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Political Fragility: The Economic Impact of Coups d'État

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Political Fragility: The Economic Impact of Coups d'État

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ABSTRACT: This study uses an entropy balancing model to show that coups d'état can reduce GDP growth by around 2.3 percentage points in the same year. This is a larger effect than some previous estimates, and is found to be persistent over time, reducing cumulative GDP growth by around five percentage points over the following five years. This study goes deeper than previous research into the drivers of that impact, finding that economic sanctions are an an important reason for the observed lower growth in many cases and that the principal channel is via private consumption and investment.

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WORKING PAPERS

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Introduction

Finding the formula for growth in low-income countries (LICs) has been a longstanding goal in development economics. Questions about how LICs should pursue greater prosperity dominate many academic and policy-making debates. One frequently cited barrier to growth is political instability, and many researchers have argued that establishing such stability is a necessary condition for achieving sustainable growth (Boly and others, 2024; Alesina and others, 1996). Political instability can take many forms, but irregular and unconstitutional changes in government—coups d'état—are one manifestation. It is therefore crucial to understand to what extent coups affect economic outcomes including GDP growth, and how they do so.

The increasing prevalence of coups in recent years, particularly in sub-Saharan Africa (SSA), has led to increased interest in this area of research, as well as a wealth of new observations and case studies for empirical work. This increased interest has been spurred further by weak GDP growth in SSA countries that experience coups. For the six country-year pairings in this dataset where a coup occurred in an SSA country since 2022, GDP growth has averaged -3 percent, whereas for the eighty-six cases where no coup occurred in the same period, GDP growth averaged +4.5 percent. Coups are generally found to have a negative impact on the economy via a number of channels, with impacts on households, institutions, financial markets, and firms. But the estimated effects are far from uniform and the duration of the impact is less understood.

This study makes a number of new contributions to this area of literature, by deepening the understanding of how coups affect GDP growth. While some previous research has found that coups can have an important impact on growth in the short term, other studies find smaller effects. There is also less understanding of the longer-term impacts. In this analysis, coups are found to be associated with lower GDP growth by around 2.3 percentage points in the same year, a larger effect than in much of the existing literature. The effect is also found to be persistent so that cumulative GDP growth over the subsequent five years is found to be around five percentage points lower. To our knowledge, this is the first paper to use detailed coup and country characteristics to ascertain how and why coups impact GDP growth in this way. This approach finds strong evidence that GDP growth is particularly affected when coups are accompanied by economic sanctions. There is also tentative evidence to suggest that successful coups are found to have a larger negative impact on GDP growth than unsuccessful coups, for example, and the impact also appears to be larger for low-income countries than more developed ones. Finally, this study also considers the types of spending that are most affected by coups d'état. Splitting GDP into its expenditure components shows that lower private consumption and total investment growth are the principal contributors to the lower overall growth.

This paper is structured as follows: Section 2 summarizes the main findings from the existing literature. Section 3 presents the data sources used and highlights some notable facts regarding coups d'état since 1970. Section 4 reports the main results regarding different types of coups and the size of the impact on GDP in all cases, as well as how these coups can affect GDP. Section 6 sets out the main conclusions.

Literature Review

There is a vast literature on the economic impacts of fragility in developing countries. This area of research can be further subdivided into analysis of different types of fragility such as political instability, conflicts and violence and economic weaknesses including vulnerabilities to internal and external shocks. These types of fragility

have been found to hinder socio-economic development. For example, how armed conflicts negatively affect economic activity by increasing uncertainty, reducing domestic and foreign investment and hindering resource mobilization (Blattman and Miguel, 2010; Collier, 2004; Novta and Pugacheva, 2020; McGuirk and Nunn, 2020; Fang and others, 2020).

Within the broader fragility literature, the impact of political instability has been frequently studied, and is found to be one of the most frequent barriers to macroeconomic progress. Coups d'état are one important form of political instability. Research to date has often focused on the causes of coups (Chin and others, 2021; Lehoucq, 2021; Powell, 2011; Collier and Hoeffler, 2007; Jackman, 1978), including one recent contribution from IMF colleagues (Cebotari and others, 2024). This paper builds on that previous study by instead considering the impacts of coups. On this topic, research to date has consistently found that coups d'état have a negative economic impact, although there is little consensus regarding the size of the effect nor the most important channels by which coups can affect the economy. Some studies have found that coups can reduce growth by as much as 2-3 percentage points (Blum and Gründler, 2020), whereas others find that the impact is less than 0.5 percentage points (Fosu, 2002). A further set of studies has explored the wider economic impacts of coups d'état, beyond the effect on GDP growth. Some of the most important findings to date highlight how coups can lead to:

- Reduced aid. Countries that experience coups are generally dependent on foreign aid, so any reduction in support reduces the country's financial capacity and puts pressure on the public finances (Masaki, 2016).

- Sovereign debt rating downgrades. Ratings agencies are found to lower their assessment of countries' debt sustainability following a coup d'état (Balima, 2020b). The probability of default is also found to increase by 1.5 percentage points.

- Increased military spending. The need to increase security and defense spending creates a risk of crowding out other public expenditures (Bove and Nisticò, 2014), which could include social spending to support the most vulnerable members of society, or growth-enhancing public investment.

- Depreciation of the nominal effective exchange rate, partly offset by financial reserves and the flexibility of the exchange rate regime.

- Lower foreign direct investment. From 1950 to 2019, Bjørnskov (2022) finds that coups resulting in a transition to an autocratic government are crucial factors contributing to economic crises. Sever (2024) similarly uses within-country variation in technological intensity across industries to show that conflicts can impact growth by hindering R&D activities.

Past analysis employs a range of different estimation techniques to identify the impact of coups on GDP growth. Jones and Olken (2009) employ a strategy based on the inherent randomness in the success or failure of assassination attempts. They assume that in cases where an attempt occurs, the success of that attempt is likely exogenous. This assumption allows the authors to compare outcomes between successful and failed attempts, treating them as a natural experiment. There are also numerous examples where researchers have used a form of instrumental variables to address the identification challenges. For example, Blum and Gründler (2020) use spatial variation in coup incidence in neighboring countries as an instrument. This method exploits regional contagion effects, assuming that this variation is unrelated to domestic economic performance. Over

recent years, many studies have relied on matching methods similar to those proposed by Hainmueller (2012), including entropy balancing techniques. Entropy balancing is a data reweighting method that ensures covariate balance between treatment and control groups. It reduces selection bias by aligning the distribution of covariates in both groups. It reduces model dependence and enhances causal inference under selection on observables. The entropy balancing method is the principal approach used in this analysis.

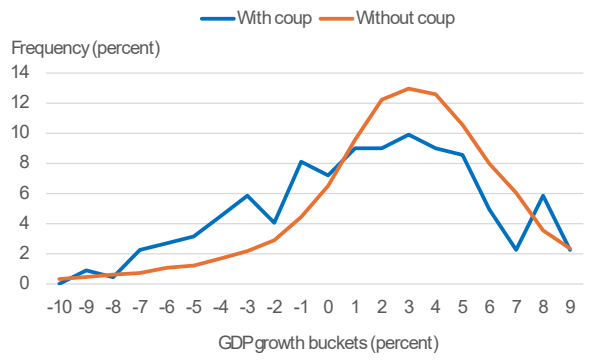
Data Summary and Initial Observations

The main data source for our empirical analysis is the coups database compiled by Powell and Thyne (2011). Those data are combined with economic statistics and country characteristics drawn predominantly from the World Bank World Development Indicators database. The dataset covers 213 countries[1] over the period 1970 to 2023, although observations are missing in some cases, for example where reliable GDP statistics are not available. In total, there are 308 coups recorded over this period, 148 of which were successful. Given that in some cases there were multiple coups in a single country within a given year, there are 251 country-year pairings where at least one coup took place and 130 country-year pairings where at least one successful coup took place.

Simple comparisons using the combined dataset show that GDP growth tends to be lower when coups occurred than in other cases. In country-year pairings where a coup occurs, GDP growth is negative in 32 percent of cases. In country-year pairings without a coup, by comparison, GDP falls in only 16 percent of cases (Figure 1). The average GDP growth rate in country-year pairings with a coup is just over 1 percent, which is also much lower than in the year before the coup, where GDP growth averages 2.7 percent, and also lower than the two years after a coup, when GDP growth averages 3.5 and 3.1 percent respectively (Figure 2). The average growth rate across the same set of countries is 4.0 percent in all other years and the average growth rate is 3.4 percent for countries where no coup occurred during the time period.

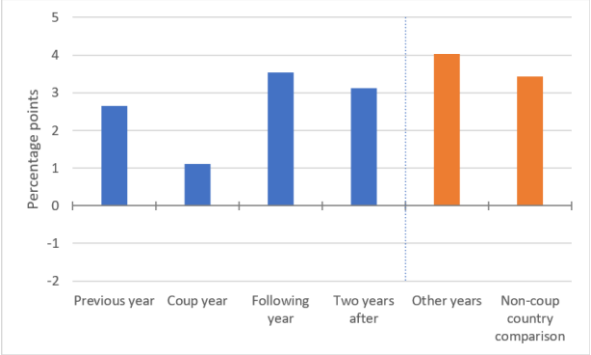
[1] The total includes countries that were part of the World Bank membership at some point during the period in question.

Figure 1: The distribution of GDP growth in years with and without coups



Note: The vertical axis shows the percentage of country-year pairings where GDP growth falls within the stated range. The horizontal axis labels show the lower end of the range, e.g. 0 corresponds to cases where annual GDP growth is between 0 and 1 percent.

Figure 2: Average growth in GDP for years before and after a coup d'état



Note: 'Other years' shows the average growth rate in the countries that experienced a coup across the years not affected by the coup. Specifically this is the average growth rate across those countries excluding years which were either the year before a coup or no more than two years after a coup. The 'non-coup country comparison' shows the average growth rate in countries that did not experience a coup between 1970 and 2021.

Empirical Approach and Main Results

Building on the observation that average growth rates tend to be lower in cases where a coup d'état occurred, this paper uses a number of methods to empirically estimate the impacts of coups d'état on GDP growth while controlling for other measurable factors. An ordinary least squares approach is first used to calculate the impact of the coup in the same year and these results are supplemented by regression results based on the entropy balancing method. The paper then considers the impact of coups on GDP growth over the following years, before assessing the impacts of different types of coups on GDP growth, as well as conducting a number of robustness checks around these findings. The potential role of sanctions, which are often imposed following coups, is an area of particular interest. Finally, the analysis considers the impacts of coups on other aspects of the economy, including the components of GDP.

The Impact of a Coup d'État on GDP Growth in the Same Year

Ordinary Least Squares Analysis

Let $i = 1, \ldots I$ represent the set of countries in the dataset and let $t = 1, \ldots T$ represent the time period for which annual data are available. In each country-year pairing, either a coup attempt occurs ($Coup_{it} = 1$) or not ($Coup_{it} = 0$), so you have:

$$Coup_{it} = \begin{cases} 1 \text{ if there is an attempt to seize power from the existing government} \\ 0 \text{ if there is no attempt} \end{cases}$$

There are many country cases where multiple coups d'état occur in over a short period. Successful coups can lead to further coups, for example, if groups linked to the previous government attempt to retake control. Unsuccessful coup attempts can also be quickly followed by further attempts to seize power. According to the explanatory variable used in this model, a case where multiple coups occur with the same year is treated in the same way as a case where one coup takes place.

The basic model can be written as:

$$Y_{it} = \alpha_0 + \alpha_1 Coup_{it} + \alpha_2 Y_{it-1} + \sum_1^N \beta_n X_{nit} + u_i + u_t + \varepsilon_{it} \quad (1)$$

Where the dependent variable is real annual GDP growth and $X_1, \ \ldots, X_N$ is a set of N additional control variables. Those control variables include both one-off factors that could affect a country's GDP growth in a given year and more structural characteristics of an economy that can influence GDP growth over a longer period:[2]

- Uncertainty has the potential to bias the findings because it reduces GDP growth (e.g. via lower investment spending) and may also precipitate coups. The empirical analysis therefore controls for the level of economic uncertainty in a country as measured by the 'World Uncertainty Index' (Bloom and others, 2022) based on the frequency of the word 'uncertainty' (or its variants) in Economist Intelligence Unit country reports.

- Natural or technological disasters could reduce GDP growth by damaging infrastructure and reducing labor supply, while also creating social unrest that may increase the probably of coups. The EM-DAT database records the number of people affected by both technological disasters, for example industrial accidents, and natural disasters, such as floods or earthquakes. To control for this potential bias, regressions include a dummy control variable which is equal to one if a natural or technological disaster occurred that affected more than 0.1 percent of the population, and zero otherwise.

- Some countries are highly resource-dependent and in those cases there may be additional incentives for coups because of a perceived payoff from taking control of such natural resources. Controlling for the share of natural resource rents in the country's GDP can therefore mitigate this potential bias. Resource rents are defined as the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Estimates are available up to 2021 and are held constant thereafter.

- Life expectancy at birth is one indicator of a country's long-term structural development, which in turn is likely to be a determinant of their expected GDP growth and probability of experiencing a coup. Data from the UN World Population Prospects allow this indicator to be included in the analysis.

- Trade openness is a proxy for a country's integration into global supply chains, whereby more isolated countries may see both lower growth (e.g. from reduced productivity) and possibly higher coup probability due to weaker political support from other countries. Merchandise trade estimates based on

[2] More details on the data sources are available in Appendix B.

World Trade Organization data can be included as an additional control variable to prevent this potential bias.

- Population growth is another possible indicator of economic development, with some of the least-developed countries exhibiting the highest birth rates. Furthermore, sharp increases in population, for example due to refugee inflows, will mechanically increase GDP growth assuming that new arrivals add to total production. They may also in some cases create conditions for social unrest, for example if they result in a scarcity of resources or pressure on government finances, which could create the conditions for a coup d'état. Controlling for population growth based on UN estimates therefore ensures that the findings are not distorted by such cases.

- The number of coups that occurred in the country over the previous decade could affect future growth prospects as hypothesized in this analysis, and given that coup events tend to be clustered both in terms of the countries and time they may also point to a higher probability of further coups. This analysis therefore controls for the frequency of past coups as a way of capturing this type of fragility.

The model controls for lagged GDP growth and also includes country and year fixed effects.

The table presenting the results starts with the simplest specification and then shows how the results evolve after adding additional control variables incrementally. In the most basic model without any control variables, GDP growth is found to be 2.1 percentage points lower on average in the years where a coup d'état takes place (Table 1, column 1). The result is statistically significant at the 1 percent level.

Adding control variables incrementally is found to have little effect on the estimated coefficient, and the result remains highly significant. The coefficient estimates associated with each of these control variables are generally found to be intuitive. Higher economic uncertainty is found to be associated with lower GDP growth and the result is highly significant. Higher life expectancy and more trade openness are associated with higher GDP growth, although these results are not consistently found to be statistically significant. Population growth and GDP growth are positively related, as would be expected. Regressing GDP growth on coup occurrences while controlling for population growth in this way ensures that the impact of the coups on GDP growth must reflect changes in GDP per capita growth. This can be further verified using separate regressions with GDP per capita growth as the dependent variable. The results of such alternative specifications were found to be very similar to these main findings. In the specification which includes all control variables, as well as country and year fixed effects, GDP growth is found to be 2.5 percentage points lower on average in country-year pairings where a coup takes place (Table 1 column 6).

Table 1: Ordinary least squares estimates suggest that if a country experiences a coups d'état in a given year, annual GDP growth is between 2.0 and 2.5 percentage points lower on average in the same year

	(1)	(2)	(3)	(4)	(5)	(6)
Any coup dummy	-2.102***	-1.882***	-2.004***	-2.405***	-2.393***	-2.533***
	(0.394)	(0.336)	(0.376)	(0.428)	(0.425)	(0.435)
Lagged GDP growth		0.280***	0.273***	0.232***	0.186***	0.185***
		(0.039)	(0.051)	(0.056)	(0.056)	(0.059)
Economic uncertainty			-2.060***	-2.103***	-1.967***	-1.307**
			(0.478)	(0.508)	(0.570)	(0.561)
Natural disaster			0.072	0.224	-0.191	-0.061
			(0.161)	(0.170)	(0.161)	(0.148)
Technological disaster			-0.868	-0.724	-0.993	-0.980
			(0.967)	(1.011)	(1.146)	(0.952)
Natural res. rents (%)				-0.001	0.041	0.019
				(0.019)	(0.030)	(0.031)
Life expectancy (years)				0.008	0.002	0.091**
				(0.012)	(0.024)	(0.044)
Merchandise trade (%)				0.008***	0.016**	0.012
				(0.002)	(0.008)	(0.008)
Total population growth				0.493**	0.683**	0.683**
				(0.194)	(0.267)	(0.276)
Coups prev. decade (lagged)				0.032	0.060	0.062
				(0.086)	(0.100)	(0.075)
Constant	3.608***	2.683***	3.129***	1.258	1.749	0.303
	(0.121)	(0.165)	(0.261)	(0.929)	(1.873)	(2.247)
Country fixed effects	No	No	No	No	Yes	Yes
Year fixed effects	No	No	No	No	No	Yes
Observations	10,957	10,743	7,516	6,587	6,587	6,587
Number of countries	213	213	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Entropy Balancing

The entropy balancing approach is used in this analysis because of the possibility of endogeneity. For example, it is possible that the ordinary least squares results presented in the previous section could be affected by reverse causality, whereby a worsening economic situation can lead to a coup d'état. Measurement error could also be problematic for many of the variables included in this study, including in the definition of a coup d'état, where different data sources provide different criteria for classifying coups.

The aim of the entropy balancing method is to create an artificial control group which matches the treatment group as closely as possible according to the different moments (mean, variance, etc) of a set of observable characteristics (see Hainmueller (2012) for full details). In this case, the treated group comprises those country-year pairings where a coup d'état occurred, while the control group is made up of those where no coup d'état took place.

To ensure that the slow-moving, structural characteristics of the countries included in the treatment and control groups are comparable, the control group is reweighted so that the average characteristics of the reweighted sample match those of the treatment group. The analysis focuses on the first moment alone in this case. The set of observable characteristics are the share of natural resource rents in the country, life expectancy at birth, merchandise trade as a share of GDP, population growth and the number of coups over the previous decade. This approach aims to replicate a hypothetical scenario where coups d'état are randomly assigned across the treatment and control groups.

Before the reweighting, country-year pairings where coups occurred are found to have a higher share of natural resource rents than non-coup cases (Table 2). Coups are also found to occur in cases with lower life expectancies, lower trade as a share of GDP, higher population growth, and where coups have occurred more frequently in previous years. These differences are all found to be statistically significant, suggesting that the two groups are not comparable. After the reweighting of the non-coup country-year pairings, however, these differences largely disappear (Table 3). Overall, the method is shown to be successful in assigning weights to the non-coup cases to create a control group which is very similar to the treatment group across all five of the observable characteristics considered.

Table 2: Observable characteristics across the treatment and control groups show significant differences prior to reweighting

	Coup cases	Non-coup cases	Difference	Standard error	t-statistic
Natural resource rents (%)	8.81	7.01	1.80***	0.63	-2.86
Life expectancy	56.27	67.20	-10.93***	0.62	17.72
Merchandise trade (%)	40.48	62.23	-21.75***	1.68	12.94
Population growth	2.35	1.64	0.71***	0.11	-6.64
Previous coups	1.59	0.32	1.27***	0.12	-10.19

Table 3: Observable characteristics across the treatment and control groups are more comparable after reweighting

	Coup cases	Non-coup cases	Difference	Standard error	t-statistic
Natural resource rents (%)	8.81	8.64	0.17	0.21	0.80
Life expectancy	56.27	56.95	-0.68	0.22	-3.10
Merchandise trade (%)	40.48	42.58	-2.10	0.53	-3.99
Population growth	2.35	2.29	0.06	0.03	1.66
Previous coups	1.59	1.52	0.07	0.04	1.61

The second stage of the entropy balancing method involves running a simple regression on the re-weighted dataset, with GDP growth as the dependent variable, and the explanatory variable of interest (as before) as the occurrence of a coup d'état. The results are presented for numerous specifications with additional control variables in each case, including country and year fixed effects:

$$GDP\_Growth_{it} = \alpha_0 + \alpha_1 Coup\_Dummy_{it} + \alpha_2 GDP\_Growth_{it-1} + \ \ldots$$

$$\alpha_3 Uncertainty_{it} + \alpha_4 Nat\_Disast_{it-1} + \alpha_5 Tech\_Disast_{it} + \ \ldots$$

$$\alpha_6 Nat\_Res\_Rents\_(\%)_{it} + \alpha_7 Life\_Expectancy_{it} + \alpha_8 Merch\_Trade\_(\%)_{it} + \alpha_9 Previous\_Coups_{it} + \ \ldots$$

$$v_i + u_t + \varepsilon_{it}$$

Results show that a coup d'état reduces GDP growth by 2.3 percentage points in the same year (Table 4). The finding is very similar to the estimate using ordinary least squares and the effect is found to be statistically significant.

This finding is robust to the inclusion of control variables in the second stage regression, as well as country and year fixed effects. Similar to the ordinary least squares results, economic uncertainty is found to be associated with lower GDP growth, although the effect is not statistically significant in this case. While large natural disasters are not found to have a consistent relationship with GDP growth, technological disasters are linked to lower GDP growth in this case, and the result is statistically significant in some cases. Life expectancy and trade openness are again found to be linked to higher GDP growth in this case, although the results are no longer significant. By contrast, an increase in natural resource rents as a share of GDP is found to be associated with lower GDP growth on average.

Table 4: Entropy balancing estimates suggest that if a country experiences a coup d'état in a given year, annual GDP growth is around 2.3 percentage points lower on average in the same year

	(1)	(2)	(3)	(4)	(5)	(6)
Any coup dummy	-2.433***	-2.233***	-2.147***	-2.177***	-2.048***	-2.295***
	(0.480)	(0.418)	(0.447)	(0.357)	(0.373)	(0.367)
Lagged GDP growth		0.272***	0.293***	0.196**	0.102	0.083
		(0.073)	(0.085)	(0.085)	(0.087)	(0.077)
Economic uncertainty			-0.676	-0.983	-1.534	-0.619
			(1.771)	(1.514)	(1.512)	(1.135)
Natural disaster			0.316	-0.063	-0.161	0.336
			(0.456)	(0.394)	(0.487)	(0.458)
Technological disaster			-5.116**	-4.021**	-3.624	-2.909
			(2.249)	(2.023)	(2.484)	(1.907)
Natural res. rents (%)				-0.091***	-0.159**	-0.108**
				(0.031)	(0.069)	(0.051)
Life expectancy (years)				0.054*	0.014	0.178
				(0.032)	(0.068)	(0.122)
Merchandise trade (%)				0.020**	0.032	0.015
				(0.010)	(0.020)	(0.013)
Total pop. growth				1.491***	1.788***	1.403***
				(0.256)	(0.226)	(0.170)
Coups prev. decade (lagged)				-0.018	-0.061	-0.042
				(0.109)	(0.179)	(0.122)
Constant	3.635***	2.708***	2.612***	-3.464*	-5.013	-8.318
	(0.200)	(0.302)	(0.415)	(2.082)	(3.753)	(5.307)
Country fixed effects	No	No	No	No	Yes	Yes
Year fixed effects	No	No	No	No	No	Yes
Observations	8,845	8,806	6,587	6,587	6,587	6,587
R-squared	0.031	0.094	0.107	0.232	0.308	0.404

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The Impact of a Coup d'État on GDP Growth in Subsequent Years

Following the method proposed by Jorda (2005), the local projections approach can be used to estimate the impact of coups d'état over time. This method uses repeated ordinary least squares regressions at different horizons to estimate the effect of a coup d'état, both in the year in which it takes place, and the following five years.

Similar to the original specification (1), the local projections model can be written as:

$$Y_{it+h} = \alpha_0^h + \alpha_1^h Coup_{it} + \alpha_2^h Y_{it-1} + \sum_1^N \beta_n^h X_{nit}^h + u_i^h + u_t^h + \varepsilon_{it}^h \quad (2)$$

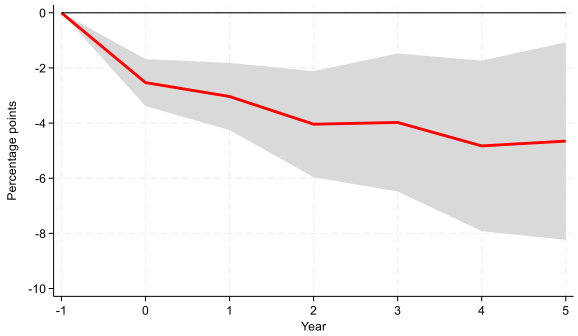
Where h represents the time horizon, in this case ranging from 0 to 5. For example, where $h = 5$ the regression estimates the impact of a coup in year t on GDP growth in year $t + 5$.

Given that coups tend to be concentrated in periods of heightened political instability, there are many cases where two or more coups take place in the same year, or in consecutive years. Focusing again on SSA, for example, of the 148 country-year cases where a coup took place in this dataset, 14 of those contained more than one individual coup event within the same year and in 36 of those 148 cases there was also a coup in the year before or after. Whenever multiple coups occur in the same or adjoining years it becomes difficult to infer which one was the cause of any observed impact on GDP. For example, an observed fall in GDP one and two years after the first coup may in fact be due to the impact of the second coup. This modelling approach retains all country-year pairings where coups took place and treats them as individual datapoints. The resulting coefficient estimates therefore include the impacts of further coups over the subsequent five years, which is part of the impact of persistent political fragility. The approach is used throughout most of the analysis in this paper, although there are some additional robustness checks which attempt to control for cases with clustered coups.

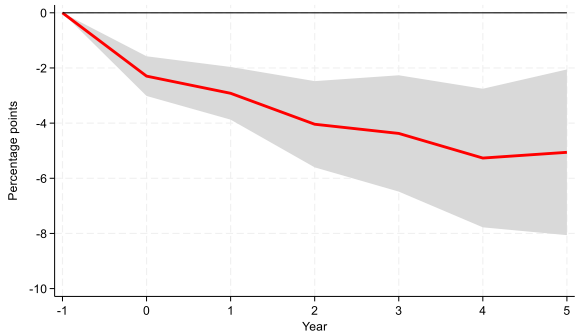
Results based on the local projection specification suggest that during the five years after a coup d'état takes place, cumulative GDP growth is 4.7 percentage points lower on average than for non-coup cases, controlling for other country-year characteristics (Figure 3a). That result is corroborated by the entropy balancing approach, which finds that cumulative GDP growth over the same five-year period is 5.1 percentage points lower on average than for non-coup cases (Figure 3b). These results demonstrate that while annual GDP growth rates recover somewhat in the years following a coup, there is a persistent effect on the level of GDP. The results are again found to be robust to the inclusion of a range of control variables and are statistically significant.

Figure 3: Cumulative GDP growth is found to be lower on average following a coup than in non-coup cases

a) Local projection model



b) Entropy balancing model



Note: Charts show the difference in total cumulative GDP growth over different horizons, relative to the year prior to the coup. The gray areas show the 95 percent confidence intervals around the central estimates. Year 0 represents the year in which the coup d'état took place and the estimates for the year t-1 are set to zero by construction. See appendix for tables showing detailed results.

Assessing the Heterogeneous Impacts on GDP Growth

While previous research has generally found that coups d'état have a negative impact on economic outcomes overall, there is generally little evidence as to whether different types of coup, or different characteristics in the countries where they take place, lead to different outcomes. This study therefore explores these questions in more detail.

The analysis presented below is based on different variations of the local projections model, which follow the same specification as before, but with the addition of further interaction terms. The findings above suggest that local projections results are consistent with those found using the entropy balancing method, which supports the use of local projections specifications for these purposes. The main results are summarized below, with full results and details regarding the different model specifications are reported in the appendix.

i) Successful coups d'état are found to have a larger negative impact on GDP growth than unsuccessful coups, although the difference is not statistically significant

The most common heterogeneity analysis conducted in empirical research to date is to check whether there is a difference between successful and unsuccessful coups. Similar checks are possible in this case using the categorization into successful and unsuccessful coups provided by Powell and Thyne (2011). Both successful and unsuccessful coups are found to have a negative impact on GDP growth in the year that the coup takes place, as well as a persistent effect over time (Figure 4a). While successful coups are found to have a larger impact on GDP growth on average, the difference between the economic impacts of these two classes of coup is not large enough to be statistically significant.

ii) Coups that occur in low-income countries are found to have a larger negative impact on GDP growth than those that occur in other countries, although again the difference is not statistically significant.

The latest income classifications from 2024 can be used to test whether coups which take place in low-income countries have different effects on GDP growth from other countries. The World Bank classifies member countries into categories from low to high income (World Bank blog, 2024). For this analysis, the classification is assumed to be unchanged over time, so that a country classed as low-income in 2024 is assumed to have been low-income throughout the time period under consideration. This is an important simplification, as countries may have transitioned from one income group to another during the period in question.

The resulting model suggests that coups tend to have a larger impact on average when they take place in countries that are classed as low-income. The model is similar to the main local projections specification, with the addition of a dummy variable indicating whether country was categorized as low-income level in 2024 and an interaction term given by the product of the coup dummy variable and the low-income dummy variable. While coups were found to have a larger impact on average when they took place in low-income countries, the difference was not found to be statistically significant, with negative effects on GDP growth seen in both low-income cases and other cases (Figure 4b). Low-income countries often suffer from weaker institutions and lack the resources to cope with negative shocks. This is particularly true for fragile and conflict-affected states (FCS).

iii) Coups have a larger negative impact on GDP growth when they occur in SSA countries than in non-SSA countries, although the divergence typically only appears some years after the coup takes place.

Consistent with the finding that low-income countries suffer larger negative effects from coups, the impacts are also found to be larger for countries in sub-Saharan Africa, although differences only appear two years after the coup. This finding is based on a similar approach where a dummy variable indicating whether the country is in SSA and an interaction term with the occurrence of a coup are added to the baseline specification. In the year of the coup and the following year, the impact on GDP growth is found to be similar across SSA and non-SSA countries (Figure 4c). Two years after the coup d'état, however, GDP growth begins to recover in non-SSA countries, whereas in SSA countries GDP growth continues to be below that of other countries such that cumulative GDP growth over the five years after the coup is 8 percentage points lower than in other country cases. As a result of that observed divergence, the coefficient estimate on the interaction term is statistically significant at the 5 percent level four years after the coup and at the 10 percent level five years ahead. The results are little changed when the low-income dummy variable and an interaction term between the low-income variable and the coup indicator are included, suggesting that the additional negative impact seen in SSA countries is additional to the fact that many of those countries are low-income countries.

iv) If a coup takes place in a country that was previously democratic, GDP growth is found to be a little lower on average than if the country was previously governed by non-democratic regime, although the difference is small, temporary and not statistically significant.

Using a similar method it is possible to test whether coups that occur in previously democratic countries have different impacts from those that occur in non-democratic countries. A successful coup will by definition switch a country to an autocratic regime, at least temporarily, which is likely to represent a major change for a country that was previously democratic. The model is therefore adjusted to control for the democratic status of the country in the year prior to the coup, as well as an interaction term with the coup d'état dummy variable, to test

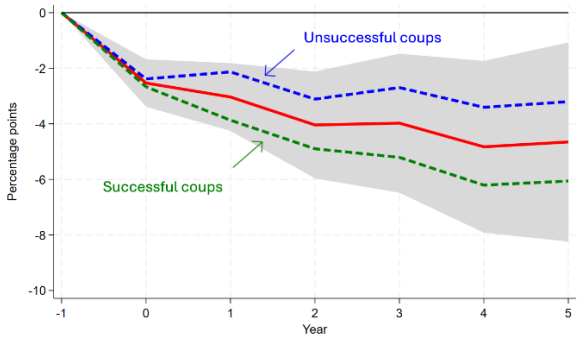
whether coups that occurred in previously democratic countries have different impacts from those that occurred in countries with autocratic regimes. Democratic classifications are based on the V-Dem Variations of Democracy database.

Evidence shows that coups that take place in previously democratic countries have a larger initial economic impact on average than those in previously autocratic countries. In previously autocratic countries, GDP growth is found to be 2.5 percentage points lower on average following a coup d'état. This is the case for the vast majority of coups in the dataset and therefore the results are similar to those of the baseline specification. In countries that were previously democratic, GDP growth in the year of the coup is found to be 2.9 percentage points lower on average than cases where no coup took place (Figure 4d). The difference between these two estimates as captured by the interaction term between the occurrence of a coup and previous democratic status is not found to be statistically significant.

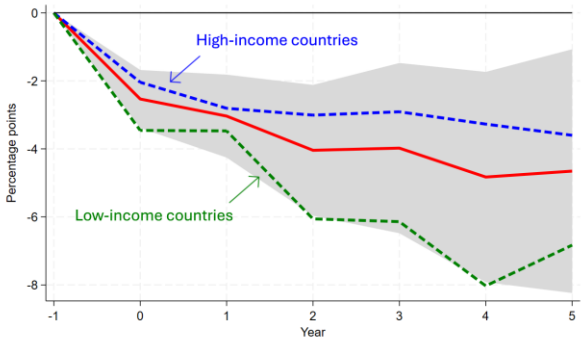
While there is tentative evidence that coups d'état have a larger impact on GDP growth in the same year in countries that were previously democratic, GDP growth in those countries is found to recover somewhat over time. Cumulative GDP growth over the following five years is found to be 2.8 percentage points lower than for non-coup cases. This difference is smaller than the impact on previously autocratic countries, which experience a more persistent impact on GDP growth, and smaller than the estimation in the baseline specification. Again, given the small sample size and in particular the small number of coups that occur in previously democratic countries since 1970, the differences reported in this section are not found to be statistically significant.

Figure 4: Local projections estimates of the impact of coups d'état on cumulative GDP growth over the subsequent five years show that the estimated effects differ depending on country characteristics

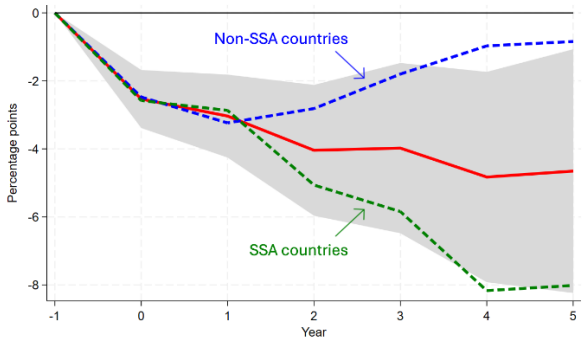
a) Successful and unsuccessful coups



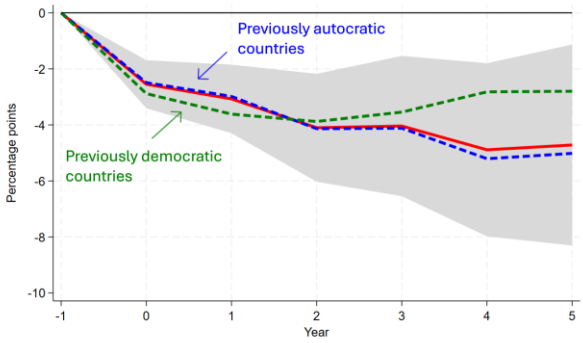
b) High- and low-income countries



c) Countries within and outside of SSA



d) Democratic and non-democratic countries



Note: Charts show the difference in total cumulative GDP growth over different horizons, relative to the year prior to the coup. The gray area shows the 95 percent confidence interval around the central estimates. Year 0 represents the year in which the coup d'état took place and the estimates for the year t-1 are set to zero by construction. See appendix for tables showing detailed results.

The Combined Impact of Coups and Economic Sanctions

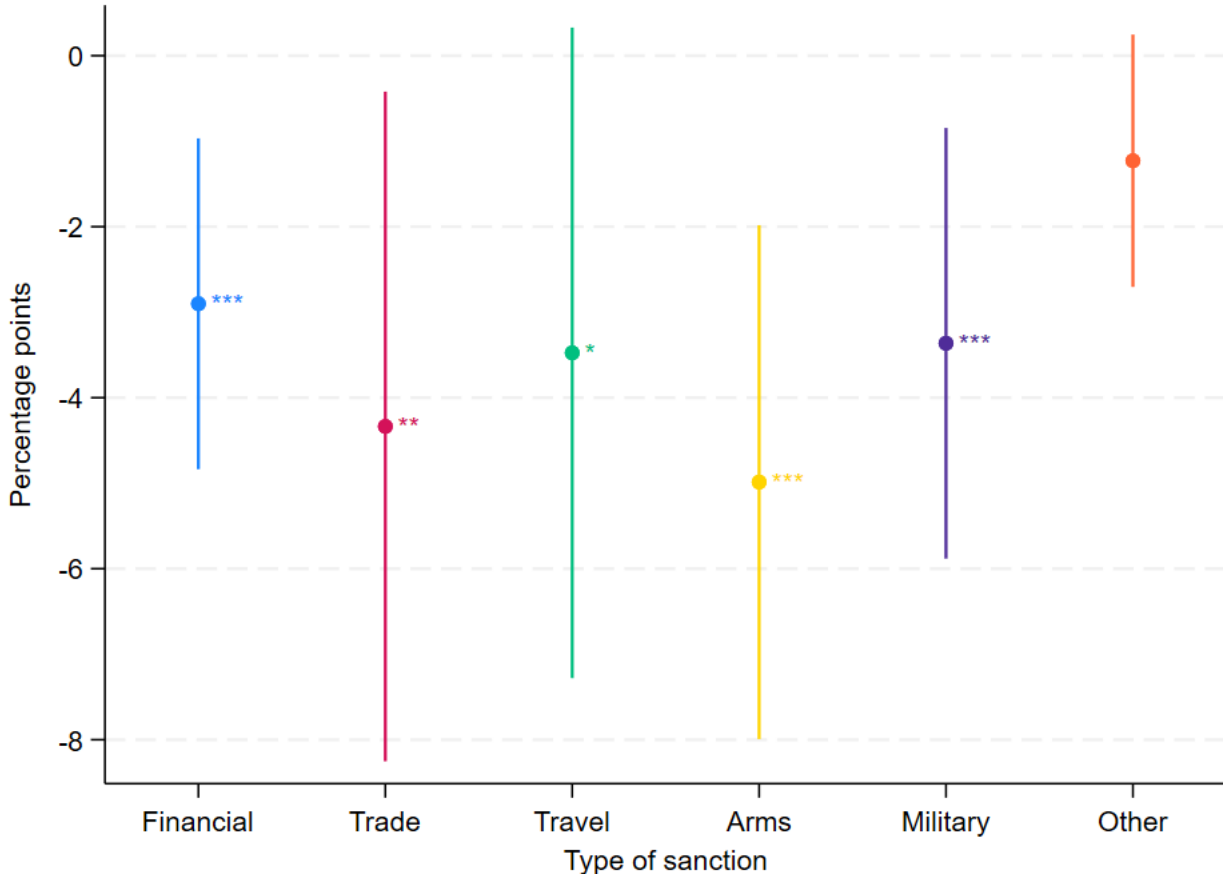
It is common for sanctions to be imposed following a coup d'état. These sanctions can take different forms, including financial, trade, travel, arms, military and other restrictions. The Global Sanctions Database provides global statistics on these different forms of sanctions and shows that they are particularly common across a number of global regions, including Europe and Central Asia, the Middle East and North Africa region and sub-Saharan Africa. The database also highlights the association between sanctions and coups d'état. Again taking the case of SSA, new forms of sanctions are found to be applied with a probability of 6 percent in country-year pairings with no coup, but that probability rises to 18 percent in coup cases.[3] The same pattern holds for the dataset as a whole, with new forms of sanctions applied in 6 percent of cases for country-year pairings with no coup years and 19 percent of cases where there is a coup.

[3] New forms of sanctions are said to have been applied when a country is subject to a greater range of sanction types (arms, military, trade, financial, travel and 'other') than in the previous year.

The ordinary least squares specification used in this analysis can be adapted to test the combined impact of coups and sanctions on GDP growth. By including dummy variables indicating the presence of sanctions in the original ordinary least squares specification, as well as an interaction term indicating the occurrence of a coup and sanctions in the same year, it is possible to test whether economic sanctions alone have an impact on GDP growth, and whether the effect of a coup d'état on GDP growth is exacerbated in cases where sanctions occur in the same year. This process can be repeated in separate regressions for all the different forms of sanctions included in the database, with identical control variables to ensure consistency with previous results.

Coups accompanied by sanctions are found to coincide with larger reductions in GDP growth. When a country experiences a coup that is not accompanied by financial sanctions, GDP growth is found to be 1.4 percentage points lower in the same year. When such a coup is accompanied by financial sanctions, however, there is a further negative impact on GDP growth of 2.9 percentage points, as captured by the interaction term. The total reduction in GDP growth in those cases is therefore 4.3 percentage points. Those additional impacts measured by the interaction term are found to be negative and significant for most types of sanctions. Trade sanctions are found to be associated with larger reductions in GDP growth by 4.3 percentage points, while travel sanctions are associated with an additional 3.5 percentage point reduction in GDP growth (Figure 5). Growth is found to be lower by a further 5 percentage points on average when arms sanctions are imposed and by an additional 3.4 percentage points under military sanctions. In all of these cases the interaction terms are found to be statistically significant. For 'other' sanctions the additional impact is found to be smaller and not significantly different from zero.

Figure 5: Ordinary least squares regressions including interaction terms show that if a coup d'état and financial, trade, arms or military sanctions occur in the same year, then the downward effect on GDP growth is amplified



Note: * p<0.10, ** p<0.05, *** p<0.01. Each estimate shown on the chart is based on a separate ordinary least squares regression with the same set of control variables as the baseline specification as well as one additional control variable for the different type of sanction and an interaction term indicating whether a coup d'état and some form of sanctions against a country occurred in the same year. The estimates shown in the charts are the coefficients associated with the interaction term and the lines show 95 percent confidence intervals around those estimates.

Further Extensions and Robustness Checks

A number of other robustness checks are used to test the validity of the main results. These are described only briefly in this section, with detailed results available in the appendix.

i) Removing outliers

Some of the countries included in the database experienced very large changes in GDP, which may increase the possibility of measurement errors. GDP growth is particularly volatile for low-income and fragile states, where coups are more prevalent.

To test whether extreme GDP growth observations are driving the main findings of this analysis, it is possible to repeat the entropy balancing analysis with the largest outliers either replaced or excluded altogether. In the first variant of the model, the dataset is adjusted such that country-year pairings with GDP growth at the lower end of the distribution are set equal to the fifth percentile of all annual growth rates (-4.1 percent) and those at the upper end are set equal to the ninety-fifth percentile (11.1 percent). This approach ensures that all datapoints are retained, but the largest positive and negative GDP growth rates are replaced with less extreme entries. The second variant of the model simply removes any country-year pairings with GDP growth rates outside the fifth and ninety-fifth percentiles, which reduces the dataset size somewhat. The specification remains otherwise unchanged in both cases.

Results show that while the initial impact a coup d'état is smaller after replacing or excluding outliers, the result remains statistically significant and the cumulative impact over five years is very similar in magnitude to the baseline specification. After replacing outliers with less extreme growth rates, GDP growth is found to be 1.5 percentage points lower on average in years where a coup takes place (Figure 6a). Over the following five years, cumulative GDP growth is on average 4.6 percentage points lower. If the outliers are removed altogether, GDP growth is found to be 1.2 percentage points lower in the year of the coup and 4.1 percentage points lower in the following five years. Again these results are statistically significant, despite being somewhat smaller in magnitude and being based on a smaller sample size given that some observations have been removed.

While the main results use the real GDP growth rate as the dependent variable given its relevance for policymakers, it is also possible to run similar regressions based on log differences. One advantage of using log differences is the improved robustness with regard to outlier observations. The entropy balancing method with log differences as the dependent variable points to a -2.4 percentage point impact on GDP growth in the same year, very similar to the baseline case and statistically significant. The persistence of the effect is slightly smaller than in the main findings, with a -4.0 percentage point impact on cumulative GDP growth over the following five years, but again the result is found to be statistically significant and broadly supportive of the main findings. Detailed results are available in Table A9.

ii) Controlling for IMF WEO forecasts

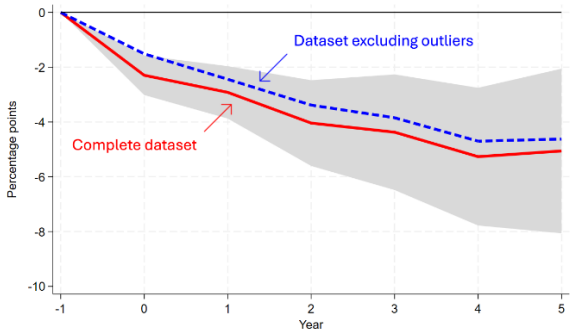
It is also possible to add additional regressors capturing GDP growth forecasts and IMF program status. Previous research estimating the macroeconomic impact of conflict followed a similar approach (Novta and Pugacheva, 2020). The objective is to capture changes in growth that were not predicted and can therefore be attributed to the effect of the coup. Given that IMF growth forecasts have previously been found to be optimistic under IMF programs (Kim and others, 2021) these model specifications also include an additional dummy variable indicating program status to control for any resulting bias in growth projections.

Under this model, GDP growth is again found to be lower in cases where a country experiences a coup d'état, although there is some recovery in GDP growth over the following five years. The entropy balancing model which follows that standard approach except for the addition of these two control variables indicates that GDP growth is 3.6 percentage points lower in the same year as the coup (Figure 6b). Thereafter, cumulative GDP growth is again found to be significantly lower than in non-coup cases, although there is some recovery in GDP growth rates such that cumulative GDP growth over the following five years is found to be 4.0 percentage points below non-coup cases. The inclusion of these additional control variables reduces the sample size somewhat, with no data available for the earlier years in the full dataset. The smaller sample size means that

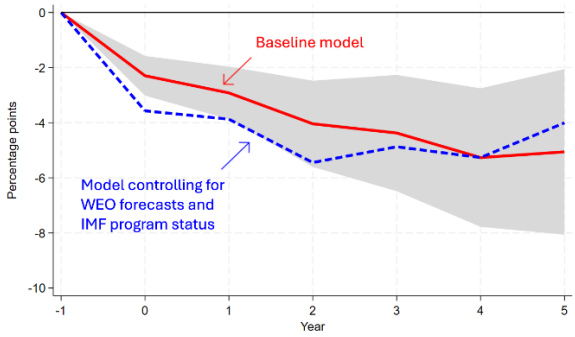
the impact on the cumulative GDP growth rate over five years is not found to be statistically significant in this model.

Figure 6: Alternative estimates of the impact of coups d'état on cumulative GDP growth over the subsequent five years using the entropy balancing method continue to show a negative effect

a) Removing outliers



b) Controlling for IMF WEO projections



Note: Charts show the difference in total cumulative GDP growth over different horizons, relative to the year prior to the coup. The gray areas show the 95 percent confidence intervals around the central estimates. Year 0 represents the year in which the coup d'état took place and the estimates for the year t-1 are set to zero by construction. See appendix for tables showing detailed results.

iii) Removing countries which did not experience any coup during the time period

It could be argued that countries where no coup took place might have very different characteristics to those that experienced coups, so even a reweighting process such as entropy balancing might not create a fully comparable control group. To test this possibility, the regression analysis is repeated after excluding all countries where no coup took place since 1970. The number of countries in the sample is reduced from 141 to 71. The control group in this case consists of the years where coups did not take place, for countries that experienced at least one coup during the time period in question.

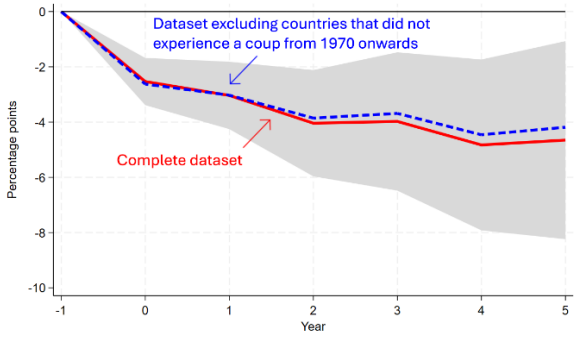
Removing countries where no coup took place from the sample has little effect on the results. GDP growth is still found to be lower in those years where a coup d'état took place and the difference is statistically significant (Figure 7a).

iv) Comparing the impact of coups which occurred in the first and second half of the year

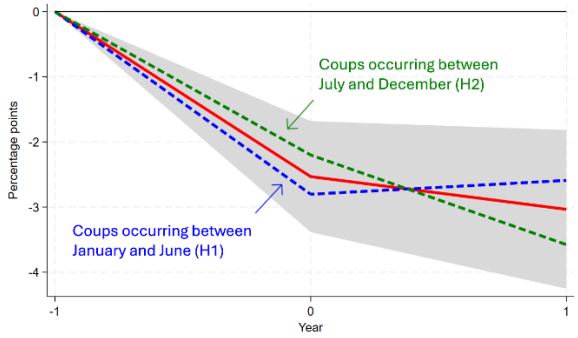
Coups d'état are found to negatively affect GDP growth in the same year, regardless of whether they take place in the first or second half of the year. Coups which occur during the second half of the year are found to have a greater effect on GDP growth in the following year, which is intuitive (Figure 7b).

Figure 7: Further robustness checks again suggest that cumulative GDP growth is lower on average following a coup d'état

a) Removing countries where no coup occurred



b) Comparing the impact of coups in H1 and H2



Note: Charts show the difference in total cumulative GDP growth over different horizons, relative to the year prior to the coup. The gray areas show the 95 percent confidence intervals around the central estimates. Year 0 represents the year in which the coup d'état took place and the estimates for the year t-1 are set to zero by construction. See appendix for tables showing detailed results.

v) Repeating the estimations with an alternative coups database

Results presented so far have all been based on the database of coups d'état compiled by Powell and Thyne (2011), but alternative databases are also available. Powell and Thyne (2011) define a coup as an "*overt attempt by the military or other elites within the state apparatus to unseat the sitting head of state using unconstitutional means*". Successful coups are those where the new regime was able to seize and hold power for at least seven days. Marshall and Marshall (2019) produced an alternative dataset, which can be used to carry out similar analysis. In that case, a coup is defined as *"a forceful seizure of executive authority and office by a dissident/opposition faction within the country's ruling or political elites that results in a substantial change in the executive leadership and the policies of the prior regime"*. This database categorizes coups as successful if the new executive exercises effective authority for at least one month.

As a result of these differences in definitions, the Marshall database records 306 coups since 1970 that can be included in the analysis, compared to 251 according to the Powell database. While the Marshall database records a higher total number of coup attempts, it records only 114 of those coups as having been successful, compared with 130 in the Powell database. Repeating the analysis with the occurrence of a coup d'état according to the Marshall database as the explanatory variable of interest provides a cross-check for the main findings.

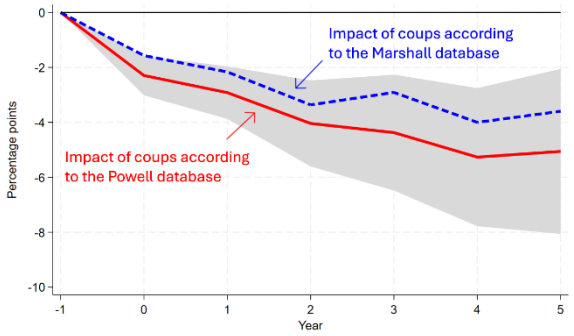
Estimates of coup impacts according to the Marshall database are slightly smaller than those estimated using the Powell database, but the results are broadly consistent and remain statistically significant. In the year of the coup, GDP growth is found to be 1.6 percentage points lower in cases where a country experienced a coup according to the Marshall database. Cumulative GDP growth in the five years following the coup is found to be 3.6 percentage points lower on average. In both cases, these estimated coefficients are somewhat smaller than those estimated using the Powell database (Figure 8). The model uses the same entropy balancing method as

the baseline specification, including the same reweighting variables and additional controls.

iv) Controlling for cases where countries experience multiple coups in the same year or adjoining years

Coups d'état occurrences tend to be clustered within the dataset, both across countries and over time. Some countries experience multiple coups in the same year, or within a few years, with one coup, be it successful or unsuccessful, often followed by further attempts to seize power.

Figure 8: Coups d'état as measured by the Marshall database are found to have a negative effect on cumulative GDP growth in the subsequent five years, similar to the Powell data



Note: Chart shows the difference in total cumulative GDP growth over different horizons, relative to the year prior to the coup. The gray area shows the 95 percent confidence interval around the central estimates. Year 0 represents the year in which the coup d'état took place and the estimate for year where t-1 is set to zero by construction. See appendix for tables showing detailed results.

To ensure that cases of multiple coups are not biasing the results, it is possible to run similar regressions with an additional dummy variable to control for cases where multiple coups occur in the same year. While the initial effect of a coup occurrence on real GDP growth is found to be slightly smaller than in the main results at -1.9 percentage points, the result remains statistically significant at the 5 percent level. Furthermore the size of cumulative GDP growth increases over time as in the central case. See Table A14 for detailed results.

It's also possible that observed coups are part of a series of multiple coups across adjoining years. To control for this possibility and ensure that such cases do not bias the findings, it is possible to run similar regressions which include additional controls for further coups taking place in the two years before or after the one in question, or both. In all three of these cases the main regression results are broadly unchanged, with a coup found to reduce GDP growth by 2.3 percentage points on average. The results are statistically significant in all cases. See Table A15 for detailed results of the specification including all controls.

As a further test, it is possible to run similar regressions excluding country-year observations where a further coup occurred in a separate year within the five-year time horizon. Mechanically, this means that if a coup occurs in country i in year s and then a subsequent coup occurs in the same country i in year t, whereby $s + 1 \leq t \leq s + 5$ then the five years of data for i between t and $t + 5$ are removed from the estimation sample. The effect of coups is not found to be persistent after making this adjustment (see Table 16 for the detailed results). This approach excludes cases from the sample where countries experience an increase in political fragility as a result of the initial coup which then manifests as a higher probability of future coups. The result is therefore unsurprising and highlights that persistent fragility is an important channel by which coups reduce growth over the medium term.

v) Checking comparability of GDP growth rates before coups and adding further controls for pre-coup country characteristics including GDP per capita

To check that GDP growth rates are similar between country-year observations with and without coups in the pre-coup years, it is possible to extend the time period covered by the local projections and entropy balancing

specifications to cover the five years before the coups took place. For the local projections model there are no statistically significant differences between the GDP growth rates in the treatment and control groups in the years $t-5$ to $t-2$, but GDP growth is lower in the treatment group in the year $t-1$ (see Figure A1(a) for a detailed illustration). This implies that GDP growth tends to be lower the year before a coup takes place, consistent with deteriorating economic performance increasing the likelihood of a coup d'état. Under the entropy balancing specification, however, the statistically significant difference in year $t-1$ is eliminated by the reweighting (see Figure A1(b)). This illustrates the importance of using of the entropy balancing method to control for underlying differences in the sample groups. Overall, these results support the hypothesis that GDP growth rates are comparable before the coups occurred, particularly following the entropy balancing reweighting.

The entropy balancing results reported in the main specification are based on data that are reweighted according to country characteristics in the same year, but it is also possible to control for country characteristics in the previous year. In the main findings, the entropy balancing reweighting is based on natural resource rents, life expectancy, merchandise trade share and population growth in the same year, with the number of coup occurrences being the only lagged input variable. In this supplementary specification, the entropy balancing reweighting is based on characteristics in the year $t-1$. This specification is designed to ensure that the treatment and control groups were comparable before a coup took place, reducing the risk of confounding pre-coup trends.

In this specification, GDP per capita is also included as an additional input into the weighting exercise, again lagged by one year. GDP per capita is an important indicator of economic development and therefore reweighting the data in a way that reduces the differences between the GDP per capita between the treatment and control group increases confidence in their comparability.

In this version of the entropy balancing exercise, the reweighting is again successful at eliminating statistically significant differences between the coup and non-coup groups across most observable characteristics, but there remains a statistically significant difference based on GDP per capita. Similar to the main specification, after the reweighting there are no statistically significant differences between the coup and non-coup groups based on natural resource rents, life expectancy, merchandise trade share and population growth. For GDP per capita, the average across country-year pairings where coups took place is US$2,930, whereas the average for non-coup cases is US$12,170. Most of this large difference is eliminated by the reweighting exercise, whereby the average for non-coup country-year pairings following the reweighting is reduced to US$3,240. The remaining difference is still found to be statistically significant at the 5 percent level, however. See Tables A17(a) and A17(b) for detailed results.

While the reweighting exercise does not eliminate all differences between the treatment and control groups in this case, the results of the second stage regressions are broadly unchanged and therefore supportive of the main findings. In particular, after controlling for past country characteristics including GDP per capita in this way, coups d'état are found to reduce GDP growth in the same year by 3.1 percentage points. This effect is statistically significant and larger than in the baseline specification. Over the subsequent five years, cumulative GDP growth is found to be 6.6 percentage points lower, which is similarly statistically significant and larger than in the baseline. Detailed results are available in Table A17(c).

The Effects on Different Aspects of the Economy

Having estimated the effect of coups on GDP growth, a similar approach can be used to assess how coups can affect other aspects of the economy. This analysis can also shed light on which areas of the economy are the main causes of the downward effect on overall output growth.

To identify the channels that warrant further analysis, an event study approach can be used to test which variables show the largest variations around the time of coups d'état. The event study method uses a consistent specification across a range of different dependent variables, with no additional controls, following the method of Gourinchas and Obstfeld (2012).

Event study results show that the growth rates of all expenditure components of GDP are lower in cases where a coup d'état takes place, but there is less evidence of a statistically significant impact on monetary and fiscal indicators. While event studies suggest that governance indicators are lower for countries that experience coups, the time trends show that the decline in governance indicators starts before the coup takes place. These data are only available over a shorter time horizon and the variables are also likely to be particularly endogenous, with coups mechanically lowering some of these scores, so these impacts are not investigated further in this analysis.

i) Entropy balancing estimations with the expenditure components of GDP as dependent variables

It is possible to conduct the same analysis as above, but with the components of GDP as separate dependent variables. This section uses the entropy balancing method, with the same set of control variables as the baseline specification.

Using the annual growth rates of GDP components as the dependent variable shows that coups d'état have a very large negative impact on investment in particular. Gross fixed capital formation growth is 14.3 percentage points lower on average than in non-coup cases (Figure 9a). This fall in total investment could reflect lower foreign direct investment (FDI). Other studies have found that FDI is particularly sensitive to geopolitical risks, for example (Bussy and Zheng, 2023), although this may be less the case for FDI linked to natural resources or high-tech industries (World Bank, 2024). Coups often affect geopolitical relationships, including the possibility of economic or other forms of sanctions, and may therefore alter the attractiveness of some potential foreign investments.

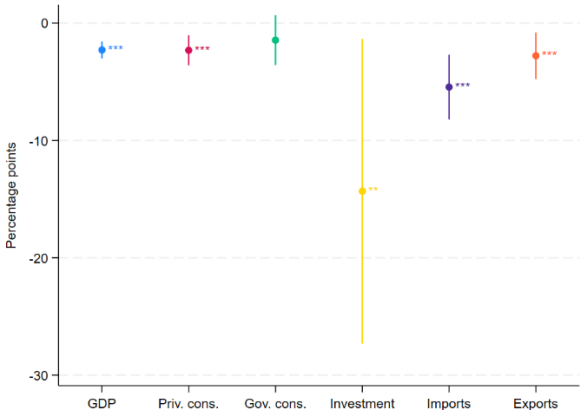
While private consumption growth does not decline by as much as investment growth in the years where a country experiences a coup d'état, it does nonetheless fall by 2.3 percentage points on average and given its typically large share in GDP it is also a major driver of lower GDP growth. The contribution of private consumption to overall GDP growth is reduced by 1.1 percentage points, which is even slightly larger than the lower contribution from investment (Figure 9b).

External trade growth also shows large effects, with imports growth 5.5 percentage points lower on average and exports growth 2.8 percentage points lower. The fall in imports growth is consistent with lower private consumption growth as the result of a coup, as well as lower investment growth, which is likely to be import intensive in many cases. Separate regressions suggest that lower consumption and investment account for more than half of the observed fall in imports. In particular, in a model with imports growth as the dependent variable and private consumption and total investment as additional control variables, the additional effect on

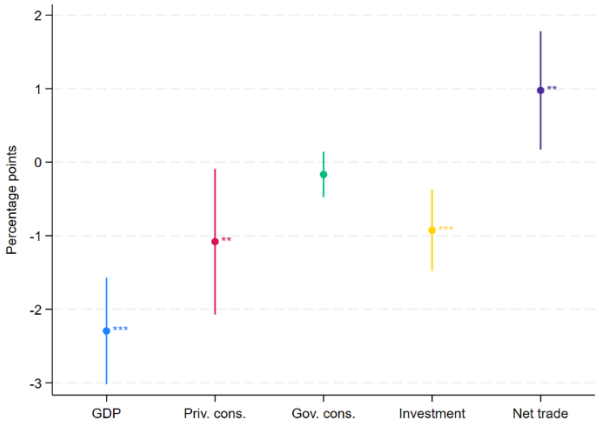
imports excluding the impact of changes in consumption and investment is found to be -2.8 percentage points, around half of the observed change in the absence of these controls. See Table A20 for detailed results. Given that imports growth is typically reduced by more than exports growth, the contribution to GDP growth from net trade typically increases in the year of a coup d'état.

Figure 9: Entropy balancing models suggest that both private consumption and total investment contribute to the observed fall in GDP growth following a coup d'état, while imports fall by more than exports such that the contribution of net trade to GDP growth increases on average

a) Coefficient estimates using annual growth rates as dependent variables



b) Coefficient estimates using contributions to GDP growth as dependent variables



Note: * p<0.10, ** p<0.05, *** p<0.01. All results are based on entropy balancing regressions with the same set of control variables as the baseline specification.

ii) Entropy balancing estimations with the monetary and fiscal indicators as dependent variables

A similar analysis using indicators of monetary and credit conditions as the dependent variables does not produce statistically significant evidence that this is an important channel. Entropy balancing regressions with broad money supply, net credit to the private sector and net foreign direct investment flows as the dependent variables, all measured as a share of GDP, do not show statistically significant changes in the years of coups d'état. Similarly, interest rate spreads and indicators of risk premia do not change significantly in the years where a coup takes place. See Table A21 for detailed results.

A further set of regressions conducts similar tests to consider whether coups d'état typically have an impact on fiscal indicators, but results are again generally not found to be statistically significant. The variables tested include the fiscal deficit, tax revenues, current government spending and government investment. As above, the fiscal variables of interest are all measured as a share of GDP. Results show little effect on most fiscal variables, although government investment is found to be lower in coup cases. See Table A22 for detailed results.

Conclusion

The regression results reported in this paper show that on average, coups d'état are associated with lower GDP growth by between 1.5 and 3.1 percentage points. Within the estimated range, the central estimate according to the entropy balancing method is that a coup d'état reduces growth by 2.3 percentage points on average in the same year. The effect on GDP is persistent, such that cumulative GDP growth in the subsequent five years is reduced by around five percentage points on average.

The results are consistent across a number of specifications, although further investigation also finds tentative evidence that the average effect of coups on GDP growth is somewhat dependent on the country characteristics and economic circumstances. There is tentative evidence that successful coups have a larger effect than unsuccessful coups, while results also suggest that low-income countries and those countries in SSA may also experience a larger reduction in GDP growth. Countries that were previously democratic may also see larger effects on GDP growth, although the effect is found to be temporary and the differences are not found to be statistically significant.

In many cases, coups d'état coincide with economic sanctions and this is indeed found to be an important transmission channel. Many different types of sanctions are found to exacerbate the impact of coups on GDP growth and the effects are found to be statistically significant.

It appears that coups d'état have a large effect on private consumption and investment growth, but little effect on monetary or fiscal variables. Private consumption growth is typically found to be somewhat lower in cases where a coup d'état occurs. Given that consumption typically accounts for a large share of overall GDP, this is found to be an important channel when measured as a contribution to GDP. Investment growth is found to fall even more dramatically when a coup takes place. Investment typically accounts for a smaller share of GDP, such that the change is similar to that of private consumption when measured as a contribution to GDP growth.

Following a coup d'état—be it successful or unsuccessful—these results could help authorities to calibrate their response. Although countries experiencing coups are likely to face a negative economic shock overall, targeting support towards those areas identified as being most affected by coups could help to mitigate the most severe impacts. To avoid the negative shock altogether, countries can also benefit from creating economic, political and social environments where coups d'état are less likely to take place.

It is hoped that this study has enhanced the understanding of the link between coups d'état and GDP growth, but the work has some important limitations and there remain numerous areas for further work. This study, like others, is limited by data availability. Coups are generally relatively rare events and they happen most frequently in those countries where economic data are incomplete. One possible extension to this work would be to fill in some of those data gaps to create more complete datasets. A further possible extension of this study would be to analyze other elements of fragility that can affect the economy, such different aspects of conflict or state failure.

References

Ahir, H., Bloom, N. and Furceri, D. (2022). The World Uncertainty Index, NBER Working Paper 29763.

Alesina, A., Özler, S., Roubini, N. and Swagel, P. (1996). Political instability and economic growth. Journal of Economic growth, 1(2).

Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. The World Economy, 29(1).

Balima, H. (2020a). Coups d'état and the foreign exchange market. The World Economy, 43(7).

Balima, H. (2020b). Coups d'état and the cost of debt. Journal of Comparative Economics, 48(3).

Bjørnskov, C. (2022). Coups and economic crises, IFN Working Paper, No. 1449, Research Institute of Industrial Economics.

Blattman, C. and Miguel, E. (2010). Civil war. Journal of Economic Literature, 48(1).

Blum, J. and Gründler, K. (2020). Political stability and economic prosperity: Are coups bad for growth? Gender Economics, ZBW Leibniz Information Centre for Economics.

Boly, A. and Sawadogo, F. (2024), Coups d'état and non-resource tax revenues in Africa, Working Paper Series N° 381, African Development Bank.

Bove, V. and Nisticò, R. (2014). Coups d'état and defense spending: A counterfactual analysis. Public Choice, 161.

Bussy, A., and Zheng, H. (2023). Responses of FDI to geopolitical risks: The role of governance, information, and technology. International Business Review, 32(4).

Büttner, N., Grimm, M., and Soubeiga, S. (2022). Political instability and households' investment behavior: Evidence from Burkina Faso. Journal of Comparative Economics, 50(2).

Cebotari, A., Chueca-Montuenga, E., Diallo, Y., Ma, Y., Turk-Ariss, R., Xin, W. and Zavarce, H. (2024). Political fragility: Coups d'état and their drivers, IMF Working Paper No. 2024/034.

Chin, J. J., Carter, D. B. and Wright, J. G. (2021). The varieties of coups d'état: Introducing the Colpus dataset. International Studies Quarterly, 65(4).

Collier, P. (2004). Greed and grievance in civil war. Oxford Economic Papers, 56(4).

Collier, P. and Hoeffler, A. (2007). Military spending and the risks of coups d'états, Working Paper, ORA—Oxford University Research Archive.

Fang, X., Kothari, S., McLoughlin, C., and Yenice, M. (2020). The economic consequences of conflict in Sub-saharan africa. IMF Working Paper No. 20/221.

Fosu, A. K. (2002). Political instability and economic growth: Implications of coup events in sub-Saharan Africa. American Journal of Economics and Sociology, 61(1).

Gourinchas, P. O., and Obstfeld, M. (2012). Stories of the twentieth century for the twenty-first. American Economic Journal: Macroeconomics, 4(1).

Hainmueller, J. (2012). Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. Political Analysis, 20(1).

Jackman, R. W. (1978). The predictability of coups d'état: A model with African data. American Political Science Review, 72(4).

Jones, B. F. and Olken, B. A. (2009). Hit or miss? the effect of assassinations on institutions and war. American Economic Journal: Macroeconomics, 1(2).

Jong-A-Pin, R. (2009). On the measurement of political instability and its impact on economic growth. European Journal of Political Economy, 25(1).

Jorda, O. (2005). Estimation and inference of impulse responses by local projections. American Economic Review, 95(1).

Kim, J, Atsebi, J, Lee, K, Toprak, H, and Li, J, (2021). Cross-Country Analysis of Program Design and Growth Outcomes: 2008–19, IEO Background Paper BP/21-01/01.

Lehoucq, F. (2021). Military coups d'état and their causes, Oxford Research Encyclopedia of Politics, Oxford University Press.

Lehoucq, F. and Pérez-Liñán, A. (2014). Breaking out of the coup trap: Political competition and military coups in Latin America. Comparative Political Studies, 47(8).

Marshall, M. G. and Marshall, D.R. (2019). Coup d'état events, 1946-2018 codebook, Center for Systemic Peace.

Masaki, T. (2016). Coups d'état and foreign aid. World Development, 79.

McGuirk, E. F. and Nunn, N. (2020). Transhumant Pastoralism, Climate Change, and Conflict in Africa, NBER Working Paper 28243.

Novta, N. and Pugacheva, E. (2020). The Macroeconomic Costs of Conflict. IMF Working Paper No. 20/110.

Powell, J. M. and Thyne, C. L. (2011). Global instances of coups from 1950 to present: A new dataset. Journal of Peace Research, 48(2).

Sever, C. (2025). Conflicts and Growth: The R&D Channel. The World Bank Economic Review.

Taleb, N. (2014). Antifragile: Things that gain from disorder (Vol. 3). Random House.

Wu, W. and Ye, F. (2020). Preferential trade agreements, democracy, and the risk of coups d'état. Social Science Quarterly, 101(5).

World Bank (2024). Shifting Shores: FDI Relocations and Political Risk.

World Bank blog (2024). World Bank country classifications by income level for 2024-2025.

Appendix A. Local projections and entropy balancing models: detailed results tables

Table A1: Local projections estimates of the impact of coups d'état on cumulative GDP growth over the subsequent five years show that cumulative GDP growth is persistently lower than non-coup cases

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.533***	-3.035***	-4.041***	-3.977***	-4.828***	-4.654**
	(0.435)	(0.621)	(0.981)	(1.276)	(1.577)	(1.828)
Lagged GDP cumul. growth	0.185***	0.280***	0.370***	0.396***	0.426***	0.470***
	(0.059)	(0.081)	(0.096)	(0.112)	(0.116)	(0.125)
Economic uncertainty	-1.307**	-2.375**	-1.939	-1.567	-1.430	-2.256
	(0.561)	(1.035)	(1.529)	(1.935)	(2.310)	(2.890)
Natural disaster	-0.061	0.236	0.391	0.969**	1.450**	1.865***
	(0.148)	(0.254)	(0.378)	(0.468)	(0.585)	(0.710)
Technological disaster	-0.980	-1.719	-2.342	-2.490	-1.377	-3.026
	(0.952)	(1.492)	(1.711)	(2.069)	(2.270)	(2.835)
Natural res. rents (%)	0.019	0.044	0.070	0.069	0.095	0.145
	(0.031)	(0.056)	(0.074)	(0.094)	(0.123)	(0.153)
Life expectancy (years)	0.091**	0.158**	0.227*	0.317*	0.411*	0.491
	(0.044)	(0.079)	(0.128)	(0.187)	(0.241)	(0.309)
Merchandise trade (%)	0.012	0.023	0.031	0.028	0.020	0.005
	(0.008)	(0.017)	(0.027)	(0.037)	(0.045)	(0.055)
Total pop. growth	0.683**	0.967**	0.874***	0.896**	0.854*	0.692
	(0.276)	(0.386)	(0.331)	(0.404)	(0.461)	(0.469)
Coups prev. decade (lagged)	0.062	0.201	0.523	0.849*	1.220**	1.616**
	(0.075)	(0.184)	(0.321)	(0.461)	(0.620)	(0.790)
Constant	0.303	1.641	5.222	11.032	17.383	22.579
	(2.247)	(3.837)	(6.112)	(9.009)	(11.678)	(14.695)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
Number of countries	141	141	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2: Entropy balancing estimates of the impact of coups d'état on cumulative GDP growth over the subsequent five years show that cumulative GDP growth is persistently lower than non-coup cases

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.295***	-2.919***	-4.040***	-4.374***	-5.266***	-5.059***
	(0.367)	(0.487)	(0.797)	(1.076)	(1.282)	(1.532)
Lagged GDP growth	0.083	0.140*	0.187**	0.081	0.023	0.084
	(0.077)	(0.081)	(0.084)	(0.096)	(0.107)	(0.120)
Economic uncertainty	-0.619	-2.452	-4.802**	-3.951	-3.796	-3.202
	(1.135)	(1.747)	(2.138)	(2.484)	(2.898)	(3.885)
Natural disaster	0.336	0.779	0.846	0.793	0.436	0.993
	(0.458)	(0.584)	(0.771)	(0.988)	(1.093)	(1.241)
Technological disaster	-2.909	-3.304	-2.146	-5.701	-5.423	-6.043
	(1.907)	(2.237)	(2.336)	(5.312)	(5.556)	(6.477)
Natural res. rents (%)	-0.108**	-0.030	-0.045	-0.081	0.008	0.056
	(0.051)	(0.065)	(0.099)	(0.111)	(0.146)	(0.177)
Life expectancy (years)	0.178	0.188*	0.210	0.256	0.423**	0.549**
	(0.122)	(0.101)	(0.139)	(0.174)	(0.186)	(0.240)
Merchandise trade (%)	0.015	0.008	-0.010	-0.043	-0.084	-0.138
	(0.013)	(0.024)	(0.035)	(0.055)	(0.070)	(0.088)
Total pop. growth	1.403***	1.180***	1.133**	1.357**	1.352**	1.189
	(0.170)	(0.303)	(0.483)	(0.606)	(0.644)	(0.718)
Coups prev. decade (lagged)	-0.042	0.023	0.024	0.073	0.238	0.549
	(0.122)	(0.263)	(0.382)	(0.513)	(0.625)	(0.756)
Constant	-8.318	-2.307	3.216	13.266	19.677**	22.280*
	(5.307)	(4.350)	(6.330)	(8.452)	(9.344)	(11.304)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.404	0.388	0.400	0.423	0.455	0.474

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A3: Local projections estimates suggest that successful and coups d'état have a larger effect on cumulative GDP growth over the subsequent five years than unsuccessful coup attempts, although the difference is not statistically significant

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.383***	-2.133**	-3.113**	-2.696	-3.407	-3.204
	(0.608)	(0.865)	(1.447)	(1.965)	(2.328)	(2.823)
Successful coup interaction	-0.287	-1.737	-1.786	-2.512	-2.800	-2.856
	(0.852)	(1.133)	(1.681)	(2.290)	(2.612)	(3.133)
Lagged GDP growth	0.185***	0.280***	0.370***	0.397***	0.427***	0.470***
	(0.059)	(0.081)	(0.096)	(0.112)	(0.116)	(0.125)
Economic uncertainty	-1.305**	-2.365**	-1.931	-1.561	-1.425	-2.248
	(0.562)	(1.036)	(1.530)	(1.936)	(2.311)	(2.892)
Natural disaster	-0.060	0.238	0.392	0.968**	1.449**	1.862***
	(0.148)	(0.255)	(0.379)	(0.468)	(0.586)	(0.711)
Technological disaster	-0.976	-1.693	-2.316	-2.447	-1.328	-2.975
	(0.949)	(1.487)	(1.704)	(2.055)	(2.246)	(2.808)
Natural res. rents (%)	0.019	0.045	0.071	0.071	0.097	0.146
	(0.031)	(0.056)	(0.074)	(0.095)	(0.123)	(0.154)
Life expectancy (years)	0.091**	0.157**	0.227*	0.316*	0.410*	0.490
	(0.044)	(0.079)	(0.128)	(0.187)	(0.241)	(0.309)
Merchandise trade (%)	0.012	0.023	0.031	0.028	0.020	0.005
	(0.008)	(0.017)	(0.027)	(0.037)	(0.045)	(0.055)
Total pop. growth	0.683**	0.965**	0.872***	0.892**	0.849*	0.687
	(0.277)	(0.387)	(0.333)	(0.406)	(0.463)	(0.471)
Coups prev. decade (lagged)	0.062	0.198	0.520	0.844*	1.214**	1.610**
	(0.074)	(0.182)	(0.319)	(0.459)	(0.617)	(0.787)
Constant	0.304	1.657	5.237	11.067	17.433	22.634
	(2.245)	(3.836)	(6.113)	(9.014)	(11.683)	(14.699)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
Number of countries	141	141	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A4: Local projections estimates suggest that coups d'état which occur in low-income countries have a larger effect on cumulative GDP growth over the subsequent five years than coups d'état in high-income countries, although the difference is not statistically significant

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.041***	-2.806***	-3.007**	-2.909*	-3.272*	-3.601
	(0.461)	(0.830)	(1.174)	(1.603)	(1.866)	(2.234)
Low-income country	1.474***	3.008***	5.502***	10.559***	16.126***	22.612***
	(0.541)	(0.822)	(0.975)	(1.233)	(1.556)	(1.909)
Coup and low-income interaction	-1.415	-0.665	-3.051	-3.230	-4.756	-3.229
	(0.918)	(1.233)	(1.904)	(2.385)	(3.043)	(3.599)
Lagged GDP growth	0.186***	0.280***	0.371***	0.397***	0.428***	0.471***
	(0.059)	(0.081)	(0.096)	(0.112)	(0.116)	(0.125)
Economic uncertainty	-1.299**	-2.370**	-1.915	-1.538	-1.385	-2.226
	(0.562)	(1.036)	(1.529)	(1.937)	(2.314)	(2.896)
Natural disaster	-0.064	0.235	0.387	0.964**	1.441**	1.857***
	(0.148)	(0.254)	(0.378)	(0.469)	(0.587)	(0.712)
Technological disaster	-1.003	-1.730	-2.393	-2.538	-1.452	-3.076
	(0.957)	(1.493)	(1.712)	(2.085)	(2.288)	(2.843)
Natural res. rents (%)	0.019	0.044	0.071	0.070	0.096	0.145
	(0.031)	(0.056)	(0.074)	(0.094)	(0.123)	(0.154)
Life expectancy (years)	0.091**	0.157**	0.226*	0.315*	0.409*	0.490
	(0.044)	(0.079)	(0.127)	(0.187)	(0.241)	(0.309)
Merchandise trade (%)	0.012	0.023	0.031	0.029	0.021	0.006
	(0.008)	(0.017)	(0.027)	(0.037)	(0.046)	(0.055)
Total pop. growth	0.678**	0.965**	0.863***	0.883**	0.834*	0.678
	(0.279)	(0.388)	(0.334)	(0.406)	(0.463)	(0.470)
Coups prev. decade (lagged)	0.054	0.197	0.505	0.829*	1.191*	1.597**
	(0.074)	(0.183)	(0.320)	(0.459)	(0.616)	(0.784)
Constant	-1.173	-1.367	-0.262	0.516	1.327	0.015
	(2.138)	(3.750)	(6.098)	(8.921)	(11.578)	(14.590)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
Number of countries	141	141	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5: Local projections estimates suggest that coups d'état which occur in SSA countries have a similar effect on cumulative GDP growth to other countries in the year of the coup and the following year, but a larger effect on GDP growth two years and more after the coup takes place

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.475***	-3.237***	-2.814*	-1.800	-0.971	-0.843
	(0.622)	(1.039)	(1.535)	(2.012)	(2.323)	(2.838)
Sub-Saharan Africa	-1.456***	-3.002***	-5.450***	-10.493***	-16.017***	-22.525***
	(0.534)	(0.816)	(0.973)	(1.237)	(1.560)	(1.914)
Coup and SSA interaction	-0.105	0.367	-2.249	-4.043	-7.195**	-7.172*
	(0.861)	(1.348)	(1.961)	(2.592)	(3.087)	(3.733)
Lagged GDP growth	0.185***	0.280***	0.370***	0.397***	0.428***	0.472***
	(0.059)	(0.081)	(0.096)	(0.112)	(0.116)	(0.125)
Economic uncertainty	-1.307**	-2.375**	-1.938	-1.567	-1.425	-2.266
	(0.561)	(1.035)	(1.527)	(1.932)	(2.308)	(2.893)
Natural disaster	-0.061	0.236	0.394	0.972**	1.455**	1.869***
	(0.148)	(0.254)	(0.377)	(0.467)	(0.584)	(0.710)
Technological disaster	-0.982	-1.713	-2.379	-2.553	-1.493	-3.142
	(0.951)	(1.491)	(1.718)	(2.102)	(2.325)	(2.894)
Natural res. rents (%)	0.019	0.044	0.070	0.070	0.097	0.146
	(0.031)	(0.056)	(0.074)	(0.094)	(0.123)	(0.154)
Life expectancy (years)	0.091**	0.157**	0.228*	0.318*	0.415*	0.495
	(0.044)	(0.079)	(0.128)	(0.187)	(0.242)	(0.310)
Merchandise trade (%)	0.012	0.023	0.031	0.029	0.021	0.006
	(0.008)	(0.017)	(0.027)	(0.037)	(0.046)	(0.055)
Total pop. growth	0.683**	0.969**	0.865***	0.879**	0.823*	0.660
	(0.278)	(0.387)	(0.333)	(0.405)	(0.464)	(0.472)
Coups prev. decade (lagged)	0.062	0.202	0.519	0.840*	1.204*	1.601**
	(0.075)	(0.184)	(0.322)	(0.463)	(0.624)	(0.793)
Constant	0.299	1.655	5.145	10.917	17.172	22.367
	(2.250)	(3.840)	(6.116)	(9.022)	(11.706)	(14.734)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
Number of countries	141	141	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A6: Local projections estimates suggest that coups d'état which occur in previously democratic countries have a slightly larger effect on cumulative GDP growth initially compared with non-democratic countries, although the difference is not statistically significant

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.492***	-2.982***	-4.137***	-4.117***	-5.207***	-5.016**
	(0.508)	(0.702)	(1.066)	(1.394)	(1.732)	(2.049)
Previous year democracy	-0.303	-0.684	-1.038	-1.119	-1.190	-1.286
	(0.290)	(0.650)	(1.078)	(1.501)	(1.903)	(2.302)
Coup * Prev. yr. democracy.	-0.392	-0.632	0.259	0.574	2.387	2.217
	(0.794)	(1.269)	(2.276)	(2.941)	(3.305)	(3.644)
Lagged GDP growth	0.185***	0.279***	0.369***	0.395***	0.425***	0.469***
	(0.059)	(0.081)	(0.096)	(0.112)	(0.115)	(0.124)
Economic uncertainty	-1.264**	-2.277**	-1.801	-1.423	-1.283	-2.091
	(0.558)	(1.033)	(1.529)	(1.934)	(2.303)	(2.872)
Natural disaster	-0.051	0.257	0.418	1.002**	1.480***	1.897***
	(0.148)	(0.251)	(0.369)	(0.453)	(0.566)	(0.688)
Technological disaster	-0.961	-1.675	-2.298	-2.470	-1.352	-2.996
	(0.952)	(1.497)	(1.714)	(2.071)	(2.262)	(2.830)
Natural res. rents (%)	0.019	0.043	0.069	0.069	0.094	0.144
	(0.031)	(0.056)	(0.074)	(0.095)	(0.123)	(0.154)
Life expectancy (years)	0.093**	0.160**	0.231*	0.320*	0.415*	0.495
	(0.044)	(0.079)	(0.128)	(0.187)	(0.242)	(0.309)
Merchandise trade (%)	0.012	0.023	0.031	0.028	0.020	0.005
	(0.008)	(0.018)	(0.027)	(0.037)	(0.046)	(0.055)
Total pop. growth	0.683**	0.965**	0.872***	0.891**	0.847*	0.685
	(0.277)	(0.386)	(0.331)	(0.405)	(0.463)	(0.471)
Coups prev. decade (lagged)	0.046	0.165	0.471	0.792*	1.162*	1.553*
	(0.075)	(0.188)	(0.330)	(0.474)	(0.636)	(0.810)
Constant	0.146	1.305	4.769	10.549	16.920	22.077
	(2.272)	(3.869)	(6.122)	(8.991)	(11.652)	(14.641)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
Number of countries	141	141	141	141	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A7: Ordinary least squares estimations with a sanctions dummy variable and an interaction with the coup d'état dummy variable and the same set of control variables show that coups have a larger negative impact on GDP growth when they coincide with sanctions

	(Financial sanctions)	(Trade sanctions)	(Travel sanctions)	(Arms sanctions)	(Military sanctions)	(Other sanctions)
Any coup dummy	-1.374***	-2.003***	-2.078***	-1.268***	-1.676***	-2.328***
	(0.450)	(0.434)	(0.466)	(0.363)	(0.496)	(0.499)
Sanctions dummy	-0.192	-0.821***	0.374	0.464	-0.159	0.010
	(0.267)	(0.301)	(0.338)	(0.324)	(0.299)	(0.311)
Coup * Sanctions interaction	-2.901***	-4.336**	-3.476*	-4.987***	-3.364***	-1.229
	(0.979)	(1.981)	(1.924)	(1.520)	(1.273)	(0.747)
Lagged GDP growth	0.184***	0.181***	0.185***	0.184***	0.184***	0.185***
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Economic uncertainty	-1.265**	-1.288**	-1.271**	-1.272**	-1.305**	-1.288**
	(0.562)	(0.561)	(0.560)	(0.564)	(0.562)	(0.562)
Natural disaster	-0.056	-0.069	-0.057	-0.053	-0.056	-0.059
	(0.150)	(0.151)	(0.148)	(0.149)	(0.150)	(0.148)
Technological disaster	-0.911	-0.952	-0.976	-0.883	-1.023	-0.980
	(0.934)	(0.973)	(0.952)	(0.913)	(0.967)	(0.954)
Natural res. rents (%)	0.020	0.019	0.020	0.021	0.020	0.019
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
Life expectancy (years)	0.089**	0.082*	0.096**	0.089**	0.089**	0.092**
	(0.044)	(0.045)	(0.044)	(0.043)	(0.044)	(0.044)
Merchandise trade (%)	0.011	0.012	0.012	0.013	0.012	0.012
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Total pop. growth	0.682**	0.689**	0.687**	0.682**	0.690**	0.685**
	(0.277)	(0.270)	(0.276)	(0.281)	(0.274)	(0.276)
Coups prev. decade (lagged)	0.061	0.063	0.054	0.047	0.068	0.063
	(0.073)	(0.079)	(0.075)	(0.074)	(0.074)	(0.075)
Constant	0.503	0.527	-0.285	-0.069	0.455	0.219
	(2.305)	(2.268)	(2.273)	(2.212)	(2.189)	(2.264)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,587	6,587	6,587	6,587	6,587
R-squared	0.228	0.230	0.227	0.230	0.228	0.226

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A8: Entropy balancing using a dataset where extreme growth rates are excluded shows that a coup d'état is associated with lower GDP growth by 1.5 percentage points in the same year, smaller than the estimate using the whole dataset but still statistically significant

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-1.513***	-2.440***	-3.384***	-3.846***	-4.701***	-4.624***
	(0.236)	(0.419)	(0.712)	(0.962)	(1.192)	(1.335)
Lagged GDP growth	0.148***	0.191**	0.279***	0.181*	0.095	0.167
	(0.056)	(0.078)	(0.081)	(0.097)	(0.115)	(0.123)
Economic uncertainty	-1.544	-3.212**	-5.619***	-4.782**	-3.669	-2.966
	(0.988)	(1.530)	(1.869)	(2.155)	(2.608)	(3.546)
Natural disaster	0.248	0.351	0.502	0.532	0.507	1.121
	(0.330)	(0.484)	(0.681)	(0.933)	(1.016)	(1.211)
Technological disaster	-2.239*	-2.997	-2.561	-6.340	-5.517	-6.086
	(1.303)	(1.835)	(2.105)	(4.846)	(5.102)	(5.670)
Natural res. rents (%)	-0.039	-0.016	-0.028	-0.075	0.005	0.023
	(0.030)	(0.049)	(0.074)	(0.094)	(0.119)	(0.145)
Life expectancy (years)	0.045	0.083	0.088	0.176	0.341**	0.461**
	(0.043)	(0.060)	(0.107)	(0.150)	(0.161)	(0.210)
Merchandise trade (%)	0.013	0.017	0.000	-0.019	-0.050	-0.095
	(0.010)	(0.018)	(0.029)	(0.044)	(0.054)	(0.071)
Total pop. growth	0.392***	0.698***	0.875***	1.161***	1.187***	0.979*
	(0.108)	(0.203)	(0.302)	(0.365)	(0.416)	(0.548)
Coups prev. decade (lagged)	-0.096	-0.022	-0.078	0.090	0.268	0.530
	(0.110)	(0.242)	(0.343)	(0.481)	(0.602)	(0.719)
Constant	1.614	4.799	10.289**	16.166**	19.792**	23.650**
	(2.041)	(2.958)	(5.127)	(7.262)	(7.770)	(9.537)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.337	0.393	0.429	0.445	0.481	0.492

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A9: Entropy balancing estimates of the impact of coups d'état on cumulative GDP growth as measured by the difference in logs show that GDP growth is 2.4 percentage points lower than non-coup cases in the same year and 4.1 percentage points lower over the subsequent five years, broadly consistent with the main findings

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.390***	-2.782***	-3.730***	-3.884***	-4.412***	-4.077***
	(0.408)	(0.482)	(0.767)	(0.993)	(1.130)	(1.293)
Lagged GDP growth	0.061	0.116	0.156*	0.055	-0.002	0.036
	(0.082)	(0.080)	(0.081)	(0.086)	(0.091)	(0.096)
Economic uncertainty	-0.350	-2.164	-4.188**	-2.688	-2.387	-1.446
	(1.154)	(1.666)	(2.013)	(2.308)	(2.598)	(3.266)
Natural disaster	0.358	0.762	0.818	0.858	0.398	0.748
	(0.477)	(0.550)	(0.714)	(0.896)	(0.974)	(1.068)
Technological disaster	-2.862	-3.188	-1.650	-4.604	-3.650	-3.597
	(1.986)	(2.291)	(2.252)	(5.005)	(4.854)	(5.369)
Natural res. rents (%)	-0.129**	-0.036	-0.051	-0.066	0.003	0.043
	(0.055)	(0.065)	(0.095)	(0.098)	(0.125)	(0.140)
Life expectancy (years)	0.244	0.224**	0.245*	0.281*	0.438***	0.534***
	(0.162)	(0.112)	(0.135)	(0.158)	(0.162)	(0.201)
Merchandise trade (%)	0.012	0.003	-0.013	-0.035	-0.064	-0.100
	(0.013)	(0.024)	(0.034)	(0.047)	(0.055)	(0.066)
Total pop. growth	1.784***	1.245***	1.116**	1.255**	1.174*	0.997
	(0.217)	(0.278)	(0.437)	(0.566)	(0.594)	(0.617)
Coups prev. decade (lagged)	-0.040	0.016	0.032	0.112	0.293	0.546
	(0.122)	(0.253)	(0.366)	(0.484)	(0.575)	(0.673)
Constant	-13.480*	-5.877	-1.248	7.474	11.116	12.555
	(7.312)	(4.755)	(6.008)	(7.534)	(8.172)	(9.518)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.451	0.404	0.404	0.420	0.452	0.468

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A10: Entropy balancing estimates controlling for WEO growth forecasts and IMF program status show that the results remain robust, with coups d'état in this case associated with lower GDP growth by 3.6 percentage points in the same year

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-3.570***	-3.872***	-5.447***	-4.873***	-5.266**	-4.006
	(0.803)	(0.769)	(1.284)	(1.830)	(2.266)	(2.763)
Lagged GDP growth	-0.061	0.034	0.045	-0.031	-0.010	0.031
	(0.098)	(0.102)	(0.123)	(0.145)	(0.164)	(0.170)
WEO GDP growth forecast	0.550***	0.569***	0.561***	0.428***	0.420***	0.400***
	(0.120)	(0.050)	(0.058)	(0.091)	(0.090)	(0.103)
IMF program (lagged)	0.248	1.105	1.220	1.144	0.590	-0.416
	(0.780)	(0.696)	(1.025)	(1.670)	(2.136)	(2.159)
Economic uncertainty	-0.708	-1.732	-4.325	-1.869	-3.327	-3.863
	(1.506)	(2.535)	(3.237)	(4.036)	(4.940)	(5.602)
Natural disaster	1.023	1.335**	1.517**	1.453	0.819	0.722
	(0.696)	(0.563)	(0.766)	(1.114)	(1.107)	(1.384)
Technological disaster	-4.124	-6.094	-2.024	-4.833	-3.457	-3.430
	(3.393)	(6.155)	(5.181)	(7.238)	(8.517)	(7.746)
Natural res. rents (%)	-0.176***	-0.147**	-0.189*	-0.314**	-0.243	-0.263
	(0.052)	(0.065)	(0.105)	(0.146)	(0.170)	(0.186)
Life expectancy (years)	0.209	0.193	0.134	0.188	0.614***	0.735***
	(0.217)	(0.195)	(0.230)	(0.282)	(0.207)	(0.237)
Merchandise trade (%)	0.016	-0.011	-0.031	-0.082	-0.164**	-0.210**
	(0.018)	(0.036)	(0.046)	(0.065)	(0.079)	(0.102)
Total pop. growth	1.121***	0.805**	0.859	0.984	0.625	0.702
	(0.199)	(0.361)	(0.524)	(0.660)	(0.599)	(0.633)
Coups prev. decade (lagged)	-0.006	0.273	0.565	1.337**	1.413**	2.223***
	(0.216)	(0.261)	(0.428)	(0.546)	(0.617)	(0.829)
Constant	-15.128	-13.138	-9.248	-0.176	-16.953	-19.929
	(10.949)	(9.653)	(11.443)	(14.287)	(11.520)	(13.469)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,611	4,471	4,335	4,197	4,058	3,917
R-squared	0.611	0.584	0.604	0.609	0.637	0.648

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A11: Local projections estimates based on a dataset that excludes all countries that did not experience a coup at all during the time period in question show that the results remain robust, with coups d'état in this case associated with lower GDP growth in the same year

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.624***	-3.027***	-3.856***	-3.686***	-4.461***	-4.187**
	(0.458)	(0.617)	(0.968)	(1.248)	(1.537)	(1.773)
Lagged GDP growth	0.108	0.184*	0.240**	0.229*	0.233*	0.243*
	(0.080)	(0.098)	(0.114)	(0.129)	(0.131)	(0.139)
Economic uncertainty	-1.111	-2.551*	-2.856	-2.172	-2.196	-4.037
	(0.779)	(1.437)	(2.067)	(2.553)	(3.139)	(3.816)
Natural disaster	0.109	0.401	0.555	1.057*	1.537**	1.827**
	(0.191)	(0.303)	(0.455)	(0.561)	(0.715)	(0.849)
Technological disaster	-2.583*	-3.259	-2.123	-2.827	-1.467	-3.030
	(1.389)	(2.081)	(2.384)	(2.981)	(3.192)	(4.065)
Natural res. rents (%)	0.031	0.063	0.070	0.049	0.078	0.144
	(0.032)	(0.049)	(0.075)	(0.107)	(0.145)	(0.182)
Life expectancy (years)	0.116*	0.169*	0.224	0.280	0.340	0.362
	(0.060)	(0.097)	(0.149)	(0.208)	(0.260)	(0.331)
Merchandise trade (%)	0.022*	0.047*	0.070*	0.070	0.060	0.041
	(0.013)	(0.028)	(0.042)	(0.057)	(0.071)	(0.084)
Total pop. growth	0.442***	0.715**	0.996**	1.377**	1.582**	1.453**
	(0.112)	(0.297)	(0.463)	(0.654)	(0.725)	(0.713)
Coups prev. decade (lagged)	0.064	0.238	0.606*	0.957**	1.364**	1.804**
	(0.079)	(0.192)	(0.330)	(0.472)	(0.630)	(0.804)
Constant	-0.400	0.726	1.619	5.474	12.710	21.023
	(2.555)	(4.018)	(6.594)	(9.471)	(11.946)	(15.363)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,503	3,432	3,361	3,290	3,219	3,148
Number of countries	71	71	71	71	71	71

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A12: A local projections model suggests that coups which occur later in the year have a larger effect on GDP growth in the following year, although the differences are not statistically significant

	(Year 0)	(Year 1)
Any coup dummy	-2.804***	-2.591***
	(0.596)	(0.741)
Coup * July-December dummy	0.603	-0.987
	(0.690)	(1.033)
Lagged GDP growth	0.185***	0.280***
	(0.059)	(0.081)
Economic uncertainty	-1.314**	-2.363**
	(0.561)	(1.035)
Natural disaster	-0.061	0.235
	(0.148)	(0.254)
Technological disaster	-0.992	-1.700
	(0.957)	(1.490)
Natural res. rents (%)	0.019	0.044
	(0.031)	(0.056)
Life expectancy (years)	0.091**	0.157**
	(0.044)	(0.079)
Merchandise trade (%)	0.012	0.023
	(0.008)	(0.017)
Total pop. growth	0.683**	0.968**
	(0.277)	(0.385)
Coups prev. decade (lagged)	0.064	0.199
	(0.075)	(0.184)
Constant	0.305	1.635
	(2.242)	(3.837)
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	6,587	6,448
Number of countries	141	141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A13: Entropy balancing using the Marshall dataset of coups d'état shows that coups are associated with lower GDP growth by 1.6 percentage points in the same year, smaller than the estimate using the whole dataset but still statistically significant

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-1.569***	-2.167***	-3.364***	-2.911**	-4.001***	-3.596*
	(0.503)	(0.584)	(0.903)	(1.257)	(1.474)	(1.853)
Lagged GDP growth	0.086	0.143*	0.189**	0.089	0.029	0.090
	(0.079)	(0.083)	(0.086)	(0.098)	(0.110)	(0.123)
Economic uncertainty	-1.159	-3.052*	-5.566**	-4.856*	-4.787	-4.163
	(1.146)	(1.770)	(2.174)	(2.503)	(2.959)	(3.922)
Natural disaster	0.275	0.715	0.743	0.724	0.356	0.915
	(0.457)	(0.575)	(0.766)	(0.988)	(1.102)	(1.258)
Technological disaster	-2.633	-2.952	-1.697	-5.104	-4.695	-5.340
	(1.972)	(2.277)	(2.305)	(5.452)	(5.566)	(6.570)
Natural res. rents (%)	-0.112**	-0.034	-0.051	-0.084	0.007	0.053
	(0.052)	(0.067)	(0.100)	(0.115)	(0.150)	(0.182)
Life expectancy (years)	0.162	0.170	0.191	0.235	0.400**	0.525**
	(0.130)	(0.112)	(0.151)	(0.182)	(0.184)	(0.236)
Merchandise trade (%)	0.018	0.013	-0.004	-0.036	-0.076	-0.130
	(0.013)	(0.024)	(0.036)	(0.056)	(0.070)	(0.089)
Total pop. growth	1.473***	1.267***	1.253**	1.491**	1.514**	1.348*
	(0.179)	(0.306)	(0.491)	(0.621)	(0.662)	(0.742)
Coups prev. decade (lagged)	0.022	0.103	0.120	0.212	0.385	0.703
	(0.129)	(0.271)	(0.391)	(0.513)	(0.619)	(0.748)
Constant	-7.758	-1.672	3.801	13.821	20.337**	22.955**
	(5.712)	(4.783)	(6.820)	(8.703)	(9.204)	(11.130)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.393	0.381	0.394	0.416	0.450	0.470

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A14: Entropy balancing controlling for cases with multiple coups in the same year shows that coups d'état are associated with lower GDP growth by 1.9 percentage points in the same year, smaller than the estimate using the whole dataset but still significant at the 5 percent level

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-1.899**	-3.404***	-6.859***	-7.639***	-8.977***	-9.792***
	(0.889)	(0.970)	(2.262)	(1.870)	(1.940)	(2.522)
Lagged GDP growth	0.083	0.140*	0.188**	0.083	0.025	0.086
	(0.077)	(0.081)	(0.084)	(0.095)	(0.107)	(0.120)
Multiple coup dummy	0.461	-0.566	-3.265	-3.781**	-4.308**	-5.500**
	(0.963)	(1.026)	(2.371)	(1.898)	(2.094)	(2.759)
Economic uncertainty	-0.556	-2.529	-5.295**	-4.540*	-4.459	-4.047
	(1.101)	(1.773)	(2.218)	(2.540)	(2.972)	(4.009)
Natural disaster	0.345	0.768	0.760	0.674	0.306	0.823
	(0.457)	(0.584)	(0.768)	(1.008)	(1.115)	(1.276)
Technological disaster	-2.876	-3.345	-2.394	-6.020	-5.783	-6.502
	(1.896)	(2.228)	(2.342)	(5.313)	(5.534)	(6.412)
Natural res. rents (%)	-0.110**	-0.028	-0.039	-0.076	0.014	0.064
	(0.051)	(0.065)	(0.096)	(0.110)	(0.145)	(0.177)
Life expectancy (years)	0.178	0.188*	0.203	0.251	0.417**	0.542**
	(0.122)	(0.102)	(0.138)	(0.173)	(0.184)	(0.238)
Merchandise trade (%)	0.015	0.008	-0.015	-0.049	-0.091	-0.148*
	(0.013)	(0.024)	(0.036)	(0.055)	(0.070)	(0.088)
Total pop. growth	1.403***	1.180***	1.135**	1.358**	1.354**	1.193*
	(0.171)	(0.301)	(0.470)	(0.588)	(0.624)	(0.702)
Coups prev. decade (lagged)	-0.036	0.016	-0.023	0.021	0.180	0.475
	(0.119)	(0.260)	(0.375)	(0.513)	(0.629)	(0.763)
Constant	-8.793	-1.727	6.686	17.227**	24.144**	27.977**
	(5.508)	(4.530)	(6.713)	(8.423)	(9.289)	(11.378)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.404	0.389	0.402	0.425	0.457	0.477

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A15: Entropy balancing controlling for the occurrence of a coups d'état over the two previous years, as well as the two following years, shows that coups are associated with lower GDP growth by 2.3 percentage points in the same year, broadly unchanged from the main specification

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.306***	-2.838***	-3.707***	-4.014***	-4.775***	-4.437***
	(0.383)	(0.480)	(0.719)	(0.968)	(1.098)	(1.300)
Lagged GDP growth	0.083	0.138*	0.175**	0.068	0.005	0.062
	(0.076)	(0.081)	(0.086)	(0.097)	(0.110)	(0.123)
Coup in prev. two years dummy	-0.201	0.121	-1.767	-1.751	-1.478	-2.276
	(0.515)	(0.884)	(1.481)	(1.418)	(1.266)	(1.565)
Coup in next two years dummy	0.331	-1.125	-2.275**	-2.802*	-5.033***	-5.980***
	(0.646)	(0.884)	(1.004)	(1.464)	(1.550)	(1.768)
Economic uncertainty	-0.627	-2.349	-4.345**	-3.385	-3.030	-2.269
	(1.144)	(1.735)	(2.176)	(2.522)	(2.866)	(3.784)
Natural disaster	0.289	0.929*	1.127	1.152	1.071	1.727
	(0.433)	(0.552)	(0.792)	(1.007)	(1.108)	(1.213)
Technological disaster	-2.852	-3.478	-2.419	-6.139	-6.271	-7.026
	(1.902)	(2.221)	(2.197)	(5.223)	(5.390)	(6.255)
Natural res. rents (%)	-0.107**	-0.034	-0.056	-0.100	-0.023	0.015
	(0.050)	(0.066)	(0.097)	(0.112)	(0.146)	(0.178)
Life expectancy (years)	0.178	0.186*	0.198	0.238	0.393**	0.509**
	(0.122)	(0.102)	(0.140)	(0.176)	(0.192)	(0.248)
Merchandise trade (%)	0.014	0.008	-0.013	-0.046	-0.088	-0.144
	(0.013)	(0.023)	(0.035)	(0.056)	(0.070)	(0.089)
Total pop. growth	1.401***	1.193***	1.184**	1.420**	1.443**	1.306*
	(0.167)	(0.304)	(0.493)	(0.617)	(0.658)	(0.746)
Coups prev. decade (lagged)	-0.016	-0.010	0.151	0.183	0.268	0.635
	(0.147)	(0.297)	(0.469)	(0.573)	(0.666)	(0.803)
Constant	-8.379	-1.993	4.359	14.822*	22.201**	25.623**
	(5.347)	(4.427)	(6.452)	(8.638)	(9.791)	(11.878)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	6,448	6,309	6,170	6,030	5,889
R-squared	0.404	0.390	0.406	0.428	0.464	0.484

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A16: Removing country-year observations where subsequent coups occur within five years of the first eliminates cases where countries are affected by ongoing political fragility and entropy balancing results show that in this case the impact of coups is no longer found to be persistent

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-2.418***	-1.874***	-2.090*	-1.501	-1.049	-0.114
	(0.602)	(0.659)	(1.143)	(1.489)	(1.713)	(1.961)
Lagged GDP growth	0.103*	0.130*	0.237**	0.189*	0.200*	0.230*
	(0.058)	(0.071)	(0.091)	(0.107)	(0.119)	(0.132)
Economic uncertainty	2.003	-2.308	-4.871	-6.873*	-9.093**	-10.363*
	(1.580)	(2.238)	(3.064)	(3.603)	(4.189)	(5.380)
Natural disaster	0.679	1.527***	1.443**	1.953**	2.126**	2.149**
	(0.432)	(0.520)	(0.710)	(0.902)	(0.946)	(1.083)
Technological disaster	-2.220	-3.765**	-3.923**	-9.170***	-9.230***	-9.050***
	(1.847)	(1.618)	(1.795)	(3.367)	(3.132)	(3.365)
Natural res. rents (%)	-0.097*	0.048	0.108	0.042	0.056	0.056
	(0.054)	(0.056)	(0.078)	(0.114)	(0.147)	(0.184)
Life expectancy (years)	0.245**	0.203**	0.255**	0.327**	0.329*	0.426*
	(0.103)	(0.093)	(0.111)	(0.157)	(0.195)	(0.242)
Merchandise trade (%)	0.010	0.044**	0.083***	0.122**	0.125**	0.109
	(0.014)	(0.019)	(0.029)	(0.047)	(0.057)	(0.072)
Total pop. growth	1.399***	1.297***	1.205***	1.059***	1.087***	1.103***
	(0.144)	(0.204)	(0.317)	(0.351)	(0.382)	(0.366)
Coups prev. decade (lagged)	0.654*	1.392**	2.596***	3.253***	2.761**	3.148**
	(0.368)	(0.583)	(0.925)	(1.094)	(1.325)	(1.510)
Constant	-12.858***	-5.733	-5.683	2.118	12.792	14.872
	(4.562)	(3.887)	(4.874)	(7.391)	(9.126)	(11.098)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,035	5,861	5,690	5,521	5,352	5,184
R-squared	0.552	0.434	0.439	0.442	0.455	0.468

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure A1(a): Local projections estimates of single-year growth rates before coups show that there are no statistically significant differences between GDP growth in country-year pairings where coups would later take place and other cases, except in the year $t-1$

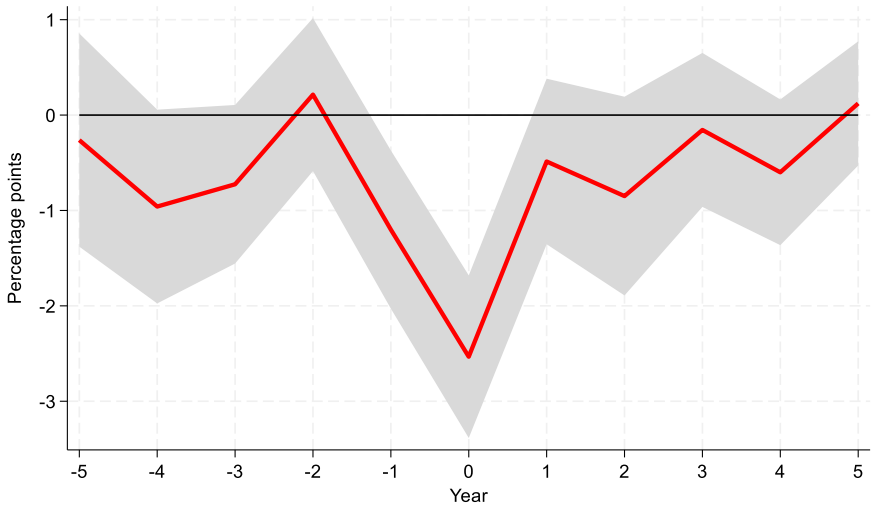
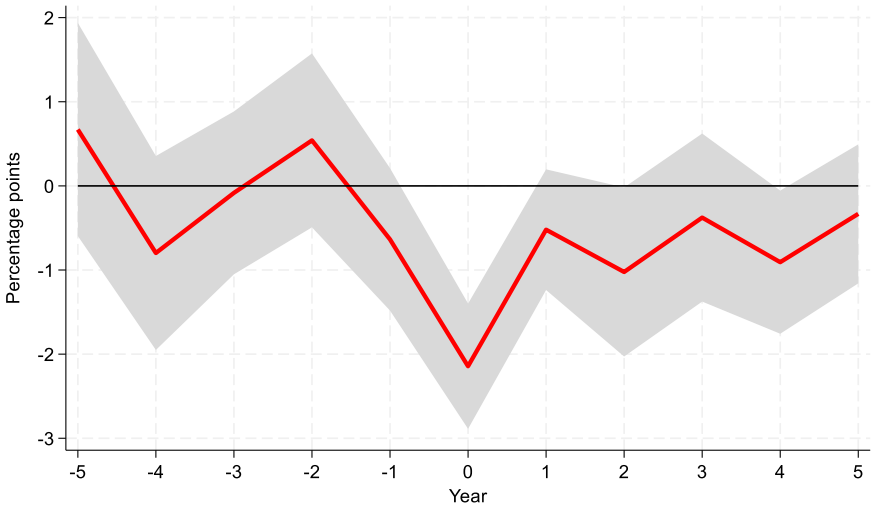


Figure A1(b): Entropy balancing estimates of single-year growth rates show that in each of the five years before the coup there are no statistically significant differences between GDP growth in country-year pairings where coups would later take place and other cases[1]



[1] Results are based on the same entropy balancing specification as in the main text, except that the lagged GDP control variable is removed to allow the parallel trends assumption to be tested for the year $t-1$. There are no statistically significant differences between the treatment with or without the lagged GDP control variable.

Table A17(a): Observable characteristics across the treatment and control groups show significant differences prior to reweighting

Before reweighting

	Coup cases	Non-coup cases	Difference	Standard error	t-statistic
Natural resource rents (%)	8.54	7.06	-1.48**	0.64	-2.32
Life expectancy	56.31	67.12	10.81***	0.60	17.90
Merchandise trade (%)	41.39	62.06	20.67***	1.78	11.58
Population growth	2.52	1.64	-0.88***	0.08	-10.69
Previous coups	1.52	0.32	-1.20***	0.12	-9.90
GDP per capita (thousands of US$)	2.93	12.17	9.24***	0.53	0.02

Table A17(b): Observable characteristics across the treatment and control groups are more comparable after reweighting in most cases, although statistically significant differences remain in the case of average GDP per capita

After reweighting

	Coup cases	Non-coup cases	Difference	Standard error	t-statistic
Natural resource rents (%)	8.54	8.55	-0.01	0.18	0.14
Life expectancy	56.31	56.48	-0.17	0.19	-0.67
Merchandise trade (%)	41.40	41.72	-0.32	0.46	-0.75
Population growth	2.52	2.52	0.00	0.37	0.53
Previous coups	1.52	1.50	0.01	0.03	0.33
GDP per capita (thousands of US$)	2.93	3.24	-0.31**	0.04	0.35

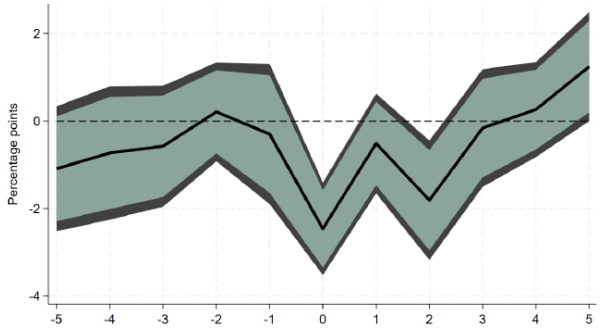
Table A17(c): Observable characteristics across the treatment and control groups are more comparable after reweighting in most cases, although statistically significant differences remain in the case of average GDP per capita

	(Year 0)	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
Any coup dummy	-3.143***	-3.861***	-5.197***	-5.638***	-6.661***	-6.643***
	(0.658)	(0.650)	(0.832)	(1.062)	(1.260)	(1.461)
Lagged GDP growth	-0.058	-0.020	0.034	-0.106	-0.200	-0.180
	(0.164)	(0.157)	(0.147)	(0.160)	(0.173)	(0.196)
Economic uncertainty	-0.710	-2.268	-4.517*	-3.473	-2.755	-1.468
	(1.361)	(1.808)	(2.292)	(2.712)	(2.941)	(3.513)
Natural disaster	0.568	0.923	1.090	1.287	1.042	1.711
	(0.517)	(0.573)	(0.742)	(0.982)	(1.143)	(1.232)
Technological disaster	-3.963*	-4.380*	-3.144	-6.739	-7.053	-7.411
	(2.129)	(2.374)	(2.584)	(5.817)	(6.205)	(7.323)
Lagged natural res. rents (%)	0.097	0.104	0.133	0.254	0.413	0.507
	(0.095)	(0.100)	(0.129)	(0.191)	(0.260)	(0.315)
Lagged life expectancy (yrs)	0.295**	0.331**	0.361**	0.634***	0.701**	0.879***
	(0.143)	(0.133)	(0.172)	(0.221)	(0.270)	(0.328)
Lagged merch. trade (%)	0.040	0.034	-0.002	-0.022	-0.048	-0.097
	(0.028)	(0.031)	(0.039)	(0.054)	(0.065)	(0.082)
Lagged total pop. growth	0.883**	1.158***	1.368***	1.729***	2.158***	2.550***
	(0.339)	(0.382)	(0.435)	(0.502)	(0.585)	(0.689)
Lagged coups prev. decade	0.258	0.297	0.268	0.432	0.716	1.114
	(0.248)	(0.357)	(0.457)	(0.581)	(0.726)	(0.870)
Lagged GDP per capita	-0.000**	-0.000***	-0.001***	-0.001***	-0.001***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-12.724*	-12.097*	-7.684	-5.528	1.565	1.927
	(6.439)	(6.450)	(8.007)	(9.519)	(11.687)	(13.909)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,473	6,334	6,195	6,055	5,914	5,773
R-squared	0.322	0.358	0.399	0.440	0.473	0.500

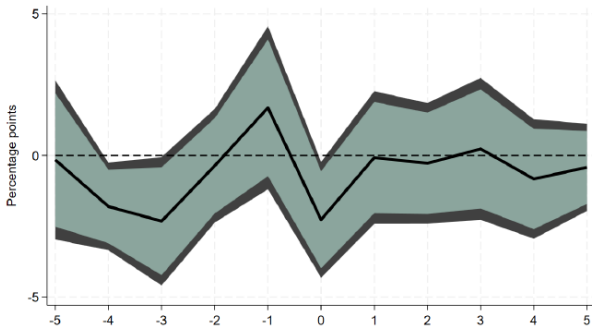
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure A2: Event study analysis shows that the growth rates of all expenditure components of GDP are lower on average in the same year that a country experiences a coup d'état

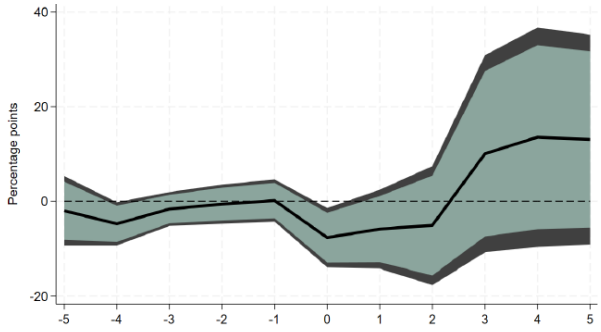
a) Private consumption growth



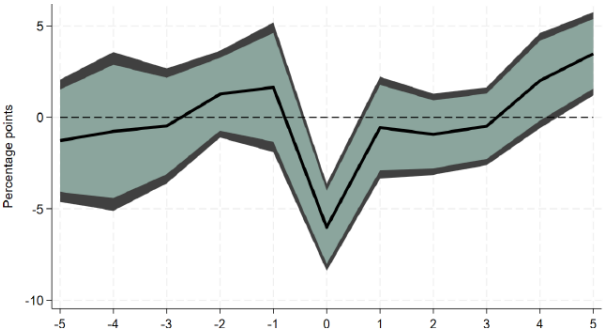
b) Government consumption growth



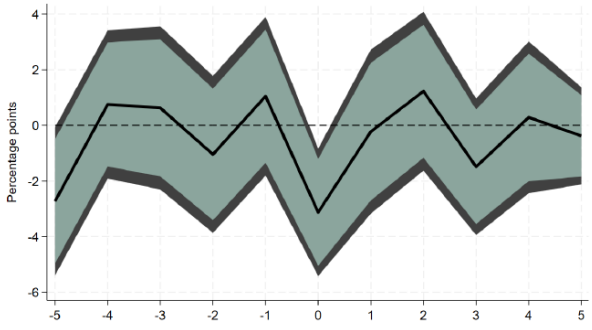
c) Gross fixed capital formation growth



d) Imports growth



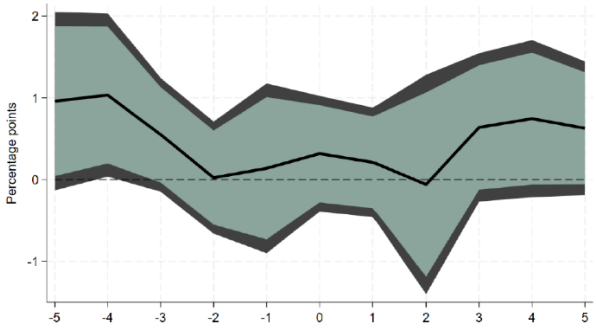
e) Exports growth



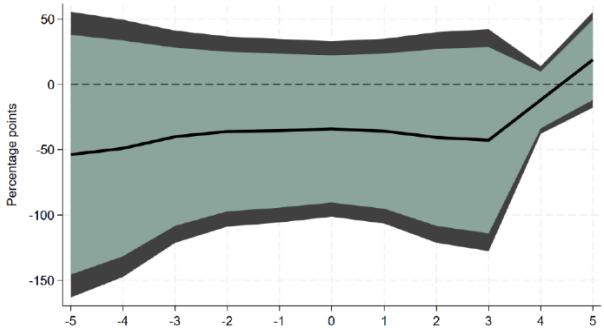
Note: The lighter shaded areas indicate 90 percent confidence intervals and the darker shaded areas indicate 95 percent confidence intervals. All results are based on event study regressions with no control variables.

Figure A3: Event study analysis shows that monetary and credit indicators do not generally move in a statistically significant way in the year that a country experiences a coup d'état

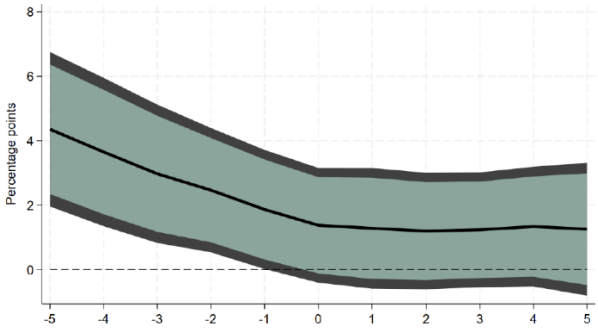
a) FDI net inflows as a share of GDP



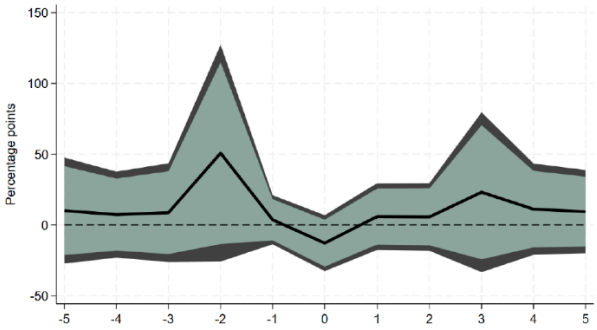
b) Broad money supply as a share of GDP



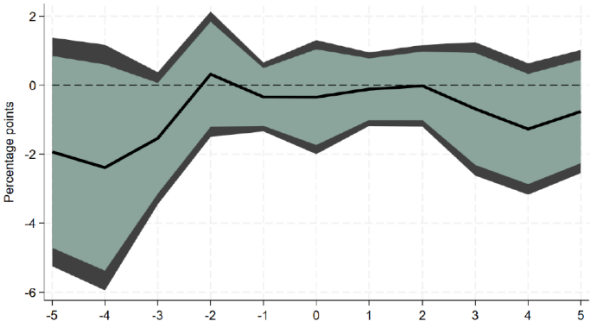
c) Domestic credit to the private sector as a share of GDP



d) Interest rate spreads (percent)



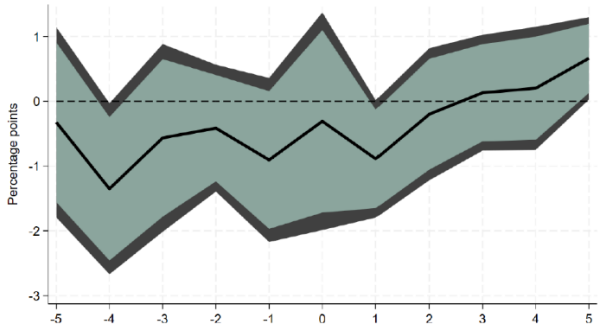
e) Interest rate risk premia (percent)



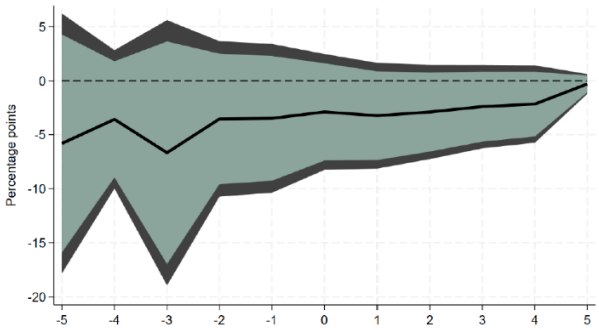
Note: The lighter shaded areas indicate 90 percent confidence intervals and the darker shaded areas indicate 95 percent confidence intervals. All results are based on event study regressions with no control variables.

Figure A4: Event study analysis shows that fiscal indicators do not generally move in a statistically significant way in the year that a country experiences a coup d'état

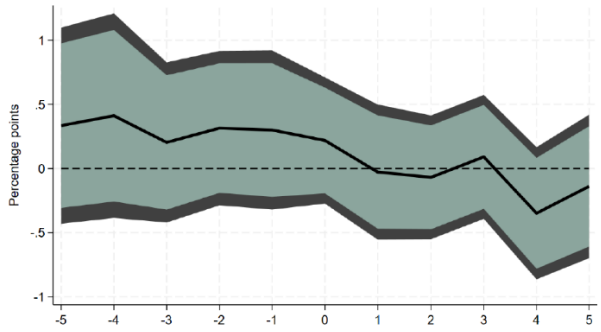
a) Fiscal deficit as a share of GDP



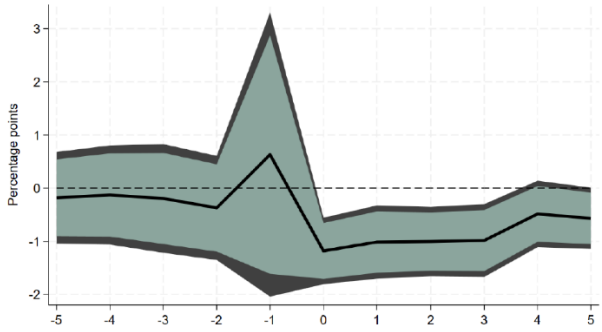
b) Tax revenues as a share of GDP



c) Government consumption as a share of GDP



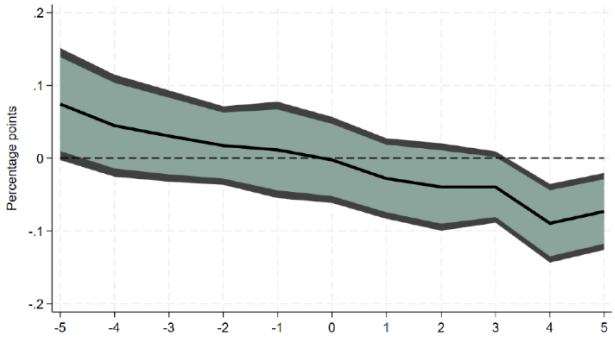
d) Government investment as a share of GDP



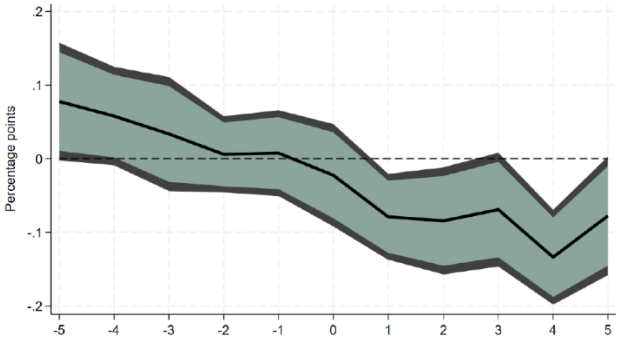
Note: The lighter shaded areas indicate 90 percent confidence intervals and the darker shaded areas indicate 95 percent confidence intervals. All results are based on event study regressions with no control variables.

Figure A5: Event study analysis shows that Worl Bank Governance Indicators are typically on a declining trend before the occurrence of a coup d'état

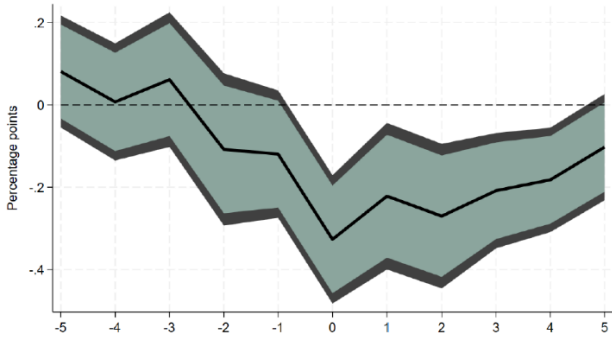
a) Control of corruption



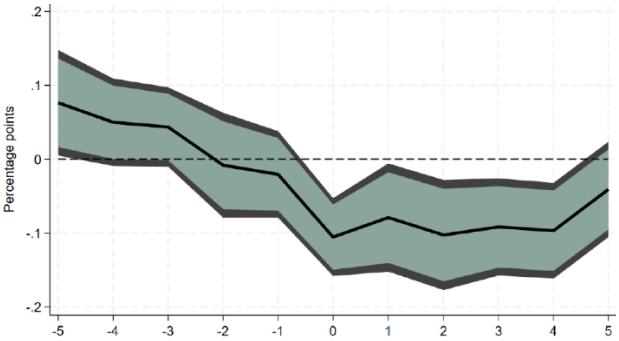
b) Government effectiveness



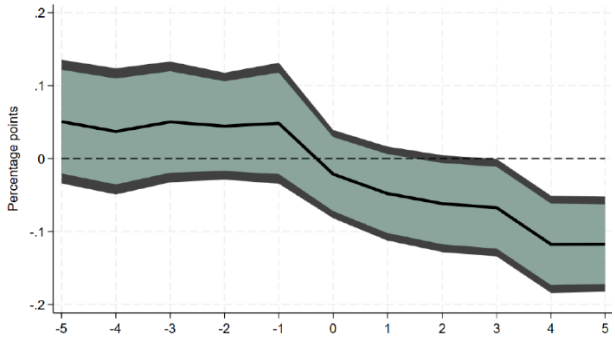
c) Political stability and absence of violence



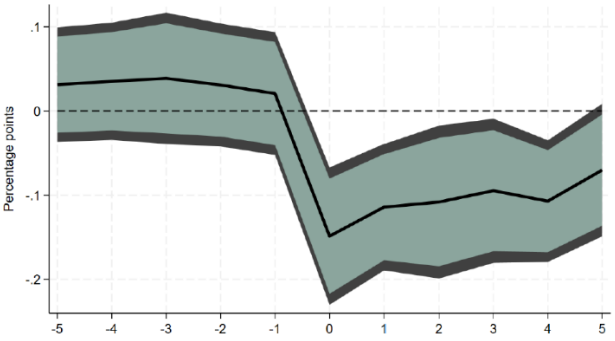
d) Rule of law



e) Regulatory quality



f) Voice and accountability



Note: The lighter shaded areas indicate 90 percent confidence intervals and the darker shaded areas indicate 95 percent confidence intervals. All results are based on event study regressions with no control variables.

Table A18: Entropy balancing estimations show that the growth rates of all the components of GDP are lower in the year of coups d'état than in other cases and that the differences are statistically significant

	(GDP)	(Private consumption)	(Government consumption)	(Gross fixed capital formation)	(Imports)	(Exports)
Any coup dummy	-2.295***	-2.323***	-1.456	-14.330**	-5.458***	-2.787***
	(0.367)	(0.646)	(1.072)	(6.562)	(1.395)	(1.006)
Lagged dependent variable	0.083	0.040	-0.077**	-0.162***	-0.024	0.001
	(0.077)	(0.067)	(0.037)	(0.030)	(0.051)	(0.077)
Economic uncertainty	-0.619	0.706	-4.538	-40.272	-3.261	-1.242
	(1.135)	(2.193)	(2.818)	(37.172)	(3.636)	(4.476)
Natural disaster	0.336	-0.106	-0.067	-0.190	0.206	1.147
	(0.458)	(0.885)	(1.187)	(4.754)	(1.848)	(1.830)
Technological disaster	-2.909	-2.946	1.901	-20.124	0.675	4.840
	(1.907)	(1.826)	(4.756)	(25.943)	(3.456)	(8.050)
Natural res. rents (%)	-0.108**	-0.050	0.215*	-0.591	0.166	0.025
	(0.051)	(0.103)	(0.125)	(0.637)	(0.139)	(0.194)
Life expectancy (years)	0.178	0.177*	0.361*	-1.881	-0.061	0.340
	(0.122)	(0.103)	(0.201)	(2.210)	(0.213)	(0.260)
Merchandise trade (%)	0.015	0.042	-0.016	0.055	0.053	0.012
	(0.013)	(0.029)	(0.045)	(0.146)	(0.055)	(0.079)
Total pop. growth	1.403***	0.677**	2.526***	10.931	0.150	2.542***
	(0.170)	(0.279)	(0.194)	(8.461)	(0.471)	(0.407)
Coups prev. decade (lagged)	-0.042	-0.082	-0.220	9.281	0.443	-0.064
	(0.122)	(0.160)	(0.462)	(8.883)	(0.368)	(0.424)
Constant	-8.318	-1.805	-12.503	76.875	23.949**	-4.331
	(5.307)	(4.613)	(10.762)	(82.212)	(10.523)	(13.372)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,587	5,124	5,085	4,901	5,386	5,386
R-squared	0.404	0.280	0.292	0.177	0.212	0.241

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A19: Entropy balancing estimations show that the contributions to GDP growth from consumption and investment are lower in the years where a country experienced a coup d'état, while the contribution from net trade is typically higher

	(GDP)	(Private consumption)	(Government consumption)	(Gross fixed capital formation)	(Net trade)
GDP	-2.295***	-1.080**	-0.167	-0.926***	0.977**
	(0.367)	(0.500)	(0.156)	(0.280)	(0.407)
Lagged GDP growth	0.083	0.087	0.030	0.058	-0.034*
	(0.077)	(0.086)	(0.039)	(0.073)	(0.018)
Economic uncertainty	-0.619	0.134	-0.689	-0.315	0.620
	(1.135)	(1.699)	(0.545)	(1.218)	(1.221)
Natural disaster	0.336	0.166	-0.042	0.199	0.629
	(0.458)	(0.673)	(0.165)	(0.307)	(0.480)
Technological disaster	-2.909	-1.301	0.644	1.458	-0.091
	(1.907)	(1.588)	(1.014)	(1.303)	(0.666)
Natural res. rents (%)	-0.108**	-0.078	0.025	-0.013	-0.091*
	(0.051)	(0.077)	(0.015)	(0.037)	(0.052)
Life expectancy (years)	0.178	0.104*	0.047**	0.031	-0.006
	(0.122)	(0.056)	(0.020)	(0.042)	(0.058)
Merchandise trade (%)	0.015	0.040**	-0.002	0.015	-0.009
	(0.013)	(0.019)	(0.005)	(0.012)	(0.021)
Total pop. growth	1.403***	0.647***	0.257***	0.287***	0.129*
	(0.170)	(0.200)	(0.033)	(0.103)	(0.075)
Coups prev. decade (lagged)	-0.042	0.019	-0.043	-0.003	-0.036
	(0.122)	(0.102)	(0.055)	(0.072)	(0.074)
Constant	-8.318	-2.899	-2.973***	-0.966	4.440*
	(5.307)	(2.518)	(1.041)	(1.931)	(2.528)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	6,587	4,990	4,951	4,743	5,180
R-squared	0.404	0.282	0.291	0.317	0.174

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: Differences in data availability across the different expenditure components of GDP mean that the estimated impacts on the contributions to GDP growth will not sum to the total estimated impact on GDP growth.

Table A20: Entropy balancing estimations show that imports growth is lower on average in the years where a country experienced a coup d'état, albeit less so after controlling for private consumption and investment

	(1)	(2)	(3)	(4)
Any coup dummy	-5.458***	-3.267**	-2.750***	-2.842***
	(1.395)	(1.328)	(1.043)	(1.015)
Lagged imports growth	-0.024	-0.081	-0.069	-0.080
	(0.051)	(0.049)	(0.047)	(0.050)
Priv. cons. growth		1.001***	0.971***	1.000***
		(0.102)	(0.094)	(0.102)
Investment growth			0.028***	0.028***
			(0.006)	(0.006)
Exchange rate				-0.000
				(0.000)
Economic uncertainty	-3.261	-4.089	-5.445	-4.432
	(3.636)	(4.123)	(3.821)	(3.816)
Natural disaster	0.206	0.477	-0.318	0.046
	(1.848)	(1.748)	(1.771)	(1.806)
Technological disaster	0.675	1.819	5.818	5.888*
	(3.456)	(3.042)	(3.551)	(3.384)
Natural res. rents (%)	0.166	0.220*	0.184	0.170
	(0.139)	(0.122)	(0.127)	(0.131)
Life expectancy (years)	-0.061	-0.090	-0.102	-0.122
	(0.213)	(0.155)	(0.158)	(0.160)
Merchandise trade (%)	0.053	0.060	0.058	0.042
	(0.055)	(0.045)	(0.038)	(0.042)
Total pop. growth	0.150	-0.864***	-0.976***	-0.985***
	(0.471)	(0.276)	(0.259)	(0.265)
Coups prev. decade (lagged)	0.443	0.905**	0.509	0.493
	(0.368)	(0.449)	(0.414)	(0.438)
Constant	23.949**	22.907***	16.950**	-7.910
	(10.523)	(8.675)	(7.541)	(7.570)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	5,386	5,108	4,787	4,734
R-squared	0.212	0.419	0.497	0.501

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A21: Entropy balancing estimations with the same set of control variables but with monetary indicators as the dependent variable do not show statistically significant results

	(FDI)	(Broad Money Supply)	(Credit to the Private Sector)	(Interest Rate Spreads)	(Risk Premium on Lending)
Any coup dummy	0.121	-0.277	-0.500	-3.959	-0.095
	(0.158)	(0.279)	(0.375)	(3.130)	(1.157)
Lagged dependent variable	0.409***	0.861***	0.931***	0.049***	0.555***
	(0.124)	(0.027)	(0.013)	(0.002)	(0.115)
Economic uncertainty	1.075	-1.476	-1.230*	-12.610	0.439
	(0.716)	(1.026)	(0.705)	(10.614)	(1.750)
Natural disaster	0.150	-0.383	0.225	3.498	-0.782**
	(0.168)	(0.390)	(0.187)	(2.734)	(0.387)
Technological disaster	0.064	2.450	-0.045	3.128	0.996
	(0.363)	(1.594)	(0.345)	(2.406)	(2.062)
Natural res. rents (%)	-0.018	-0.015	-0.035**	0.221	-0.082
	(0.021)	(0.032)	(0.015)	(0.152)	(0.060)
Life expectancy (years)	0.045**	0.040	-0.081	-0.578	-0.034
	(0.017)	(0.027)	(0.072)	(0.470)	(0.119)
Merchandise trade (%)	0.008	0.074***	0.034***	-0.050	-0.009
	(0.010)	(0.022)	(0.009)	(0.070)	(0.016)
Total pop. growth	-0.048	-0.299***	-0.044	0.135	1.518***
	(0.065)	(0.079)	(0.075)	(0.266)	(0.282)
Coups prev. decade (lagged)	-0.005	-0.019	0.220***	-1.127	-0.350
	(0.057)	(0.097)	(0.078)	(1.326)	(0.268)
Constant	-3.275***	0.411	2.339	49.772**	1.304
	(0.993)	(1.188)	(3.175)	(22.876)	(4.994)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	6,415	5,399	4,859	2,771	1,577
R-squared	0.532	0.957	0.974	0.539	0.844

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A22: Entropy balancing estimations with the same set of control variables but with fiscal indicators as the dependent variable generally do not show statistically significant results, although government investment is found to fall when coups occur

	(Fiscal Deficit)	(Tax Revenues)	(Government Consumption)	(Government Investment)
Any coup dummy	0.516	-0.312	-0.085	-1.165***
	(0.456)	(0.227)	(0.175)	(0.310)
Lagged dependent variable	0.568***	1.021***	0.898***	0.199***
	(0.037)	(0.006)	(0.022)	(0.053)
Economic uncertainty	-0.571	0.501	1.099*	-2.407***
	(0.980)	(0.426)	(0.662)	(0.802)
Natural disaster	0.486**	-0.146	-0.344**	0.026
	(0.199)	(0.158)	(0.160)	(0.273)
Technological disaster	-1.458	-0.570*	0.554	1.831
	(0.900)	(0.318)	(0.651)	(1.243)
Natural res. rents (%)	0.160**	-0.006	-0.011	0.037
	(0.080)	(0.024)	(0.020)	(0.031)
Life expectancy (years)	-0.086	-0.055***	-0.034	0.105**
	(0.080)	(0.018)	(0.030)	(0.041)
Merchandise trade (%)	0.022**	0.019**	0.020**	0.015
	(0.010)	(0.008)	(0.009)	(0.010)
Total pop. growth	1.278	0.042	0.011	0.009
	(0.956)	(0.064)	(0.054)	(0.057)
Coups prev. decade (lagged)	0.007	0.088	-0.021	-0.323**
	(0.094)	(0.064)	(0.049)	(0.126)
Constant	-0.807	1.141	3.010***	0.219
	(3.046)	(1.530)	(1.152)	(2.099)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	3,316	3,497	6,009	2,354
R-squared	0.651	0.993	0.921	0.694

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix B. Data sources

Variables	Definitions	Sources
Real GDP growth	GDP is expressed in United States dollars with a reference year of 2015.	World Development Indicators
Total population growth	Mid-year estimates counting all residents regardless of legal status or citizenship. Collected by the UN.	
Natural resource rents as a share of GDP	The sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents as a share of nominal GDP. Data are based on the 'Changing Wealth of Nations' program.	
Merchandise trade as a share of GDP	Includes goods whose economic ownership is changed between a resident and a non-resident and that are not included in the following specific categories: goods under merchanting, non-monetary gold, and parts of travel, construction, and government goods and services. Merchandise exports plus merchandise imports as a share of nominal GDP.	
Life expectancy at birth	The number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.	
Expenditure components of GDP	Consumption, investment, government spending, imports and exports expressed in United States dollars with a reference year of 2015.	
Monetary variables	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. Broad money is the sum of all liquid financial instruments held by money-holding sectors that are widely accepted in an economy as a medium of exchange, plus those that can be converted into a medium of exchange at short notice at, or close to, their full nominal value. Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations that establish a claim for repayment. Interest rate spreads are the interest rate charged by banks on loans to private sector customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits. Risk premium on lending is the interest rate charged by banks on loans to private sector customers minus the "risk free" treasury bill interest rate at which short-term government securities are	

	issued or traded in the market. All are measured as a share of nominal GDP.	
Fiscal variables	The fiscal deficit is general government net borrowing which equals government revenue minus expense, minus net investment in nonfinancial assets. Tax revenues are revenues from compulsory, unrequited payments, in cash or in kind, made by institutional units to government units as a share of nominal GDP. Government consumption includes all government current expenditures for purchases of goods and services (including compensation of employees), and most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation. Government investment is the difference between total investment and private investment. All are measured as a share of nominal GDP.	
Coup occurrences (main analysis)	Coups d'état are defined as "overt attempts by the military or other elites within the state apparatus to unseat the sitting head of state using unconstitutional means…there is no minimal death threshold for defining a coup. A coup attempt is defined as successful if the coup perpetrators seize and hold power for at least seven days"	Powell and Thyne Coup Dataset
Coup occurrences (robustness check)	A coup d'état is defined as a forceful seizure of executive authority and office by a dissident/opposition faction within the country's ruling or political elites that results in a substantial change in the executive leadership and the policies of the prior regime (although not necessarily in the nature of regime authority or mode of governance).	Marshall and Marshall Coup Dataset
IMF growth forecasts	Country-level forecasts for real annual GDP growth in constant prices. The projections are taken from the Spring World Economic Outlook publications.	World Economic Outlook (WEO) database
IMF program status	A dummy variable indicating whether a country had an active program with the IMF during the year in question.	Monitoring of Fund Arrangements (MONA) Database
Economic uncertainty	Uncertainty index computed by counting the frequency of the world uncertainty (or its variant) in EIU country reports. The indices are normalized by total number of words and rescaled by multiplying by 1,000. A higher number means higher uncertainty and vice versa. The data are available quarterly for 143 countries.	World Uncertainty Index (Bloom and others)
Natural disasters	Data recording occurrences of technological disasters, for example industrial accidents, and natural disasters, such as floods or earthquakes. This study uses an indicator of 'major' disasters in the analysis, which are defined as	EMDAT database

	those where more than 0.1 percent of the population are affected.	
Country democratic status	Based on version 14 of the V-Dem database, published in March 2024. In each year, countries are classified as either a closed autocracy, an electoral autocracy, an electoral democracy, or a liberal democracy. For this study, the latter two cases are considered as democratic countries.	V-Dem database
Country income status	Taken from the World Bank classification of income categories for all 189 World Bank member countries and all other economies with populations of more than 30,000, published in July 2024. For operational and analytical purposes, economies are divided among income groups according to 2023 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income, $1,145 or less; lower middle income, $1,146 to $4,515; upper middle income, $4,516 to $14,005; and high income, more than $14,005.	World Bank Country Income Status
Economic sanctions	Indicator of economic sanctions worldwide from 1950 to 2023, including financial, trade, travel, arms, military and other sanctions. The database encompasses bilateral and multilateral sanctions.	Global Sanctions Database

PUBLICATIONS

Political Fragility: The Economic Impact of Coups d'État

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