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## Coups, regime transitions, and institutional consequences

Daniel L. Bennett<sup>a,\*</sup>, Christian Bjørnskov<sup>b,c</sup>, Stephan F. Gohmann<sup>a,1</sup>

- <sup>a</sup> Center for Free Enterprise, Department of Economics, College of Business, Room 141, University of Louisville, Louisville, KY40292, United States
- <sup>b</sup> Department of Economics, Aarhus University, Fuglesangs Allé 4, DK-8210Aarhus V, Denmark
- <sup>c</sup> Research Institute of Industrial Economics (IFN), P.O. Box 55665, 102 15Stockholm, Sweden

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#### ABSTRACT

Coups and regime transitions are events that typically are intended to change the basic institutional framework of a country. Which specific institutions change and the consequences of these changes nevertheless remains largely unknown. Change after a coup or transition implies that some form of political or judiciary barrier has been erected or removed. We therefore focus on what happens to the quality of judicial institutions and political corruption around coup attempts and other types of regime transitions. We hypothesize that when coups are conducted by members of the incumbent political elite, they are likely to remove barriers to change while coup makers outside of the ruling elite are more likely to do the opposite and thus protect themselves from what remains of the elite in the political system. Using the new Bjørnskov-Rode coup dataset, our results suggest that successful coups are associated with degradation of institutions, with successful military coups in particular having a significant negative effect. Results are more varied for civilian coups where we find indications of differences depending on whether the coup makers are part of a political elite or not. We also explore whether the incumbent regime influences the effect of coup attempts on institutional change.

### 1. Introduction

Coups and regime transitions are events that are almost always intended to change the basic institutional framework of a country. During a coup some group, typically within the political elite or the military, attempts to take power through illegal, and often violent means. The reasons are regularly depicted as blind ambition and lust for power in the popular media, but often also include a desire to change policies and institutions in the favor of the incoming elite (Aidt and Leon, 2019; Bjørnskov et al., 2018).

What those specific policies are and what their consequences may be remains largely unknown. The intended policies and institutional changes are probably also diverse and context-dependent, as autocrats have incentives to suppress the population, as well as other potential parts of the political elite. However, they also have strong incentives to protect the quality of basic institutions and some degree of freedom of speech and media (Egorov et al., 2009; Boudreaux and Holcombe, 2013). In most cases, the successful implementation of new policies or institutional changes after a coup implies that some form of existing political or judiciary barrier

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<sup>\*</sup>Corresponding author: Daniel L. Bennett Department of Entrepreneurship University of Louisville, College of Business, Forcht Center, W201 Louisville, KY 40292, United States.

*E-mail addresses*: daniel.bennett.2@louisville.edu (D.L. Bennett), chbj@econ.au.dk (C. Bjørnskov), steve.gohmann@louisville.edu (S.F. Gohmann).

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must be removed. Yet, in other cases, it is an arguably more effective strategy for the new regime to increase certain barriers in order to protect either the regime or the policy and institutional changes.

In this paper, we focus on the institutional consequences of coup attempts and other types of regime transitions. Specifically, we consider what happens to the quality of judicial institutions and political corruption, an indirect indicator of institutional failure to constrain government (Damania et al., 2004). We hypothesize that when the coup is conducted by members of the incumbent political elite, they are likely to remove barriers to change. Meanwhile, coup-makers outside of the ruling elite are more likely to do the opposite and thus protect themselves from what remains of that elite in the political system. Further, the type of regime replaced may influence institutional change. However, all coup-makers are likely to be interested in actual gain for whichever group or segment they represent.

We test these implications in a large panel of approximately 10,000 observations from 169 countries, spanning the period 1950–2018. Applying new data on coups and coup attempts from Bjørnskov and Rode (2020), we find that successful coups are associated with increased levels of corruption (i.e., the sale of government property for private gain) and a reduction in judicial constraints (i.e., institutional safeguards to protect the independence of the courts from political influence). These results are driven primarily by successful coups by the military and are robust to controlling for whether a country has democratic institutions and the level of economic development. We also find that judicial constraints are reduced following civilian coups (i.e., those organized and led by political actors without a direct tie to the military) that fail. In addition, we examine whether the rank of coup leaders matters for the institutional effects. Our results suggest that successful coups by high and low ranking military officials are associated with increases in corruption and reductions in judicial constraints, but there is no statistical difference in the estimated effects of successful coups by high and low ranking military officials. We also find some evidence that failed coups by high ranking civilian leaders are associated with a reduction in judicial constraints. Furthermore, we explore whether the type of incumbent regime in place influences the impact of coups on institutional change. We find that successful civilian coups waged against military autocracies are associated with an increase in judicial constraints, but successful military coups against military autocracies are associated with a decrease in judicial constraints.

The remainder of the paper is organized as follows. Section 2 outlines a set of theoretical considerations. Section 3 describes the data and our empirical strategy, which we employ in Section 4. Section 5 concludes.

### 2. Theoretical considerations

In order to theorize about how coups and coup attempts may change institutions, we first outline why coup attempts occur. We note that three conditions have to be met before it is likely that a coup attempt occurs. We refrain from discussing why coups might succeed because success is notoriously hard to predict and contains a large random component (Powell and Thyne, 2011; Bjørnskov et al., 2018), as we illustrate in Section 3.5. We then discuss how coups may change institutions. We further develop how the type of coup-maker – military or civilian – may differentially influence institutional change. We end by discussing whether the type of government (i.e., military dictatorship, civilian dictatorship, or democracy) being overthrown might matter.

### 2.1. Why do coups occur?

As a first step, a coup-maker or a group of coup-makers must hold the belief that they 'can do better', i.e. that their choice of policies and institutions is likely to lead to better outcomes for themselves and the interests they represent. Second, they must share an analysis of the risk associated with performing a coup attempt that on balance makes an attempt more attractive – given its likely outcomes – than the status quo. As such, coup attempts may be more likely in recessions or when the incumbent government is in other ways perceived to be weak (Galetovic and Sanhueza, 2000). However, it may be more attractive to take power through a coup when the economy is doing well (Londregan and Poole, 1990). Finally, the coup-makers must be able to bear the costs of organizing a coup and coordinating ex ante or ex post political support for the potential coup government (Albrecht and Eibl, 2018; Bjørnskov, 2020). Although often neglected by previous studies, all coup-makers must therefore bear the necessary coordination costs of overcoming free-rider problems and similar organizational challenges (Olson, 1965).

### 2.1.1. Interests

First, coup-makers must have plans for their choice of policies and institutions that are beneficial to the interests they represent. As hypothesized by Bueno de Mesquita et al. (2003), every autocracy relies on support from an effective majority or at least a blocking minority of its selectorate, just as any democratic government relies on the continued support from either a majority or a blocking minority of the electorate. As such, military dictatorships in general represent military interests, which include military spending and a special status for military personnel (Bove and Nistico, 2014b; Albrecht and Eibl, 2018). However, military interests may also include special treatment of e.g., military-owned enterprises such as engineering firms and specific institutions of education, and more individual interests such as judicial exemptions and freedom from prosecution for a military elite.

Similarly, as hypothesized in Bjørnskov et al. (2018), civilian autocracies rest on the support of particular background interest. Yet, contrary to military dictatorships, the main selectorate consists of civilian interests such as specific industrial interests and labour unions that seek special treatment, protection from competition, or regulation. Similar to military dictatorships, the support interests of civilian autocracies can also include individual interests such as politicians in power who enjoy immunity, which they might lose when out of power. However, a potentially important difference between military and civilian coups – that is, coups organized and led by actors with a military rank or background versus coups organized and led by political actors without a direct tie to the military

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(Bjørnskov and Rode, 2020) – is that while the military interests behind a coup are likely to be relatively simple and uniform, industrial and labor interests supporting civilian coup-makers can be quite diverse (Olson, 1982; Bjørnskov, 2020). This not only means that civilian interests face a substantially larger coordination problem, but also a situation in which separate interest groups may exert negative externalities on each other when seeking rents. Civilian interests would therefore, *a priori*, have stronger incentives to implement relatively good judicial and bureaucratic institutions, all other things being equal, in order to reduce such negative externalities.

As such, members of an incumbent elite – regardless of whether they are primarily military or civilian – are not in general interested in breaking up existing structures. If anything, coup-makers from the incumbent elite are most likely to gather support for their coup, either ex ante or ex post, if they can deliver *more* of the same. Singh (2014, 91), for example, shows how General Acheampong effectively used existing power and command structures within the Thai military to coordinate his 1975 autogolpe, and subsequently benefited the military substantially.

Conversely, coups led by individuals outside of the elite may be more likely to break up institutional structures as the new people in power or the interests they represent do not rely on existing structures, may not have benefitted from them, and do not need to offer substantial benefits to the supporting interests of the former incumbent. This, for example, appears to have been the case in the November 1982 coup in Upper Volta (now Burkina Faso) where a politically radical group within the military, led by captains Thomas Sankara, Blaise Compaoré and Henri Zongo, toppled the regime. As such, coup attempts led by lower-ranking officers and groups outside the political elite may not necessarily lead to, e.g., more corruption or overall changes in policies and institutions, but need only redistribute special treatment, support, etc. In addition, it remains a possibility that successful coups led by individuals or groups outside of the incumbent elite may lead to less corruption and better institutions, if the incumbents used weak institutions to over-exploit central interests in society.

### 2.1.2. Strategies

A second element of coups and coup attempts is the strategy adopted by the coup-makers. As originally described by Olson (1982), the basic strategy is decided by the effective time horizon along which coup-makers plan. In Olson's words, the choice is between acting like a roving bandit with a short time horizon or a stationary bandit with a long time horizon.

Politicians, including both the incumbent government and potential coup-makers, may reach the conclusion that their position is precarious and odds are that they will be ousted within a few years. They face short time horizons, making short-run effects of policies and institutions salient in decision-making (Acemoglu and Robinson, 2001). In other words, knowing that most coup governments last on average about four years (Powell and Thyne, 2011; Bjørnskov and Rode, 2020), the optimal strategy for many governments may best be termed a 'grab-and-run' strategy in which both incumbents and coup leaders will plunder the country as much as possible (Galetovic and Sanhueza, 2000). Such strategies arguably require that a number of formal barriers to decision-making are dismantled or can be ignored after the coup.

Conversely, governments and coup-makers who can reasonably expect to stay in power for some time will optimally adopt longer-term strategies. This implies that their political incentives are consistent with erecting or maintaining institutions that allow the general population to improve their standing while the political elites are able to maintain their specific benefits (Olson, 1982). Such institutions are much more likely to limit corruption problems and rent-seeking, and allow at least some level of political independence of judicial institutions and other branches of the public bureaucracy (Boudreaux and Holcombe, 2013).

Overall, the combination of different strategies and support interests implies that different types of coups may have different effects on corruption and judicial constraints. In particular, we would argue that coups that are more stable and those led by individuals from outside the incumbent elite are less likely to cause increases in corruption and deteriorating judicial quality, while those conducted by members of the incumbent elite may either exacerbate such problems or, in some cases, simply perpetuate them.

Wintrobe (2012) explains this type of behavior by arguing that those at the top need to use internal governance to appease younger potential rivals from engaging in a coup. Using the dictator's dilemma from Tullock (2005), Wintrobe argues that autocrats not only repress the opposition but they may also overpay potential rivals to prevent a coup. He thus examines how the autocrat sets up the rules of the game to ensure survival by using the example of a CEO requiring loyalty from subordinates for the company to be successful. This is similar to the work of Shleifer and Summers (1988), who argue that implicit contracts are important so that stakeholders will make relationship-specific investments. Once these investments are made, however, the ex-ante rents from breaching the contract may make takeover more attractive (Michael and Maarek, 2018).

As with sellers in the marketplace, rational politicians have incentives to provide citizens with trust that the government will keep its promises (Wintrobe, 1990). Wintrobe also looks at the reciprocal that politicians rely upon citizens for support. He uses political loyalty – "a long-term 'attachment' on the part of an individual to an organization or institution" (p. 853). When politicians land a pork barrel project or patronage job for constituents beyond what a technocrat would, then the expectation is that his constituents will reciprocate with support. We should expect that rational actors will behave in this way under democracy as well as autocracy. Thus constituents receive rents and the politician receives loyalty (Dorsch and Maarek, 2018). The alternative to loyalty for the autocrat is to use repression, yet since providing rents in payment for loyalty and increasing repression are both costly, Wintrobe argues that the dictator must choose both the level of repression and of loyalty. Wintrobe (1990) cites findings by Nordlinger (1977) and Paldam (1987) that military coups are usually unstable and end quickly relative to civilian coups. He assumes that, consistent with models of regime transitions (Acemoglu et al., 2010; Amegashie, 2015), military leaders have more power in repression but greater difficulty gaining political support. As a result, their tenure will often be shorter.

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### 2.2. Coups and institutional change

A coup attempt provides a signal to the incumbent political leadership of strong opposition to the regime, while a successful coup represents a change in leadership. Those who are in power after an attempt, whether successful or failed, will need to consolidate their power to reduce the likelihood of future coup attempts. One way of doing this is to change institutional rules to make it easier to retain power (Bachrach and Baratz, 1962). Although many institutions may change in the aftermath of a coup, we examine two specific types of institutional change. In particular, institutional change might be reflected through an increase in corruption and/or a reduction in judicial constraints. An increase in corruption will allow leadership to reward their political supporters and may also reflect more direct industrial influence on policy. However, such an increase can happen with unchanged judicial institutions if the initial institutions are relatively weak while it arguably requires increased political influence over the judiciary if the initial institutions are effective in enforcing property rights and protecting citizens' rights. In addition, a reduction in judicial constraints will also create a mechanism for punishing opponents and preventing the prosecution of political cronies, in particular in the case when parts of the judiciary may still be loyal to the old regime.

### 2.2.1. Coup outcome

We therefore contend that coup attempts are likely to be a followed by institutional changes, but that the outcome of a coup will influence the magnitude of change. In the aftermath of a failed coup attempt, the incumbent regime retains power. While the regime likely already had rules in place to deal with coup-makers, it may need to undertake institutional change to maintain power, particularly if the coup was a genuine surprise. In an effort to purchase additional loyalty from its backers, for instance, the regime may increase corruption, making available greater rents to its political cronies. As such, Easton and Siverson (2018) find that when leaders survive a failed coup, the stronger their response to the coup leaders in terms of purging them, the longer is their subsequent tenure. We expect that successful coups will lead to greater changes in institutions than failed coups because the coup leaders will want to change the institutions to better suit their goals. For failed coups, the incumbents might become harsher, but the changes might be less dramatic since their institutions are already in place. The regime may for example increase the punishment of detractors in an effort to raise the cost of future coup attempts and preserve its power (Bachrach and Baratz, 1962). It may do so by reducing judicial constraints, thereby providing the regime more discretion to repress its political opponents by undermining the role of an independent judiciary to serve as a check on the power of the executive (Wintrobe, 1990).

A successful coup entails a wholesale change in government players. Those previously in power need to be removed. The new leadership might want to "punish" the previous leadership for their "crimes" for which they at least need the implicit acceptance of the judiciary. Further, the new leadership will have to be able to distribute the spoils to their cronies. Bove and Nistico (2014a), for example, examine defense spending after coups. They find successful coups lead to a large increase in the share of output allocated to military expenditures. When a regime faces a failed coup, however, expenditures increase but by a smaller amount. They attribute this increased spending to the incumbent attempting to ward off future coup attempts and argue that in either case, the incumbent may be engaging in "coup proofing" strategies. This might occur by increasing military spending to buy off generals or reducing spending in an attempt to reduce the chances of a military coup. Likewise, Leon (2014) finds that military spending is higher after a successful coup than an unsuccessful coup.

Institutional change following a successful coup might therefore have to be more dramatic to allow the new leadership to accomplish their goals. As such, the new leadership is likely to increase corruption and reduce judicial constraints by a greater extent than incumbent leaders who remain in power following a failed coup attempt. We therefore propose the following hypotheses.

H1a: Corruption will be greater after a successful coup relative to a failed coup.

H1b: Reductions in judicial constraints will be greater after a successful coup relative to a failed coup.

### 2.2.2. Who makes the coup?

Coup attempts are typically perpetrated by high level military, low level military, or civilian leaders who manage to assemble a political coalition that supports its effort and is willing to undertake the personal risks associated with attempting to overthrow the incumbent government (Singh, 2014). Yet, military coups differ from civilian coups in several ways. First, earlier studies argue that military coups are usually unstable and end quickly relative to civilian coups (Nordlinger, 1977; Paldam, 1987), although recent evidence sheds doubt on the claim (Bjørnskov and Rode, 2020). Also, military leaders have more potential power in repression since the military has a monopoly on coercion through its military power (Bratton and Van de Walle, 1994), although recent evidence suggests that they exercise it less (Bjørnskov and Pfaff, 2018). They may also have greater difficulty gaining political support, which can lead to shorter tenure in power (Acemoglu et al., 2010; Amegashie, 2015). However, finding support among a civilian selectorate is likely to require more expensive promises and is a less stable choice due to the heterogeneity of non-military interests (Bjørnskov, 2020).

Given the potential for greater repression and shorter term of military coups, we anticipate that these coups, when successful, will be associated with greater amounts of corruption as the coup leaders behave like Olson's roving bandits by rapidly maximizing the amount of rent expropriation. Similarly, successful military coup leaders will tend to have preferences against strong veto institutions such that judicial constraints will be reduced. Civilian coups, meanwhile, are supported by more diverse civilian interests, some of

<sup>&</sup>lt;sup>2</sup> In our dataset, we observe no difference between the average tenure of military and civilian autocracies, and even note that military autocracies are less likely to face down coup attempts.

which may prefer relatively good institutions for productivity reasons. Industrial interests, for example, may have an inherent interest in stable economic institutions that protect property rights and enforce contracts, as they support productivity development (North, 1990; Hall and Jones, 1999; Bennett et al., 2017). In addition, diverse groups of industrial interests may face an externality problem when the rent-seeking activities of some members are harmful to other members. This may imply that civilian coups can lead to improved institutions and less corruption. We therefore propose the following hypotheses.

H2a: Corruption will be greater after a successful military coup relative to a successful civilian coup.

H2b:Reductions in judicial constraints will be greater after a successful military coup relative to a successful civilian coup.

Although we anticipate that successful military coups will lead to a decrease in institutional quality, high level and low level military coups may also have different outcomes for corruption and judicial constraints. While high-level military coup leaders will tend to have clear preferences, low-level leaders – who cannot be treated as a part of the incumbent elite – may need the support of strong judicial institutions in order to legitimize their regime and provide protection against the former military elite. We therefore propose the following hypotheses.

H3a: Corruption will be greater after a successful high-level military coup relative to a successful low-level military coup.

H3b:Reductions in judicial constraints will be greater after a successful high-level military coup relative to a successful low-level military coup.

### 2.2.3. Who is the coup made against?

Derpanopoulos et al. (2016) find that 50 percent of coups from 1990 to 2015 replaced the outgoing regime with an authoritarian regime. Since the end of the cold war, many coups have resulted in democratization over time. However, the extent of these changes may depend on the type of government that is in place prior to the coup. Coups may replace a government run by a military dictatorship, civilian autocracy, or a democratically-elected government. Because the coup-makers will need to consolidate power, the effect on corruption and judicial constraints may differ depending upon the type of government replaced. Thus we have two possible coup groups replacing three possible governments, as illustrated in Table 1 below. Because there are a multitude of potential coup-regime type outcome comparisons, this part of our analysis is largely exploratory and the considerations below are intended to be illustrative rather than exhaustive. As such, we do not develop any specific hypotheses with respect to regime type.

We expect that when a similar group leads a successful coup against a similar regime – what we might term *intra-institutional coups* (e.g., military coup against military dictatorship, civilian coup against civilian autocracy) – the consequences for judicial constraints and corruption will be less than when the coups are led by differing groups representing different selectorates. This might occur in part because the institutions in place under the current regime are similar to those that the replacing regime would rationally install. However, Shen-Bayh (2018) finds that autocrats are more repressive to insiders than to outsiders and they engage in this repression through their judicial strategy. As such, for failed coups and perhaps coups replacing similar regimes, we should expect to see greater judicial repression as a signal to insiders to deter future coups.

When a coup is led by a group that is not similar to the existing regime, an *inter-institutional coup*, the impact on corruption and judicial constraints may be larger if the coup is successful because the new regime will establish institutions that better suit their interests. Likewise, for a failed coup, the incumbent regime may become more corrupt and reduce judicial constraints in a way to reduce the power of the failed coup leaders and its followers as a means to reduce the likelihood of future coup attempts.

We have assumed that military coups occur to benefit the military elite. However, civilian coups may occur to bring about a positive institutional change (i.e., less corruption; greater judicial constraints) when the coup leaders represent non-elite interests that have had no access to rents during the previous regime. A new civilian selectorate will in this case, in general, prefer to restrict the rent-seeking opportunities of supporters of the old regime and thus support stronger judiciary institutions and limited opportunities for corruption. If this is the case, we expect the influence of civilian coups on institutions to be greater when replacing a military dictatorship than when replacing a civilian dictatorship, in which case the basic selectorate interests may remain unchanged.

For civilian coups, success may lead to the implementation of democracy, although some military dictatorships also prepare for democracy (Bjørnskov, 2020). As a result, the influence on judicial constraints and corruption will be of a lower magnitude, and could even be positive. If incumbent military regimes have great constraints and corruption, then the change relative to a successful civilian coup of a civilian regime might be larger. Failed civilian coups are likely to result in greater constraints since the incumbent will want to engage in "coup proofing" strategies.

**Table 1.** Coup type-regime possible outcomes.

Coup Type	Democracy	Military Dictatorship	Civilian Dictatorship
Successful military	A	В	С
Failed military	D	E	F
Successful civilian	G	H	I
Failed civilian	J	K	L

The letters in the table represent the qualitative effects on institutional change from the various coup and regime type combinations.

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### 3. Methodology and data

In this section, we describe the methodology and data used in our empirical analysis. Our main results are estimated using the fixed effects estimator of our baseline model described by Eq. 1:

$$Inst_{i,t} = \beta_0 + \beta_1 Inst_{i,t-2} + \beta_2 CoupSucc_{i,t-1} + \beta_3 CoupFail_{i,t-1} + X'_{i,t-1}\gamma + c_i + u_{i,t}$$
(1)

where i and t denote the country and year; Inst is the measure of institutional quality; CoupSucc and CoupFail are dummy variables indicating a successful and unsuccessful coup attempt; X is a matrix of control variables that includes fixed time effects and country-specific time trends; and  $c_i$  and  $u_{i,t}$  denote an unobserved country fixed effect and idiosyncratic error term.  $\beta_2$  and  $\beta_3$  are our parameters of interest. As we describe in Section 3.5, we rely on the outcome of a coup being random to establish conditional exogeneity.

We extend the baseline model to account for the type of coup attempt, allowing for differential effects of successful and failed civilian and military coups. The coup variables, as well as the other independent variables, are lagged one period relative to the dependent variable to allow time for institutional changes to be observed. We include a lag of institutions to account for their persistence over time (North, 1971, 1991), but we lag it by two years to minimize the potential for coup effects to be picked up contemporaneously in the institutional measures from the same year. We use robust standard errors, clustered at the country level, for statistical inference. Our dataset covers up to 166 countries and spans the period 1950–2018. Appendix Table A.1 provides summary statistics for all of the variables used in the analysis and a correlation matrix is provided in appendix Table A.2. As an illustration of the data, appendix Table A.8 provides an overview of all coups and coup attempts recorded in the database since 2000.

### 3.1. Corruption

We are primarily concerned with economic corruption in the public sphere, or "the use of public office for private gains, where an official (the agent) entrusted with carrying out a task by the public (the principal) engages in some sort of malfeasance for private enrichment which is difficult to monitor for the principal" (Bardhan, 1997, p. 1321). We therefore use as our primary measure the political corruption index from the Varieties of Democracy version 7.1 (V-Dem) database (Coppedge et al., 2016, 2017; Pemstein et al., 2017). It is a composite measure of the pervasiveness of political corruption for a given country-year that captures corruption in different areas and levels of the political realm, including corruption in the public sector, the judiciary, the legislature, and in the executive branch. It accounts for both petty and grand corruption, bribery and theft, as well as corruption aimed at influencing law-making and that affecting implementation of the law. Higher scores are associated with more corruption.<sup>3</sup>

### 3.2. Judicial constraints

We define judicial constraints as institutional rules that safeguard the independence of the judiciary from interference of the government or other parties in dispute. Judicial constraints are essential to ensure that a country's legal system provides "security of property rights, enforcement of contracts, and the mutually agreeable settlement of disputes" necessary to facilitate a smoothly functioning market economy. Without judicial constraints, individuals and businesses will lack confidence to enter into contracts (Gwartney and Lawson, 2003, p. 413–414; Acemoglu and Robinson, 2005). We use as our measure of judicial constraints the high court independence variable from the V-Dem dataset. It reflects the frequency with which the high court in the judicial system makes decisions of salient consequence to the government that do not simply reflect the desires of the ruling government in spite of the sincere and independent view of the judiciary and the legal record, but where the government in general accepts the decisions.

### 3.3. Coups d'état

We define a coup attempt as the attempt to effectively seize "executive authority though the threat of use of force" (Marinov and Goemans, 2014, p. 801). In addition, we follow common practice by restricting coups to events that can at most take a week, which separates them from longer-running civil wars and insurgencies (Powell and Thyne, 2011). We therefore use the coup data from the recently developed Regime Type and Regime Change dataset (Bjørnskov and Rode, 2020), which provides information on failed and successful coups for 192 sovereign nations and 16 self-governing territories over the period 1950–2018. It also indicates whether each of the 537 coup attempts were led by former military members, a group of civilians, or in a few cases a member of the royal family, as well as the military or civilian rank of the coup leader. We follow the distinction in the database by categorizing coups in which the main coup leaders have military ranks or positions as military coups while those in which the leaders were civilian are categorized as civilian coups. We prefer the Bjørnskov and Rode (2020) database over alternatives because it not only offers more information on coup leaders than most other databases, but it also provides the same information for failed and successful coups. As such, it is the only option when one wants to compare detailed differences between successful and failed coups.

Slightly less than half of the coup attempts were successful (243 out of 537). The majority of all coup attempts were led by former military members (393 out of 537), with another 132 led by civilians. In some country-years (32 out of 490), multiple coup attempts

<sup>&</sup>lt;sup>3</sup> For readers interested in the V-Dem approach to measurement and its comparability to alternative measures, McMann et al. (2016) provides a detailed discussion of the measurement methodology and statistical validation of the corruption measures.

were staged and information on all coup attempts is available in the dataset. The dataset also provides information on the primary coup leaders such as their age and military or civilian rank.<sup>4</sup>

In our baseline model, we include a dummy variable indicating whether a successful coup (CoupSuccess) occurred in a given country-year as well as a dummy variable indicating whether a failed coup (CoupFail) occurred. This allows us to estimate the potentially differential effects of failed and successful coups on institutional change. In country-years for which multiple coups were attempted, we coded events as a failed coup if all attempts failed and as a successful coup if any of the coup attempts were successful. In subsequent models, we control for the type of coup in addition to the outcome. We therefore include the following set of four dummy variables: (1) successful military coup (MilCoupSuccess); (2) failed military coup (MilCoupFail); (3) successful civilian coup (CivCoupSuccess); and (4) failed civilian coup (CivCoupFail). This allows us to estimate the potentially differential effects of coups on institutional change by coup type and outcome. Because only a few of the coup attempts were led by members of the royal family (12 out of 530), who typically also have a military rank (Bjørnskov and Rode, 2020), we coded these occurrences as military coup attempts.

We also include a dummy variable indicating if multiple coups were attempted in a given country-year (MultiCoup) and the cumulative number of past coup attempts (PrevCoups). We also test whether the rank of the coup leader matters for the effect of coups on institutional change. We account for the leader rank by including separate high and low rank leader dummies for each of the four coup attempt dummies described above. Specifically, military leaders with a military rank index above 7 – which is the median rank across all military coups – were classified as high-rank leaders, while those ranked 7 or below were classified as low-rank leaders. For civilian coup leaders, former or current presidents or prime ministers were classified as high-rank officials, while all others were classified as low-rank leaders.

### 3.4. Control variables

We control for several other factors in our analysis. First, we control for whether a country was a democracy in a given year using Bjørnskov and Rode's (2020) update of the dichotomous indicator in Cheibub et al. (2010). The democracy variable indicates whether a country has participatory political institutions that allow for effectively contested elections, which may serve as a meta-institution for holding accountable to the public political actors for abstracting too many rents (Aidt et al., 2008) and for developing broad-based economic institutions (Acemoglu et al., 2005; Rodrik, 2000). Our minimalist, binary measure of democracy does not, however, account for the degree to which the actions of public sector officials are institutionally constrained (Elkins, 2000), nor does it capture other aspects of the institutional environment (e.g., freedom of the press, rule of law, constraints on the executive, etc.) that are often associated with democratic regimes (Rode and Gwartney, 2012). The particularly minimalist nature of the democracy variable therefore allows us to fully account for institutional effects, as none of our main variables are inherent in the operational definition of democracy (Cheibub et al., 2010; Bjørnskov and Rode, 2020). In our main specifications, we also control for the level of economic development using the real level of per capita GDP data from the Penn World Tables as our primary measure, supplemented with historical data from The Maddison Project (Bolt and Zanden, 2014). We also control for the number of previous coup attempts experienced in a country since 1950 (PrevCoups).

### 3.5. Identification

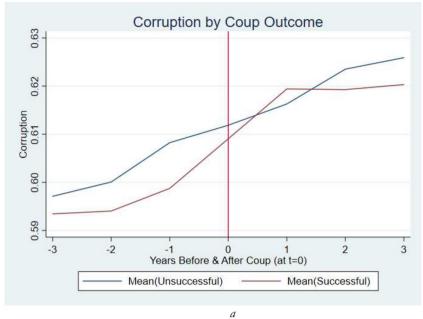
By including dummy variables for both successful and failed coup attempts in our model, we are able to directly estimate the effects of coup outcome on institutional change. This specification is mathematically equivalent to an interaction model that includes a coup attempt dummy and coup attempt-coup success interaction term. As such, if the outcome of a coup attempt is conditionally independent from our outcome of interest (i.e., institutional change), we can treat our coup variables as conditionally exogenous and interpret our estimates of the effect of coups on institutional change as causal effects (Nizalova and Murtazashvili, 2016). Although previous research suggests that the success of a coup contains a large random components (Yu and Jong-a-Pin, 2016; Bjørnskov et al., 2018), as previously described, identification in our model is contingent on the outcome of a coup attempt being conditionally independent from institutional change (Leon, 2014).

As a first step to explore the conditional independence of coup outcome from institutional change, we examined the so-called common trend assumption by calculating the average institutional quality score among countries that experienced a successful coup,

<sup>&</sup>lt;sup>4</sup> In results not reported, we controlled for the age of the coup leader by introducing a dummy variable for leaders over the age 60. Age was not a significant predictor of institutional change and controlling for it did not affect the results.

<sup>&</sup>lt;sup>5</sup> By including dummy variables for both successful and failed coup attempts in the same model, we are able to directly estimate the effects of coup outcome on institutional change. This specification is mathematically equivalent to an interaction model that includes a coup attempt dummy and coup attempt-success interaction term. Because the outcome of a coup attempt is random, as we show in Table 2, we can treat our coup variables as conditionally exogenous (Nizalova and Murtazashvili, 2016) and therefore interpret our estimates as causal effects.

<sup>&</sup>lt;sup>6</sup> Our study is concerned with the effect of coups and potential regime change on institutional quality, which is closely related to the types of institutional aspects captured by alternative, multi-dimensional measures of democracy. Additionally, we agree with Cheibub et al. (2010) that the middle categories of popular democracy indices such as Polity IV and Freedom House add little useful information to distinguish between different types of political regimes. As such, the dichotomous measure is better suited for our particular study. Nonetheless, we tested the sensitivity of our results to the control of several alternative, multi-dimensional measures of democracy and include these results in Appendix Table A7. The results are nearly identical with respect to our variables of interest.



Judicial Constraints by Coup Outcome

St.O
OE: O
Years Before & After Coup (at t=0)

Mean(Unsuccessful)

Mean(Successful)

Fig. 1.. Pre- and post-coup institutional trends.

as well as those that experienced a failed coup attempt. First, we examined pre-coup institutional trends to determine if institutional change may have influenced the outcome of a coup attempt. This is a potentially important test because we rely on the randomness of coup outcomes – i.e. the difference between failed and successful coups – for causal identification. Looking at the four years prior to a coup, the corruption trend is -0.125 before failed coups and -0.083 before successful coups. These trends are not statistically different from one another (p<0.36). For judicial constraints, the pre-coup trends are -0.012 and 0.032. Once again, these trends are not statistically different from one another (p<0.52).

Next, we examine pre- and post-coup trends graphically. Fig. 1a and b, which are based on 125 successful and 130 failed coups (which in itself is suggestive of a random coup outcome process), illustrate the trends in political corruption and judicial constraints within three years of a coup attempt by coup outcome. Both figures support our tests by showing similar trends in institutional

<sup>&</sup>lt;sup>7</sup> Some countries in our sample experienced multiple coups over the sample period. In our derivations of these figures, we only include multiple

quality for both groups in the years leading up to a coup and a divergence in the trends following a coup. The divergence is particularly pronounced in Fig. 1b, where pre-coup judicial constraints are, on average, higher among countries that experienced a successful coup, but the opposite is true post-coup.<sup>8</sup>

Although Fig. 1a and b show that institutional quality exhibits a similar trend pre-coup among both groups, and a divergence post-coup, the common trends condition requires that coup outcome, once we control for observables, is independent of the change in institutional quality following a coup. Following Leon (2014), we examine whether our institutional measures, regime type and control variables predict the outcome of a coup. We do so by estimating Eq. (2) using a fixed effects Logit regression with jackknifed standard errors, where *i* and *t* denote the country and year, *CoupSucc* is a binary variable equal to 1 if a coup attempt was successful and 0 if it failed, *Institutions* is a matrix of our political corruption and judicial constraints measures, *Regime* is a matrix consisting of our regime type measures (democracy is the omitted baseline variable), and *X* is a matrix of control variables that includes fixed year effects. We lagged all of the independent variables by one year relative to the dependent variable.

$$CoupSucc_{i,t} = \alpha_0 + \alpha_1 Institutions_{i,t-1} + \alpha_2 Regime_{i,t-1} + \alpha_3 X_{i,t-1} + c_i + u_{i,t}$$
(2)

We present these results in Table 2. Model 1 includes our two measures of institutional quality, as well as our regime type variables and MultiCoup. Model 2 adds PrevCoups and model 3 controls for the level of economic development. Neither our institutional measures nor our regime type indicators are significant predictors of coup success in any of the models. While a F-test cannot reject the null hypotheses that all of the coefficients (excluding the fixed year effects) are jointly equal to zero, both previous coup attempts and economic development enter as negative and significant predictors of coup success. We therefore cautiously interpret these results as suggestive that coup outcome is conditionally independent of institutions and regime type such that coup outcomes are exogenous, conditional on the level of economic development and past coup attempts.

Our analysis in this section indicate that the common trend assumption is satisfied and that coup outcomes are conditionally exogenous. This suggests that we can interpret our results concerning the effect of coups on institutional change as causal.

### 4. Empirical results

### 4.1. Coup outcome

We first explore the effects of coup outcomes on institutional change by estimating Eq. (1). We present these results in Table 3. Political corruption and judicial constraints are the dependent variable in models 1–4 and 5–8. All models control for the twice-lagged level of institutions, MultiCoup, Democracy, PrevCoups, fixed year effects, and country-specific time trends. Models 2 and 6 add the level of economic development as a control, which reduces the number of countries in the sample from 166 to 158. Models 3 and 7 exclude economic development but restrict the sample size to that employed in the preceding model to test the sensitivity of the results to the country sample (Bennett and Nikolaev, 2017). Models 4 and 8 control for economic development but restrict the country sample to those that have experienced at least one coup attempt during the sample period to test whether the results are sensitive to the inclusion of countries that have never experienced a coup in the sample.

The results in model 1 suggest that successful coups are associated with increased political corruption and the coefficient is statistically significant at the one percent level. Meanwhile, failed coup attempts are associated with less corruption but the coefficient is not statistically significant at conventionally accepted levels. The p-value from an equality of coefficient test for CoupSuccess and CoupFail, reported as pDiff(Coup), is 0.00, suggesting that we reject the null hypothesis that there is no statistical difference in the effect of successful and failed coups on political corruption. We obtain nearly identical results in models 2–4 and therefore conclude that, consistent with H1a, successful coups are associated with a greater increase in corruption than failed coups. The coefficient estimate in model 4 suggests that a successful coup is associated with a 0.012 point (0.04 SDs) increase in corruption the year following the coup. Among the control variables, only the lagged dependent variable enters as a robust and significant (positive) predictor of corruption; however, Democracy enters negatively and is significant at the ten percent level in models 1 and 4.

The results in model 5 suggest that successful coups are associated with a reduction in judicial constraints and the coefficient is statistically significant at the five percent level. Failed coup attempts are also negatively associated with judicial constraints, but the coefficient is not statistically significant at conventionally accepted levels. The p-value from an equality of coefficient test for CoupSuccess and CoupFail, reported as pDiff(Coup), is 0.05, suggesting that we reject the null hypothesis that there is no statistical difference in the effect of successful and failed coups on judicial constraints. We obtain very similar results in models 6–8 and therefore conclude that, consistent with H1b, successful coups are associated with a greater decrease in judicial constraint than failed coups. The coefficient estimate in model 8 suggests that a successful coup is associated with a 0.107 point (0.08 SDs) decrease in judicial constraints the year following the coup. Among the control variables, only the lagged dependent variables and Democracy enter as significant (and positive) predictors of judicial constraints.

<sup>(</sup>footnote continued)

coups that are at least 7 years (+/- 3 years) apart because we had to re-center the time variable to t = 0 at time of coup. We also only include observations for which complete institutional data is available +/-3 years so that averages at a given  $t \in [-3, 3]$  are based on a common N.

<sup>&</sup>lt;sup>8</sup> Similar figures by coup type and coup/regime type are presented in Appendix Figures A1 and A2.

<sup>&</sup>lt;sup>9</sup> While the estimate may seem small, we note that using the twice-lagged dependent variable to calculate a long-run multiplier for the average tenure of autocrats in the data (approximately seven years) yields a long-run estimate that is 4-5 times larger.

**Table 2.**Logit regression results - coup outcome.

	(1) CoupSuccess	(2) CoupSuccess	(3) CoupSuccess
Corruption (t-1)	-0.385	0.099	-0.064
•	(1.010)	(1.029)	(1.088)
Judicicial Constraints (t-1)	0.124	0.112	0.110
	(0.181)	(0.188)	(0.185)
MultiCoup (t-1)	1.210**	0.905	0.837
	(0.547)	(0.614)	(0.619)
MilDic (t-1)	-0.180	-0.263	-0.282
	(0.324)	(0.331)	(0.330)
CivDic (t-1)	-0.176	-0.326	-0.379
	(0.318)	(0.342)	(0.330)
PrevCoups (t-1)		-0.268***	-0.325***
-		(0.049)	(0.064)
LnGDP (t-1)			-1.084**
			(0.462)
Observations	4,702	4,702	4,413
Countries	79	79	77
Std. Errors	Jackknife	Jackknife	Jackknife
Time FE	Yes	Yes	Yes
p(exc Time FE)	0.08	0.43	0.43
Pseudo R2	0.11	0.13	0.13

Fixed effects logit regression. Coup outcome (success or failure) is dependent variable. Only countries that have experienced a coup over sample period included in regressions. Jackknife standard errors in parentheses. P(exl Time FE) is p-value from joint test of significance of all variables except time fixed effects.

### 4.2. Coup type

Next, we examine the effect of coups on institutional change by coup type, as our theoretical considerations suggest that different coup types may yield heterogeneous consequences. Specifically, we re-estimate Eq. (1) using the four coup type variables (i.e., MilCoupFail, MilCoupSuccess, CivCoupFail) described in Section 3.3 in lieu of the two coup outcomes. These results are presented in Table 4 – the structure of which is identical to Table 3. The results with respect to the control variables in Table 4 are unchanged relative to Table 3.

We find that the positive and significant relationship between successful coups and political corruption observed in Table 3 is driven primarily by MilCoupSuccess, which enters the equation positively and statistically significant at the 5 percent level in models 1–4. CivCoupSuccess also enters positively, but it is not statistically significant. The estimate in model 4 suggests that political corruption increases by 0.014 (0.05 SDs) the year following a successful military coup, but by 0.004 (0.01 SDs) following a successful civilian coup. While this is consistent with H2a, we here fail to reject the null hypothesis that there is no statistical difference in the corruption effects of MilCoupSuccess and CivCoupSuccess, as the p-values from this equality of coefficient test, pDiff(Success), range from 0.48 to 0.50 in models 1–4. Additionally, both MilCoupFail and CivCoupFail are negatively associated with political corruption, but neither is statistically significant.

We also find that both MilCoupSuccess and CivCoupFail are negatively associated with judicial constraints in models 5–8, and both are statistically significant at the 10 percent level or better. Meanwhile, neither MilCoupFail nor CivCoupSuccess are statistically significant at conventionally accepted levels. The estimates in model 8 suggest that judicial constraints are reduced by 0.131 (0.09 SDs.) and 0.094 (0.07 SDs) following a successful military coup and failed civilian coup, respectively. While these results support H2b, pDiff(Success) = 0.28, suggesting that there is no statistical difference between MilCoupSuccess and CivCoupSuccess. Meanwhile, pDiff(Fail) = 0.05 such that we reject the null hypothesis that there is no statistical difference between MilCoupFail and CivCoupFail.

The results presented in Table 5 account for the rank of the coup leader by replacing each of the four coup type variables from Table 4 with two coup variables that reflect whether the coup leader was a high or low ranking official. The table structure is identical to Tables 3 and 4. The results in models 1–4 suggest that successful military coups by both high (HiMilSuccess) and low ranking (LoMilSuccess) officials have a positive effect on political corruption, but only the former is statistically significant (at the five percent level). While this is consistent with H3a, we fail to reject the null hypothesis that the estimated effects of HiMilSuccess (0.014–0.015, or 0.05–0.06 SDs) and LoMilSuccess (0.013–0.014, or 0.05 SDs) on corruption are significantly different from one another (pDiff (MilSucc)  $\geq$  0.9). Similarly, the results in models 5–8 suggest that HiMilSuccess and LoMilSuccess are both negatively associated with judicial constraints, but only the former is statistically significant (at the 1 percent level). While this is consistent with H3a, we again fail to reject the null hypothesis that the estimated effects of HiMilSuccess (-0.163 to -0.176, or -0.12 to -0.13 SDs) and LoMilSuccess (-0.058 to -0.064, or -0.04 to -0.05 SDs) on judicial constraints are significantly different from one another (pDiff (MilSucc)  $\geq$  0.76). Hence, we can only claim that the effects of coups led by highly-ranked military actors are substantially more

<sup>\*\*\*</sup> p < 0.01,.

<sup>\*\*</sup> p < 0.05, \* p < 0.1.

**Table 3.**Coups & institutional change.

	(1) Political Corruption	(2) Political Corruption	(3) Political Corruption	(4) Political Corruption	(5) Judicial Constraints	(6) Judicial Constraints	(7) Judicial Constraints	(8) Judicial Constraints
Political Corruption (t-2)	0.812***	0.814***	0.814***	0.814***				
	(0.014)	(0.014)	(0.014)	(0.016)				
Judicial Constraints (t-2)					0.729***	0.718***	0.718***	0.724***
					(0.020)	(0.022)	(0.022)	(0.024)
CoupSuccess (t-1)	0.013***	0.013***	0.013***	0.012***	-0.114**	-0.102**	-0.104**	-0.107**
-	(0.004)	(0.005)	(0.005)	(0.005)	(0.044)	(0.044)	(0.044)	(0.044)
CoupFail (t-1)	-0.001	-0.002	-0.002	-0.003	-0.009	-0.004	-0.006	-0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.031)	(0.032)	(0.032)	(0.032)
MultiCoup (t-1)	-0.001	-0.003	-0.003	-0.003	0.139	0.134	0.133	0.135
	(0.007)	(0.007)	(0.007)	(0.007)	(0.092)	(0.093)	(0.093)	(0.091)
Democracy (t-1)	-0.007*	-0.006	-0.006	-0.008*	0.160***	0.186***	0.186***	0.155***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.042)	(0.045)	(0.045)	(0.046)
PrevCoups (t-1)	-0.001	-0.001	-0.001	-0.002	-0.010	-0.007	-0.009	-0.005
	(0.001)	(0.001)	(0.001)	(0.001)	(0.011)	(0.011)	(0.011)	(0.011)
LnGDP (t-1)		-0.008		-0.004		0.032		0.048
		(0.006)		(0.007)		(0.046)		(0.058)
Observations	9,956	9.117	9,117	6,276	10,011	9,122	9,122	6282
R2w	0.89	0.88	0.88	0.88	0.79	0.78	0.78	0.76
Countries	166	158	158	102	166	158	158	102
Time FE	Yes							
Country Time Trend	Yes							
Limit Sample	No	Yes	Yes	No	No	Yes	Yes	No
Exc. No Coup	No	No	No	Yes	No	No	No	Yes
pDiff(Coup)	0.00	0.00	0.00	0.00	0.05	0.07	0.06	0.05

Fixed effects estimates of the effect of coups on institutions by coup outcome. Political Corruption is DV in models 1–4 and Judicial Constraints the DV in models 5–8. CoupSuccess and CoupFail are dummy variables represent a successful and failed coup attempt in the previous year. This specification is mathematically equivalent to an interaction model including a dummy variable for coup attempt and coup attempt interacted with a coup success dummy variable. All models control for a two-year lag of the respective institutional measure, a dummy variable indicating whether the country was a Democracy in the previous year, a dummy indicating whether multiple coups were attempted in the previous year (MultiCoup), a variable indicating the number of coup attempts since the data series began in 1950 (PrevCoups), fixed year effects, and country-specific time trends. Even-numbered models also control for the level of economic development (LnGDP). Models 3 and 7 restrict the sample to the countries for which economic development data are available. Models 4 and 8 exclude countries that have not experienced at least 1 coup attempt since 1950. R2w denotes the within-country R-squared. pDiff(Coup) is the p-value from equality of coefficient test between CoupSucc and CoupFail. Robust standard errors clustered at country level in parentheses.

precisely estimated. Additionally, we find that HiCivFail is negatively and statistically significantly (at the 10 percent level) with judicial constraints in models 5–8, but LoCivFail also enters the specification negatively and pDiff(CivFail)  $\geq 0.019$ , suggesting that there is no statistical difference in the effects of failed coups by high and low ranking civilian officials on judicial constraints.

### 4.3. Coups and incumbent regime type

Our results thus far suggest that successful coups, particularly those by the military, are strongly associated with a decline in institutional quality, as indicated by increases in corruption and reductions in judicial constraints. Our results also suggest, however, that democratic countries are less corrupt and have higher levels of judicial constraints. As such, it may be more difficult for successful coup leaders to enact institutional change in democratic countries than it is in countries governed by autocratic governments. As discussed in Section 2.2.c, institutional effects in autocratic regimes may also depend on the type of coup staged (i.e., civilian or military) and the type of autocratic regime in place.

We explore the role of incumbent regime type in moderating the effect of coups on institutional change in Table 6. Political corruption is the dependent variable in models 1–4 and judicial constraints in models 5–8. Models 1 and 4 serve as the baseline estimates of the effect of coup type on corruption and judicial constraints, respectively, and are analogous to models 1 and 5 from Table 4. Models 2 and 6 introduce two dummy variables indicating whether the incumbent regime is a civilian or military dictatorship, with democratic regimes serving as the baseline, to control for regime type. Models 3 and 7 introduce interaction terms between each coup and regime type. Models 4 and 8 exclude countries from the sample that did not experience a coup during the sample period. We also report the marginal effects of each coup type-outcome-regime combination (e.g., b[MFM] is marginal effect of failed military coup vs. military dictatorship) and the corresponding p-values from tests of joint significance of the marginal effects

<sup>\*\*\*</sup> *p* < 0.01,.

<sup>\*\*</sup> *p* < 0.05,.

<sup>\*</sup> p < 0.1.

**Table 4.**Coups & institutional change by coup type.

	(1) Political Corruption	(2) Political Corruption	(3) Political Corruption	(4) Political Corruption	(5) Judicial Constraints	(6) Judicial Constraints	(7) Judicial Constraints	(8) Judicial Constraints
Political Corruption (t-2)	0.813***	0.814***	0.814***	0.814***				
	(0.014)	(0.014)	(0.014)	(0.017)				
Judicial Constraints (t-2)					0.729***	0.718***	0.718***	0.723***
					(0.020)	(0.021)	(0.022)	(0.024)
MilCoupFail (t-1)	-0.000	-0.002	-0.001	-0.002	0.029	0.035	0.033	0.037
	(0.004)	(0.004)	(0.004)	(0.004)	(0.038)	(0.040)	(0.040)	(0.040)
MilCoupSuccess (t-1)	0.015**	0.015**	0.015**	0.014**	-0.138***	-0.127***	-0.128***	-0.131***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.040)	(0.040)	(0.040)	(0.039)
CivCoupFail (t-1)	-0.002	-0.003	-0.003	-0.004	-0.097*	-0.095*	-0.096*	-0.094*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.050)	(0.051)	(0.051)	(0.051)
CivCoupSuccess (t-1)	0.005	0.005	0.005	0.004	-0.009	0.007	0.004	0.001
	(0.011)	(0.011)	(0.011)	(0.011)	(0.123)	(0.124)	(0.125)	(0.126)
MultiCoup (t-1)	-0.003	-0.005	-0.004	-0.005	0.156	0.151	0.150	0.152
	(0.007)	(0.007)	(0.007)	(0.007)	(0.100)	(0.101)	(0.100)	(0.099)
Democracy (t-1)	-0.007*	-0.006	-0.006	-0.008*	0.160***	0.186***	0.186***	0.155***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.043)	(0.045)	(0.045)	(0.046)
PrevCoups (t-1)	-0.001	-0.002	-0.001	-0.002	-0.010	-0.008	-0.009	-0.005
	(0.001)	(0.001)	(0.001)	(0.001)	(0.010)	(0.011)	(0.011)	(0.011)
LnGDP (t-1)		-0.008		-0.005		0.033		0.050
		(0.006)		(0.007)		(0.046)		(0.057)
Observations	9,956	9,117	9,117	6,276	10,011	9,122	9,122	6282
R2w	0.89	0.88	0.88	0.88	0.79	0.78	0.78	0.76
Countries	166	158	158	102	166	158	158	102
Time FE	Yes							
Country Time Trend	Yes							
Limit Sample	No	Yes	Yes	No	No	Yes	Yes	No
Exc. No Coup	No	No	No	Yes	No	No	No	Yes
pDiff(Fail)	0.82	0.85	0.83	0.82	0.05	0.05	0.05	0.05
pDiff(Success)	0.50	0.48	0.50	0.48	0.28	0.27	0.28	0.28
pDiff(MilCoup)	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00
pDiff(CivCoup)	0.57	0.56	0.54	0.56	0.48	0.42	0.42	0.45

Fixed effects estimates of the effect of coups on institutions by coup type and outcome. Political Corruption is DV in models 1–4 and Judicial Constraints the DV in models 5–8. MilCoupFail, MilCoupSuccess, CivCoupFail, and CivCoupSuccess are dummy variables representing a successful and failed military and civilian coup attempts in the previous year. All models control for a two-year lag of the respective institutional measure, a dummy variable indicating whether the country was a Democracy in the previous year, a dummy indicating whether multiple coups were attempted in the previous year (MultiCoup), a variable indicating the number of coup attempts since the data series began in 1950 (PrevCoups), fixed year effects, and country-specific time trends. Even-numbered models also control for the level of economic development (LnGDP). Models 3 and 7 restrict the sample to the countries for which economic development data are available. Models 4 and 8 exclude countries that have not experienced at least 1 coup attempt since 1950. R2w denotes the within-country R-squared. pDiff(Success/Fail) is the p-value from equality of coefficient test between MilCoupSuccess/Fail and CivCoupSuccess/Fail. pDiff(Mil/CivCoup) is the p-value from equality of coefficient test between Mil/CivCoupFail. Robust standard errors clustered at country level in parentheses.

(e.g., p(MGM))(Brambor, Clark, and Golder, 2006).

Controlling for the regime type in model 2 does not change the baseline results for political corruption and the regime type variables do not enter significant statistically. Model 3 introduces the coup-regime type interaction terms. We focus here on the marginal effects of the coup variables. Several findings are noteworthy. First, successful military coups against military dictatorships are associated with greater corruption, relative to successful military coups against democratic regimes. The marginal effect is positive (b[MSM] = 0.014, or 0.05 SDs) and statistically significant at the 10 percent level (p(MSM) = 0.061). Meanwhile, successful civilian coups against military dictatorships are associated with a decrease in corruption (b[CSM) = -0.046, or -0.17 SDs), but the marginal effect is not statistically significant (p(CSM) = 0.204). We reject the null hypothesis that there is no difference in the marginal effects of successful military and successful civilian coups against military dictatorships (pDiff(SuccMil) = 0.057), providing general evidence in support of H2a. Second, the marginal effect of successful military coups against civilian dictatorships is also positive (0.006), but is not statistically significant. While the positive marginal effect of successful military coups against military dictatorships, which is consistent with H2a, we nevertheless fail to reject the null hypothesis that there is no statistical difference between the coefficients of MilCoupSucc\*MilDict and MilCoupSucc\*CivDict (i.e., pDiff(MilSucc) = 0.508). Third, the marginal effects of failed civilian coups

<sup>\*\*\*</sup> *p* < 0.01,.

<sup>\*\*</sup> p < 0.05,.

<sup>\*</sup> *p* < 0.1.

**Table 5.**Coups & institutional change by coup type & leader rank.

	(1) Political Corruption	(2) Political Corruption	(3) Political Corruption	(4) Political Corruption	(5) Judicial Constraints	(6) Judicial Constraints	(7) Judicial Constraints	(8) Judicial Constraints
Political Corruption (t-2)	0.813***	0.814***	0.814***	0.814***				
	(0.014)	(0.014)	(0.014)	(0.016)				
Judicial Constraints (t-2)					0.729***	0.718***	0.719***	0.724***
					(0.020)	(0.022)	(0.022)	(0.024)
HiMilFail (t-1)	-0.004	-0.004	-0.004	-0.005	0.041	0.051	0.050	0.054
	(0.006)	(0.006)	(0.006)	(0.006)	(0.089)	(0.092)	(0.092)	(0.092)
LoMilFail (t-1)	0.002	0.000	0.001	-0.000	0.017	0.021	0.019	0.021
	(0.005)	(0.005)	(0.005)	(0.005)	(0.039)	(0.040)	(0.040)	(0.039)
HiMilSuccess (t-1)	0.015**	0.015**	0.015**	0.014**	-0.176***	-0.163***	-0.165***	-0.170***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.047)	(0.047)	(0.047)	(0.046)
LoMilSuccess (t-1)	0.014	0.014	0.014	0.013	-0.064	-0.058	-0.060	-0.058
	(0.010)	(0.010)	(0.010)	(0.010)	(0.064)	(0.066)	(0.065)	(0.065)
HiCivSuccess (t-1)	0.018	0.017	0.018	0.016	0.136	0.150	0.146	0.155
	(0.017)	(0.017)	(0.017)	(0.017)	(0.228)	(0.227)	(0.228)	(0.229)
LoCivSuccess (t-1)	-0.004	-0.005	-0.004	-0.005	-0.112	-0.099	-0.101	-0.113
	(0.018)	(0.018)	(0.018)	(0.018)	(0.147)	(0.154)	(0.154)	(0.155)
HiCivFail (t-1)	-0.004	-0.004	-0.004	-0.004	-0.270*	-0.268*	-0.270*	-0.263*
	(0.007)	(0.007)	(0.007)	(0.006)	(0.151)	(0.152)	(0.152)	(0.152)
LoCivFail (t-1)	-0.002	-0.002	-0.002	-0.004	-0.050	-0.046	-0.047	-0.046
	(0.006)	(0.007)	(0.007)	(0.006)	(0.056)	(0.058)	(0.058)	(0.059)
MultiCoup (t-1)	-0.003	-0.005	-0.005	-0.006	0.163	0.159	0.158	0.160
	(0.007)	(0.008)	(0.007)	(0.008)	(0.100)	(0.101)	(0.100)	(0.099)
Democracy (t-1)	-0.001	-0.002	-0.001	-0.002	-0.009	-0.007	-0.008	-0.005
	(0.001)	(0.001)	(0.001)	(0.001)	(0.010)	(0.011)	(0.011)	(0.011)
PrevCoups (t-1)	-0.007*	-0.006	-0.006	-0.008*	0.158***	0.184***	0.184***	0.153***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.043)	(0.045)	(0.045)	(0.046)
LnGDP (t-1)		-0.008		-0.004		0.033		0.050
		(0.006)		(0.007)		(0.046)		(0.057)
Observations	9,956	9,117	9,117	6,276	10,011	9,122	9,122	6282
R2w	0.89	0.88	0.88	0.88	0.79	0.78	0.78	0.76
Countries	166	158	158	102	166	158	158	102
Γime FE	Yes							
Country Time Trend	Yes							
Limit Sample	No	Yes	Yes	No	No	Yes	Yes	No
Exc. No Coup	No	No	No	Yes	No	No	No	Yes
pDiff(MilFail)	0.42	0.51	0.51	0.53	0.82	0.78	0.78	0.77
pDiff(MilSucc)	0.95	0.92	0.93	0.90	0.15	0.17	0.17	0.15
pDiff(CivFail)	0.79	0.83	0.85	0.94	0.19	0.19	0.19	0.21
pDiff(CivSucc)	0.40	0.43	0.42	0.44	0.38	0.39	0.39	0.36

Fixed effects estimates of the effect of coups on institutions by coup leader (Hi/Lo ranking military/civilian official) and outcome. Political Corruption is DV in models 1–4 and Judicial Constraints the DV in models 5–8. All models control for a two-year lag of the respective institutional measure, a dummy variable indicating whether the country was a Democracy in the previous year, a dummy indicating whether multiple coups were attempted in the previous year (MultiCoup), a variable indicating the number of coup attempts since the data series began in 1950 (PrevCoups), fixed year effects, and country-specific time trends. Even-numbered models also control for the level of economic development (LnGDP). Models 3 and 7 restrict the sample to the countries for which economic development data are available. Models 4 and 8 exclude countries that have not experienced at least 1 coup attempt since 1950. R2w denotes the within-country R-squared. pDiff(MilX) is the p-value from equality of coefficient test between HiMilXand LoMilX and pDiff(CivX) is the p-value from equality of coefficient test between HiCivXand LoCivX, where X is either Fail or Success. Robust standard errors clustered at country level in parentheses.

against both civilian (0.002) and military dictatorships (0.003) are positive and statistically significant at the 10 percent level; however, we fail to reject the null hypothesis that there is no statistical difference between the coefficients of CivCoupFail\*MilDict and CivCoupFail \*CivDict (i.e., pDiff(CivFail)=0.882). The results in model 4, which limits the sample to countries that have experienced at least one coup during our sample period, reinforce our findings from model 3. We thus find no support for any specific hypotheses that the corruption effects of coups differ by incumbent regime.

Next, we discuss the results using judicial constraints as the measure of institutional quality. Controlling for the regime type in model 6 does not alter the finding that MilCoupSucc and CivCoupFail are both negatively associated with judicial constraints. Additionally, both MilitaryDict and CivilianDict are negatively associated with judicial constraints. Turning to the interaction results,

<sup>\*\*\*</sup> *p* < 0.01,.

<sup>\*\*</sup> p < 0.05,.

<sup>\*</sup> *p* < 0.1.

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several findings emerge. First, consistent with H2b, successful military coups against military dictatorships are associated with a reduction in judicial constraints (b[MSM] = -0.082, or -0.06 SDs). Second, successful civilian coups against military dictatorships are associated with an increase in judicial constraints (b[CSM = 0.846, or 0.6 SDs). Third, we reject the null hypothesis that there is no difference in the marginal effects of successful civilian coups against military dictatorships and those against civilian dictatorship (pDiff(CivSucc) = 0.005). Fourth, we reject the null hypothesis that there is no difference in the marginal effects of successful civilian coups against military dictatorships (pDiff(SuccMil) = 0.005).

**Table 6.**Coups & institutional change by coup type & incumbent regime.

	(1) Political Corruption	(2) Political Corruption	(3) Political Corruption	(4) Political Corruption	(5) Judicial Constraints	(6) Judicial Constraints	(7) Judicial Constraints	(8) Judicial Constraint
Institutions (t-2)	0.814***	0.744***	0.744***	0.738***	0.718***	0.678***	0.678***	0.684***
	(0.014)	(0.018)	(0.019)	(0.020)	(0.021)	(0.024)	(0.024)	(0.027)
MilCoupFail (t-1)	-0.002	-0.002	-0.002	-0.002	0.035	0.042	0.097	0.113*
	(0.004)	(0.004)	(0.008)	(0.008)	(0.040)	(0.041)	(0.060)	(0.061)
MilCoupSuccess (t-1)	0.015**	0.013**	0.005	0.005	-0.127***	-0.096***	-0.143	-0.116
	(0.006)	(0.005)	(0.006)	(0.006)	(0.040)	(0.036)	(0.162)	(0.163)
CivCoupFail (t-1)	-0.003	-0.002	-0.012**	-0.012**	-0.095*	-0.087*	-0.022	-0.004
or couprum (t 1)	(0.005)	(0.005)	(0.005)	(0.005)	(0.051)	(0.051)	(0.068)	(0.071)
CivCoupSuccess (t-1)	0.005	-0.003	-0.009	-0.011	0.007	0.026	0.073	0.091
or coupouccess (t 1)	(0.011)	(0.010)	(0.011)	(0.010)	(0.124)	(0.124)	(0.210)	(0.229)
MilitaryDict (t-1)	(0.011)	0.000	0.000	0.014	(0.121)	-0.136*	-0.142*	-0.204***
viiitaryDict (t-1)		(0.014)	(0.014)	(0.017)		(0.079)	(0.078)	(0.060)
CivilianDict (t-1)		-0.002	-0.002	0.017)		-0.114	-0.106	-0.149**
Sivinaliblet (t-1)		(0.015)	(0.015)	(0.017)		(0.080)	(0.078)	(0.064)
dilCour-Foil t Militory Diet		(0.013)	-0.000			(0.000)	-0.083	
MilCoupFail*MilitaryDict				-0.001				-0.096 (0.068)
MilCounEail*CivilianDiat			(0.008) -0.003	(0.008)			(0.068)	(0.068)
MilCoupFail*CivilianDict				-0.002			-0.060	-0.082
erio o merio pro-			(0.014)	(0.014)			(0.156)	(0.157)
MilCoupSuccess*MilitaryDict			0.009	0.008			0.061	0.034
			(0.008)	(0.008)			(0.175)	(0.175)
MilCoupSuccess*CivilianDict			0.001	0.001			-0.099	-0.137
			(0.011)	(0.011)			(0.331)	(0.334)
CivCoupFail*MilitaryDict			0.013	0.012			-0.056	-0.076
			(0.009)	(0.009)			(0.096)	(0.096)
CivCoupFail*CivilianDict			0.015	0.014			-0.128	-0.145
			(0.011)	(0.011)			(0.135)	(0.137)
CivCoupSuccess*MilitaryDict			-0.037	-0.035			0.773**	0.754*
			(0.031)	(0.030)			(0.387)	(0.395)
CivCoupSuccess*CivilianDict			0.015	0.017			-0.222	-0.255
			(0.016)	(0.015)			(0.242)	(0.258)
Observations	9,117	8,379	8,379	5,686	9,122	8,394	8,394	5692
R2w	0.884	0.865	0.865	0.862	0.781	0.762	0.764	0.745
Countries	158	158	158	102	158	158	158	102
Γime FE	Yes	Yes						
Country Time Trend	Yes	Yes						
Regime Type	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Coup*Regime Type	No	No	Yes	Yes	No	No	Yes	Yes
Exc. No Coup	No	No	No	Yes	No	No	No	Yes
[MFM]	-10		-0.002	-0.003			0.014	0.016
o(MFM)			0.882	0.789			0.255	0.010
[MFC]			-0.004	-0.004			0.037	0.107
o(MFC)			0.916	0.921			0.265	0.031
o(MFC) o[MSM]			0.916	0.921			-0.082	-0.082
o(MSM)			0.014	0.013			0.096	0.112
o[MSC]			0.001	0.078			-0.243	-0.252
o(MSC)			0.647	0.706			0.424	0.473
[CFM]			0.002	0.001			-0.078	-0.080
(CFM)			0.080	0.089			0.436	0.453
[CFC]			0.003	0.003			-0.149	-0.149
o(CFC)			0.075	0.085			0.437	0.463
[CSM]			-0.046	-0.047			0.846	0.845
o(CSM)			0.204	0.133			0.037	0.036
o[CSC]			0.006	0.006			-0.149	-0.164
o(CSC)			0.629	0.451			0.480	0.418
Diff(MilSucc)			0.508	0.545			0.582	0.559
Diff(MilFail)			0.863	0.929			0.875	0.917

(continued on next page)

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Table 6. (continued)

	(1) Political Corruption	(2) Political Corruption	(3) Political Corruption	(4) Political Corruption	(5) Judicial Constraints	(6) Judicial Constraints	(7) Judicial Constraints	(8) Judicial Constraints
pDiff(CivSucc)			0.114	0.102			0.005	0.005
pDiff(CivFail)			0.882	0.847			0.615	0.628
pDiff(SuccCiv)			0.975	0.969			0.730	0.746
pDiff(FailCiv)			0.669	0.689			0.317	0.333
pDiff(SuccMil)			0.057	0.054			0.005	0.005
pDiff(FailMil)			0.574	0.557			0.208	0.185

Fixed effects estimates of the effect of coups on institutions by coup type and incumbent regime. Political Corruption is DV in models 1–4 and Judicial Constraints the DV in models 5–8. MilCoupFail, MilCoupSuccess, CivCoupFail, and CivCoupSuccess are dummy variables representing a successful and failed military and civilian coup attempts in the previous year. Models 1 and 5 are baseline estimates from Table 4. Models 2 and 6 introduce incumbent regime dummy variables. Models 3 and 7 introduce interactions between coup type and incumbent regime variables. Models 4 and 8 restrict sample to countries experiencing at least one coup over sample period. All models control for a two-year lag of the respective institutional measure, a dummy variable indicating whether the country was a Democracy in the previous year, level of economic development, a dummy indicating whether multiple coups were attempted in the previous year (MultiCoup), a variable indicating the number of coup attempts since the data series began in 1950 (PrevCoups), fixed year effects, and country-specific time trends. R2w denotes the within-country R-squared. b [XYZ] and p(XYZ) are marginal effect and p-value of coup type X (Mil|Civ), outcome Y (Succ/Fail), against regime type Z(Civ|Mil Dictatorship). pDiff(MilO) is p-value from equality of coefficient test between MilCoupO\*MilDict and MilCoupO\*CivDict, where O = (Succ/Fail). pDiff(GivO) is p-value from equality of coefficient test between CivCoupO\*MilDict and CivCoupO\*CivDict, where O = (Succ/Fail). pDiff(AB) is p-value from equality of marginal effects test between the marginal effects of A (Succ|Fail) MilCoup and CivCoup against regime type B (CivDict/MilDict). Robust standard errors clustered at country level in parentheses.

### 4.4. Additional results

We also performed a number of robustness tests, but for space we present most of these results in an online supplementary appendix. First, we checked the sensitivity of our results to countries experiencing two or more coup attempts within a short period of time, defined as a three or five-year period. We present these results in Appendix Table A4. Models 1 and 6 present baseline results using political corruption and judicial constraints as the dependent variables. Models 2 and 7 exclude countries from the sample experiencing two or more coup attempts within any three-year point during the sample period. Models 3 and 8 only exclude country-year observations for which two or more coup attempts occurred within a three-year period, retaining the remaining country-year observations for these countries. Models 4 and 9 exclude countries from the sample experiencing two or more coup attempts within any five-year point during the sample period. Finally, models 5 and 10 only exclude country-year observations for which two or more coup attempts occurred within a five-year period, retaining the remaining country-year observations for these countries. The effects of coups remains qualitatively similar to the baseline estimates. Specifically, successful military coups are associated with an increase in corruption and a reduction in judicial constraints.

Second, we used the fixed effects estimator to derive our main results. Because we include a twice-lagged value of the dependent variable in our specification to control for the persistence of institutional quality, our model is technically a dynamic panel estimator and may therefore suffer from Nickel (1981) bias. To address this potential issue, we re-estimated our baseline results using the system GMM estimator (Alonso-Borrego & Arellano, 1999; Arellano & Bover, 1995). We report these results in Appendix Table A5. Models 1–2 use political corruption as the institutional metric, while models 3–4 use judicial constraints. The odd-numbered models include only the two coup outcome variables and suggest the successful coups are associated with more political corruption and a reduction in judicial constraints. We reject the null hypothesis that there is no difference between the effects of CoupSuccess and CoupFail on institutional change in both models 1 and 3 (pDiff(Coup)  $\leq$  0.01). The even-numbered models replace the two coup outcome dummies with the four coup type-outcome variables. These results suggest that successful military coups are driving the relationship between successful coups and institutional change and we reject the null hypothesis that there is no difference between the effects of MilCoupSuccess and MilCoupFail on institutional change in both models 2 and 4 (pDiff(Mil) = 0.01). We collapse and impose lag limits on the instrument matrix to reduce the instrument proliferation issue and satisfy auto-correlation and instrument validity conditions (Roodman, 2009).

Next, our analysis examines the impact of two common dimensions of institutional quality: corruption and judicial constraints. In Appendix Table A6, we examine the effect of coups on four alternative measures of institutional quality from the V-Dem 7.1 dataset: (1) horizontal checks & balances; (2) rigorous & impartial public administration; (3) transparent laws with predictable enforcement; and (4) liberal democracy. Our findings using these alternative measures of institutional quality are very similar to our main results. Successful coups are negatively and significantly associated with all four measures in the odd-number models. We also find that military coups are driving the relationship between successful coups and a decline in institutional quality in the even-numbered models.

<sup>\*\*\*</sup> p < 0.01,...

<sup>\*\*</sup> *p* < 0.05,.

<sup>\*</sup> p < 0.1.

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### 5. Conclusion

The aim of this paper is to explore how coups and coup attempts affect institutional quality. While many coup-makers over the years have claimed that their aim was to oust corrupt regimes and improve on often very poor institutions, the subsequent development after coups succeeded has typically been disappointing. Our theoretical considerations also suggest that it may often be in the ex post interest of both coup-makers themselves and their selectorate – the particular interests providing political support for them – to maintain or even weaken institutions. Once in power, they may have interests in the same kind of rents that the former elite enjoyed such that regime transitions do not alleviate institutional problems. As the saying goes in West Africa about the interests of new regimes, 'it's our time to eat'. Yet, we also note that civilian coup-makers may both have different interests and face different obstacles than military coup-makers, just as coup-makers from the existing elite can have different institutional interests than coup-makers from outside the incumbent elite.

We test these implications in a large panel of countries observed since 1950, which includes information on up to 537 successful and failed coup attempts, matched with data on corruption and judicial constraints from the V-Dem project. Our results show that overall political corruption is significantly worsened as a result of successful military coups, an effect that is more precisely identified for military coups led by high-ranking military officers.

Some of these results are mirrored in our findings for changes in judicial constraints. We find that successful military coups typically lead to substantial reductions in judicial constraints. However, distinguishing between types of incumbent regimes, our results also indicate that successful civilian coups against military incumbents – coups that often exchange the specific elite in power – may lead to improved judicial constraints. Coups led by members of the incumbent elite may often be different in aim and execution than coups performed by groups outside of the political elite. Likewise, coups led by civilian interests often have very different consequences than coups led by military interests. Our findings in this paper thus confirm the importance of separating coup types, as stressed in recent papers (e.g., Bjørnskov, 2020; Bjørnskov and Pfaff, 2018). As such, just as there are multiple varieties of democracy and autocracy, we find evidence that it is necessary to distinguish between multiple varieties of coups.

### **Declaration of Competing Interest**

None.

### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jce.2020.05.008.

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