




RESEARCH ARTICLE

# Shocking resilience? Effects of extreme events on constitutional compliance

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(Received 23 June 2022; revised 14 August 2023; accepted 15 August 2023)

## Abstract

It is often argued that governments take advantage of extreme events to expand their power to the detriment of the political opposition and citizens at large. Violations of constitutional constraints are a clear indication of such opportunistic behaviour. We study whether natural disasters, conflicts and other extreme events systematically diminish governments' compliance with constitutional constraints. Our results indicate that governments are most likely to overstep their competences or disregard their responsibilities during civil conflicts, at the onset of international sanctions or following successful coups d'état. Interestingly, Cold War interventions by the United States that installed or supported a political leader led to a decrease in constitutional compliance in the target country, whereas Soviet interventions had no such effect. In contrast, banking crises and natural disasters, which threaten societies at large, but not necessarily the political elite, do not cause a significant decline in constitutional compliance.

**Keywords:** conflict; constitutional compliance; *de jure–de facto* gap; extreme events; natural disasters; resilience

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

## Introduction

Winston Churchill is often credited with the maxim 'never waste a good crisis'. This advice can be interpreted in at least two ways. A charitable interpretation is that due to current events, necessary reforms that are long-overdue can finally be undertaken. Another, less charitable interpretation is that crises can and, therefore, should be used as pretext for expanding one's political power. Here, we ask how relevant the latter interpretation is to understanding government reactions to various types of crises. Our focus is on events that are both rare and extreme, such as financial crises, major natural disasters, violent conflicts and coups d'état. More specifically, we ask whether such crises have a significant impact on a government's compliance with the constraints laid down in the constitution. In other words, we are interested in short-term changes in *de facto* institutions resulting from sudden shocks (Kingston and Caballero, 2009). These short-term changes may induce longer-term gradual changes, for example, in *de jure* institutions (Congleton and Yoo, 2018), which are, however, beyond the scope of our analysis.

This article ties into an emerging literature on the economics of constitutional compliance (Gutmann *et al.*, 2023b; Lewkowicz and Metelska-Szaniawska, 2019; Voigt, 2021) by analysing conditions under which compliance with (*de jure*) constitutional rules can break down. The question of constitutional compliance has been largely ignored by scholars of law and economics, public choice and institutional economics, even though all these disciplines recognize that constitutions have substantial consequences for the quality of governance as well as for economic outcomes (see, e.g. Berggren *et al.*, 2012; Persson and Tabellini, 2003; Voigt, 2020). It is well-established in law and

economics that the effects of constitutional rules depend on their implementation (Feld and Voigt, 2003; Voigt and Gutmann, 2013; Voigt *et al.*, 2015) and that many constitutional rules are, in fact, not implemented (Chilton and Versteeg, 2016; Law and Versteeg, 2013). However, law and economics has focused on the differential effects of *de jure* and *de facto* institutions rather than asking why these differences in enforcement exist in the first place. This might be because law and economics in general has been paying more attention to the effects of legal institutions than to endogenizing them (Voigt, 2020). The focus of public choice, in contrast, has been on how interest groups and politicians try to influence the design of constitutional rules in their own interest. Surprisingly, little attention has been paid to the possibility that a self-interested executive might simply violate these carefully designed rules. This is an obvious theoretical consideration from the point of view of the new institutional economics, which assumes that most rules require powerful sanctions to induce behavioural changes (Ostrom, 2010; Voigt, 2013). It also comes naturally to law and economics, which has been studying concepts such as rational crime and efficient breach for a long time (although not in the context of constitutions). Bentkowska (2021) has, for example, studied citizens' compliance with legal rules during the COVID-19 pandemic.

Our study also adds to the interdisciplinary literature on resilience (Janssen and Ostrom, 2006) and the literature on robust political economy (Leeson and Subrick, 2006; Pennington, 2013). The former studies the persistence of relationships within a system and the ability of these systems to absorb changes and persist; the latter studies political systems' ability to produce social welfare-enhancing outcomes in spite of deviations from ideal assumptions about individuals' motivations and information.

Here, we adopt a public choice perspective to explain how extreme events might influence constitutional compliance. Moreover, we test our theoretical predictions empirically using a large panel dataset. One reason why constitutional compliance has not been studied more is a lack of adequate data. With the recently introduced Comparative Constitutional Compliance Database (Gutmann *et al.*, 2023b), data for studying the gap between *de jure* constitutional rules and their *de facto* implementation is now readily available. We offer one of the first studies utilizing this new database to analyse the determinants of constitutional compliance.

We find that coups d'état, sanctions, civil conflict and US Cold War interventions are significantly associated with declining constitutional compliance. Among these, coups have by far the largest effect. In contrast, financial crises and natural disasters do not seem to matter for constitutional compliance. It seems that governments' compliance with the constitution is primarily in doubt when extreme events have a direct impact on politics.

The remainder of this article is structured as follows: In the next section, we explain why the occurrence of rare and extreme events might allow the executive branch to renege upon constitutional rules that are supposed to constrain it. The third section describes our dataset, including both our indicators of constitutional compliance as well as the data employed to identify extreme events. The results of our regression analysis are presented and discussed in the fourth section and the fifth section concludes.

## Theory

### *Extreme events and constitutional compliance*

We assume that members of the executive,<sup>1</sup> like everybody else, try to maximize their utility, both by prolonging their stay in office and by expanding their political influence. In their pursuit of these goals, overstepping constitutional constraints may greatly benefit members of the executive. Yet, any violation of constitutional rules potentially incurs costs, be it through the resistance of an independent judiciary or through citizens' protest or civil disobedience.

The central question of this study is whether extreme events offer a pretext that changes the executive's cost-benefit calculus in favour of constitutional non-compliance. If that is the case, larger

<sup>1</sup>We use the terms executive and government interchangeably to refer to the political leadership of a country. This would typically not include regular members of parliament or bureaucrats. In accordance with methodological individualism, we assume that actions of groups, such as a government, are consistent with their members' individual preferences.

*de jure–de facto* gaps are to be expected in the wake of extreme events. These extreme events are often met with a call for additional government action. Depending on the type of event, such calls may entail harsher criminal laws (e.g. after terror attacks), stricter regulation (after banking and economic crises) or government production (e.g. of vaccines during a pandemic) and distribution of goods. Germany's unprecedented domestic deployment of 45,000 soldiers after a major flood in 2002, for example, secured the incumbent party's re-election in the same year (Bechtel and Hainmueller, 2011). Such calls for government action are often supported by large segments of the population, although decentralised disaster mitigation might in some cases be more efficient (Frolov, 2022; Paniagua and Rayamajhee, 2022; Storr *et al.*, 2017). For the executive, this implies that overstepping constitutional constraints is likely to be met with little or at least less resistance than in normal times.

Why is there demand for government action? It has been shown that extreme events frequently induce *probability neglect*. After having experienced an extreme event, agents are likely to substantially overestimate the probability of a similar event occurring again (Sunstein, 2003; Sunstein and Zeckhauser, 2011). Probability neglect, in turn, is likely to induce *action bias*, the urge to take control of a situation (Lucas and Taic, 2015; Patt and Zeckhauser, 2000). In our context, this urge to take control comes in the form of citizens demanding that the politicians 'do something' (Higgs, 1987: 64), and these calls for additional government action might be accompanied by a higher tolerance for unconstitutional policies. If citizens expect politicians to act urgently, violations of constitutional rules that are meant to govern normal times can be surprisingly popular. A prominent example is the US policy response to the 9/11 terrorist attacks, both domestically and in its foreign policy, culminating in a war against Iraq. While politicians might themselves suffer from action bias and truly believe that their policies have a net positive effect (Patt and Zeckhauser, 2000; Zeelenberg *et al.*, 2002), another explanation is at least as relevant here: Rational, power-maximizing politicians can exploit citizens' action bias to get away with overstepping constitutional constraints (Gutmann *et al.*, 2023a).<sup>2</sup> The fact that such challenges to the constitutional system's resilience may arise is, of course, well-known and it has been discussed whether constitutions can and should be designed in such a way – for example, by including appropriate emergency provisions – that they minimize the risks resulting from action bias in the wake of extreme events (Voigt, 2022).

Since different types of events may affect constitutional compliance differently, we next discuss how some of the most important types of extreme events could be relevant for the government's decision to comply with the constitution. We distinguish first between natural and man-made events; natural disasters are the most exogenous events in our analysis, whereas man-made ones are less clearly exogenous. It may be comparatively easier to get away with overstepping constitutional constraints during natural disasters because the government is mitigating the consequences of an event that is clearly outside of its control. Among man-made events, we propose to distinguish between those primarily triggered by domestic actors (such as coups or insurgencies) and those regularly involving foreign actors (such as foreign interventions). As the former are typically tied to larger-scale violence, we expect that domestic conflict provides a better pretext for governments' transgression of constitutional rules than foreign interventions (or financial crises). At the same time, they may also pose a more direct threat to the regime's survival and may, thus, come with both lower costs and larger benefits of not complying with the constitution.

### *Natural disasters and constitutional compliance*

Natural disasters, such as earthquakes, floods, hurricanes and tsunamis, can kill many people or destroy their livelihoods. Governments have an important role in mitigating the adverse effects of natural

<sup>2</sup>Bjørnskov *et al.* (2022) ask a related question, namely under what conditions members of the executive declare an unconstitutional state of emergency. Our study is interested in the effects of extreme events independent of whether they lead to a state of emergency. In another related study, Lührmann and Rooney (2021) show that states of emergency as a consequence of extreme events are used by would-be autocrats to undermine democratic institutions.

disasters because of the substantial economies of scale involved and government's capacity to act as an insurer of catastrophic risk. At the same time, governments' regular provisioning of public goods, such as public order and a functioning basic infrastructure, can also be significantly impeded in the wake of natural disasters. As the global COVID-19 pandemic has shown, many government representatives feel that they have to restrict citizens' rights in order to mitigate the consequences of some natural disasters. Yet, some executives use the opportunity to implement illiberal or authoritarian practices to further their own political interests (see Edgell *et al.*, 2021). The information asymmetry between politicians and citizens regarding the necessary steps to reduce the harm caused by rare and extreme natural disasters gives politicians substantial leeway that invites misuse.<sup>3</sup> In addition, the fact that the occurrence of natural disasters is largely outside of governments' control makes it more likely that government actors can get away with transgressing constitutional and other legal norms under the pretext of disaster mitigation.

Politicians may infringe on private property rights, limit the freedom of assembly or movement, postpone elections, suspend rules of due process, restrict media freedom, overstep their constitutionally assigned competencies, etc., without having to fear political backlash comparable to if these steps were taken during normal times. A well-known historical example is Rafael Trujillo's declaration of martial law and emergency taxes after a hurricane in 1931, after which he turned his regime into one of the longest-lasting dictatorships in Central America's history (Bjørnskov and Voigt, 2022a). The recent pandemic provides many more examples: the Serbian government, e.g. prohibited gatherings of more than 100 people, effectively preventing the parliament from holding sessions. Parliaments were also unable to meet in several other countries, such as Mauritius and Thailand. Also, court operations were suspended in many countries (e.g. in Bangladesh and Nigeria). In Egypt, military courts were authorised to investigate any case discovered by a military officer, effectively extending their jurisdiction to civilians. In some countries, the military was used to enforce pandemic policies (e.g. in Iran and Malaysia, but also in Denmark). In other countries, ranging from Belarus to the UK, journalists were threatened with legal sanctions if they reported on protests against mitigation measures (see Bjørnskov and Voigt [2022b] for a more detailed discussion).

### *Conflicts and constitutional compliance*

Conflict events can take different shapes, such as coups d'état or wars. Since these events are characterised by acts of violence, their role in the political economy of constitutional rights transgressions does not differ much. Maybe even more than natural disasters, conflicts can pose an existential threat to a state and its citizens and, therefore, offer a pretext for extreme and unconstitutional countermeasures. However, conflicts might be less suitable as a pretext for expanding government powers than natural disasters because the government tends to be directly involved and thus cannot pretend to act as a neutral emergency helper.

Analogous to the case of natural disasters, during episodes of conflict the executive is expected to continue providing many public goods and, in some cases, provide them in even larger quantities or provide completely new kinds of goods. Beyond that, the executive also carries responsibility for restoring its monopoly on the use of violence. If the government reacts swiftly and with determination, it may even deter future incidents of conflict. Oftentimes, it will be challenging for governments to perform these tasks while complying with constitutional constraints that have been designed to protect citizens' extensive freedoms during normal times. Knowing this, citizens should be much more tolerant of violations of the constitution during episodes of conflict. This effect can be reinforced by heightened nationalist sentiment and contempt for members of (e.g. ethnic or religious) groups that are considered hostile to one's in-group or the state, both of which lower the costs of violating the constitutional rights of some members of society. As argued above, information asymmetries between the

<sup>3</sup>While an increase in repression following natural disasters has been demonstrated (see, e.g. Gutmann and Voigt, 2017; Pfaff, 2020; Wood and Wright, 2016), there is no corresponding analysis of violations of constitutional rights.

citizens and the government regarding the (intended) consequences of mitigation policies broadly conceived permit governments to commit substantial rights violations during episodes of conflict to extract rents or strengthen their grip on political power.<sup>4</sup>

### *Financial crises and constitutional compliance*

The global financial crisis of 2008 has reminded us that banking crises can have far-reaching effects, although one might wonder if these should not be largely economic in nature. Wintrobe's (1998) and Tullock's (1987) political economy theory of non-democratic politics, however, clarifies that redistribution of resources is generally a substitute to governments' use of repression to stay in office. If a banking crisis drains the resources at the government's disposal, this can seriously destabilize the political regime (Richards and Gelleny, 2006), which might then have to resort to repression to hold on to political power. Gutmann *et al.* (2017) find that banking crises in 140 countries between 1975 and 2008 had a causal, substantive, and robust negative effect on human rights that was particularly pronounced in non-democracies.

Kouevi-Gath *et al.* (2019) show that banking crises significantly increase the probability that a country will become more democratic within 10 years of their occurrence. Democratic change following disasters is, however, not part of an incremental reform process towards 'better institutions', but the consequence of a failure of existing institutions and a collapse of the political regime, providing a window of opportunity for democratic reforms (see, e.g. Brückner and Ciccone, 2011). This explains why especially non-democratic governments tend to react with repression to banking crises, though not always with success. Given the effect of financial crises on political turmoil, it can be expected that governments facing them are less likely to comply with the constitution. While violating economic rights can possibly be justified with reference to crisis management, banking crises differ from conflicts and natural disasters in that they are only of limited value as a pretext for violating other constitutional rights. Yet, if the executive needs to rely on repression to hold on to power, it will violate the respective constitutional rights irrespective of the popular support for these measures.

### *Foreign interventions and constitutional compliance*

Another category of extreme events that can shift the cost–benefit calculus of constitutional compliance are superpower interventions, specifically those that install a new political leader or provide support to an existing leader to help maintain the regime's power. Interventions by the CIA and the KGB were popular during the Cold War and included the creation and dissemination of propaganda, covert political operations and more invasive tactics, such as the destruction of physical infrastructure as well as covert paramilitary operations. Given the political backing of a major superpower, political leaders should feel less accountable to their citizens and less likely to face punishment for any violations of constitutional or other rules.<sup>5</sup> One example would be the Iranian Shah, who enjoyed strong support by the CIA until his ouster in the Iranian revolution of 1979 and was responsible for widespread torture and imprisonment of political dissidents. Unlike natural disasters and conflicts, foreign interventions do not encourage the violation of constitutional rules by offering a false pretense. Foreign intervention rather makes the executive less dependent on domestic support for its political survival and it can, thus, violate constitutional rules, even if these actions do not enjoy public support.

While the foreign support of a (puppet) government may undermine constitutional compliance, it is less obvious how governments will react to diplomatic pressure through the imposition of sanctions by foreign superpowers or multilateral organizations. On the one hand, governments under sanctions

<sup>4</sup>Melton (2013), however, argues that if a conflict seriously threatens the survival of the regime, the government might even be less likely to violate the constitution than during normal times, as its members can expect to be held accountable if they lose power.

<sup>5</sup>Berger *et al.* (2013a) show that such interventions are detrimental to democracy, but there is no evidence on their relevance for constitutional compliance.

are deprived of key resources and, therefore, may have to resort to repression to stay in power. This type of visible foreign intervention into domestic politics may stoke nationalistic fervour amongst supporters of the regime and they may, thus, be willing to tolerate violations of the constitution and blame foreign actors for domestic policy failures. On the other hand, sanctions are often imposed with the explicit goal to force a policy change, for example, regarding human rights violations and undemocratic practices. Governments might, at least some of the time, agree to concessions that are also favourable to constitutional compliance.

### Taking stock

Our theoretical predictions to this point can be summarised in the following five hypotheses.

- H1: Natural disasters cause a reduction in constitutional compliance.
- H2: Conflicts cause a reduction in constitutional compliance.
- H3: Financial crises cause a reduction in constitutional compliance.
- H4: Foreign interventions cause a reduction in constitutional compliance.
- H5: International sanctions cause a reduction in constitutional compliance.

A logical follow-up question would be, which of these events should have the biggest impact on constitutional non-compliance? One line of reasoning would draw on the range of constitutional rights, the violation of which an event might make excusable. As we have argued above, conflicts would lead this ranking ahead of natural disasters and financial crises. Foreign interventions cannot be ranked based on this reasoning, as they facilitate transgression of constitutional rights even without popular support. Alternatively, one could argue that the exogeneity of the extreme event should add to the likelihood and severity of constitutional rights violations. The idea being that events provide a better pretext for a government violating the constitution, if the event was beyond the government's control in the first place. According to that logic, natural disasters would cause the biggest decline in constitutional compliance, followed by conflicts and financial crises.

### Data and estimation approach

To estimate the effect of extreme events on constitutional compliance, we estimate linear regression models based on the following specification:

$$\Delta CC = \alpha \times CC_{i,t-1} + \beta \times Event_{i,t} + \gamma \times RegimeType_{i,t-1} + \vartheta_t + \mu_i + \epsilon_{i,t}$$

Our dependent variable is a first differenced indicator of constitutional compliance. We use the change in constitutional compliance relative to the previous year because we are interested in the short-run effect of extreme events on the *de jure–de facto* gap. The indicator of constitutional compliance is introduced in Gutmann *et al.* (2023b) 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.* (2009). 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 non-compliance 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.* (2023) aggregate the resulting 14 indicators first within four legal areas and then into one indicator of overall constitutional compliance. We use the latter indicator (*cc\_total*) in our empirical analysis an alternative version of the indicator (*cc\_total\_lv*) based on an aggregation rule used by Law and Versteeg (2013) is used in robustness tests. We account for the possibility of conditional convergence in constitutional compliance by controlling for the 1-year lagged level of constitutional compliance corresponding to the indicator used as the dependent variable.

To test the hypotheses developed in the second section, we need to estimate the coefficient (or sometimes vector of coefficients)  $\beta$ . Our theoretical prediction throughout is that  $\beta$  is negative and significantly different from zero. Data for the different extreme events are drawn from various sources. We rely on Guha-Sapir's (2021) EM-DAT database to measure the number of major natural disasters and the number of individuals injured or killed by natural disasters in a country-year. Gutmann and Voigt (2017) provide a detailed discussion of the different ways in which disasters have been measured in the literature. Here, we use three indicators for natural disasters: the log-number of individuals killed or injured by all natural disasters in a country-year, the number of disasters that killed or injured at least 1,000 individuals, and a dummy for whether there was at least one such disaster. Data on civil and interstate conflict come from the Center for Systemic Peace (Marshall, 2019). Bjørnskov and Rode (2020) provide data on the number of failed and successful coups d'état in a country-year as an alternative indicator of domestic conflict. Our proxy for financial crises is an indicator for banking crises from Laeven and Valencia's (2020) updated Systemic Banking Crises Database. Information on major US and Soviet interventions in domestic politics during the Cold War are taken from Berger *et al.* (2013b). Finally, we construct indicators for international sanctions based on version 3 of the Global Sanctions Database by Felbermayr *et al.* (2020). We construct one binary indicator for whether a country has been newly sanctioned by the EU, the UN or the US (i.e. by one of the three most actively sanctioning actors in international politics) in a given country-year and another indicator only based on US sanctions. We focus on newly imposed sanctions, as recent evidence suggests that sanctions are most detrimental to the target at the beginning of an episode (Gutmann *et al.*, 2023). As control variables, we include five 1-year lagged binary indicators for regime types according to Bjørnskov and Rode's (2020) update of the dataset by Cheibub *et al.* (2010). The omitted category are parliamentary democracies. All models include country- and year-fixed effects and the reported standard errors are clustered on the country level. Note that using country-fixed effects in a model with a first-differenced dependent variable means that we are controlling for country-specific linear time trends in constitutional compliance.

The descriptive statistics of our dataset are presented in Table 1. Our sample covers the time period from 1951 to 2020 and is composed of a variety of regime types. About half of the sample is classified as democratic by Bjørnskov and Rode (2020). It is also notable that our extreme events of interest are indeed rare occurrences. The fact that superpower interventions seem to appear more frequently is, of course, due to the reduced sample covered by Berger *et al.* (2013b), which is already focused on countries at risk of intervention.

In line with almost the entire literature on extreme events (e.g. Blum and Gründler, 2020; whereas Felbermayr and Gröschl [2014] is a rare exception), we rely on the quasi-random timing of extreme events for causal identification. In other words, we are assuming these events to be exogenous to the year-to-year change in (but not the level of) constitutional compliance. If this assumption is justified after conditioning on fixed effects and control variables, our coefficient estimates of  $\beta$  can be interpreted causally.

**Table 1.** Descriptive statistics

	<i>N</i>	Mean	SD	Min	Max
cc_total, first difference	8,388	0.01	0.18	-1.72	2.52
cc_total_lv, first difference	8,234	0.01	0.15	-1.34	2.08
cc_total ( <i>t</i> -1)	8,388	0.07	1.05	-1.86	1.97
cc_total_lv ( <i>t</i> -1)	8,234	0.07	1.01	-1.27	1.41
Parliamentary democracy ( <i>t</i> -1)	8,226	0.21	0.41	0	1
Mixed democracy ( <i>t</i> -1)	8,226	0.12	0.33	0	1
Presidential democracy ( <i>t</i> -1)	8,226	0.16	0.36	0	1
Civil dictatorship ( <i>t</i> -1)	8,226	0.29	0.45	0	1
Military dictatorship ( <i>t</i> -1)	8,226	0.15	0.36	0	1
Monarchy ( <i>t</i> -1)	8,226	0.06	0.24	0	1
Major natural disaster, dummy	8,388	0.05	0.21	0	1
Number of major natural disasters	8,388	0.06	0.31	0	5
Log-individuals harmed in natural disasters	8,388	1.84	2.65	0.00	14.51
Number of failed coups	8,226	0.02	0.15	0	2
Number of successful coups	8,226	0.01	0.12	0	2
Civil conflict score	7,883	0.56	1.51	0	10
Interstate conflict score	7,883	0.08	0.56	0	9
Banking crisis	6,588	0.06	0.24	0	1
US Cold War intervention	3,580	0.20	0.40	0	1
USSR Cold War intervention	3,580	0.09	0.28	0	1
US/UN/EU sanctions	7,934	0.04	0.20	0	1
US sanctions	7,934	0.03	0.17	0	1

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

## Results

Table 2 shows our results for the effect of natural disasters on constitutional compliance. The first six columns are based on the first-differenced constitutional compliance indicator *cc\_total* as the dependent variable. Columns five and six show results for the indicator based on the aggregation rule used by Law and Versteeg and described above (*cc\_total\_lv*) as the dependent variable. Across all models, we do not find that the number of major natural disasters (those harming at least 1,000 individuals) or the log-number of individuals injured or killed by natural disasters is associated with a change in constitutional compliance. When we use a dummy variable for whether at least one major natural disaster has occurred, the result (available upon request) remains statistically insignificant. Based on these results we reject our first hypothesis. This null effect is surprising in light of the well-documented pandemic backsliding that took place over the course of 2020 (Edgell *et al.*, 2021). The COVID-19 pandemic appears not to be representative of other major natural disasters in that respect.

In Tables 3 and 4, we evaluate our second hypothesis. Regarding failed and successful coups, we find that only successful coups matter and lead to a significant decline in constitutional compliance (see Table 3). This effect is sizable, as one successful coup causes a decline in our dependent variable of more than half a standard deviation. This result indicates that successful coups, such as the one against Egypt's president Mohamed Morsi in 2013, should have more important consequences for



**Table 2.** The effect of natural disasters on constitutional compliance

	(1)	(2)	(3)	(4)	(5)	(6)
Constitutional compliance ( $t-1$ )	-0.061*** (0.006)	-0.061*** (0.006)	-0.076*** (0.008)	-0.076*** (0.008)	-0.061*** (0.007)	-0.061*** (0.007)
Number of major NatDis	-0.002 (0.007)		-0.003 (0.007)		-0.003 (0.007)	
Log-individ. harmed in NatDis		-0.000 (0.001)		-0.000 (0.001)		-0.000 (0.001)
Mixed democracy ( $t-1$ )			0.047* (0.020)	0.047* (0.020)	0.053* (0.022)	0.053* (0.022)
Presidential democracy ( $t-1$ )			0.035 (0.021)	0.035 (0.021)	0.042* (0.020)	0.042* (0.020)
Civil dictatorship ( $t-1$ )			-0.014 (0.018)	-0.013 (0.018)	0.015 (0.017)	0.015 (0.017)
Military dictatorship ( $t-1$ )			-0.021 (0.020)	-0.021 (0.020)	0.018 (0.019)	0.019 (0.019)
Monarchy ( $t-1$ )			0.048* (0.022)	0.048* (0.022)	0.062*** (0.018)	0.062*** (0.018)
Countries	175	175	171	171	170	170
Observations	8,626	8,626	8,388	8,388	8,234	8,234
$R^2$ (within)	0.05	0.05	0.05	0.05	0.06	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(4): the dependent variable is *cc\_total*; columns (5)–(6): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**Table 3.** The effect of coups on constitutional compliance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constitutional compliance ( $t-1$ )	-0.060*** (0.006)	-0.061*** (0.006)	-0.061*** (0.006)	-0.076*** (0.008)	-0.077*** (0.008)	-0.077*** (0.008)	-0.061*** (0.007)	-0.062*** (0.007)	-0.062*** (0.007)
Number of failed coups	-0.003 (0.018)		-0.002 (0.018)	0.001 (0.019)		0.001 (0.018)	0.003 (0.017)		0.003 (0.017)
Number of successful coups		-0.099** (0.035)	-0.099** (0.035)		-0.099** (0.035)	-0.099** (0.035)		-0.067* (0.029)	-0.067* (0.029)
Mixed democracy ( $t-1$ )				0.044* (0.020)	0.045* (0.020)	0.045* (0.020)	0.052* (0.022)	0.053* (0.022)	0.053* (0.022)
Presidential democracy ( $t-1$ )				0.037 (0.021)	0.035 (0.021)	0.035 (0.021)	0.044* (0.020)	0.043* (0.020)	0.043* (0.020)
Civil dictatorship ( $t-1$ )				-0.016 (0.018)	-0.016 (0.018)	-0.016 (0.018)	0.014 (0.017)	0.014 (0.017)	0.014 (0.017)
Military dictatorship ( $t-1$ )				-0.022 (0.020)	-0.022 (0.020)	-0.022 (0.020)	0.018 (0.020)	0.018 (0.019)	0.018 (0.020)
Monarchy ( $t-1$ )				0.049* (0.022)	0.049* (0.022)	0.049* (0.022)	0.063*** (0.018)	0.063*** (0.018)	0.064*** (0.018)
Countries	171	171	171	171	171	171	170	170	170
Observations	8,227	8,227	8,227	8,226	8,226	8,226	8,073	8,073	8,073
$R^2$ (within)	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(6): the dependent variable is *cc\_total*; columns (7)–(9): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**Table 4.** The effect of violent conflicts on constitutional compliance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constitutional compliance ( $t-1$ )	-0.062*** (0.007)	-0.060*** (0.006)	-0.062*** (0.007)	-0.080*** (0.008)	-0.077*** (0.008)	-0.080*** (0.008)	-0.063*** (0.007)	-0.061*** (0.007)	-0.063*** (0.007)
Civil conflict score	-0.008** (0.002)		-0.008** (0.002)	-0.008** (0.003)		-0.008** (0.003)	-0.006*** (0.002)		-0.006*** (0.002)
Interstate conflict score	-0.002 (0.002)		-0.001 (0.002)		-0.001 (0.002)	-0.000 (0.002)		-0.003 (0.003)	-0.003 (0.003)
Mixed democracy ( $t-1$ )				0.046* (0.021)	0.041* (0.021)	0.046* (0.021)	0.055* (0.022)	0.051* (0.022)	0.055* (0.021)
Presidential democracy ( $t-1$ )				0.042* (0.021)	0.040 (0.021)	0.042* (0.021)	0.050* (0.020)	0.048* (0.020)	0.050* (0.020)
Civil dictatorship ( $t-1$ )				-0.016 (0.018)	-0.019 (0.018)	-0.016 (0.018)	0.016 (0.017)	0.013 (0.017)	0.015 (0.017)
Military dictatorship ( $t-1$ )				-0.024 (0.020)	-0.024 (0.020)	-0.024 (0.020)	0.019 (0.020)	0.019 (0.020)	0.019 (0.019)
Monarchy ( $t-1$ )				0.038 (0.022)	0.046* (0.023)	0.038 (0.022)	0.056** (0.019)	0.061*** (0.017)	0.054** (0.018)
Countries	168	168	168	164	164	164	163	163	163
Observations	7,960	7,960	7,960	7,883	7,883	7,883	7,730	7,730	7,730
$R^2$ (within)	0.05	0.05	0.05	0.06	0.05	0.06	0.06	0.06	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(6): the dependent variable is *cc\_total*; columns (7)–(9): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**Table 5.** The effect of banking crises on constitutional compliance

	(1)	(2)	(3)
Constitutional compliance ( $t-1$ )	-0.075*** (0.007)	-0.091*** (0.009)	-0.079*** (0.009)
Banking crisis	-0.004 (0.015)	-0.001 (0.015)	0.010 (0.013)
Mixed democracy ( $t-1$ )		0.046 (0.027)	0.046* (0.022)
Presidential democracy ( $t-1$ )		0.051 (0.030)	0.052* (0.025)
Civil dictatorship ( $t-1$ )		-0.011 (0.028)	0.015 (0.021)
Military dictatorship ( $t-1$ )		-0.018 (0.030)	0.016 (0.025)
Monarchy ( $t-1$ )		0.066 (0.034)	0.072*** (0.019)
Countries	174	171	170
Observations	6,639	6,588	6,479
$R^2$ (within)	0.06	0.06	0.07

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(2): the dependent variable is *cc\_total*; column (3): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

constitutional compliance than, for example, the failed coup against Turkey's president Recep Tayyip Erdoğan in 2016. Based on these two well-known cases, one might have expected the opposite, as Turkey's government has vigorously and publicly persecuted political opponents inside and outside the country ever since. Yet, the case of Turkey does not seem to be representative of a broader pattern in the data. Although we find an effect only for successful coups, we consider our findings to be consistent with our second hypothesis.

In Table 4, we provide further evidence for our second hypothesis, namely that episodes of violent conflict cause a decline in constitutional compliance. This is clearly the case for civil conflict, but not for interstate conflict. One reason might be that participation in an interstate conflict does not automatically imply that the conflict is fought on the respective country's territory, which makes it clearly less disruptive for the constitutional order. Comparing the effect of one year of full-scale civil conflict (i.e. a 10-point score) to a successfully staged coup shows that civil conflicts have a much smaller effect on constitutional compliance than coups. One successful coup is comparable to more than 10 years of civil conflict. Altogether, we can conclude that the data support our second hypothesis.

Table 5 shows our results for banking crises. Like in the case of natural disasters, the coefficient estimates are small and statistically indistinguishable from zero. Therefore, we reject our third hypothesis. In contrast to natural disasters, the lesser importance of banking crises is not completely surprising. On the one hand, these crises are typically confined to the economy and do not necessarily threaten the regime's survival. On the other hand, governments are often blamed at least partially for banking crises, as they are considered responsible for regulating financial markets. This makes it more difficult to use these crises as a pretext for rights violations and other forms of non-compliance with the constitution.

Regarding interventions to install or support foreign political leaders during the Cold War, our results in Table 6 show that US interventions have been detrimental to constitutional compliance, as predicted by our fourth hypothesis. This finding does not seem to be a peculiarity of the Cold War. Scheppele (2004), for example, describes how the United States pushed other nations, both allies and others, to breach their constitutions and international law in the war on terror after the 9/11 attacks. Interventions by the Soviet Union, however, do not show a robust effect. This is consistent with the results of Berger *et al.* (2013a) and Berger *et al.* (2013b) that only US interventions had important consequences. Moreover, the Soviet Union is known to have intervened in countries with extremely low levels of constitutional compliance (Berger *et al.*, 2013a), such that a further

**Table 6.** The effect of Cold War superpower interventions on constitutional compliance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constitutional compliance ( $t-1$ )	-0.093*** (0.023)	-0.084*** (0.022)	-0.094*** (0.023)	-0.120*** (0.021)	-0.112*** (0.020)	-0.121*** (0.021)	-0.092*** (0.014)	-0.088*** (0.013)	-0.093*** (0.014)
US intervention	-0.060** (0.021)		-0.067** (0.022)	-0.062*** (0.018)		-0.068*** (0.018)	-0.040** (0.014)		-0.043** (0.014)
USSR intervention		-0.036 (0.031)	-0.060 (0.032)		-0.032 (0.025)	-0.056* (0.026)		-0.011 (0.014)	-0.026 (0.018)
Mixed democracy ( $t-1$ )				0.131** (0.047)	0.134** (0.049)	0.133** (0.048)	0.140** (0.051)	0.143** (0.052)	0.141** (0.051)
Presidential democracy ( $t-1$ )				0.082* (0.041)	0.088* (0.041)	0.084* (0.042)	0.094* (0.043)	0.097* (0.043)	0.095* (0.043)
Civil dictatorship ( $t-1$ )				0.011 (0.032)	0.020 (0.032)	0.014 (0.032)	0.049 (0.038)	0.054 (0.038)	0.051 (0.038)
Military dictatorship ( $t-1$ )				0.019 (0.034)	0.017 (0.033)	0.021 (0.034)	0.067 (0.038)	0.065 (0.038)	0.068 (0.038)
Monarchy ( $t-1$ )				0.122 (0.062)	0.107* (0.054)	0.113 (0.058)	0.131** (0.044)	0.121** (0.041)	0.127** (0.045)
Countries	140	140	140	137	137	137	135	135	135
Observations	3,644	3,644	3,644	3,580	3,580	3,580	3,475	3,475	3,475
$R^2$ (within)	0.05	0.05	0.06	0.07	0.07	0.08	0.06	0.05	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(6): the dependent variable is *cc\_total*; columns (7)–(9): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**Table 7.** The effect of international sanctions on constitutional compliance

	(1)	(2)	(3)	(4)	(5)	(6)
Constitutional compliance ( $t-1$ )	-0.060*** (0.006)	-0.059*** (0.006)	-0.075*** (0.008)	-0.075*** (0.008)	-0.061*** (0.007)	-0.061*** (0.007)
UN/US/EU sanctions	-0.044** (0.017)		-0.043* (0.017)		-0.033* (0.015)	
US sanctions		-0.045* (0.021)		-0.045* (0.022)		-0.036 (0.019)
Mixed democracy ( $t-1$ )			0.046* (0.021)	0.046* (0.021)	0.054* (0.023)	0.054* (0.023)
Presidential democracy ( $t-1$ )			0.042 (0.023)	0.041 (0.023)	0.049* (0.021)	0.048* (0.021)
Civil dictatorship ( $t-1$ )			-0.011 (0.020)	-0.011 (0.020)	0.018 (0.018)	0.017 (0.018)
Military dictatorship ( $t-1$ )			-0.017 (0.022)	-0.018 (0.022)	0.022 (0.020)	0.021 (0.020)
Monarchy ( $t-1$ )			0.059* (0.025)	0.060* (0.025)	0.073*** (0.018)	0.074*** (0.018)
Countries	175	175	171	171	170	170
Observations	8,009	8,009	7,934	7,934	7,783	7,783
$R^2$ (within)	0.05	0.05	0.06	0.06	0.06	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(4): the dependent variable is *cc\_total*; columns (5)–(6): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**Table 8.** The effect of conflicts and sanctions on constitutional compliance

	(1)	(2)	(3)
Constitutional compliance ( $t-1$ )	-0.063*** (0.007)	-0.080*** (0.008)	-0.064*** (0.007)
Number of successful coups	-0.096** (0.036)	-0.095** (0.035)	-0.062* (0.030)
Civil conflict score	-0.007** (0.002)	-0.007** (0.003)	-0.006** (0.002)
UN/US/EU sanctions	-0.034* (0.016)	-0.034* (0.016)	-0.026 (0.015)
Mixed democracy ( $t-1$ )		0.049* (0.022)	0.058* (0.023)
Presidential democracy ( $t-1$ )		0.046* (0.023)	0.053* (0.021)
Civil dictatorship ( $t-1$ )		-0.012 (0.020)	0.019 (0.018)
Military dictatorship ( $t-1$ )		10.020 (0.022)	0.023 (0.020)
Monarchy ( $t-1$ )		0.049 (0.025)	0.067*** (0.019)
Countries	164	164	163
Observations	7,606	7,605	7,454
R <sup>2</sup> (within)	0.05	0.06	0.06

Note: Linear regression coefficient estimates; country-clustered standard errors in parentheses; columns (1)–(2): the dependent variable is *cc\_total*; column (3): the dependent variable is *cc\_total\_lv*; all models include country- and year-fixed effects; \*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

deterioration would be less likely. This is supported by our data when we compare the mean compliance level in the year before the US started an intervention (–0.80) versus the year before a Soviet intervention (–1.04).

Table 7 shows our results corresponding to our fifth hypothesis. Newly imposed international sanctions lead to a significant decline in constitutional compliance. This is consistent with empirical evidence showing that political and civil rights violations increase under US sanctions, even under those sanctions that were meant to improve the human rights situation in the target country (see, e.g. Gutmann *et al.*, 2020; Steinbach *et al.*, 2023). While not negligible, the effect of newly imposed US, UN or EU sanctions on constitutional compliance is less than half of the effect of a successful coup.

Finally, Table 8 tests three of the four extreme events against each other for which we found a statistically significant effect. We omit Cold War interventions here, as they would dramatically reduce the sample size. This exercise confirms the robustness of our previous findings. Only one coefficient estimate is not significantly different from zero – that of international sanctions when using our alternative dependent variable *cc\_total\_lv*.

In sum, we find support for three of our five hypotheses. Conflict, superpower interventions and international sanctions lead to a significant decline in constitutional compliance. Coups, but only successful ones, have by far the strongest effect among these event types. In contrast, natural disasters and financial crises show no statistically significant effect. This indicates that those extreme events cause the largest decline in constitutional compliance that directly target (or even replace) the incumbent government. Extreme events that are not directly linked to politics appear not to be problematic.

### Concluding remarks

In this article, we hypothesize that a variety of extreme events, such as natural disasters and conflicts, can make it less costly for governments to overstep constitutionally defined constraints, which in turn makes constitutional non-compliance more likely. Using a large panel dataset covering the period 1951–2020, we test whether a variety of extreme events lead to a significant drop in constitutional compliance.

We find that neither banking crises nor natural disasters are significantly correlated with our dependent variables. With regard to other extreme events, we find that it is necessary to be precise in their delineation. While failed coups, interstate conflicts and Cold War interventions by the

Soviet Union do not affect constitutional compliance, we find that successful coups, civil conflict and US interventions are all associated with significant setbacks in constitutional compliance. Adding to the thriving literature on the effects of international sanctions, we find that newly imposed sanctions are associated with a decline in constitutional compliance.

Extreme events are frequently followed by governments declaring a state of emergency. Such a declaration signals that the government wishes to suspend some of the regular constitutional rules in order to seize additional powers. In future work, it would be interesting to see whether extreme events followed by the declaration of a state of emergency are associated with more – or possibly even less – setbacks regarding constitutional compliance. The difficulty here is to define an adequate counterfactual, as the declaration of states of emergency is, of course, endogenous to the properties of the preceding disaster. More generally, although we have assumed here that our extreme events of interest can be treated as exogenous in our empirical design, future research could take a closer look at specific event types using tailored and more sophisticated identification strategies (see, e.g. Gutmann *et al.*, 2020, 2021, 2023).

Given that one is interested in a high level of constitutional compliance, another follow-up question would be how an increase in the *de jure–de facto* gap as a consequence of extreme events can be prevented. Allocating the competence to adjudicate the constitutionality of government measures to a country's top court would seem to be a suitable instrument, yet it is known that many highest courts do not enjoy independence from the executive, which would be needed to make judicial review an effective instrument. Alternative strategies for enhancing institutional resilience during extreme events are, therefore, an important desideratum.

**Financial support.** This research is part of a Beethoven project funded by the Polish National Science Centre (NCN, #2016/23/G/HS4/04371) and the Deutsche Forschungsgemeinschaft (DFG, #381589259).

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