitution	Number (%) Implementing JI Permanently
1950 and earlier	33 (66%)	9 (18%)	8 (16%)
1951–1960	4 (57%)	0	3 (43%)
1961–1970	9 (64%)	4 (29%)	1 (7%)
1971–1980	2 (33%)	4 (67%)	0
1981–1990	2 (50%)	2 (50%)	0
1991–2000	19 (100%)	0	0
2000–2005	0	0	0
Total number	69	19	12

In 1950, the starting year of our sample, 33 countries (66%) had a constitution that included a declaration of JI; 17 countries (34%) did not. Of these 17, eight (47%) implemented constitutional JI. In contrast, only very few of the more recent constitutions have been changed. In the period 1951–1990, 31 new constitutions came into force but only 55% of them contained a reference to JI. A great increase in new constitutions occurred in the 1990s due to the transformation of former communist countries. It is notable that all these constitutions include a declaration on JI.

The explicit mention of JI in constitutions has thus occurred in waves: constitutions enacted before 1950 were likely to include it ($p = 0.66$), constitutions passed between 1951 and 1990 were not as likely to include it ($p = 0.55$), and constitutions promulgated after 1990 were certain to include it ($p = 1.00$). The literature often gives the impression

that after WW II there was a quasi-linear trend toward more JI; however, the data do not support this presumption.

The age of a constitution may be an important explanatory variable for the probability of explicitly mentioning JI. The drafting of younger constitutions is based on a greater pool of knowledge and experience (i.e., that of other countries) and so these constitutions are less likely the result of trial and error. However, when we correlate age of the constitution with JI, we find a positive, albeit not significant, correlation coefficient of 0.11. Thus, the data do not provide much support for the “age” hypothesis. Age of constitution may also affect the likelihood of constitutional change. Older constitutions may be more in need of change than younger constitutions, but it is also possible that necessary adjustments were already been made before 1950, the start of our investigation period. The correlation is -0.26, significant at the 5% level, which implies that older constitutions are more likely to be modified. However, refining the analysis reveals that this relationship is negative but not significant when focusing on the 19 Western states, whereas it is 0.28 and significant at the 5% level for the other 81 countries. Thus, it is primarily old constitutions from the non-Western world that are subject to adjustment.

4.2 Bivariate Correlations

In this section, we investigate the bivariate correlations of our JI variable with other variables so as to better understand whether certain ways of safeguarding JI constitutionally depend on geographic location, history, constitutional context, the court model in a given country, and so forth.

4.2.1 Geography

The various dimensions of geography are exogenous. It has been noted that distance from the equator is a good predictor of the quality of a country’s institutions, as well as of its per capita income (Hall and Jones 1999). It is interesting to see whether regional influences affect the likelihood of including a declaration on JI in the constitution. We start by analyzing correlations based on the “original” constitution, that is, we ignore constitutional change. In a second step, we study the occurrence of such change. The first analysis is based on 85 countries, the second on 15.

Drawing on the absolute distance from the equator (i.e., latitude), we find that the correlation coefficient between this geographical indicator and JI as originally implemented in the constitution is 0.03, which is not significant. Thus, there is no statistically reliable association between absolute distance from the equator and a constitutional declaration of JI.

Instead of relying exclusively on a purely geographical definition of regions, it may be informative to take into account cultural, social, economic, and political closeness. Table 5 divides our sample countries into seven regional groups and assesses their relationship with constitutionally safeguarded JI.

Table 5: Regions and Declaration of JI in the Constitution

	Eastern Europe (21)	Latin America (16)	MENA (5)	Sub-Saharan Africa (11)	Western States (15)	Asia (7)	Caribbean (10)
JI in Constitution	21 (100%) exp. 16	14 (88%) exp. 12	5 (100%) exp. 4	11 (100%) exp. 9	8 (53%) exp. 12	6 (86%) exp. 5	1 (10%) exp. 8
JI Not in Constitution	0 exp. 5	2 (12%) exp. 4	0 exp. 1	0 exp. 3	7 (47%) exp. 3	1 (14%) exp. 2	9 (90%) exp. 2

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(6) = 43.3$ [marginal level of significance: 0.0001].

In most regions, a majority of original constitutions contains a reference to JI and all states in our sample from Eastern Europe, MENA and Sub-Saharan Africa do. The exception is the group of Caribbean states, the constitutions of which rarely address JI explicitly.¹ The Western states are about evenly split between including JI in the constitution and not. Testing statistically, we can easily reject the hypothesis of a random allocation of numbers to the cells. Noteworthy is the positive association of JI with Eastern European countries (Pearson correlation coefficient: 0.31) as well as the negative relation with Caribbean countries (Pearson correlation coefficient: -0.59), both significant at a 1% level. The correlation coefficient of the Western states is -0.27 and significant at a 5% level.

History shows that access to the sea can be an important determinant of a country's development. Of the 19 landlocked countries in our sample, 18 (95%) originally implemented JI in their constitutions, whereas only 48 (73%) of the 66 countries with access to the sea have done so. At a significance level of 5%, we can reject the hypothesis that this is a random distribution. Thus, landlocked countries are more likely to anchor JI in their constitutions. Landlocked countries suffer from a geographical disadvantage in comparison to non-landlocked ones. It could thus be that their constitutional assemblies try to choose better quality institutions to make up for the geographical disadvantage. We suspect, however, that this correlation is more formal than real: the partial correlation between being a landlocked country and the quality of government (operationalized, e.g., by the government effectiveness indicator provided

¹ One possible explanation is that many former British colonies accepted the Judicial Committee of the Privy Council as their highest court of appeal even after gaining independence. For countries that did so, constitutionally guaranteeing judicial independence might thus not have appeared as an important issue (on the relevance of this court for the economic development of former colonies, see Voigt et al. (2007)).

by the World Bank) is rather low (with the negative correlation being significant at least on the 5% level).

Next, we study how these three regional dimensions relate to constitutional change in JI. There is a correlation coefficient of -0.21 between absolute latitude and constitutional change, which is significant at the 5% level. Hence, the farther away countries are from the equator, the less likely it is that they will change their constitution with respect to JI.

Table 6 reports the relevant frequencies after dividing the countries into the regions outlined above.

Table 6: Regions and Changes in the Declaration of JI in the Constitution

	Eastern Europe	Latin America	MENA	Sub-Saharan Africa	Western States	Asia	Caribbean
Change in Constitution	0 exp. 3	3 (16%) exp. 3	0 exp. 1	5 (31%) exp. 2	4 (21%) Exp. 3	3 (30%) exp. 2	0 exp. 2
No Change in Constitution	21 (100%) exp. 18	16 (84%) exp. 16	5 (100%) exp. 4	11 (69%) exp. 14	15 (79%) Exp. 16	7 (70%) exp. 9	10 (100%) exp. 9

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(6) = 12.0$ [marginal level of significance: 0.062].

Constitutional change occurs relatively frequently in Sub-Saharan Africa and Asia, whereas there is no change in the original constitutions of Eastern European, MENA, and Caribbean countries. There is a negative correlation between East European countries and constitutional change with a coefficient of -0.22 and a positive correlation between Sub-Saharan Africa and constitutional change with a coefficient of 0.20 , both significant at a 5% level.

Considering whether countries are landlocked does not help explain constitutional change. Of the 20 landlocked countries, only one experienced JI-related changes in the constitution, whereas this is the case for 14 out of the 80 countries with access to the sea. The correlation coefficient is -0.14 , that is, landlocked countries are less likely to change their constitutions, but the probability of doing so is not statistically significant.

4.2.2 History

Colonial history can leave a deep imprint on a country's development. Quite often, current political, economic, and legal institutions are heavily influenced by those prevalent when the country was a colony. Table 7 cross-tabulates explicit inclusion of JI in the constitution and colonial history. In our sample, about 40% of the countries were never a colony. Of those that have a colonial history, most were governed either by Great Britain (22) or Spain (14); there are only few cases of former French and Portuguese colonies.

Table 7: Colonial History and Declaration of JI in the Constitution

	Never Colony (39)	Former Spanish Colony (14)	Former British Colony (22)	Former French Colony (7)	Former Belgian, Dutch, or Portuguese Colony (3)
JI in Constitution	32 (82%) exp. 30	12 (86%) exp. 11	12 (55%) exp. 17	7 (100%) exp. 5	3 (100%) exp. 2
JI Not in Constitution	7 (18%) exp. 9	2 (14%) exp. 3	10 (45%) exp. 5	0 exp. 2	0 exp. 1

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(4) = 10.6$ [marginal level of significance: 0.031].

There is significant statistical evidence that colonial history and constitutionally safeguarded JI are related. Under a random process, we would expect a significantly larger number of former British colonies to include JI in their constitutions. Specifically, the correlation coefficient in this case is -0.33 , which is significant at a 1% level. Thus, those countries that are former British colonies have a much lower probability of implementing constitutional references to JI. We can only speculate about possible reasons for this result: one reason might be the British tradition of an unwritten constitution.

In Table 8, we analyze whether colonial history affects the likelihood of constitutional change as to JI.

Table 8: Colonial History and Changes in the Declaration of JI in the Constitution

	Never Colony	Former Spanish Colony	Former British Colony	Former French Colony	Former Belgian, Dutch, or Portuguese Colony
Change in Constitution	6 (13%) exp. 7	4 (22%) exp. 3	3 (12%) exp. 4	1 (12%) exp. 1	1 (25%) exp. 1
No Change in Constitution	39 (87%) exp. 38	14 (78%) exp. 15	22 (88%) exp. 21	7 (88%) exp. 7	3 (75%) exp. 3

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(4) = 1.4$ [marginal level of significance: 0.850].

Statistically, we find no significant evidence that constitutional change and colonial history are related. We therefore conclude that constitutional change is not notably influenced by colonial history.

Legal origin is often considered a forceful determinant of a country's legal environment. La Porta *et al.* (1998, 1999) distinguish between common law and civil law. They further distinguish civil law between French, Scandinavian, German, and Socialist law, and find that the legal origin of commercial law is also a good predictor for the quality of institutions. It is somewhat open to question whether the origin of a country's commercial law will have any bearing on its *de jure* degree of JI, which is an element of public law, but the papers by La Porta *et al.* are very influential and we thus explicitly take into account the possible effects of legal origin. Table 9 cross-tabulates legal origin with the declaration of JI in the constitution, as well as with change of an existing constitution.

Table 9: Legal Origin, Declarations of JI in Constitution, and Constitutional Change

	Common Law (32)	Socialist (18)	French (42)	German (4)	Scandinavian (4)
JI in Original Constitution	15 (47%) exp. 21	17 (94%) exp. 12	29 (69%) exp. 28	4 (100%) exp. 3	1 (25%) exp. 3
JI Not in Original Constitution	12 (38%) exp. 6	0 exp. 3	4 (10%) exp. 8	0 exp. 1	3 (75%) exp. 1
Original Constitution Changed with Respect to JI	5 (15%) exp. 5	1 (6%) exp. 3	9 (21%) exp. 6	0 exp. 1	0 exp. 1

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(8) = 27.7$ [marginal level of significance: 0.001].

In our sample, most constitutions have a French legal origin (42), followed by those based in the common law (32), Socialist (18), and German/Scandinavian (8) traditions. Three results are particularly noteworthy. Constitutions in common law countries and Scandinavian countries are less likely to mention JI explicitly in their constitutions. Socialist constitutions, on the other hand, are very likely to mention JI. We again can reject the hypothesis that the numbers in the cells are randomly distributed at any reasonable level of significance. In particular, we would expect to see more countries with a common law origin (Pearson correlation coefficient: -0.36) and more Scandinavian countries (Pearson correlation coefficient: -0.28) having JI in their constitution. Less Socialist constitutions should have JI implemented (Pearson correlation coefficient: 0.27). The probability of constitutional change seems to be unaffected by legal origins.

Ethnolinguistic fractionalization has been a standard control for economic growth models ever since Easterly and Levine (1997) showed that this variable explains much of the variation in African country growth rates. It is also used to explain the quality of institutions. A population highly fractionalized on ethnic grounds and possibly also language-diverse might be more prone to internal conflict. In such a situation, the conflict-resolving capacities of the judiciary could be particularly important.

Most studies using ethnolinguistic fractionalization rely on data provided by a Soviet institute in the 1960s or on data averaged from several studies. Alesina *et al.* (2002) recalculate three fractionalization indices in which they distinguish very carefully between three dimensions of fractionalization that previously tended to be mixed together, namely, ethnic, linguistic, and religious fractionalization. Because their fractionalization data are computed for a far larger number of countries than is the case in previous studies, we rely on their data.²

² Of late, there has been a discussion whether “fractionalization” or “polarization” is the more adequate variable: fractionalization reaches its maximum if each member of society makes up his or her own group, whereas polarization reaches its maximum if there are two groups of identical size.

We study the impact of ethnic diversity on JI as it appears in the original constitution. The correlation coefficient is 0.27, which is positive and statistically significant at a 5% level. Further, the correlation between implemented JI and diversity of languages within a society is 0.24, which is also significant at a 5% level. Finally, regarding religious diversity, we find a correlation coefficient of -0.26 , which is significant at the 5% level. Hence, we find significant evidence that diversity in language and ethnicity increases the likelihood of constitutionally safeguarded JI but also that constitutionally guaranteed JI is less likely to occur in “original” constitutions in societies that are religiously fractionalized.³ These results show that ethnolinguistic fractionalization should, indeed, be disentangled and its three components should be taken into account separately. The finding itself is certainly puzzling and we can only speculate about possible reasons: constitutionally safeguarded JI is a way of delegating decision-making power to a branch that does usually not enjoy direct democratic legitimation. All three aspects of diversity are closely correlated with very basic issues of identity. But it might be the case that religious issues are most intimately concerned with notions of truth. If such very basic matters are at stake, people might be less willing to delegate competences than with regard to more technical issues.

Analyzing constitutional amendments with regard to JI, the correlation between ethnic diversity and change is 0.24 and significant at a 5% level. Those countries that are more fractured along ethnic lines will be more likely to implement constitutional change. More language diversity also makes constitutional change regarding JI more likely; the correlation coefficient is 0.09, but not significant. Finally, greater religious diversity makes constitutional amendment less likely. The correlation is -0.10 , but it is also not significant.⁴ Thus, the most important dimension of fractionalization for safeguarding JI in the constitution is linked to ethnic diversity. Societies with more ethnic diversity are more likely to implement JI and more likely to change their constitution with regard to adjusting formal JI.

Those who argue in favor of using polarization (Estaban and Rey 1994; Montalvo and Reynal-Querol 2002) argue that chances of impasse and instability are higher under the latter condition and point to estimates showing that the likelihood of civil war can be better predicted with the polarization measure. Alesina *et al.* (2002) point out that the two measures are highly correlated and that in explaining both growth and the quality of institutions, the fractionalization measure works slightly better than the polarization index. Our results do, however, not support that statement.

³ Based on religious polarization, the correlation is 0.371 which is significant on the one percent level.

⁴ Based on the polarization data by Montalvo and Reynal Querol (2005) the correlation is 0.2999 which is significant on the one percent level.

Putnam (1993) claims that Italian regions characterized by a large number of voluntary associations having a horizontal organization structure are successful in the production of high-quality local public goods. He further argues that the Catholic Church has a vertical organization structure. La Porta *et al.* (1997) asked whether this result could be generalized and, additionally, classified Islam and the various Orthodox churches as having hierarchical structures. They find (1997, 336f.) that holding per capita income constant, “countries with more dominant hierarchical religions have less efficient judiciaries, greater corruption, lower-quality bureaucracies, higher rates of tax evasion, lower rates of participation in civic activities and professional associations, a lower level of importance of large firms in the economy, inferior infrastructures, and higher inflation.”

Thus, if membership in a particular religion is related to information regarding a propensity to accept vertical structures of authority, such might be reflected in a country’s constitutional structure. We would expect countries whose predominant religion is deemed to have a vertical hierarchy to implement constitutions with fewer safeguards for JI, interpreting judicial independence as a type of horizontal control, in other words, a type of control somewhat antithetical to members of vertical hierarchy religions.

This hypothesis is different from the one on religious fractionalization discussed above because it focuses on the beliefs and the structures of specific religions rather than on the number of competing beliefs in a country. We differentiate our sample countries on the basis of their share of Catholics, Muslims, Protestants, and other religions. The correlation coefficients with JI as appearing in the original constitution are 0.08, 0.26, –0.52, and 0.03, respectively. Thus, societies with a large share of Catholics, Muslims and/or other religions exhibit a greater probability of implementing JI in their constitutions, whereas those containing a relatively large share of Protestants are characterized by a lower probability of doing so. Statistically, only the positive association between JI and Muslims and the negative association between JI and Protestants are statistically significant at the 5% level.

With respect to the probability of constitutional amendments involving JI, we find correlation coefficients of 0.10, -0.09, –0.10, and 0.03 for the respective shares of Catholics, Muslims, Protestants, and other religions, none of which are significant.

4.2.3 Constitutional Context

A constitution will most likely be the result of compromise. The choice of variables underlying our indicator for JI is therefore part of a larger legal context that includes other vital aspects of the constitution. It is beyond the scope of this paper to thoroughly

analyze the bargaining dynamics that led to the observed constitution, but to generate at least some preliminary insights, we study whether there exist systematic correlations between JI and other features of the constitution. We discuss five such features, namely: (1) the electoral formula, (2) the form of government, (3) the vertical structure of the state (unitary vs. federal), (4) the opportunity for citizens to intervene directly, and (5) the length of the entire constitution.

1 Electoral Formula

We distinguish between proportional representation and majority rule. The electoral formula has substantial consequences for the party system as well as for the type of government that will result. Majority rule tends to produce two-party systems, which lead to one-party governments. Change of government in majority rule systems is often connected with substantial policy changes. If many of the representatives are risk averse and therefore have a preference for limiting the amplitude of such policy swings, an independent judiciary could be perceived as a force for smoothing adjustment in legislation after the election. We thus hypothesize that JI should be higher in systems with majority rule.

We use data collected by Golder (2005) to study the relationship between electoral rule and the degree of constitutional safeguards for JI.⁵ In Table 10, we provide absolute and relative frequencies for the cross-tabulation of electoral rule and constitutionally safeguarded JI.

Table 10: Electoral Rule and Declarations of JI in Constitution

	Majoritarian (19)	Proportional (12)	Multi-Tier (9)	Mixed (7)
JI in Original Constitution	8 (42%) exp. 12	6 (50%) exp. 7	9 (100%) exp. 6	6 (86%) exp. 4
JI Not in Original Constitution	11 (58%) exp. 7	6 (50%) exp. 5	0 exp. 3	1 (14%) exp. 3

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 11.1$ [marginal level of significance: 0.011].

We find that a majoritarian voting system is the most preferred type of electoral rule in our sample. However, fewer than expected countries characterized by this rule have JI implemented in their constitutions. In contrast, countries that have adopted a multi-tier

⁵ We use the observations corresponding to the starting year of the relevant constitution in our sample. If there is a missing value, we extend the period by up to five years if there is no change in the coding so as to conserve degrees of freedom. Moreover, if the particular year is characterized by an outlier in terms of the typical system implemented during a five-year period, the more representatively typical coding was used instead. Even so, the number of observations declines to 47.

or mixed system are more likely to have a constitutional reference to JI. Countries with proportional representation, the second most popular electoral rule, are equally divided between having JI in their constitution and not. The statistical test shows that we can reject a random distribution of these two variables at the 10% level. Our correlation coefficients show that there is a significantly negative association between majoritarian electoral rules and JI in the constitution (-0.33), which is significant at a 5% level of significance and a positive association between a multi-tier system and JI in the constitution (0.38), which is significant at a 1% level. It thus seems that constitutional assemblies choosing first-past-the-post do not choose JI as a means to reduce the amplitude of policy swings. None of the other voting systems are significant. If we combine multi-tier and mixed systems into one category, we find a highly significant correlation coefficient of 0.47 at a 1% level. Thus, countries with these electoral rules have a greater probability of implementing constitutionally safeguarded JI.

In Table 11, we record the cross-tabulation with respect to those countries that made constitutional changes in JI.

Table 11: Electoral Rules and Changes in the Declaration of JI in the Constitution

	Majoritarian (23)	Proportional (14)	Multi-Tier (11)	Mixed (7)
Change in Constitution	4 (17%) exp. 3	2 (14%) exp. 2	2 (18%) exp. 2	0 exp. 1
No Change in Constitution	19 (83%) exp. 20	12 (86%) exp. 12	9 (82%) exp. 9	7 (100%) exp. 6

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 1.5$ [marginal level of significance: 0.692].

We find that none of the countries with a mixed electoral rule changed their constitutions with respect to JI. There are no significant correlations for any electoral rule and the probability of a change in the constitution.

2 Form of Government

Again, we distinguish between only two types of government: parliamentary and presidential systems. It is argued (e.g., Persson and Tabellini 2003) that presidential systems systematically achieve a higher degree of separation of powers than parliamentary systems because the executive is more independent from parliament in presidential systems.⁶ However, such systems could give rise to serious conflicts between parliament and president and thus a strong—and independent—judiciary could be instrumental in securing stability of the political system.

⁶ For a critique of that view, see Hayo & Voigt (2010).

To analyze the relationship between the form of government and constitutionally safeguarded JI, we rely on data measuring the degree of parliamentary responsibility collected by Banks (2004). He refers to the degree to which a premier must depend on the support of a majority in the lower house of a legislature in order to remain in office and distinguishes four forms of government: (i) office of premier does not exist (irrelevant), (ii) office exists, but there is no parliamentary responsibility, (iii) the premier is to a certain extent constitutionally and effectively dependent on a legislative majority, and (iv) the premier is constitutionally and effectively dependent on a legislative majority.⁷ Table 12 contains the result of cross-tabulating form of government with our primary variable of interest; the results are significant.

Table 12: Form of Government and Declarations of JI in the Constitution

	Irrelevant (27)	No Parliamentary Responsibility (17)	Limited Parliamentary Responsibility (9)	Full Parliamentary Responsibility (32)
JI in Original Constitution	24 (89%) exp. 21	17 (100%) exp. 13	7 (78%) exp. 7	18 (56%) exp. 25
JI Not in Original Constitution	3 (11%) exp. 6	0 exp. 4	2 (22%) exp. 2	14 (44%) exp. 7

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 15.3$ [marginal level of significance: 0.002].

On the one hand, in countries where the office of premier does not exist or where there is no parliamentary responsibility, we typically find explicit constitutional declarations of JI. On the other hand, states characterized by full parliamentary responsibility are close to equally divided between those that implement JI in the constitution and those that do not. Forms of government with no parliamentary responsibility, typically presidential regimes, are certain to have concrete references to JI in their constitutions. Countries in which governments are fully responsible to parliament have a lower probability of implementing constitutional safeguards for JI. The correlation between declarations of JI and no parliamentary responsibility is 0.27, which is significant at a 5% level, whereas the one between JI and full parliamentary responsibility is -0.40 , significant at all plausible levels of significance. Thus, parliamentary democracies tend to have less, and presidential democracies more, constitutional safeguarding of JI. Provided that presidential systems really have a higher degree of separation of powers, a formally independent judiciary is assigned the task of arbitrator should the other branches find themselves in conflict.

In Table 13, we investigate whether constitutional change with regard to JI is associated with form of government.

⁷ Footnote 3 applies here as well, except that the number of observations is 63.

Table 13: Form of Government and Changes in the Declaration of JI in the Constitution

	Irrelevant (33)	No Parliamentary Responsibility (21)	Limited Parliamentary Responsibility (10)	Full Parliamentary Responsibility (36)
Change in Constitution	6 (18%) exp. 5	4 (19%) exp. 3	1 (10%) exp. 2	4 (11%) exp. 5
No Change in Constitution	27 (82%) exp. 28	17 (81%) exp. 18	9 (90%) exp. 9	32 (89%) exp. 31

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 1.2$ [marginal level of significance: 0.764].

As Table 13 reveals, JI-related constitutional change occurs most often in those countries where the relationship between government and parliament is irrelevant. Since the expected frequencies of occurrence are quite close to the actual ones, there is no statistical reason to suspect a nonrandom association between the two variables. Hence, constitutional change involving JI is not related to a country's form of government.

3 Vertical Structure of State

We distinguish between federal and unitary states. It can be argued that one important function of an independent judiciary is to lessen conflict between the various branches of government. In the absence of an impartial arbiter, conflicts between government branches are more likely to develop into power games, with adverse effects on the country's political stability. We conjecture that the potential for conflict between political actors is higher in federally organized states because there are more constitutional actors. Thus, members of the constitutional convention in federal states would prefer a higher level of *de jure* JI than would those in unitary states. Our data show, however, that neither the original constitutional choice nor the changes over time are correlated with a dummy variable for federalism.

4 Possibility of Citizens to Intervene Directly

We distinguish between two direct democratic instruments here, namely initiatives that can be initiated by the citizens and referendums that can be initiated by government. One can think of them as direct democracy "from below" vs. "from above". Initiatives can be interpreted as one way of the principal (the citizens at large) to directly control its agent (the government). One can also interpret direct democratic institutions as a broader separation of powers, as one more veto player becomes relevant. At least two conjectures regarding the relationship between judicial independence and initiatives come to mind: First, if direct democratic institutions exist, judicial independence becomes all the more important as more conflicts are likely due to the existence of an additional player. But it could secondly also be the case that the citizens at large function as the highest court of the country – and formally granted judicial independence becomes not only less needed but also less likely to be included in the

constitution. Referendums are initiated from above. Conjectures regarding their relationship with JI are even more muddy: If they can be initiated from above they would not seem to constitute an additional constraint and their relationship with JI remains to be empirically ascertained.

Our data regarding direct democratic institutions are from Elkins et al. (2008). We only consider countries that have not experienced any changes in these variables during our observation period. It is interesting to note that initiatives and referendums are highly significantly correlated but that the correlation coefficient still is only 0.325 (which is, however, significant on the 1% level). Constitutionally safeguarded JI and initiatives are significantly positively correlated (almost on the 1% level, $r=0.294$). This can be interpreted as evidence in favour of a complementary, rather than a substitutive relationship, of these two institutions. An even closer correlation exists between JI and referendums: the partial correlation is .312 and this is significant on the 1% level. Constitutional changes are not significant with regard to either initiatives or referendums.

5. Length of Entire Constitution

Constitutions are by necessity incomplete contracts. Short constitutions leave many questions open, leading to an increased demand for legal interpretation by the judiciary.⁸ Rational constitution-makers aware of this will thus explicitly endow the judiciary with sufficient power to make the constitution internally consistent. Lengthy constitutions may be the result of attempts to be as comprehensive as possible on as many issues as possible. Such can be interpreted as a device for reducing uncertainty as detailed regulations in the constitution are assumed to decrease uncertainty more than giving courts decision and interpretation powers. Therefore, we expect longer constitutions to be correlated with lower degrees of JI. We find, however, that the original inclusion of JI in the constitution is virtually uncorrelated with the length of the document. But there is a significant correlation (on the 10% level) between constitutional changes in JI and the length of a constitution.

4.2.4 Organizational Structure of the Judiciary

An aspect related to legal origin is the underlying court model. There are various ways of designing constitutional review. (i) Review power can be allocated to each and every court of the country, as in the United States, which does not have a specialized court. This system implies that constitutional review is *a posteriori*, and uniformity is secured

⁸ For an analysis of the determinants of constitutional length, Voigt (2009).

by the highest court of the country (in the United States, the Supreme Court). (ii) The Austrian model, as proposed by Kelsen (1920), which is characterized by a specialized constitutional court dealing with constitutional matters. This design can entail both abstract and concrete review, as well as *ex ante* and *ex post* review. (iii) The French model, where constitutional matters are relegated to a special body (e.g., the *Conseil Constitutionnel* in France) traditionally constrained to *ex ante* review (Harutyunayn and Mavcic 1999). Most, but not all, constitutional systems can be grouped into one of these three designs. Additionally, Harutyunayn and Mavcic (1999) define a “New (British) Commonwealth Model” implemented by Mauritius, and a “Mixed (American Continental) Model,” which can be found in a number of states, including Portugal, Columbia, Ecuador, Guatemala, and Peru.⁹

The cross-tabulation between implementation of JI in the original constitution and court model in Table 14 shows that all mixed-type and French-type models include a relevant passage, and so do a majority of countries adhering to the Austrian/Continental-European and U.S. types of court model. There is a positive correlation between the Austrian/Continental-European type of court model and the implementation of judicial independence (0.29), which is significant at a 5% level. The negative correlation between the U.S. court model and judicial independence (-0.39) is significant at all plausible levels of significance.

Table 14: Court Model and Declarations of JI in Constitution

	U.S.	Austrian/Continental-European	Mixed	French
JI in Original Constitution	16 (59%) exp. 22	38 (90%) exp. 34	6 (100%) exp. 5	1 (100%) exp. 1
JI Not in Original Constitution	11 (41%) exp. 5	4 (10%) exp. 8	0 exp. 1	0 exp. 0

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 12.0$ [marginal level of significance: 0.007].

However, this finding does not hold when we investigate the association between court model and constitutional amendments regarding JI. In Table 15, we report the cross-tabulation between these two variables.

Table 15: Court Model and Changes in the Declaration of JI in the Constitution

	U.S.	Austrian/Continental-European	Mixed	French
Change in Constitution	3 (10%) exp. 4	3 (7%) exp. 6	6 (50%) exp. 2	0 exp. 0
No Change in Constitution	27 (90%) exp. 26	42 (93%) exp. 39	6 (50%) exp. 10	1 (100%) exp. 1

Note: Testing actual vs. expected frequencies: Pearson $\chi^2(3) = 15.8$ [marginal level of significance: 0.001].

⁹ We have information on court model for 76 of the countries in our sample.

There is a statistically significant association between the likelihood of a constitutional amendment and the type of court model. In particular, mixed-type court models have a much greater likelihood of constitutional change. The correlation coefficient between mixed-type court models and constitutional amendment is 0.42, which is significant at all reasonable levels of significance. Thus, it appears that mixed-type court models are less stable judicially than are the “pure” forms of court model.

4.2.5 Inequality

Fractionalization (and polarization) is not confined to ethnic, linguistic, or religious dimensions. Keefer and Knack (2002) study inequality in income as well as in land ownership and find that high degrees of inequality are inimical to secure property rights. In a country with a general franchise and a high degree of inequality, elections can be won by promising redistribution to the poor. Under such circumstances, rich citizens could make consent to the constitution conditional on a high degree of JI if doing so promises to make their earnings more secure.

Vanhanen (1997) presents a number of proxy variables for the distribution of resources within societies. In our analysis, we draw on several indicators. For *democratic competition and participation*, competition is operationalized by the percentage of votes that are not cast for the largest party and participation is measured by the percentage of the population that actually voted in the last election.¹⁰ The correlation between JI-related declarations in the constitution and this indicator is -0.58 , which is significant at the 1% level. Thus, countries characterized by more democratization are less likely to include explicit provisions on JI in their constitutions.

Share of family farms counts the area of family farms as a percentage of total farmland. Although perhaps less relevant for industrial countries, it is an appropriate indicator for the distribution of resources in many less developed countries. The correlation coefficient with JI is -0.34 , which is significant at a 5% level.¹¹ However, when differentiating the sample between Western and non-Western countries, we obtain correlations of -0.53 and 0.23 , respectively. Hence, it is those Western countries where the area of family farms as a percentage of total cultivated area is particularly high that are less likely to implement constitutional safeguards for JI.

Knowledge distribution measures how available knowledge resources are to members of the society. It is based on the arithmetic mean of the percentage of students and the

¹⁰ The correlation coefficient is based on 35 observations.

¹¹ The correlation coefficient is based on 32 observations.

percentage of literate in a country. Countries with a wider distribution of education are less likely to feature declarations on JI in their constitutions (correlation coefficient: -0.50 , significant at a 1% level).¹²

Finally, *urban influence* is the arithmetic mean of the percentage share of urban dwellers to total population and the percentage of Non-Agricultural Population. It proxies for the relative importance of city versus rural dwellers in a country. The correlation with JI is -0.55 , which is statistically significant at a 1% level.¹³ Thus, when many citizens live in urban areas and are engaged in nonagricultural work, it is less likely that JI will be explicitly mentioned in the constitution.

Concerning the likelihood of constitutional change with regard to JI, we find that such is negatively associated with the degree of *democratic competition and participation* (correlation coefficient: -0.14) but not significantly so. A similar conclusion applies to *share of family farms* (correlation coefficient: -0.03), *knowledge distribution* (correlation coefficient: -0.18), and *urban influence* (correlation coefficient: -0.18). Hence, the distribution of these resources has very little impact on the likelihood of constitutional amendments regarding the way JI is safeguarded in the constitution. The distribution of resources is associated with the initial specification of JI in the constitution, but not with any changes over time.

5. Conclusion and Outlook

Over the last 10 years, research into the effects and causes of judicial independence (JI) has made important progress and we have also gained substantial insight into the economic effects of constitutions. These two fields of study are combined in this paper. We created a panel dataset containing 23 variables regarding constitutionally safeguarded JI.

In this paper, we confine ourselves to describing and analyzing only one of these 23 variables—whether the independence of judicial organs is explicitly mentioned in constitutions. Our key findings are as follows. First, legal origins do have an impact on the likelihood of explicitly anchoring JI in the constitution: countries belonging to the common law tradition are less likely to implement JI in their constitutions (and those with a socialist tradition are more likely to do so). Correspondingly, former British colonies are less likely to address JI explicitly, as are states in the Caribbean. Second, religion has a significant impact on whether JI is included in a country's constitution:

¹² The correlation coefficient is based on 32 observations.

¹³ The correlation coefficient is based on 32 observations.

societies with a high degree of religious fractionalization are not only less likely to anchor JI in their constitutions, but also less likely to change their constitutions to do so later on. Finally, Muslim countries are more likely to mention JI in their constitutions, whereas Protestant countries are less likely to do so. Third, the distribution of resources within a society is important: a higher percentage of family farms, a wider distribution of education, and higher percentage of urban dwellers are all connected with a lower likelihood mentioning JI in the constitution. However, in the case of family farms and knowledge distribution, it is primarily Western countries that are responsible for the result and for democratic competition and participation, it is other countries. Only the negative impact of a more urban environment on constitutionally safeguarded JI is found globally.

We next intend to analyze the other 22 variables. Then, we will embark on an exploration of the determinants of constitutionally safeguarded JI and thus make a contribution to the newly emerging research field of endogenous constitutions.

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Appendix: Definition of Variables

AL_ETHNIC:

Reflects probability that two randomly selected people from a given country will not belong to the same ethno linguistic group. The higher the number, the more fractionalized society. The definition of ethnicity involves a combination of racial and linguistic characteristics. The result is a higher degree of fractionalization than the commonly used ELF-index (see el_elf60) in for ex-ample Latin America, where people of many races speak the same language; source: Alesina et al. (2003).

AL_LANGUAGE:

Reflects probability that two randomly selected people from a given country will not belong to the same linguistic group. The higher the number, the more fractionalized society; source: Alesina et al. (2003).

AL_RELIGION:

Reflects probability that two randomly selected people from a given country will not belong to the same religious group. The higher the number, the more fractionalized society; source: Alesina et al. (2003).

BANKS_S2IF7

Refers to the degree to which a premier must depend on the support of a majority in the lower house of a legislature in order to remain in office. 0: Irrelevant. Office of premier does not exist, 1: Absent. Office exists, but there is no parliamentary responsibility., 2: Incomplete. The premier is, at least to some extent, constitutionally responsible to the legislature. Effective responsibility is, however, limited, 3: Complete. The premier is constitutionally and effectively dependent upon a legislative majority for continuance in office; source: Banks (2004).

CHALLENG:

Who has standing to initiate challenge to the constitutionality of legislation? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: First (or only) Chamber of the Legislature, 4: Second Chamber of the Legislature, 5: Both Chambers of the Legislature are required, 6: Lawyers, 7: Public (by complaint), 8: The Courts, 9: Left explicitly to non constitutional law, 25: The Government/Cabinet; source: own research based on Elkins et al. (2009).

CHALSTAG:

At what stage of the legislative process can bills be reviewed for constitutionality? 1: Pre promulgation, 2: Post promulgation, 3: Either, 4: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CHALUNCN:

What is the effect of a determination of unconstitutionality? 1: Law is void, 2: Void for specific case, but law still exists, 3: Returned to legislature for revision/reconsideration, 4: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CHFRES:

What additional restrictions does the constitution place on the eligibility to serve as the Chief Justice of the Highest Ordinary Court? 1: Must be from a particular party, 2: Must be a particular gender, 3: Membership or position as minister of particular religious denomination, 4: Must have a particular linguistic/national/racial identity, 5: Must be a citizen, 6: Must be a native citizen, 7: Must have certain education, 8: Must be a non felon, 9: Must be a lawyer, 65: Must be a national, Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CHFTERM:

What is the maximum term length for the Chief Justice of the Highest Ordinary Court? Source: own research based on Elkins et al. (2009).

CHFTRMNM:

What restrictions are in place regarding the number of terms for the Chief Justice of the Highest Ordinary Court? 1: Only one term permitted, total, 2: Only two terms permitted, total, 3: No successive terms permitted, but multiple non successive terms permitted, 4: Only two successive terms permitted, but multiple non successive terms permitted, 5: No term limits, 6: left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CHIEFAP:

Who is involved in the approval of nominations for the Chief Justice of the Highest Ordinary Court? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: the Government/Cabinet, 4: First (or only) Chamber of the Legislature, 5: Second Chamber of the Legislature, 6: Judicial Council/Commission, 7: Judiciary (other than judicial council/commission), 8: left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CHIEFNOM:

Who is involved in the nomination of the Chief Justice of the Highest Ordinary Court? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: the Government/Cabinet, 4: First (or only) Chamber of the Legislature, 5: Second Chamber of the Legislature, 6: Judicial Council/Commission, 7: Judiciary (other than judicial council/commission), 8: other, please specify in the comments section, 79: left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

CONLENGTH:

The length of the current constitution of a state in words; schedules and other complementary documents are not counted; source: Voigt (2009).

COURTMODEL:

Organizational structure of the court system: 0: US, 1: Austrian, 2: Mixed, 3: French; source: Harutyunyan and Mavcic (1999).

FEDERALISM:

Dummy variable equal to 1 if a country has a federal political structure, 0 otherwise; source: Elazar (1995).

GOL_EST:

Variable indicating the type of electoral system used: 1: Majoritarian (employs plurality, absolute majority, qualified majority, limited vote, alternative vote, single non-transferable vote or modified Borda count in a single electoral tier), 2: Proportional (employs party list or single transferable vote in a single electoral tier), 3: Multi-tier (employs a single electoral formula, majoritarian or proportional, across multiple tiers), 4: Mixed (employs a mixture of majoritarian and proportional electoral rules in one or more electoral tiers); source: Golder (2005).

HOCCJ:

Is the selection process specified for the chief justice or the other justices of the Highest Ordinary Court? 1: Chief Justice only, 2: Regular Justices only, 3: Both with same procedure, 4: Both with different procedures for each, 5: Neither; source: own research based on Elkins et al. (2009).

HOCOP:

Does the constitution provide for judicial opinions of the Highest Ordinary Court? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

HOCOPW:

Which of the following is mentioned about opinions for the Highest Ordinary Court? 1: Reasons are required in court decisions, 2: Separate or concurring opinions are allowed, 3: Separate or concurring opinions is explicitly prohibited, 4: Dissenting opinions are allowed, 5: Dissenting opinions are explicitly prohibited; source: own research based on Elkins et al. (2009).

HT_COLONIAL:

This is a tenfold classification of the former colonial ruler of the country. Following Australia, Israel and New Zealand), and exclusively focused on "Western overseas" colonialism. This implies that only Western colonizers (e.g. excluding Japanese colonialism), and only countries located in the non-Western hemisphere "overseas" (e.g. excluding Ireland & Malta), have been coded. Each country that has been colonized since 1700 is coded. In cases of several colonial powers, the last one is counted, if it lasted for 10 years or longer. The categories are the following: 0: Never colonized by a Western overseas colonial power, 1: Dutch, 2: Spanish, 3: Italian, 4: US, 5: British, 6: French, 7: Portuguese, 8: Belgian, 9: British-French, 10: Australian; source: Teorell and Hadenius (2007).

HT_REGION:

This is a tenfold politico-geographic classification of world regions, based on a mixture of two considerations: geographical proximity (with the partial exception of category 5 below) and demarcation by area specialists having contributed to a regional understanding of democratization. The categories are as follow: 1: Eastern Europe and post Soviet Union (including Central Asia), 2: Latin America (including Cuba, Haiti & the Dominican Republic), 3: North Africa & the Middle East (including Israel, Turkey & Cyprus), 4: Sub-Saharan Africa, 5: Western Europe and North America (including Australia & New Zealand), 6: East Asia (including Japan & Mongolia), 7: South-East Asia, 8: South Asia, 9: The Pacific (excluding Australia & New Zealand), 10: The Caribbean (including Belize, Guyana & Suriname, but excluding Cuba, Haiti & the Dominican Republic); source: Teorell and Hadenius (2007).

INITIAT:

Does the constitution provide for the ability of individuals to propose legislative initiatives (referenda from below)? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

INTERP:

To whom does the constitution assign the responsibility for the interpretation of the constitution? 1: Any Ordinary Court, 2: Constitutional Court/Council, 3: Supreme Court Only, 4: Special chamber of the Supreme Court, 5: First (or only) Chamber of the Legislature, 6: Second Chamber of the Legislature, 7: Both Chambers of the Legislature are required, 8: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

JREM:

Are there provisions for dismissing judges? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

JREMCON:

Under what conditions can judges be dismissed? 1: General dissatisfaction (i.e. dismissal is fairly unrestricted), 2: Crimes and other issues of conduct, 3: Treason, 4: Violations of the constitution, 5: Incapacitated, 6: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

JREMPRO:

Who can propose the dismissal of judges? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: First (or only) Chamber of the Legislature, 4: Second Chamber of the Legislature, 5: Both Chambers of the Legislature are required, 6: Public Prosecutor, 7: Judicial Council, 8: Public, 9: Left explicitly to non constitutional law, 25: The Government/Cabinet; source: own research based on Elkins et al. (2009).

JUDIND:

Does the constitution contain an explicit declaration regarding the independence of the central judicial organ(s)? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

JUDSAL:

Does the constitution explicitly state that judicial salaries are protected from governmental intervention? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

LANDLOCKED:

1: Country is enclosed or nearly enclosed by land, 0: Country is not enclosed or nearly enclosed by land; source: www.wikipedia.org.

LP_CATHO80:

Catholics as percentage of population in 1980; source: La Porta et al. (1999).

LP_LAT_ABST:

The absolute value of the latitude of the capital city, divided by 90 (to take values between 0 and 1); source: La Porta et al. (1999).

LP_LEGOR:

Identifies the legal origin of the Company Law or Commercial code of each country. There are five possible origins: 1: English Common Law, 2: French Commercial Code, 3: Socialist/Communist Laws, 4: German Commercial Code, 5: Scandinavian Commercial Code; source: La Porta et al. (1999).

LP_MUSLIM80:

Muslims as percentage of population in 1980; source: La Porta et al. (1999).

LP_NO_CPM80:

Percentage of population belonging to other de-nominations in 1980. Defined as $100 - lp_catho80 - lp_muslim80 - lp_protmg80$; source: La Porta et al. (1999).

LP_PROTMG80:

Protestants as percentage of population in 1980; source: La Porta et al. (1999).

REFEREN:

Does the constitution provide for the ability to propose a referendum (or plebiscite)? 1: Yes, 2: No; source: own research based on Elkins et al. (2009).

REY_ETHFRAC:

Index of ethnolinguistic fractionalization calculated using the data of the World Christian Encyclopedia; source: Montalvo and Reynal-Querol (2005).

REY_ETHPOL:

Index of ethnolinguistic polarization calculated using the data of the World Christian Encyclopedia; source: Montalvo and Reynal-Querol (2005).

REY_RELPOL:

Index of religious polarization calculated using L'Etat des Religions dans le Monde and The Statesmen Yearbook; source: Montalvo and Reynal-Querol (2005).

REY_RELFRAC:

Index of religious fractionalization calculated using L'Etat des Religions dans le Monde and The Statesmen Yearbook; source: Montalvo and Reynal-Querol (2005).

SUPAP:

Who is involved in the approval of nominations to the highest ordinary court? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: First (or only) Chamber of the Legislature, 4: Second Chamber of the Legislature, 5: Judicial Council/Commission, 6: Judiciary (other than judicial council/commission), 7: Left explicitly to non constitutional law, 25: The Government/Cabinet; source: own research based on Elkins et al. (2009).

SUPNOM:

Who is involved in the nomination of judges to the highest ordinary court? 1: Head of State (use this choice for single executive systems), 2: Head of Government, 3: First (or only) Chamber of the Legislature, 4: Second Chamber of the Legislature, 5: Judicial Council/Commission, 6: Judiciary (other than judicial council/commission), 7: Left explicitly to non constitutional law, 25: The Government/Cabinet; source: own research based on Elkins et al. (2009).

SUPPOW:

What additional powers does the highest ordinary court have besides reviewing legislation? 1: Supervise elections, 2: Impeachment of executive, 3: Counter corruption, 4: Constitutionality of political parties, 5: Review states of emergency, 6: Review treaties; source: own research based on Elkins et al. (2009).

SUPRES:

What additional restrictions does the constitution place on the eligibility to serve as a member of the highest ordinary court? 1: Must be from a particular party, 2: Must be a particular gender, 3: Membership or position as minister of particular religious denomination, 4: Must have a particular linguistic/national/racial identity, 5: Must be citizen, 6: Must be a native citizen, 7: Must have certain education, 8: Must be a non felon, 9: Must be a lawyer, 65: Must be a national, 89: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

SUPTERM:

What is the maximum term length for judges for the highest ordinary court? Source: own research based on Elkins et al. (2009).

SUPTERMN:

What restrictions are in place regarding the number of terms of members of the highest ordinary court may serve? 1: Only one term permitted, total, 2: Only two terms permitted, total, 3: No successive terms permitted, but multiple non successive terms permitted, 4: Only two successive terms permitted, but multiple non successive terms permitted, 5: No term limits, 6: Left explicitly to non constitutional law; source: own research based on Elkins et al. (2009).

VAN_COMP:

The competition variable portrays the electoral success of smaller parties, that is, the percentage of votes gained by the smaller parties in parliamentary and/or presidential elections. The variable is calculated by subtracting from 100 the percentage of votes won by the largest party (the party which wins most votes) in parliamentary elections or by the party of the successful candidate in presidential elections. The variable thus theoretically ranges from 0 (only one party received 100 % of votes) to 100 (each voter cast a vote for a distinct party); source: Vanhanen (2003).

VAN_FAMILYF:

The area of family farms as a percentage of total cultivated area or total area of holdings. Family farms refer to holdings that are

mainly cultivated by the holder family and that are owned by the cultivator family or held in owner-like possession. The upper hectare limit and other criteria of family farms vary from country to country and over time. Moreover, the data for the 1980s is based on information from 1960-80, and for the 1990s mostly from 1980 but also from the 1970s and the 1960s. In other words, comparisons across time and space must be interpreted with great caution; source: Vanhanen (2003).

VAN_INDEX:

This index combines two basic dimensions of democracy – competition and participation – measured as the percentage of votes not cast for the largest party (Competition) times the percent-age of the population who actually voted in the election (Participation). This product is divided by 100 to form an index that in principle could vary from 0 (no democracy) to 100 (full democracy). (Empirically, however, the largest value is 49) ; source: Vanhanen (2003).

VAN_KNOWDIST:

The arithmetic mean of Students % (van_studentsp) and Literates % (van_literates) ; source: Vanhanen (2003).

VAN_OCCUP:

The arithmetic mean of Urban Population % (van_urban) and Non-Agricultural Population % (van_nagric) ; source: Vanhanen (2003).

VAN_PART:

The percentage of the total population who actually voted in the election; source: Vanhanen (2003).

VAN_POWRES:

Measures the level of dispersion of economic, intellectual, and organizational—or, for short, power—resources in society. Computed as the product of Index of Occupational Diversification (van_occup), Index of Knowledge Distribution (van_knowdist) and Index of Distribution of Economic Power Resources (van_distec), divided by 10.000, to range from 0 (low) to 100 (high relative distribution of power resources) ; source: Vanhanen (2003).

VAN_URBAN:

Urban population as a percentage of total population. Note that comparisons across time and space must be interpreted with caution as the concept of urbanity has changed over time and to some extent varies from country to country; source: Vanhanen (2003).
