



# The comparative constitutional compliance database

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## Abstract

This article introduces a novel database that measures governments' compliance with national constitutions. It combines information on *de jure* constitutional rules with data on their *de facto* implementation. The individual compliance indicators can be grouped into four categories that we aggregate into an overall indicator of constitutional compliance: property rights and the rule of law, political rights, civil rights, and basic human rights. The database covers 175 countries over the period 1900 to 2020 and can be used by researchers interested in studying the determinants or the effects of (non)compliance with constitutions. Our investigation of the stylized facts of constitutional compliance reveals a long-term increase in compliance, which occurred primarily around the year 1990. The Americas experienced the steepest increase in compliance, but also Africa and Europe improved particularly at the end of the Cold War. Democracies – particularly those with parliamentary and mixed systems – show more constitutional compliance than nondemocracies, among which military dictatorships perform the worst. Constitutional design also matters: Constitutions that allow for the dismissal of the head of state or government for violating constitutional rules are being complied with more.

**Keywords** Constitutional compliance · Constitutional economics · Constitutional political economy · *De jure-de facto* gap · Governance indicators · Measurement of institutions

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## 1 Introduction

While social scientists have been interested in constitutions for several decades, quantitative empirical research on their causes and consequences has only taken off over the last decade. One important reason for the slow development of such scholarship has been the limited availability of comparable data on the characteristics of countries' constitutions (see, e.g., Elkins et al., 2009). Research shows that constitutional text can, but does not always, have important consequences (Bjørnskov & Mchangama, 2019; Ginsburg & Huq, 2016; Persson & Tabellini, 2003; Voigt & Gutmann, 2013). This has motivated a recent and very active strand of literature dealing with when constitutional text translates into constitutional practice (Chilton & Versteeg, 2020; Voigt, 2021 surveys this literature).

Even though constitutional compliance is observable and highly relevant, quantitative research of this phenomenon has long been neglected. Empiricists have rather focused on measuring and studying related concepts, such as judicial independence (e.g., Feld & Voigt, 2003; Linzer & Staton, 2015; Voigt et al., 2015) or the rule of law (Gutmann & Voigt, 2018; Kaufmann et al., 2011; World Justice Project, 2022). By systematically measuring and studying the (mis)match between constitutional rules and practice, Law and Versteeg (2013) made a seminal contribution to the literature on constitutional compliance. The importance of measuring, studying, and eventually better understanding constitutional compliance is, for example, underlined by the frequent referral to constitutional provisions in reviews of countries' efforts to implement the Sustainable Development Goals. These discussions usually disregard whether the constitutional provision is part of a constitution that is generally respected by the executive, or whether it is unlikely to have any consequences in practice. A better understanding of the causes and consequences of constitutional compliance promises to lead to concrete policy recommendations and the monitoring of constitutional compliance by citizens is easier than, for example, that of the rule of law (Gutmann et al., 2022). Constitutional compliance is clearly normatively desirable when the constitutional rules complied with are substantively desirable. However, constitutional compliance can also be desirable on a more technical level – and at least to some extent independent of the substance of the law – in that it creates a predictable environment and makes government promises credible, both of which is economically favorable (see, e.g., Dreher et al., 2015; Voigt et al., 2007).

Here, we introduce the Comparative Constitutional Compliance Database, which includes indicators for governments' compliance with 14 constitutional rules that can be grouped into four legal areas: (1) property rights and the rule of law (encompassing indicators for property rights, judicial independence, equality before the law, and rule of law); (2) political rights (freedom of association, freedom of assembly, and the right to form parties); (3) civil rights (free media, free speech, free movement, and religious freedom); and (4) basic human rights (the right to life, freedom from slavery, and protection from torture). The construction of our indicators involves matching information on *de jure* constitutional rules from the Comparative Constitutions Project (CCP; see Elkins et al., 2009) to data

on these rules' *de facto* implementation according to the Varieties of Democracy project (V-Dem; see Coppedge et al., 2022). Individual scores for these 14 compliance indicators, as well as aggregated measures for our four categories of constitutional rules and an overall compliance indicator across all rules, are calculated for 175 countries.

Our database improves on existing indicators for constitutional compliance in various ways. With over 10,000 country-year observations covering 175 countries over the period 1900 to 2020, it offers wide country and time coverage. One major advantage of our indicator construction is that all *de jure* and all *de facto* data, respectively, come from the same data source, avoiding problems of comparability due to differing coding rules and measurement strategies for compliance with different rights. Law and Versteeg (2013), for example, had to rely on five different data sources to measure *de facto* constitutional rules. The CIRI dataset (see Cingranelli & Richards, 2010) as their main source of *de facto* information covers various rights, but only for the years 1981 to 2010, and the unadjusted comparison of CIRI data over time can be problematic (Fariss, 2019). Although the World Bank data on literacy and life expectancy used by Law and Versteeg (2013) covers many countries and years, this information is a rather crude proxy for *de facto* constitutional rights and requires that the authors come up with coding rules for when constitutional promises are (not) being complied with based on a society's socio-economic development. The V-Dem dataset allows us to avoid these problems.

Moreover, our database offers indicators for constitutional compliance in four different categories, which are based on the same data sources and follow the same coding rule, ensuring their comparability. Finally, by including V-Dem's own expert coding of executive compliance with the constitution in our database, we make it possible to cross-validate results based on our indicators, using another indicator of constitutional compliance with an even larger country and time coverage. A serious downside of V-Dem's compliance indicator is that it is constructed as a black box. No one knows the criteria used by experts to evaluate a government's constitutional compliance and whether experts coding different countries share a common definition of what compliance is. Our new compliance indicators do not suffer from a comparable weakness.

The list of questions researchers will be able to answer based on our new data is long. To give just a few examples: Do traits of politicians (e.g., Gutmann et al., 2021b) or society's culture (e.g., Gutmann et al., 2021a) influence a country's level of constitutional compliance? Are populists more likely to violate constitutional rules (e.g., Gutmann & Rode, 2022)? Are violations promoted by political conflict or polarization (Lewkowicz et al., 2020)? Is constitutional compliance stable during extreme events (e.g., Choutagunta et al., 2022)? Do foreign investors reward constitutional compliance and does it spur economic growth?

The remainder of this article is structured as follows. In Sect. 2, we discuss limitations of existing indicators of constitutional compliance. Section 3 explains the construction of our new indicators of constitutional compliance. In Sect. 4, we use different compliance indicators to illustrate stylized facts of constitutional compliance across the world and its development over time. Finally, we conclude with an outlook on current and prospective research that can benefit from our database.

## 2 Existing indicators of constitutional compliance

Four approaches to measuring constitutional compliance are proposed in the literature. What separates these studies from the broader and swiftly growing literature that works with *de jure* and *de facto* indicators of constitutional rules is that they are explicitly measuring the gap between *de jure* constitutional promises and what is then implemented *de facto*. Most of these studies have been published only in recent years. Law and Versteeg (2013) produced the first dataset of what they call constitutional underperformance a decade ago.<sup>1</sup> They measure constitutional compliance with respect to 15 constitutional rights divided into three categories: personal integrity rights, civil and political freedoms, and socioeconomic and group rights.<sup>2</sup> Law and Versteeg collect their own *de jure* data by analyzing the contents of 729 national constitutions adopted by 188 countries between 1946 and 2010. The main source of Law and Versteeg's *de facto* data is the CIRI database (Cingranelli & Richards, 2010), which provides data on 195 countries for the period 1981 to 2010.<sup>3</sup> Law and Versteeg create 15 *de jure* and 15 *de facto* indicators, which are then used to calculate one constitutional compliance score (corresponding to a country-year). Countries that protect a right in their constitution score one point for the *de jure* protection of that right, others get zero points. Countries that protect a right *de facto* get up to one point, depending on the level of protection, and countries that do not provide relevant protection of that right in practice score zero. The *de jure-de facto* gap, or "constitutional underperformance", is calculated based on those rights that a country protects in its constitution. The indicator divides the total number of points a country scores on its *de facto* protection level of each *de jure* protected right by the number of points that could have been reached if all *de jure* promised rights were *de facto* fully protected. The resulting indicator ranges from zero to one and indicates the share of *de jure* promises in the constitution that are *de facto* upheld.

Metelska-Szaniawska (2021) uses a different approach to measure the *de jure-de facto* gap. Her study focuses on seven civil and political rights in post-socialist countries: freedom of movement, freedom of association, freedom of expression, freedom of the press, freedom of religion, prohibition of torture, and the right to *habeas corpus*. Its *de jure* data comes from the Comparative Constitutions Project (Elkins et al., 2009), while the corresponding *de facto* data is from the CIRI database (Cingranelli & Richards, 2010) and Freedom House (2015). As in Law and Versteeg (2013), all *de jure* and *de facto* rights are coded between zero and

<sup>1</sup> Law and Versteeg (2013) also develop an indicator of constitutional overperformance, i.e., the level of *de facto* protection of rights that are not guaranteed in the constitution. While this phenomenon is not relevant to the question of constitutional compliance, its determinants have been studied elsewhere, e.g., by Metelska-Szaniawska and Lewczuk (2022).

<sup>2</sup> These are prohibition of arbitrary arrest or detention, prohibition of torture, right to *habeas corpus*, fair trial rights, prohibition of the death penalty, freedom of assembly or association, freedom of movement, freedom of religion, right to vote, freedom of the press or expression, right to health, right to education, gender equality in marriage, gender equality in labor relations, and protection of minority rights.

<sup>3</sup> Law and Versteeg draw on four more sources of *de facto* data: the Minorities at Risk Project, Amnesty International, Hathaway (2002), and the World Bank's World Development Indicators.

one, where one indicates (full) protection of a constitutional right. But unlike Law and Versteeg (2013), Metelska-Szaniawska (2021) calculates a combined indicator of constitutional compliance and constitutional overperformance by subtracting the sum of a country's *de facto* scores from the sum of its *de jure* scores and then dividing by seven. Hence, this overall indicator takes on positive or negative values, depending on whether more rights are protected *de facto* or *de jure*, and it can range from -1 to +1. Given that we are only interested in measuring compliance with rules guaranteed in the constitution, the *de jure-de facto* gap as operationalized in Metelska-Szaniawska (2021) is not suitable for our purposes.

Mataic and Finke (2019) propose two versions of an indicator for the *de jure-de facto* gap in religious freedom. They use *de jure* data from the Religion and State Project's constitutions dataset (Fox, 2012), capturing the constitutional protection of 21 religious freedoms, and two *de facto* indicators from the Religion and State Project's main dataset (RAS3; see Fox, 2017), which measure 65 restrictions of religious practices imposed on all religions or only on religious minorities. For all constitutions that contain at least one constitutional promise of religious freedom, Mataic and Finke standardize the *de jure* and the *de facto* indicators and then subtract one of the *de facto* indicators from the *de jure* indicator. The resulting two indicators, one for compliance with religious freedoms of all religions and one specifically for religious freedoms of religious minorities, are only crude proxies for a *de jure-de facto* gap when compared to the indicators discussed so far. The *de jure* and *de facto* rights do not match, meaning that it remains unclear whether restrictions of religious practices are really contradicting constitutional rules. By standardizing their indicators before subtracting, Mataic and Finke (2019) also give individual *de jure* and *de facto* rights different weights in the construction of the indicators.

The fourth existing indicator of constitutional compliance, *v2exrescon*, is part of the V-Dem dataset and follows a very different methodology than the indicators discussed so far (Coppedge et al., 2022; Pemstein et al., 2022). Instead of measuring whether specific *de jure* constitutional rules are complied with *de facto*, *v2exrescon* is based on expert evaluations of whether members of the executive respect the constitution in general. Country experts are asked to rate constitutional compliance in a country-year on a five-point scale and the responses of various experts are then aggregated using an item response theory model (see Pemstein et al., 2022).<sup>4</sup> The major advantage of this indicator is that it is, in principle, not restricted to measuring compliance with a limited set of constitutional rules for which matching *de facto* information is available. However, the indicator also has two important disadvantages. First, like most perception-based governance indicators, it may be subject to various biases (see, e.g., Gutmann et al., 2020). Second, since constitutional compliance – without further concretization – is a highly abstract concept, expert evaluations of such a concept are produced in a black box. It remains unclear how the involved experts would define constitutional compliance and on what aspects of

<sup>4</sup> The response categories range from “members of the executive violate the constitution whenever they want to, without legal consequences” to “members of the executive never violate the constitution”.

constitutional compliance they primarily base their evaluations.<sup>5</sup> To give just one example, it is unclear if the executive's respect for the constitution should be judged based on the expert's reading and interpretation of the constitution or if it only matters that national courts find a violation of constitutional rules. The fact that V-Dem experts do not always understand what they are supposed to code becomes clear when one inspects the time series of this indicator more closely. V-Dem claims to evaluate constitutional compliance even in years in which countries were not independent and had not promulgated a national constitution (e.g., Afghanistan pre-1919, Algeria pre-1962, Angola pre-1975, Bahrain pre-1971, Barbados pre-1966).

Of the four indicators measuring a *de jure-de facto* gap that we are aware of, the indicators by Metelska-Szaniawska (2021) and Mataic and Finke (2019) are not indicators of constitutional compliance in the narrow sense, because they conflate constitutional over- and underperformance. This leaves the indicator by Law and Versteeg (2013) and V-Dem's *v2exrescon* as important reference points for our new constitutional compliance indicators. The V-Dem indicator should be treated with caution due to the subjectivity of expert evaluations of abstract concepts and the black box character of the evaluation process. The main weakness of Law and Versteeg's (2013) indicator is the limited availability of *de facto* information at the time of its production, which forced the authors to draw on information from different data sources (making the data more difficult to compare and aggregate) and to come up with coding rules, for example, regarding which life expectancy corresponds to a *de facto* guaranteed right to health or which literacy rate indicates compliance with a right to education.

### 3 A new set of indicators of constitutional compliance

To establish a country's level of constitutional compliance, we draw on information from two datasets. These datasets are ideal for our purposes because of their data quality, their unmatched breadth in terms of institutional characteristics covered, and their almost universal country and time coverage.

The Comparative Constitutions Project (CCP) provides data on the *de jure* rules in national constitutions. Elkins et al. (2009) collect and hand-code English translations of all national constitutions and most constitutional amendments worldwide since 1789. To minimize errors in coding, each constitutional event is evaluated twice by independently working coders. After that, a reconciler reviews each constitution to check for errors and to resolve coder discrepancies.

Data on the *de facto* compliance with constitutional promises identified in the CCP data comes from the Varieties of Democracy project (V-Dem; version 12). While CCP measures hundreds of characteristics of national constitutions, V-Dem

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<sup>5</sup> This is not a criticism of all expert evaluations of policy and institutions (and therefore of V-Dem indicators in general), but specifically of expert ratings based on very broad, unspecific questions that could be interpreted in myriad ways, as is the case for the discussed indicator. Our criticism is, thus, not inconsistent with relying on other, more reliable indicators from the V-Dem project.

measures hundreds of political institutions and other traits of the political and legal system. Over 3,500 country experts and dozens of social scientists involved in the project are supposed to ensure that their expert evaluations of *de facto* institutions are reliable and comparable across countries and over time (Coppedge et al., 2022; Pemstein et al., 2022). The V-Dem dataset is unmatched as a source of information on *de facto* institutional quality in terms of its coverage and the number of institutional details captured.

Matching the information provided by CCP and V-Dem, we arrive at 14 constitutional rules that are covered consistently by one or more indicators in each dataset. When there is more than one *de jure* indicator for a specific constitutional rule, it is sufficient that one of them is coded as “present” to establish a constitutional promise (e.g., the guarantee of media freedom or the prohibition of censorship). When there is more than one *de facto* indicator corresponding to a particular constitutional rule, then each one of them needs to indicate a sufficient level of constitutional compliance, such that the constitutional promise is considered to be kept (e.g., courts may not discriminate against men, women, the poor, and members of other social groups). Our indicators operationalize constitutional compliance as the absence of a “*de jure-de facto* gap”. Such a gap would imply that representatives of the different government branches are not following the rules specified in the country’s written constitution. What distinguishes our measurement approach from a typical *de facto* institutional quality indicator is, thus, that compliance or noncompliance with a constitutional rule is only possible if the constitution includes that rule in the first place. This means that the standard to which a country is held varies both over time and across countries and is determined by members of these societies – be it all citizens or only an elite – when they introduce or change their national constitution. We limit our database to the time period after 1900, which V-Dem calls the contemporary as opposed to the historical data, since our dataset would cover only few countries before 1900 and the data appears less reliable. Historical V-Dem data is, for example, based on fewer expert coders.

According to our main 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*. In this case, we speak of a *de jure-de facto* gap (or, in the words of Law & Versteeg, 2013, constitutional underperformance). If a constitutional right is not protected *de jure*, we assign a value of 0.5, irrespective of the *de facto* indicator. The logic behind this coding rule is that countries start from a value of 0.5 and they can deviate from that value upwards or downwards only if they enter constitutional commitments.

*De jure* is coded based on whether a rule exists in the constitution. Sometimes it is sufficient that one of two alternative rules exists to speak of *de jure* protection. For example, it is sufficient that either freedom of opinion or freedom of expression is guaranteed to score 1 on *de jure* free speech. The *de facto* coding is based on ordered categorical indicators, which are typically based on a five-point scale where the highest category indicates full compliance with the rule. The second highest category indicates weaker enforcement of the rule, but – according to our interpretation – no intentional or systematic disregard by the government. We consider governments that score in one of the top two categories as *de facto* enforcing the rule and governments rated in a lower

category as not complying with the rule. For example, it is sufficient for compliance with the freedom of assembly that “state authorities generally allow peaceful assemblies, but in rare cases arbitrarily deny citizens the right to assemble peacefully.” Sometimes we can rely on more than one V-Dem indicator to measure compliance with a constitutional rule (e.g., judicial independence both at the highest court and lower-tier courts). In these cases, the government must score in the top two categories of each of these indicators to be considered compliant. Table OA1 in the [Online Appendix](#), available on the *Review of International Organizations’* webpage, lists the exact criteria for the *de jure* and *de facto* coding of each of our 14 constitutional rules.

Having produced 14 individual rule indicators of *de jure-de facto* gaps, the challenging question is how to form broader indicators of constitutional compliance. We start by grouping the 14 indicators into four legal areas. “Property rights and the rule of law” includes four rules: private property rights, judicial independence, equality before the law, and rule of law. The category of property rights and the rule of law is not commonly used by legal scholars, but it is frequently employed by empirical social scientists (see, e.g., Gwartney et al., 2022; Miller et al., 2022). Moreover, Blume and Voigt (2007) identify it in their exploratory data analysis as one central dimension of human rights (see also Gutmann & Voigt, 2017). Mukand and Rodrik (2020) provide a political-economic theoretical underpinning for such a distinct category of rights. The second category, “political rights”, includes three rules: freedom of association, freedom of assembly, and the right to form parties. “Civil rights” (or “civil liberties”) includes four rules: free media, free speech, free movement, and religious freedom. Finally, the category “basic human rights” (or physical integrity and autonomy) covers three rules: right to life, freedom from slavery, and protection from torture. To aggregate the individual indicators within each of the four categories, we apply factor analysis and extract the first factor as our indicator of constitutional compliance in that legal category.<sup>6</sup> Factor analysis reveals that there is exactly one dominating factor representing a latent variable of constitutional compliance in each category. The advantage of factor analysis over, for example, calculating the mean value is that variables are weighted according to how representative they are of the indicators in that category. The four newly created compliance indicators are called *cc\_prop*, *cc\_polit*, *cc\_civil*, and *cc\_basic*.

Our preferred coding rule differs from that applied by Law and Versteeg (2013) who measure compliance as the share of the *de jure* protected constitutional rules that is enforced *de facto* (see Sect. 2). For comparison, we construct additional indicators and apply the same coding rule as Law and Versteeg to aggregate our 14 gap indicators in the four legal areas named above. To that end, we simply recode all 14 indicators as missing (instead of 0.5) when the constitution does not guarantee the respective rule *de jure*. Then we take the mean value over the non-missing gap indicators within each of the four categories. The resulting indicators are called *cc\_prop\_lv*, *cc\_polit\_lv*, *cc\_civil\_lv*, and *cc\_basic\_lv*.

<sup>6</sup> This aggregation strategy is similar to that of Gygli et al. (2019). However, we do not allow the weights of individual variables to vary over time. For some research questions, a distinction between civil and political rights is not helpful. Thus, our online database also contains an indicator that combines both.



**Table 1** Descriptive statistics

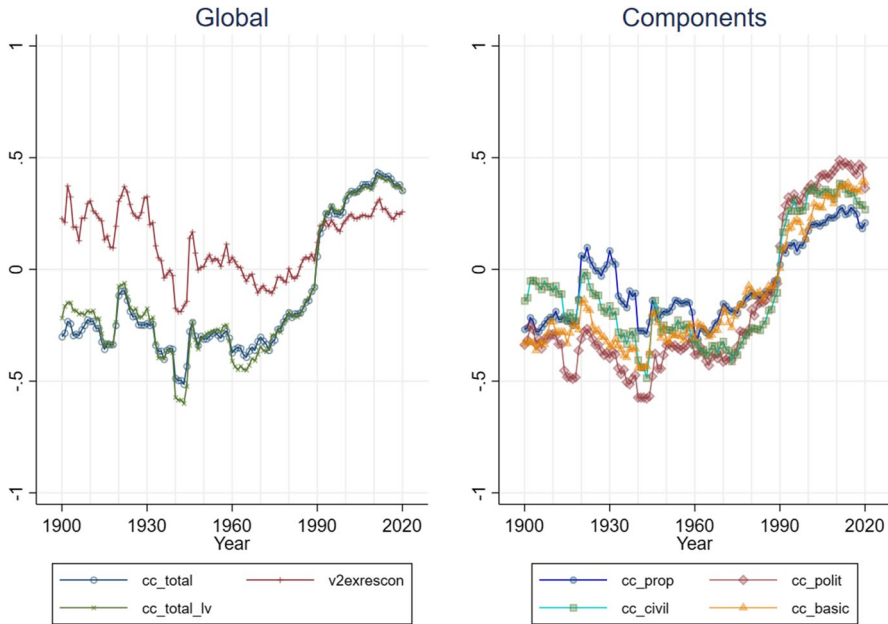
Variable	Obs	Mean	Std. Dev	Min	Max
cc_total	10,878	0.00	1.00	-1.86	1.97
cc_prop	10,845	0.00	1.00	-1.41	2.01
cc_polit	10,553	0.00	1.00	-1.41	1.81
cc_civil	10,850	0.00	1.00	-1.67	1.40
cc_basic	10,878	0.00	1.00	-1.99	1.59
cc_total_lv	10,632	0.00	1.00	-1.27	1.41
v2exrescon (V-Dem)	18,984	0.00	1.00	-2.64	2.22
de jure index	10,878	9.26	3.46	0	14

Finally, we take the mean value of the four legal area-specific compliance indicators according to each coding scheme to generate two overall constitutional compliance indicators, *cc\_total* and *cc\_total\_lv*. For comparison, we add to our database the expert evaluation of constitutional compliance, *v2exrescon*, produced by V-Dem. All indicators are then standardized to have a mean of zero and a standard deviation of one across the entire dataset, which spans the time period 1900 to 2020. This is particularly important for comparing the indicators in the following section. Higher values on an indicator reflect higher constitutional compliance.

Although based on the same data, *cc\_total* and *cc\_total\_lv*, as well as their respective subindicators, can lead to very different evaluations of constitutional compliance in individual country-years, if a constitution includes only very few of the rules for which we measure compliance. This is because *cc\_total\_lv* ignores how many constitutional rules exist and it only measures the share of the existing ones that are complied with. *cc\_total*, in contrast, ensures that compliance is scored lower if one right is promised and complied with, compared to a situation where five rights are promised and all of them are complied with. Vice versa, *cc\_total* gives a higher compliance score if one *de jure* rule exists and that rule is not complied with, compared to a situation where five constitutional rules exist but none of them are complied with. As the number of relevant *de jure* rules included in the constitution approaches 14 (i.e., the maximum), *cc\_total* and *cc\_total\_lv* converge to the same score.

**Table 2** Bivariate correlations

	cc_total	cc_total_lv	v2exrescon	de jure index
cc_total	1.00			
cc_total_lv	0.92	1.00		
v2exrescon	0.67	0.73	1.00	
de jure index	0.15	0.11	-0.14	1.00
	cc_prop	cc_polit	cc_civil	cc_basic
cc_prop	1.00			
cc_polit	0.68	1.00		
cc_civil	0.69	0.78	1.00	
cc_basic	0.58	0.58	0.64	1.00



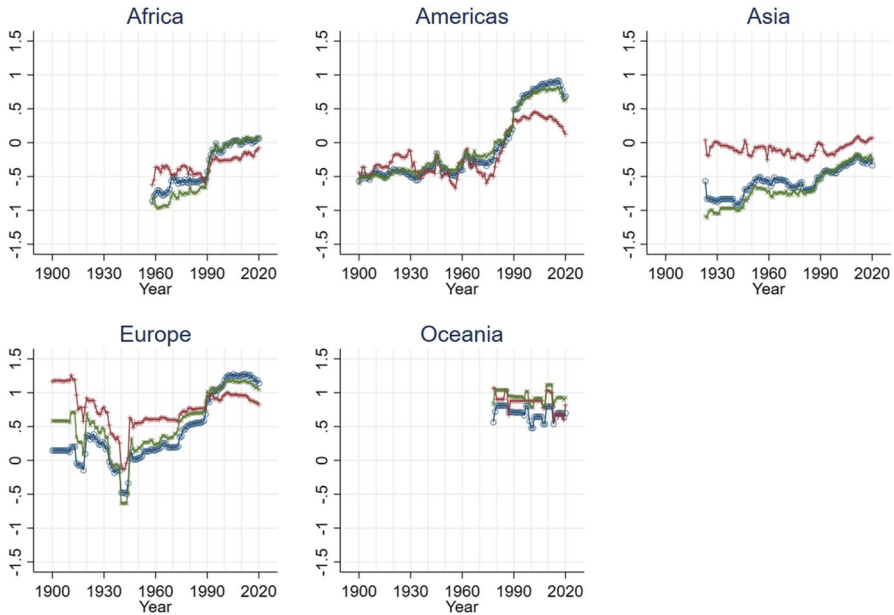
**Fig. 1** Constitutional compliance over time. Note: The number of countries underlying the displayed time trends varies over time. Mean values are only calculated if data is available for at least five countries

Descriptive statistics are shown in Table 1 and bivariate correlations in Table 2. The high correlation between `cc_total` and `cc_total_lv` ( $r = 0.92$ ) shows that the coding rule employed by Law and Versteeg (2013) does not lead to a very different evaluation of constitutional compliance than our preferred coding rule. The correlations of both indicators with the expert rating by V-Dem (`v2exrescon`,  $r \approx 0.7$ ) indicate that they are far from providing identical information to that collected from the country experts.<sup>7</sup> Table 2 also shows the correlations with a *de jure* index that counts how many of the 14 rules of interest are guaranteed in the constitution. Since none of the constitutional compliance indicators are significantly correlated with the *de jure* index, it appears that a high number of constitutional promises as such is not detrimental to constitutional compliance.

#### 4 Stylized facts

In this section, we present stylized facts regarding correlates of and time trends in constitutional compliance. Furthermore, we compare the different compliance indicators in our dataset to highlight their differences, while also demonstrating their validity.

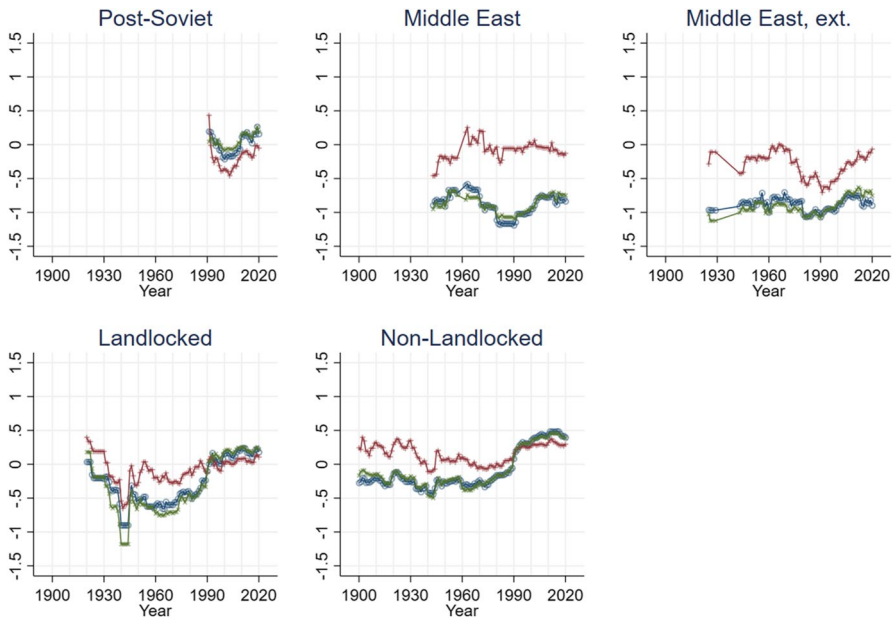
<sup>7</sup> The bivariate correlation between Law and Versteeg's (2013) constitutional underperformance indicator in 2010 and either `cc_total` or `v2exrescon` is 0.71, but that with `cc_total_lv` is 0.77.



**Fig. 2** Constitutional compliance by world region. Note: The number of countries underlying the displayed time trends varies over time. Mean values are only calculated if data is available for at least five countries. See Fig. 1 for legend

Figure 1 illustrates the global time trend in constitutional compliance based on the three indicators of overall compliance and our four subindicators for compliance in specific legal areas. First, we observe that the trends of *cc\_total* and *cc\_total\_lv* are almost identical at the global aggregate level, in spite of the different aggregation rules they are based on. Both indicators suggest an increase in global constitutional compliance over time, especially around the year 1990, i.e., the end of the Cold War. Interestingly, *v2exrescon* captures similar short-run fluctuations, but it does not show the same long-term trend. The trends depicted in the diagram on the right show that compliance with different types of constitutional rules follows a similar global trend. Figure OA1 in the [Online Appendix](#) illustrates that not only constitutional compliance, but also the number of rights protected by the constitution has increased over time.

Figure 2 shows regional trends in the three indicators of overall constitutional compliance based on the United Nations' classification of world regions. The different indicators show very similar levels and time trends across world regions. However, V-Dem experts judge constitutional compliance in Asia significantly more positively than our indicators. At the same time, our indicators show a more sizable increase in compliance in the Americas. Africa, the Americas, and Europe experienced a significant uptick in compliance around the year 1990. As of 2020, European countries show the highest levels of constitutional compliance, whereas constitutional compliance in Africa and Asia is lower than in other parts of the world. One might attribute this pattern to differences in economic development



**Fig. 3** Constitutional compliance by geographic categories. Note: The number of countries underlying the displayed time trends varies over time. Mean values are only calculated if data is available for at least five countries. See Fig. 1 for legend. Post-Soviet: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Middle East: Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen. Middle East, ext.: Same as Middle East, plus Afghanistan, Algeria, Djibouti, Mauritania, Morocco, Libya, Pakistan, Somalia, Sudan, Tunisia, and Western Sahara

across continents, but the bivariate correlation between income per capita and compliance is rather small ( $r = 0.26$ ). This means that constitutional compliance is not a privilege enjoyed only in developed countries. Figure 3 shows regional trends for post-socialist countries and Middle Eastern countries, as well as for landlocked versus non-landlocked countries, as defined by Raciborski (2008). Notable is the substantial disagreement between our compliance indicators and *v2exrescon* concerning the Middle East. *V-Dem* experts rate constitutional compliance in the Middle East only slightly below the global average, whereas our indicators rate the Middle East as having some of the lowest compliance levels in the world. One explanation could be the prevalence of Islamic constitutions in the region (Gouda & Gutmann, 2021; Gutmann & Voigt, 2015). Figures OA2 to OA4 in the Online Appendix graphically illustrate the global distribution of *cc\_total* and its subindicators across time and space. Whereas the 1950s and 1970s saw predominantly countries with low compliance scores, the distribution today appears bimodal and includes both, countries with low and high compliance scores.

Table 3 shows the five countries with the highest and lowest constitutional compliance according to *cc\_total* during the same decades as in Figure OA2. The

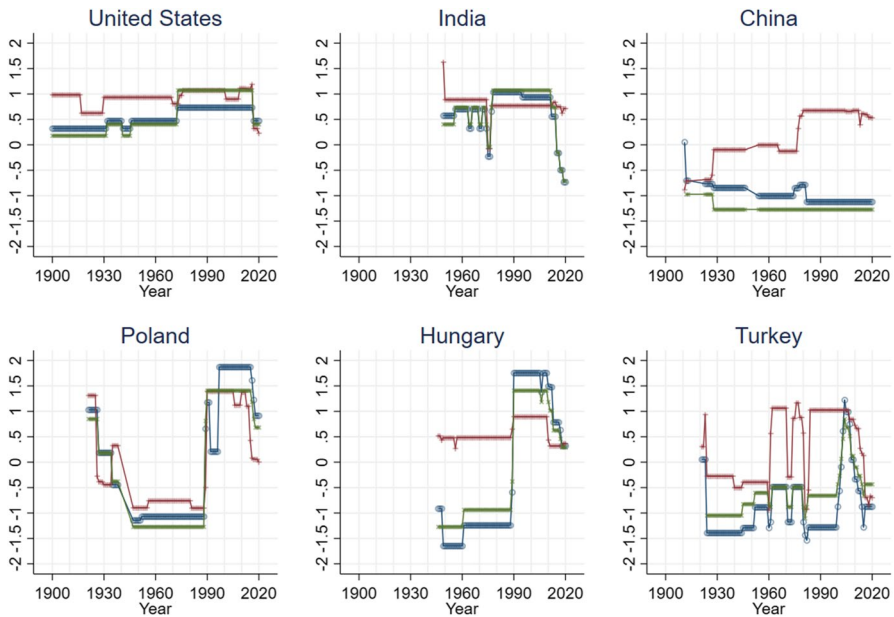
**Table 3** Best and worst performing countries over time

1950–1959			1970–1979		
Country	cc_total	Democracy	Country	cc_total	Democracy
Costa Rica	1.856	1	Costa Rica	1.856	1
Germany	1.676	1	Germany	1.676	1
Iceland	1.590	1	Sweden	1.642	1
Luxembourg	1.161	1	Barbados	1.635	1
Denmark	1.113	1	Spain	1.611	1
Ireland	1.113	1	...	...	...
...	...	...	Angola	-1.380	0
Syria	-1.393	0	Haiti	-1.455	0
Libya	-1.414	0	Nicaragua	-1.484	0
Nicaragua	-1.442	0	Honduras	-1.595	0
El Salvador	-1.570	0	Guatemala	-1.862	1
Hungary	-1.646	0			
1990–1999			2010–2019		
Country	cc_total	Democracy	Country	cc_total	Democracy
Czech Republic	1.972	1	Czech Republic	1.972	1
Lithuania	1.972	1	Lithuania	1.972	1
Portugal	1.873	1	Barbados	1.896	1
Spain	1.873	1	Estonia	1.873	1
Costa Rica	1.856	1	Portugal	1.873	1
...	...	...	Spain	1.873	1
...	...	...	...	...	...
Tajikistan	-1.569	0	Rwanda	-1.529	0
Afghanistan	-1.630	0	Burundi	-1.573	1
Turkmenistan	-1.687	0	Sudan	-1.609	0
Sudan	-1.731	0	Uzbekistan	-1.715	0
Eritrea	-1.734	0	Eritrea	-1.734	0

Top-5 and bottom-5 countries in each decade according to the mean value of *cc\_total*. Democracies and nondemocracies are classified according to Bjørnskov and Rode (2020)

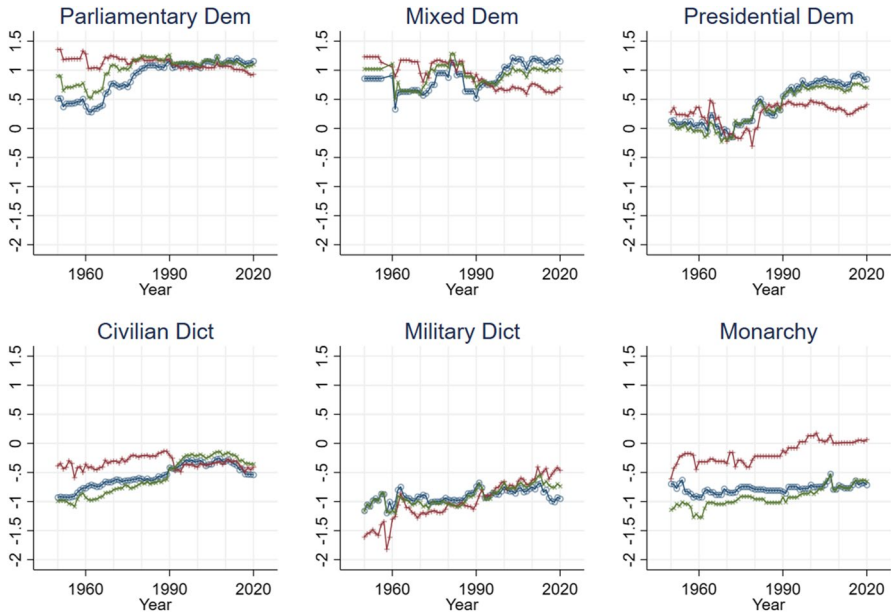
best-performing countries in all decades are democracies as classified by Bjørnskov and Rode (2020). The worst-performing countries are, with only two exceptions, not democratic. Not surprisingly, the bivariate correlation between democracy and *cc\_total* ( $r = 0.72$ ) is much higher than that with income per capita.

Figure 4 shows constitutional compliance and its evolution over time for six selected country cases. China, India, and the United States are the three most populous countries in the world. The cases of Hungary, Poland, and Turkey have been intensively discussed in recent studies of democratic transition and backsliding. The three indicators of constitutional compliance draw very similar patterns for Poland and the United States, both of which experienced significant declines in constitutional compliance in recent years. However, the decline in compliance in the U.S. measured by



**Fig. 4** Constitutional compliance in selected countries. Note: See Fig. 1 for legend

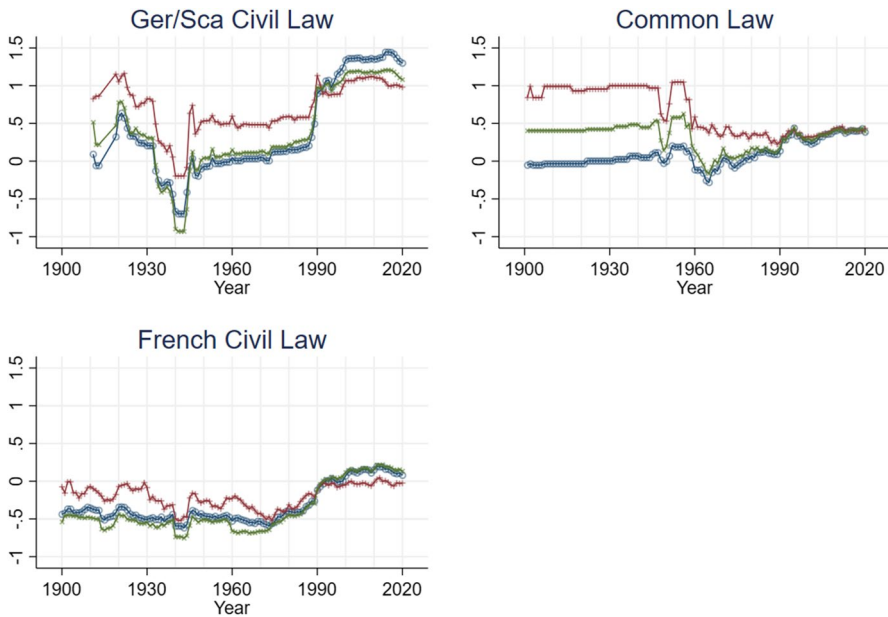
`cc_total` is smaller than that measured by the other indicators. Regarding Hungary and India, there are some differences between `cc_total` and `v2exrescon`. `cc_total` indicates a dramatic decline in constitutional compliance in India over the last decade, which `v2exrescon` does not show. Hungary under communist rule is evaluated significantly better according to `v2exrescon` than `cc_total` would suggest and also the decline under Viktor Orbán's government is less pronounced as measured by `v2exrescon`. Unlike `v2exrescon`, `cc_total` indicates an increase in Hungary's constitutional compliance in 1990 that is comparable to that of Poland. However, all indicators agree that constitutional compliance dropped significantly over the last decade in both Poland and Hungary. Finally, `cc_total` and `v2exrescon` disagree considerably on how to rate constitutional compliance in China and Turkey. `cc_total` indicates a decline in constitutional compliance in China over the past century, whereas `v2exrescon` suggests dramatic improvements over time. In Turkey, both indicators capture the slumps in constitutional compliance following coups as well as its erosion under ongoing AKP (Justice and Development Party) rule. However, `v2exrescon` indicates high levels of constitutional compliance starting in the mid-1980s, whereas `cc_total` captures the dramatic positive effect of the democratic reforms in the early 2000s starting from a very low compliance level. As a general conclusion, it seems that V-Dem country experts sometimes rate the constitutional compliance of nondemocratic regimes more generously than V-Dem's *de facto* data used in the construction of our compliance indicator seem to justify. This might be because V-Dem coders focus on different constitutional rules than the ones that enter `cc_total` or they might hold these countries to a different standard. It appears difficult to justify why, according to `v2exrescon`, China today should score higher on constitutional compliance than the United States.



**Fig. 5** Constitutional compliance by regime type. Note: The number of countries underlying the displayed time trends varies over time. Mean values are only calculated if data is available for at least five countries. See Fig. 1 for legend

Figure 5 shows constitutional compliance plotted for six different regime types according to Bjørnskov and Rode (2020) who adopt their classification from Cheibub et al. (2010). All three indicators of constitutional compliance show similar ratings for parliamentary, mixed, and presidential democracies, although *v2exrescon* does not show an improvement in presidential democracies after 1990. The indicators show less agreement on how to rate nondemocracies. *v2exrescon* indicates that civilian dictatorships before 1990 and monarchies from 1950 onwards exhibit higher constitutional compliance levels than measured by *cc\_total*. Overall, parliamentary and mixed democracies show the highest levels of constitutional compliance among all regime types, whereas military dictatorships perform the worst; and, consistent with the cases presented in Table 3, democracies clearly outperform nondemocratic regimes.

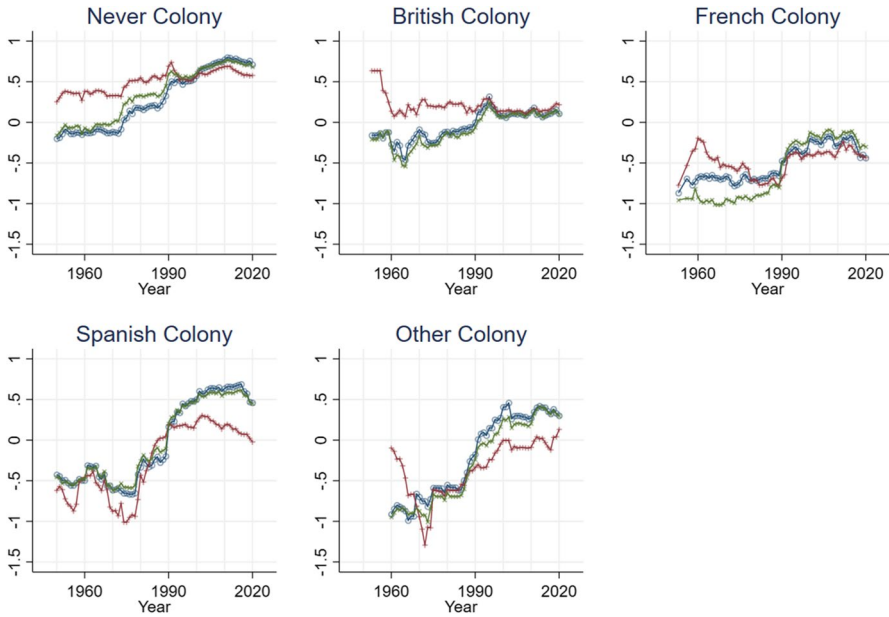
Figures 6 and 7 show constitutional compliance for countries categorized by their legal origin according to La Porta et al. (2008) and their colonial history as classified by Hadenius and Teorell (2007). French civil law countries show the lowest levels of constitutional compliance. Since 1990, German and Scandinavian civil law countries clearly show the highest levels of constitutional compliance. It can also be seen that countries that were never colonized exhibit higher levels of constitutional compliance than any former colonies. Former Spanish colonies have made the greatest improvements in constitutional compliance between 1950 and 2000, whereas former British and French colonies appear to have stagnated.



**Fig. 6** Constitutional compliance by legal origin. Note: The number of countries underlying the displayed time trends varies over time. Mean values are only calculated if data is available for at least five countries. See Fig. 1 for legend

So far, we have focused on the relationship between domestic factors and constitutional compliance. Dreher et al. (2012) argue that governments' respect for physical integrity rights is higher in more open societies. Indeed, the KOF Globalisation Index (Dreher, 2006; Gygli et al., 2019) is positively correlated with constitutional compliance ( $r = 0.54$ ). Finally, we study whether four constitutional traits coded by CCP (Elkins et al., 2009) are associated with higher or lower compliance levels with the respective constitutions. The first trait is that the constitution allows for the dismissal of either the head of state or the head of government in case they violate constitutional rules. This rule is clearly designed with the intention to enhance constitutional compliance by making it easier to hold political leaders accountable for violating other constitutional rules. The second constitutional trait is that political office holders are obliged to swear an oath to abide by the constitution. The third trait is that a constitution identifies a model from a foreign government on which the constitution is based. As legal transplants tend to be detrimental to the effectiveness of law (Berkowitz et al., 2003a, 2003b), it can be expected that constitutions that borrow heavily from other countries might also be less complied with. Obviously, this indicator does not identify all legal transplants in constitutions and the identified legal transplants may not be representative of constitutional legal transplants in general. The fourth trait is the log-length of the constitution in words. It has been argued that constitutions in societies with high levels of generalized trust do not need to spell out as many details as those in low-trust societies (Bjørnskov & Voigt, 2014; Voigt, 2009).





**Fig. 7** Constitutional compliance by colonial origin. Note: The number of countries underlying the displayed time trends varies over time. The period of observation is restricted to 1950–2020. Mean values are only calculated if data is available for at least five countries. See Fig. 1 for legend

Table 4 shows regression model estimates for these four constitutional traits, controlling for country- and year-fixed effects and our *de jure* index. We find that constitutional compliance is significantly higher if the constitution allows for the dismissal

**Table 4** Constitutional traits and constitutional compliance

	(1)	(2)	(3)	(4)
dismiss	0.467** (0.155)			
oath		0.074 (0.140)		
foreign			-0.965 (0.528)	
log-length				-0.107 (0.099)
de jure index	0.016 (0.017)	0.032 (0.018)	0.034 (0.017)	0.045** (0.017)
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Prevalence	25%	81%	2%	n/a
Countries	175	175	175	175
Observations	10,878	10,878	10,878	10,878

OLS regression coefficient estimates with country-clustered standard errors in parentheses. Dependent variable: *cc\_total*. “dismiss”: Head of state or government can be dismissed for violating constitutional rules. “oath”: Office holders have to take oath to support or abide by the constitution. “foreign”: Constitution identifies foreign models on which it is based. “log-length”: Natural logarithm of the length of the constitution in words. \*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

of the head of state or the head of government for violating constitutional rules. In contrast, the obligation to swear an oath to uphold the constitution does not show a statistically significant coefficient estimate. These results indicate that constitutional design can increase constitutional compliance when costly sanctions for violating a constitutional rule are threatened. We find no evidence that constitutions that are longer or based on a model from a foreign government are complied with less. Although we already account for country- and year-fixed effects, future research might reevaluate these results based on a more elaborate identification strategy.

## 5 Conclusion

This article introduces the Comparative Constitutional Compliance Database, a resource for researchers interested in studying the causes and consequences of constitutional compliance. Our analysis reveals that constitutional compliance improved significantly over the last 120 years, but most of this change took place around the year 1990, i.e., at the end of the Cold War. Consistent with that observation, there is no statistical association between a country's income per capita and compliance, but democracies exhibit significantly higher compliance levels. Although it is often claimed that common law countries have superior judicial institutions, these countries are clearly outperformed by German and Scandinavian legal origin countries since the fall of the Iron Curtain.

Our results also indicate that former colonies are associated with less constitutional compliance, as the literature on legal transplants (Berkowitz et al., 2003a, 2003b) would suggest. It seems that constitutions reflecting the mores, values, and norms of the societies they are supposed to structure have a higher chance of being implemented. Choutagunta et al. (2022) show that CIA interventions, but not KGB interventions, reduce the level of constitutional compliance in a country. This kind of foreign influence, however, typically does not lead to a new constitution. It might be insightful to study the effect of foreign influence in the process of constitutional design in future research.

Cultural factors might also influence constitutional compliance. Gutmann et al. (2021a) ask whether specific cultural traits are conducive or detrimental to constitutional compliance. They find that countries inhabited by citizens that are more individualistic and have less respect for social hierarchies are more likely to experience constitutional compliance. It is also likely that constitutional compliance does not only depend on the general traits of society, but also on those of political leaders. Gutmann et al. (2021b) show that leaders with military experience and those who came into office irregularly are less likely to comply with the constitution. Gutmann & Rode (2022) show that populist governments comply less with the constitution.

Recent studies and the stylized facts in this article have focused on the causes of constitutional compliance. Yet, questions concerning the effects of constitutional compliance largely remain unanswered. Future research will use our database to study questions such as whether governments that comply with their constitution are also more likely to comply with international agreements, and whether this allows

them to conclude more international agreements. Another important question would be if constitutional compliance affects the stability of political regimes. According to an influential argument by Weingast (1997), violations of constitutional rules could help citizens to coordinate on resistance against an exploitative government. Finally, the economic consequences of constitutional compliance need to be better understood. Do foreign investors, for example, reward constitutional compliance in general (see, e.g., Farber, 2002) or only compliance with property rights and the rule of law?

While the Comparative Constitutional Compliance Database in its current form will allow researchers to produce numerous insights on the causes and consequences of constitutional compliance, it is still only based on 14 types of constitutional rules and efforts should be undertaken in the future to create broader indicators of constitutional compliance.

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**Data availability** The database introduced in this article (version 2.0) and its future updates can be downloaded at: <https://dataverse.harvard.edu/dataverse/CCCD>. Replication materials for the figures and tables in this article are available at: [www.jerg-gutmann.de/data](http://www.jerg-gutmann.de/data).

## Declarations

**Competing interests** The authors have no competing interests.

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