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# Assessing the Impact of Federalism on Constitutional Compliance

Jaroslav Kantorowicz\* & Stefan Voigt†

## Abstract

Federalism is a constitutionalized version of multi-tier governance. Proponents of veto-player theory argue that a high number of veto players leads to a high degree of policy stability. Compared to states with a unitary structure, federal countries, in which at least one sub-central level of government is constitutionally recognized and endowed with some degree of exclusive competences, dispose of a higher number of veto players, who can voice and challenge constitutional non-compliance by the central government. In this paper, we therefore ask whether federally constituted states also enjoy a higher degree of constitutional compliance, i.e. have governments that respect and enforce the promises made in their country's constitution. At the same time, with a higher number of governments under federalism, there are more chances that some of them will not comply with constitutional constraints leading to greater non-compliance. To test these hypotheses, we employ data from up to 162 countries and apply standard panel data estimation techniques. Contrary to expectations, our results indicate that federalism is neither positively nor negatively correlated with constitutional compliance of the respective countries.

**Keywords:** constitutional compliance; *de jure-de facto* gap; federalism.

**JEL Codes:** H11; K10; K42; P48; Z10; Z18.

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## 1. Introduction

Federalism as a feature of constitutional design has been praised for inducing more welfare-increasing policy innovations and for holding politicians closer to account which may lead to lower corruption but also to a better fit between citizen preferences and the public goods bundle provided by governments (e.g., Weingast 1995 and Oates 2005). At the same time, federalism has been criticized for being slow in responding to new challenges and for the heterogeneity of policies which would lead to high transaction costs within single countries (e.g., Rose-Ackerman 1980 and Wibbels 2000). Of late, both the positive and the negative aspects have been voiced in conjunction with the COVID pandemic (e.g., Congleton 2023, Hegele and Schnabel 2021).

In this paper, we deal with a completely understudied question with regard to federalism, namely whether there is a systematic relationship between countries relying upon a federal constitutional structure and the degree to which their governments comply with the respective constitutional constraints. Constitutional compliance can also be thought of as the convergence between *de jure* constitutional rules and their actual implementation (Voigt 2021). To the degree that the two do not converge, one also speaks of a *de jure/de facto*-gap. The question dealt with in this paper thus is whether federations experience a *de jure/de facto*-gap that is systematically different (lower or higher) from countries organized in a unitary fashion.

Recently, a number of studies have inquired into specific aspects of constitutional compliance. Differences in leaders – such as their education, how they got to power, how long they have been in office and more – have been studied by Gutmann et al. (2023). Hayo & Voigt (2023) find that increases in the number of veto players and the extent of press freedom tend to reduce the gap whereas corruption is associated with an increasing gap. In a cross-country study, Lewkowicz & Lewczuk (2023) show a positive correlation between the strength of civil society groups and constitutional compliance. Likewise, in another study Lewkowicz et al. (2023) find a negative relationship between populism and constitutional compliance. While contributing to a newly emerging stream of research on drivers of constitutional compliance, none of the existing studies have yet inquired into a potential role of federalism in explaining the extent of constitutional compliance.

Here, we add to that set of studies by inquiring into the possible effects of federalism on constitutional compliance. This is an important question: although formally only some two dozen

countries have a federal constitution, almost 40% of the world population live in them (Voigt & Blume 2011).

Our theoretical framework puts forward two main competing hypotheses. On the one hand, one could argue that due to the higher number of governments under federalism, the chance that some governments will not comply with the respective constitutional constraints is higher in federal than unitary countries. On the other hand, if constitutional change needs to be agreed to by the lower-level governments, they shall have incentives to monitor the behavior of the federal government with regard to their own competences. Given this additional monitoring device, one would then expect lower levels of non-compliance in federations than in unitary constituted states. In a conditional hypothesis, we further argue that democratic federations are less likely to experience constitutional non-compliance than non-democratic federations. This is argued to be the case because citizen-voters have the capacity to throw out non-complying governments under democracy. The argument rests on the assumption that citizen-voters prefer complying over non-complying governments.

To test these hypotheses, we employ a newly created dataset on comparative constitutional compliance (Gutmann et al. 2024), which provides quantitative information regarding the size of the gap for up to 175 countries and up to 120 years. We merge this dataset with a set of indicators capturing federal constitutional designs and vertical distribution of powers (Elkins & Ginsburg 2022 and Hooghe et al. 2016). Based on the results from panel data regression models, we nonetheless find no evidence in favor of the hypotheses. The remainder of this study is structured as follows: In the next section, we briefly review the – very scarce – literature on the issue and develop a number of hypotheses. Section 3 describes our dataset and explains our estimation approach. The results of our regression analysis are presented and discussed in Section 4 and Section 5 concludes.

## **2. Literature Review and Hypotheses**

Before reviewing the literature and developing the hypotheses to be tested, it is useful to define federalism. Many definitions have been proposed. Here, we follow one of the foremost scholars of federalism, namely William Riker (1975, 101) and define federalism as “... *a political organization in which the activities of government are divided between regional governments and*

*a central government in such a way that each kind of government has some activities on which it makes final decisions.*” In other words, federations consist of constituent governments (the regional governments) and one central government and both levels of government are endowed with final decision-making power in some areas. As our focus is on constitutional provisions, we add that at least one area of final decision making for each type of government (i.e., regional and central) should be explicitly mentioned in the constitution. Further, this allocation of decision-making competence will be stable over time only if it cannot be changed by either the central government or the regional governments unilaterally. In other words: constitutional change requires the consent of both levels of government. Riker himself (1975, 102) points out that his definition leaves ample room for variation within the group of federally constituted states: at a minimum, the rulers of the federation can make decisions in only one narrowly restricted area (peripheralized federation); at maximum, they can make decisions in all but one area (centralized federation). Ideally, indicators of federalism ought to reflect these differences. It may also be worth noting at the outset that Riker was highly skeptical whether federalism would be an important variable causing particular effects. He argued (1975, 131) that due to the diversity in the organization of federal states, a theory about the operation of federalism is “probably impossible” and was quite explicit in expressing his doubts about the relevance of this particular constitutional feature (1975, 155): *“Nothing happens in a federation because of the federal constitutional arrangements that could not happen otherwise in fundamentally the same way.”* Riker’s skepticism notwithstanding, many studies have since tried to identify a number of effects caused by federalism.

Given the prevalence of fiscal federalism theories (Oates 2005), most studies capture federalism via fiscal decentralization indicators, i.e., the regional share of spending or revenue in the general government (for an overview, see Rodden 2006 or Kantorowicz 2019). The purpose of this study is, however, to look more narrowly at the concept of federalism as a constitutional feature. Previous research has analyzed the effects of federal constitutions on fiscal policies, productivity and government effectiveness among others (Voigt & Blume 2011; Blöchliger & Kantorowicz 2015). For the question dealt with in this paper, only the third group of variables is potentially relevant: within the category of government effectiveness, Voigt & Blume (2011) also inquired into the degree to which government promises were credible.

Within this canon, a number of studies have analyzed the relationship between federalism and corruption. It has been observed that state governments that are close to the people, playing

infinitely repeated games with local constituents, are thus subject to local capture which has been argued to imply that federally constituted countries suffer from higher corruption rates (see, e.g., Tanzi 2000). Shleifer and Vishny (1993) introduced the concept of “efficient corruption,” under which paying once for a favor is sufficient to get it done. “Inefficient corruption” is thus corruption where more than one actor needs to be bribed because there is a multitude of actors with some decision-making competence involved in granting the favor requested. It is not difficult to notice then that such “inefficient corruption” may be higher under federalism. Interestingly, in his first survey on the determinants of corruption, Treisman (2000) did, indeed, find that federations suffered from higher levels of corruption. In his second survey (Treisman 2007), these results did not hold anymore. So, with regard to corruption, too, there are no crystal-clear findings.

Beyond corruption, constitutional compliance can also be interpreted as a specific way to measure the degree to which a particular set of government promises, namely those contained in the constitution of a country, are credible: the smaller the *de jure/de facto*-gap, the higher the respective credibility. Findings drawing on a simple federalism dummy are rather inconclusive (Voigt and Blume 2011).

In sum, findings regarding systematic differences in governance effectiveness between federal and unitary states are rather inconclusive and in line with Riker’s skepticism. Nevertheless, we here ask whether there are systematic differences with regard to constitutional compliance. Specifically, we examine what could be plausible mechanisms leading governments of federally constituted states to take constitutional constraints more (or less) seriously and thus achieve a high (low) level of constitutional compliance?

Based on the assumption that all governments will be tempted to renege on their constitutional constraints some of the time, one could argue that due to the higher number of (relatively autonomous) governments under federalism, the likelihood that some governments will, indeed, not comply with the respective constitutional constraints is higher in federally than unitarily constituted states. This hypothesis becomes even stronger if one assumes that more extreme governments are more likely to be found on the regional rather than the central government level and that more extreme governments are more likely to renege on the constitution.<sup>1</sup> This

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<sup>1</sup> Gutmann et al. (2023) find that extreme left-wing governments are more likely to overstep constitutional constraints.

more extreme tilt of regional governments could occur for a variety of reasons: if regional governments are perceived as somewhat less important than the central one, voters may be more inclined to vote expressively rather than instrumentally. Also, if groups of citizens who prefer to break away from the federation are concentrated in a few states, parties in favor of secession may be able to form the regional government. Formulated as a hypothesis: *Constitutional compliance is lower under federal than under unitary states, c.p.*

According to the veto player theory as developed by Tsebelis (e.g. 2003), states with a high number of veto players display a higher level of legislative stability: in order to pass new legislation, the consent of more actors is necessary which is likely to lead to less legislative change. But it is unclear whether this translates directly into higher compliance with given constraints. Non-compliance is, after all, the result of decisions made within the executive branch. Yet, lower-level governments have incentives to make sure that the central government does not overstep its competences with regard to the vertical separation of powers. To the degree that central governments depend on the cooperation with regional governments (e.g. to pass new legislation), central governments have incentives to respect constitutional constraints. Formulated as a hypothesis: *Constitutional compliance is higher under federal than under unitary states, c.p.*

Riker justified his skepticism whether federalism could be the most relevant cause for anything with the high degree of heterogeneity among federally constituted countries. Federations can be both democratic as well as non-democratic implying that this could be a potentially important aspect of heterogeneity. Likewise, federations may be characterized by a varied degree of party alignment and party centralization, which proved to be a key moderating variable in studying the effects of (fiscal) federalism on socio-economic outcomes (Enikopolov and Zhuravskaya 2007). If important parties that aim to be (re-)elected are active on both the regional and the central level of government, this may have a compliance-increasing effect under a number of circumstances: if the median voter on the national level does not support constitutional non-compliance but the median voter in one or two regions does, the central party organization has incentives to restrict constitutional overstepping by their parties who are in office on the regional level. Notice that this argument implies that democratic federations may be less likely to experience constitutional non-compliance than non-democratic federations.



To sum up: in this section, we developed two competing hypotheses stipulating a negative (H1) and a positive relationship (H2), respectively, between federalism and constitutional compliance. In addition to this, we introduced a conditional hypothesis stipulating that democratically run federations will achieve higher levels of constitutional compliance than non-democratically governed ones (H3). We set out to test these hypotheses empirically in the next section.

### **3. Data and estimation approach**

Our dependent variable is an indicator of constitutional compliance. This indicator is introduced in Gutmann et al. (2024) and is publicly available as part of the Comparative Constitutional Compliance Database. Gutmann et al.'s main indicators are constructed based on information from two data sources. They use data on *de jure* constitutional rules from the Comparative Constitutions Project by Elkins et al. (2022). This information is combined with *de facto* data on compliance with legal standards from version 12 of the Varieties of Democracy project (V-Dem). Gutmann et al. measure *de jure-de facto* gaps, i.e., the noncompliance with rules laid out in the constitution, regarding 14 rules commonly found in constitutions: (1) protection of private property rights, (2) judicial independence, (3) equality before the law, (4) rule of law, (5) freedom of association, (6) freedom of assembly, (7) the right to form parties, (8) media freedom, (9) freedom of speech, (10) freedom of movement, (11) religious freedom, (12) the right to life, (13) freedom from slavery, and (14) protection from torture.

According to their coding rule, compliance with a constitutional rule is coded 1 if that rule is protected both *de jure* and *de facto*. The compliance indicator is coded 0 if the right is protected *de jure*, but not *de facto*. If a constitutional right is not protected *de jure*, a value of 0.5 is assigned, irrespective of the *de facto* measure. *De jure* is coded based on whether a rule is part of the constitution, where sometimes it is sufficient that one of two alternative rules exists (e.g., either freedom of opinion or freedom of expression). *De facto* is coded based on whether V-Dem country experts see the protection of a right in one of the top two response categories. If there is more than one relevant V-Dem indicator available, each one of them must be coded in the top two categories for the right to be considered *de facto* protected. Gutmann et al. (2024) aggregate the resulting 14 indicators first within four legal areas and then into one indicator of overall constitutional compliance.

To test whether federally constituted countries display higher (lower) levels of constitutional compliance, we rely on a number of variables all purporting to measure federalism or specific aspects thereof. First, we construct the dummy variable “federal” that takes a value of 1 if the country is federal and 0 otherwise. Hence, the “0” category includes both unitary states as well as those states, of which constitutions are mute on this specific aspect. The source of the variable is Elkins et al. (2022), which, for the purpose of this study, provides information on 162 countries for the period of 1950-2021. In Table A1 in the Appendix, we display the list of countries categorized as federal in line with this coding.<sup>2</sup>

Admittedly, a binary coding is rather crude and does not reflect the potential heterogeneity of federalism. Hence, the second set of variables, originating from the Regional Authority Index (RAI) project by Hooghe et al. (2016), attempts to capture the complexity of federal structures in more detail. In this paper, we use the RAI data from 87 countries for the years from 1950 until 2018. We specifically focus on two RAI variables, which are particularly close to our theoretical depiction of federalism. The first variable—*RAI constitutional*—measures the degree to which representatives of regions co-determine constitutional change. This variable takes values between 0, indicating that the central government or national electorate are unilaterally responsible for amending the constitution, and 4, specifying that regional governments or their representatives in a national legislature can veto constitutional amendments. The second variable extracted from RAI is *policy autonomy*, which indicates a range of policies for which a regional government is responsible. This variable indicates how prominent regions are in governing various policy areas and, hence, allows us to differentiate between centralized and peripheralized structures of federalism. It likewise varies between 0 and 4 whereby the lower bound (0) captures very weak authoritative competences of regions in economic policy, cultural-educational policy, welfare policy with only some residual powers or own local institutional structures and police; the upper bound (4) indicates strong residual powers, own regional police and own institutional structure as well as authoritative competences of regions in at least two areas of government functions (economic, cultural educational or welfare policy). In the Appendix, we further report the regression results for the main *RAI* indicator and its two constitutive parts. *RAI* can take on any value between 0 and 30 and captures both the authority exercised by a regional government over those who live in the region (*RAI selfrule*) and the

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<sup>2</sup> Note that in line with Elkins et al. (2022) coding, the US is not defined as having a federation as its constitution does not explicitly specify such governance structure.

authority exercised by a regional government (or its representatives) in the country in its entirety (*RAI sharedrule*). Table A2 in the Appendix lists 30 countries achieving the highest scores on the *RAI* indicator.

To estimate the relationship between federally constituted countries and constitutional compliance, we estimate linear (OLS) regression models based on the following specification:

$$CC_{i,t} = \alpha + \beta \times Federalism_{i,t} + \gamma \times Dem_{i,t} + \delta X + \vartheta_t + \mu_i + \epsilon_{i,t}$$

$CC_{i,t}$  denotes the degree of constitutional compliance in country  $i$  in year  $t$  according to Gutmann et al. (2024) whereas  $Federalism_{i,t}$  capture various operationalizations of our main explanatory variable.  $Dem_{i,t}$  controls for the level of democracy as indicated by the *Polity2* variable. To account for democracy as a potential source of heterogeneity between federal countries, we also include the interaction term between the respective federalism variable and the democracy variable ( $Federalism_{i,t} \times Dem_{i,t}$ ) in some specifications. Vector  $X$  includes a set of control variables. These are the per capita GDP (in log form) as well as population size (also in log form). Both control variables were extracted from the V-Dem dataset. Terms  $\vartheta_t$  and  $\mu_i$  capture time- and country-fixed effects, respectively. When country fixed effects are not employed, the models are estimated via pooled OLS regressions. The latter is our preferred modelling strategy as most of the variation in the main explanatory variable is between rather than within countries. It is important to note that, besides baseline regressions, all models use standard errors clustered at the country level. In terms of tested hypotheses, our expectations are that if  $\beta$  is positive and statistically significant this would provide evidence in favor of H2. Contrary to this, if  $\beta$  is negative and statistically significant, then the evidence points towards H1. As to H3, our expectation is that the coefficient next to the interaction term  $Federalism_{i,t} \times Dem_{i,t}$  is statistically significant and differences are clearly discernible through marginal effects plots.

**Table 1.** Descriptive statistics

	Count	Mean	SD	Min	Max
Const. compliance ( <i>cc_total</i> )	7969	.039	1.034	-1.862	1.972
Federal dummy	7969	.117	.321	0	1
RAI	4524	9.619	9.407	0	37.722
RAI selfrule	4524	7.786	6.990	0	30.453
RAI shared rule	4524	1.833	3.228	0	14.951
RAI constitutional	4524	.904	1.642	0	7.972
RAI policy autonomy	4524	1.332	1.447	0	6.160
Polity2	7969	1.661	7.310	-10	10
Log GDP pc	7969	1.785	1.138	-1.252	5.054
Log population	7969	6.835	1.594	3.130	11.902

Note: *cc\_total* are indicators of constitutional compliance by Gutmann et al. (2023b).

The descriptive statistics of our dataset are presented in Table 1. Our sample covers at maximum 162 countries over the time period from 1950 to 2019. As suggested by the large variation of the *Polity2* variable, the sample is composed of a variety of regime types. It is also notable that variables capturing federalism record mean values closer to the lower bound of their ranges, indicating that more unitary or centralized forms of government are dominant. The constitutional compliance variable and its mean score, which is slightly above 0 indicates that compliance is not given and that, on average, countries are far from being diligent constitutional compliers.

#### 4. Results

Table 2 contains the bivariate correlations between our dependent variable and a number of federalism indicators as well as the controls. Beginning with the controls, we see that both the level of democracy and per capita income are highly correlated with constitutional compliance. Generally speaking, almost all federalism indicators are only modestly, yet positively, correlated with constitutional compliance, indicating that H2 is more plausible than H1. In what follows we apply panel data models to provide more conclusive evidence.

**Table 2.** Bivariate correlations between dependent, independent and control variables

	Const. compliance	Federal dummy	RAI	RAI selfrule	RAI sharedrule	RAI constitutional	RAI policy autonomy	Polity2	Log GDP pc	Log population
Const. compliance	1									
Federal dummy	.04	1								
RAI	.19	.58	1							
RAI selfrule	.19	.47	.97	1						
RAI sharedrule	.14	.67	.82	.65	1					
RAI constitutional	.12	.60	.78	.61	.95	1				
RAI policy autonomy	.23	.48	.93	.95	.67	.62	1			
Polity2	.78	.11	.30	.30	.23	.22	.34	1		
Log GDP pc	.44	.22	.35	.35	.26	.22	.37	.44	1	
Log population	-.05	.24	.61	.66	.33	.34	.57	.07	.03	1

Table 3 shows our results for the effect of federalism on constitutional compliance based on the simple dummy variable constructed based on information from Elkins et al. (2022). Panel A of Table 3 displays the results for pooled OLS models whereas the models presented in Panel B rely on panel data fixed effects estimations. Consecutive columns in Table 3 show progressively more complex models. Column 1 displays the baseline model. The model in column 2 clusters standard errors at the country level to account for the fact that observations within countries might be serially correlated. The model in column 3 adds the democracy control variable, while the model in column 4 displays the interaction term between federalism and democracy. The model in column 5 adds year fixed effects, and the model in column 6 takes into account a full set of control variables. Finally, the model in column 7 adds to the full model an interaction effect term.

A number of results deserve highlighting: Regressing constitutional compliance on the federalism dummy alone without country fixed effects (pooled regression models: Panel A of Figure 3) results in a positive and statistically significant coefficient of the federalism dummy, which is in line with H2. Any other model in Panel A yields the federalism dummy insignificant and

the sign of the coefficient next to the federalism variable tends to switch from positive to negative (or vice-versa) implying that there are no systematic effects of a federal structure on constitutional compliance. This suggests that neither H1 nor H2 is robustly confirmed.

When investigating the basic model run with fixed effects (column 1 in Panel B of Figure 3), it turns out that the relationship between federalism and constitutional compliance is negative and statistically significant, which is in line with H1. Yet, again, after controlling for potential confounders, this correlation becomes inconclusive as it does not reach any conventional level of statistical significance. This leaves us with the same conclusion as with regard to the results for the pooled regressions: arguably, there is no robust association between federalism and constitutional compliance.

It is also noteworthy that across all regressions in Table 3, and as expected, the democracy score is positively associated with constitutional compliance as is the per capita income (GDP) variable. In addition to this, the interaction effect between the federalism dummy and the democracy score, which provides a direct test of H3, does not turn out to be significant. To better visualize the lack of interaction effects, in Panel A of Figure 1, we display the marginal effects plot based on Column 2 in Panel A of Figure 3. We can clearly see that the effect of federalism on constitutional compliance is no different between those countries, which are fully authoritarian (polity2 score of -10) and those that are fully democratic (score of 10).

Moving on to testing the hypotheses with the alternative indicators capturing federalism—*RAI constitutional* (Figure 4) and *policy autonomy* (Figure 5)—does not lead to any substantively different conclusions. Although in models without control variables the estimated coefficients are somewhat more consistent as they always indicate positive and statistically significant relationships between the RAI indicators and constitutional compliance (see Column 1 in Table 4 and Table 5, respectively), after adding control variables, the coefficients get smaller in magnitude and lose their statistical significance. One could note that models for the *RAI policy autonomy* are somewhat more persistent in indicating evidence in favor of H2 than from models for the *RAI constitutional variable* as they yield positive and statistically significant coefficients in seven out of 14 models (the *RAI constitutional* variable is significant only in three models).

When looking at the interaction terms in Table 3 and 4 as well as marginal effects plots in Panels B and C, one should also notice that none of the heterogeneous effects of federalism

depending on the level of democracy are identifiable. Again, the effects of federalism variables in autocratic countries seem to be no different from their effects in fully democratic states.

Overall, the results do not provide any conclusive evidence in favor of the hypotheses we put forward. This holds true for either of the main competing hypotheses, as we neither find a robust negative (H1) nor a robust positive (H2) relationship between federalism and constitutional compliance, but also for the hypothesis conditioning the relationship between federalism and compliance on the level of democracy (H3). These conclusions are pretty much the same if we run models with the main RAI indicator and its two constitutive sub-indicators, i.e., RAI self- and shared-rule (see Tables A3-A5 in the Appendix).

**Table 3.** Regression models with *federal dummy* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
Federal dummy	0.14*** (0.04)	0.14 (0.20)	-0.14 (0.12)	-0.13 (0.09)	0.17 (0.20)	-0.11 (0.13)	-0.11 (0.11)
Polity2			0.11*** (0.00)	0.11*** (0.01)		0.10*** (0.01)	0.10*** (0.01)
Federal dummy # Polity2				-0.00 (0.01)			0.00 (0.02)
Log GDP pc						0.10*** (0.04)	0.10*** (0.04)
Log population						-0.07*** (0.03)	-0.07*** (0.03)
Constant	0.02* (0.01)	0.02 (0.07)	-0.13*** (0.04)	-0.13*** (0.04)	-0.40*** (0.11)	-0.02 (0.17)	-0.02 (0.17)
R-squared	0.00	0.00	0.61	0.61	0.09	0.64	0.64
<i>Panel B. Fixed effects</i>							
Federal dummy	-0.21*** (0.06)	-0.21 (0.32)	-0.16 (0.20)	-0.16 (0.20)	-0.31 (0.23)	-0.16 (0.15)	-0.15 (0.16)
Polity2			0.10*** (0.01)	0.10*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				-0.00 (0.02)			-0.01 (0.02)
Log GDP pc						0.17*** (0.06)	0.17*** (0.06)
Log population						-0.18* (0.10)	-0.19** (0.09)
Constant	0.06*** (0.01)	0.06* (0.04)	-0.11*** (0.03)	-0.11*** (0.03)	-0.42*** (0.09)	0.68 (0.60)	0.74 (0.58)
R-squared	0.00	0.00	0.53	0.53	0.26	0.57	0.57
Observations	7,969	7,969	7,969	7,969	7,969	7,969	7,969
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	162	162	162	162	162	162	162

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1



**Table 4.** Regression models with *RAI constitutional* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
RAI constitutional	0.07*** (0.01)	0.07 (0.04)	-0.03 (0.03)	-0.05 (0.05)	0.08* (0.04)	0.01 (0.04)	-0.01 (0.05)
Polity2			0.12*** (0.01)	0.12*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.00 (0.01)			0.00 (0.01)
Log GDP pc						0.13** (0.06)	0.13** (0.06)
Log population						-0.09** (0.04)	-0.10** (0.04)
Constant	0.34*** (0.02)	0.34*** (0.10)	-0.14* (0.07)	-0.13* (0.08)	-0.22 (0.14)	0.11 (0.26)	0.13 (0.26)
R-squared	0.01	0.01	0.56	0.56	0.18	0.62	0.62
<i>Panel B. Fixed effects</i>							
RAI constitutional	0.11*** (0.01)	0.11 (0.08)	-0.01 (0.04)	0.03 (0.05)	0.09 (0.07)	-0.00 (0.04)	0.04 (0.05)
Polity2			0.11*** (0.01)	0.11*** (0.01)		0.10*** (0.01)	0.10*** (0.01)
Federal dummy # Polity2				-0.01 (0.00)			-0.01 (0.00)
Log GDP pc						0.08 (0.10)	0.07 (0.10)
Log population						-0.08 (0.15)	-0.09 (0.15)
Constant	0.31*** (0.02)	0.31*** (0.07)	-0.12** (0.05)	-0.12*** (0.05)	-0.09 (0.13)	0.24 (0.97)	0.27 (0.97)
R-squared	0.01	0.01	0.57	0.57	0.28	0.61	0.61
Observations	4,524	4,524	4,524	4,524	4,524	4,524	4,524
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	87	87	87	87	87	87	87

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

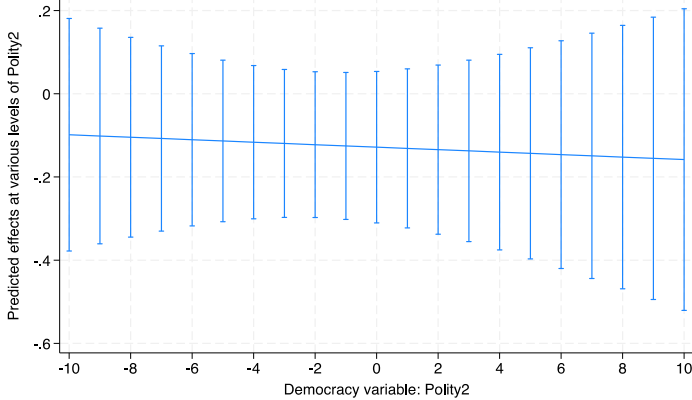
**Table 5.** Regression models with *RAI policy autonomy* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
RAI policy autonomy	0.16*** (0.01)	0.16*** (0.05)	-0.02 (0.04)	-0.06 (0.05)	0.11** (0.05)	0.04 (0.05)	0.01 (0.05)
Polity2			0.12*** (0.01)	0.11*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.01 (0.01)			0.00 (0.01)
Log GDP pc						0.12** (0.06)	0.12* (0.06)
Log population						-0.11** (0.04)	-0.11** (0.04)
Constant	0.20*** (0.02)	0.20 (0.12)	-0.14* (0.08)	-0.12 (0.09)	-0.24 (0.15)	0.21 (0.29)	0.22 (0.29)
R-squared	0.05	0.05	0.56	0.56	0.18	0.62	0.62
<i>Panel B. Fixed effects</i>							
RAI policy autonomy	0.27*** (0.01)	0.27*** (0.06)	0.09*** (0.03)	0.08** (0.04)	0.07 (0.06)	0.02 (0.03)	0.01 (0.04)
Polity2			0.10*** (0.01)	0.10*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.00 (0.00)			0.00 (0.00)
Log GDP pc						0.08 (0.10)	0.08 (0.10)
Log population						-0.08 (0.15)	-0.07 (0.15)
Constant	0.05*** (0.02)	0.05 (0.08)	-0.23*** (0.05)	-0.22*** (0.05)	-0.07 (0.11)	0.18 (0.95)	0.12 (1.01)
R-squared	0.11	0.11	0.58	0.58	0.28	0.61	0.61
Observations	4,524	4,524	4,524	4,524	4,524	4,524	4,524
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	87	87	87	87	87	87	87

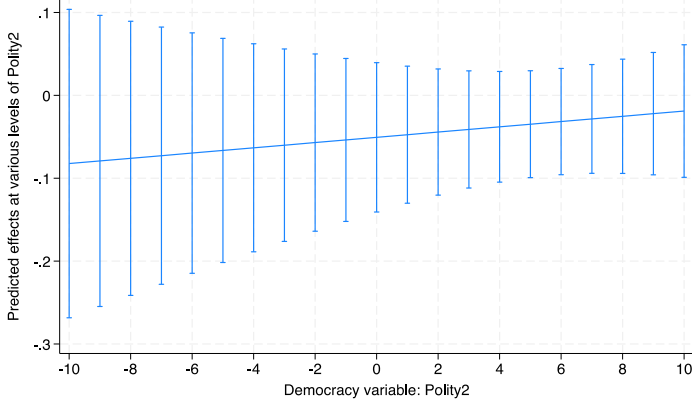
Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Figure 1.** The effects of federalism conditional on the level of democracy

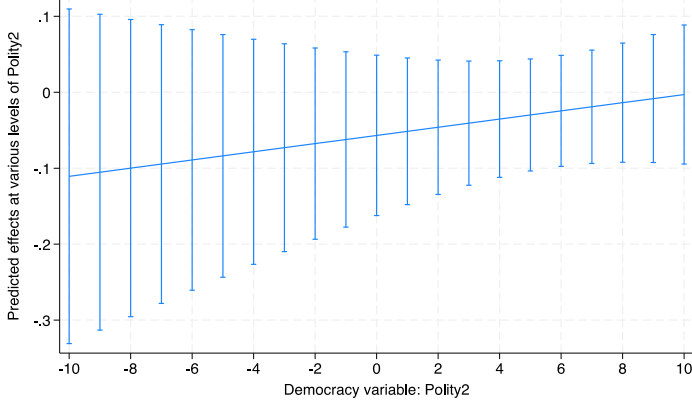
**Panel A: Federal dummy**



**Panel B: RAI constitutional**



**Panel C: RAI policy autonomy**



## 5. Concluding remarks

In this article, we hypothesize that the governments of federally constituted states might be more or less prone to comply with their constitutions than governments of states with other forms of vertical compartmentalization of competences. We also hypothesize that these main effects might depend on the level of democratization. Using a large panel dataset of up to 162 countries covering the period 1950 to 2019, we test whether federalism is positively or negatively associated with constitutional compliance and whether this relationship is moderated by democracy.

We find no evidence in favor of any of the aforementioned main and conditional hypotheses. Above, we quoted Riker's (1975, 155) dictum that: "*Nothing happens in a federation because of the federal constitutional arrangements that could not happen otherwise in fundamentally the same way.*" With regard to constitutional compliance, our analysis seems to validate his evaluation. Yet, we ought to be careful not to draw too general conclusions from our findings. The indicator for constitutional compliance that we relied upon in this article focuses almost exclusively on basic constitutional rights. But a *de jure/de facto*-gap can also arise with regard to a host of other issues such as the implementation of fair elections, their possible postponement or even cancellation, the allocation of government revenues to the intended recipients, compliance with international obligations and many more. It is unclear if the same results had attained had we had a broader indicator at our disposal that explicitly takes these aspects into account. In this regard, an indicator focusing on the degree to which governments have complied with rules dealing with center-region relationships could be particularly interesting. We assume that regional governments in federally constituted states have a particular interest in defending their own competences. Given that this is the case, compliance with the respective rules is expected to be high. Indicators focusing on these aspects are definitely a desideratum for future research.

Another way to look at constitutional compliance is by examining the micro dynamics in constitutional and supreme courts of federal countries. Such bodies serve as important (constitutional) conflict settlers in multi-tier governments (Aroney and Kincaid 2017, Dougherty and Mota 2024, Popelier 2016, Popelier and Belien 2018). One line of research shows that judgments in these courts (also in federations) can be explained by strategic and attitudinal reasons,

which go beyond formal-legalistic accounts (see, e.g., Arlota and Garoupa 2014 for the Brazilian case, Dalla Pellegrina and Garoupa 2013 for the Italian case, and Dalla Pellegrina et al. 2017 for the Belgian case). Future research relying on large cross-country comparisons should attempt to incorporate the legal and political economy dynamics in resolving intergovernmental conflicts by the highest-apex courts.

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## Appendix

**Table A1.** List of federal countries in year 2021 based on coding by Elkins et al. (2022)

Country	Cowcode	Federal structure (yes = 1)
Canada	20	1
St. Kitts and Nevis	60	1
Mexico	70	1
Venezuela	101	1
Brazil	140	1
Argentina	160	1
Belgium	211	1
Switzerland	225	1
Germany	255	1
Austria	305	1
Bosnia and Herzegovina	346	1
Russia	365	1
Nigeria	475	1
Ethiopia	530	1
Sudan	625	1
Iraq	645	1
United Arab Emirates	696	1
Pakistan	770	1
Nepal	790	1
Malaysia	820	1
Australia	900	1
Federated States of Micronesia	987	1

**Table A2.** RAI indicators for 30 highest scoring countries ()

Country	Cowcode	RAI	Self-rule	Shared-rule	Constitutional	Policy autonomy
Germany	255	37.67	25.67	12.00	4.00	4.94
Spain	230	35.67	22.72	12.95	6.32	4.53
India	750	35.60	27.97	7.49	3.99	5.98
Belgium	211	33.88	22.40	11.48	4.00	4.22
United States of America	2	29.61	22.18	7.44	3.99	3.81
Pakistan	770	28.67	22.50	6.17	2.86	4.25
Canada	20	27.77	21.65	6.12	4.00	3.89
Switzerland	225	26.50	18.00	8.50	3.00	4.00
Italy	325	25.82	22.60	3.22	2.03	4.37
Australia	900	25.45	14.95	10.50	3.00	3.97
Argentina	160	24.50	14.00	10.50	3.00	3.00
Austria	305	23.00	14.00	9.00	4.00	3.00
Peru	135	22.06	20.06	2.00	0.00	4.06
France	220	21.85	21.84	0.01	0.01	3.64
Brazil	140	21.79	16.28	5.51	3.00	3.49
Malaysia	820	21.48	14.00	7.48	3.74	2.29
Mexico	70	21.41	16.07	5.34	3.84	3.00
Indonesia	850	20.78	19.70	1.08	0.06	3.97
Russia	365	20.53	13.04	7.49	3.75	1.80
Nepal	790	19.50	14.00	5.50	4.00	3.00
Bangladesh	771	18.95	18.94	0.01	0.00	4.00
Japan	740	18.14	18.14	0.00	0.00	2.86
Netherlands	210	17.50	10.00	7.50	4.00	2.00
China	710	15.56	15.05	0.51	0.01	2.03
Colombia	100	15.01	14.91	0.10	0.05	3.83
South Korea	732	13.22	11.00	2.22	0.03	3.00
Burma/Myanmar	775	12.89	7.99	4.90	2.93	0.98
Bolivia	145	12.54	9.99	2.55	0.08	3.00
Czechia	316	12.32	12.32	0.00	0.00	2.64
Uruguay	165	12.00	10.00	2.00	0.00	2.00

**Table A3.** Regression models with *RAI* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
RAI	0.02*** (0.00)	0.02** (0.01)	-0.00 (0.01)	-0.01 (0.01)	0.02* (0.01)	0.01 (0.01)	0.01 (0.01)
Polity2			0.12*** (0.01)	0.11*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.00 (0.00)			0.00 (0.00)
Log GDP pc						0.12* (0.06)	0.12* (0.06)
Log population						-0.11** (0.05)	-0.11** (0.05)
Constant	0.22*** (0.02)	0.22 (0.13)	-0.12 (0.09)	-0.09 (0.11)	-0.26* (0.15)	0.22 (0.31)	0.22 (0.30)
R-squared	0.04	0.04	0.56	0.56	0.18	0.62	0.62
<i>Panel B. Fixed effects</i>							
RAI	0.06*** (0.00)	0.06*** (0.02)	0.02*** (0.01)	0.02** (0.01)	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)
Polity2			0.10*** (0.01)	0.11*** (0.01)		0.10*** (0.01)	0.10*** (0.01)
Federal dummy # Polity2				-0.00 (0.00)			-0.00 (0.00)
Log GDP pc						0.08 (0.10)	0.08 (0.10)
Log population						-0.07 (0.15)	-0.09 (0.16)
Constant	-0.16*** (0.03)	-0.16 (0.15)	-0.28*** (0.06)	-0.28*** (0.07)	-0.12 (0.15)	0.18 (0.99)	0.24 (1.03)
R-squared	0.11	0.11	0.58	0.58	0.28	0.61	0.61
Observations	4,524	4,524	4,524	4,524	4,524	4,524	4,524
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	87	87	87	87	87	87	87

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A4.** Regression models with *RAI self-rule* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
RAI selfrule	0.03*** (0.00)	0.03** (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)
Polity2			0.12*** (0.01)	0.11*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.00 (0.00)			-0.00 (0.00)
Log GDP pc						0.11* (0.06)	0.11* (0.06)
Log population						-0.13** (0.05)	-0.13** (0.05)
Constant	0.20*** (0.02)	0.20 (0.14)	-0.12 (0.09)	-0.09 (0.12)	-0.25 (0.16)	0.28 (0.31)	0.28 (0.31)
R-squared	0.04	0.04	0.56	0.56	0.18	0.62	0.62
<i>Panel B. Fixed effects</i>							
RAI selfrule	0.07*** (0.00)	0.07*** (0.02)	0.02*** (0.01)	0.02** (0.01)	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)
Polity2			0.10*** (0.01)	0.10*** (0.01)		0.10*** (0.01)	0.10*** (0.01)
Federal dummy # Polity2				0.00 (0.00)			-0.00 (0.00)
Log GDP pc						0.08 (0.10)	0.08 (0.10)
Log population						-0.07 (0.15)	-0.08 (0.15)
Constant	-0.10*** (0.02)	-0.10 (0.12)	-0.27*** (0.06)	-0.27*** (0.07)	-0.10 (0.13)	0.18 (0.96)	0.20 (0.99)
R-squared	0.11	0.11	0.58	0.58	0.27	0.61	0.61
Observations	4,524	4,524	4,524	4,524	4,524	4,524	4,524
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	87	87	87	87	87	87	87

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

**Table A5.** Regression models with *RAI shared-rule* as the main independent variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A. Pooled OLS</i>							
RAI sharedrule	0.04*** (0.00)	0.04* (0.02)	-0.01 (0.02)	-0.03 (0.03)	0.04* (0.02)	0.00 (0.02)	-0.01 (0.03)
Polity2			0.12*** (0.01)	0.11*** (0.01)		0.09*** (0.01)	0.09*** (0.01)
Federal dummy # Polity2				0.00 (0.00)			0.00 (0.00)
Log GDP pc						0.13** (0.06)	0.13** (0.06)
Log population						-0.09** (0.04)	-0.09** (0.04)
Constant	0.33*** (0.02)	0.33*** (0.11)	-0.14* (0.08)	-0.13* (0.08)	-0.22 (0.14)	0.11 (0.26)	0.12 (0.26)
R-squared	0.02	0.02	0.56	0.56	0.18	0.62	0.62
<i>Panel B. Fixed effects</i>							
RAI sharedrule	0.09*** (0.01)	0.09* (0.05)	0.01 (0.02)	0.03 (0.03)	0.03 (0.05)	-0.00 (0.03)	0.02 (0.03)
Polity2			0.11*** (0.01)	0.11*** (0.01)		0.10*** (0.01)	0.10*** (0.01)
Federal dummy # Polity2				-0.00 (0.00)			-0.00 (0.00)
Log GDP pc						0.08 (0.10)	0.07 (0.10)
Log population						-0.08 (0.15)	-0.10 (0.15)
Constant	0.25*** (0.02)	0.25*** (0.09)	-0.15*** (0.05)	-0.15*** (0.05)	-0.07 (0.13)	0.26 (1.01)	0.34 (1.02)
R-squared	0.02	0.02	0.57	0.57	0.27	0.61	0.61
Observations	4,524	4,524	4,524	4,524	4,524	4,524	4,524
Year FE	No	No	No	No	Yes	Yes	Yes
Clustered SE	No	Yes	Yes	Yes	Yes	Yes	Yes
Interaction	No	No	No	Yes	No	No	Yes
Number of cowcode	87	87	87	87	87	87	87

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1