Political Man on Horseback
Military Coups and Development

Erik Meyersson*
SITE

January 29, 2014

Preliminary draft – Comments are welcome

Abstract

In this paper I examine the development effects of military coups. I first show that coups overthrowing democratically-elected leaders imply a very different kind of event than those overthrowing autocratic leaders. These differences relate to the implementation of authoritarian institutions following a coup in a democracy, which I discuss in four cases studies. Second, I address the endogeneity of coups by comparing the growth consequences of failed and successful coup using a new dataset of coup attempts. The results of this exercise reveals that, although coups taking place in already autocratic countries show imprecise and sometimes positive effects on economic growth, in democracies their effects are distinctly detrimental to growth. On average, a successful coup resulted in a 1 percent lower annual growth over a period of ten years. This result is robust to a host of validity checks and carries over into a panel data analysis controlling for, among others, leader fixed effects and country-decade fixed effects. Although coups in democracies reduce some measures of political instability, I also document deteriorating political institutions, eroding constraints on the executive, increased rents to the military, and significant increases in violence, deaths, and human rights abuses. I also link coups to the repression of worker's rights, by documenting significant reductions in wages in the manufacturing sector, an effect matched by significant drops in labor productivity. This decrease in labor productivity is especially driven by sectors relatively close to the technology frontier, consistent with a view that the documented deterioration in democratic institutions hamper growth in high-innovation sectors. Overall, the analysis gives testament to the severe economic, political, and human cost to military coups when they overthrow democratically elected leaders.

*Address: Stockholm Institute for Transition Economics (SITE), Stockholm School of Economics, P.O. Box 6501, SE-113 83 Stockholm, Sweden. Email: erik.meyersson@hhs.se. Website: www.erikmeyersson.com. I am grateful to Philippe Aghion and Dani Rodrik for useful comments. All remaining errors are my own.

"Everywhere that the struggle for national freedom has triumphed, once the authorities agreed, there were military coups d'état that overthrew their leaders. That is the result time and time again."

–Ahmed Ben Bella, President of Algeria 1963-1965, ousted by military coup in 1965.

1 Introduction

Do military coups matter for economic development? After all, successful coups – i.e. where the military or state elites have unseated an incumbent leader – have occurred 232 times in 94 states since 1950 and around a quarter of these overthrew democratically elected governments (Powell and Thyne [56]). The prevalence of military coups has not been lost on researchers, yet despite an abundance of research aiming to explain the *occurrence* of coups (see for example (Acemoglu and Robinson [4], Collier and Hoeffler [23] & [24], Leon [40]), much less research has focused on its *effects*.[1] Olsen [54], for example, claimed that coups "often bring no changes in policy." Londregan and Poole [43], in their panel data analysis, find no effects of coups on income.

By now, there is mostly a consensus that significant military influence in politics is detrimental for democracy (Dahl [26], Huntington [34]), Linz and Stepan [45]). Nonetheless, military coups overthrowing democratically elected governments are often met with ambiguity. Western governments have a long history of tacit support for military coups overthrowing democratic governments, be it left-leaning governments in Latin America or Islamist governments in the Middle East and North Africa (Schmitz [62]). Commentators expressing support for coups often do so invoking extreme outcomes to represent the counterfactual to the military coup; if Pinochet had not overthrown President Allende, the latter would have created a Castro-style regime in Chile; if the Algerian army hadn't annulled the elections in 1992, the Islamist FIS would have turned Algeria into an Islamist dictatorship in the Maghreb, and so on.[2] Similarly, the fault for the coup and preceding problems fall invariably upon the ousted leader, the coup constituting an unfortunate, but necceassry, means to rid the country of an incompetent, if not dangerous, leader.[3] Other commentators have pointed out the risks of allowing a military to intervene and dictate post-coup institutions to their advantage, a "Faustian" bargain likely to bring regime stability but no solution to the real underlying problems behind the conflict in the first place.[4]

Military coups tend to be endogenous events, and establishing a causal relation between coups and development is therefore a challenge. The unobservable likelihood of a coup, often referred to as coup risk (Londregan and Poole [43], Belkin and Schofer [15]), may be driven by many factors also affecting

[1] Two exceptions are the papers on covert US operations during the Cold War by Dube, Kaplan, and Naidu [27] and Berger, Easterly, Nunn, and Satyanath [16].

[2] "Iraq needs a Pinochet", Jonah Goldberg, Los Angeles Times, December 14, 2006

[3] "Blame Morsy," Michael Hanna, Foreign Policy, July 10 2013, http://www.foreignpolicy.com/articles/2013/07/08/blame_morsy_egypt

[4] See for example "A Faustian Pact: Generals as Democrats", Steven A. Cook, The New York Times, July 5 2013; "Egypt Officially Declares What Is and Isn't Important", Nathan J. Brown, New Republic, July 9 2013, http://www.newrepublic.com/article/113792/egypt-president-adli-mansour-makes-constitutional-declaration

a country's development potential, such as weak institutions, the military's political power, social conflict, and economic crises etc. In order to overcome this problem, I employ an empirical strategy comparing success versus failure in coup attempts similar to that used by Jones and Olken [36] with a new dataset of coup attempts during the post-World War II era. This facilitates a comparison of development consequences of coups in situations with arguably more similar degrees of coup risk. The explicit assumption underlying the identification strategy is that conditional on a coup attempt and a range of observable factors, and remaining factor systematically related to coup success has no bearing on an economy's growth prospects.

Of significant importance is distinguishing coups when they occur in clearly autocratic settings from those where they overthrow democratically elected governments. A military leader overthrowing another in a country like Chad may have very different consequences than a military leader overthrowing a democratically elected president in a country like Chile. In the former a coup may constitute the manner in which autocracies change leaders. In the latter, coups typically imply deeper institutional changes with long-run development consequences.

I find that, conditional on a coup attempt taking place, the effect of coup success depends on the pre-intervention level of democratic institutions. In countries that were more democratic, a successful coup lowered growth in income per capita by as much as 1 percent per year over a decade. In more autocratic countries, I find smaller and more imprecisely estimated positive effects. This effect is robust to splitting the sample by alternative institutional measures, as well as to a range of controls relating to factors such as leader characteristics, wars, coup history, and natural resources. Moreover, extending the analysis to a panel data setting including both years with and without coup attempts, shows that these results are robust to controlling for leader-, as well as country-decade, fixed effects.

Looking beyond growth, I also document longer-run negative institutional effects of military coups occurring in more democratic countries with such countries remaining less democratic and fewer executive constraints. In the meantime, as for political stability, coups in democracies reduced average turnover and the likelihood of state failure. Furthermore, coups overthrowing democratically-elected leaders led to a substantial increase in military rents as seen in the share of military expenditure per GDP and personnel per population.

I also investigate the effect of a successful coup on violence using multiple data sources. Whereas coups have little effect on these outcomes in autocracies, in democracies I document higher likelihoods of civil wars, political violence (especially ethnic-related), human rights abuse, and death rates over a ten-year period. Together these effects illustrate the violent destruction of democratic institutions and human rights abuse that continue to haunt the legacy of coups in many countries.

In examining coup consequences more pertinent to the working- and middle classes, I look at outcomes from the manufacturing sector such as growth in wages, employment and labor productivity. The analysis yields particularly strong effects in democracies, where I document sharp reductions in growth in wages, labor productivity, and employment. These results are more pronounced in sectors deemed closer to the technological frontier, suggesting that the high-productivity sectors are particularly hurt by successful coups.

Overall, these results show that military coups overthrowing popularly elected governments have profound development consequences. Any increase in political stability thus needs to be weighted

against how coups affect factors considered vital to economic development. For example, having constraints on the executive ranks as crucial component in safeguarding property rights (North [53]), the World Bank considers human insecurity as "a primary development challenge of our time" (World Bank [68]), and recent work in growth theory points to the importance of an appropriate match between sector characteristics and institutions (Acemoglu, Aghion, and Zilibotti [3], Aghion, Alesina, and Trebbi [8]). Furthermore, the substantial increase in rents going to the military sector may be a sign of a broader misallocation of resources or elite capture (Acemoglu [2], Bardhan and Mokherjee [11]).

This paper adds to the political economics literature in several ways. First, it provides an explanation for why previous studies may have failed to find significant development effects of coups, as this exercise illustrates the different between a coup occurring in a democracy versus one occurring in an autocracy. These imply very different kinds of institutions changes and subsequently have different consequences for growth. Second, the analysis of coup attempts provides a new approach to estimate the development consequences of coups, by allowing inference independent of many observable factors that drive coup attempts but not coup success conditional on an attempt. Finally, previous discussions of military coups' economic consequences tend to center around the subsequent implementation of free market policies (Becker [14], Barro [12]). This paper suggests that, regardless of whether these policies affect growth or not, any such effects may be dominated by those coming from large institutional change, violence, and a systematic repression of workers.

Of relevance to the study on military coups is the literature on the relationship between institutions and development (Acemoglu, Johnson, Robinson [7], Acemoglu, Reed, and Robinson, [5]; Glaeser, La Porta, Lopes-de-Silanes, and Shleifer [32]; Rodrik, Subramanian, and Trebbi [58]). This paper adds to that literature by illustrating how an event with demonstrably deep institutional consequences has significant effects on development.

Military coups mostly lead to leader turnover, and thus relates to research on leaders (Besley, Persson, and Reynal-Querol [18], Besley, Montalvo, and Reynal-Querol [17], Jones and Olken [36] & [35]). Whereas this literature tends to draw inference from comparing development differences across leader tenures, the focus in this paper is on an event that may continue to influence development outcomes even after the tenure of the first post-coup leader has ended.

Coups also regularly result in a switch from (and sometimes to) a democratic regime, and thus relates to the literature on the economic effects of transitions (Rodrik and Wacziarg [59], Papaioannou and Siourounis [55]). Although military coups by definition, and especially when occurring in democracies, tend to depose leaders thru legally questionable and authoritarian means, coups do not always lead to prolonged military rule or sustained autocracy. Whereas in some cases, a coup ushers in a longer period of military dictatorship, in others they return to relative democracy within a few years. Moreover, military coups often lead to significant institutional restructuring, such as the military-dictated constitutions in Chile 1980 and in Turkey 1982, which may continue to have consequences long after military rule has transitioned to civil, and even democratic, rule. The focus in this paper thus takes into account the fact that the military does not always continue to rule outright for very long, but instead alters institutions such that it does not have to rule directly.

The rest of this paper is organized as follows. In Section 2 I describe four case studies of coups.

In Section 3 I compare successful and failed coups and document their consequences on growth, and potential mechanisms in Section 4. Section 5 concludes.

2 The Coup d'État

> *"Frenchmen! you will recognize, without doubt, in this conduct, the zeal of a soldier of liberty, and of a citizen devoted to the republic. The ideas of preservation, protection, and freedom, immediately resumed their places on the dispersion of the faction who wished to oppress the councils, and who, in making themselves the most odious of men, never cease to be the most contemptible."*
>
> – Napoleon Bonaparte, "Proclamation to the French People on Brumaire," November 10, 1799 [5]

The first modern coup d'état is generally assigned to the "18 Brumaire" coup in 1799, in which Napoleon Bonaparte and his co-conspirators effectively seized power from *La Directoire*, the then executive body of the French state. Starting with the French revolution in 1789, the subsequent volatile years had resulted in a France impoverished by war and mired in bitter political conflict largely between various groupings of the state (Woloch [67]). During this period, the French Revolutionary Army was split into different factions, some supporting radical change, some supporting the status quo. After years the Reign of Terror, the Directoire had been set up as a reaction to previous years of dictatorship. The bicameral institution, split between the Council of Five Hundred and the Council of Ancients, became increasingly unpopular with its members prone to infighting and corruption – Britannica describes it as a "fatal experiment in weak executive powers." As Napoleon returned from his expedition to Egypt in 1798, a group of conspirators invited him to join in overthrowing the Directoire.

Although Napoleon at the time was widely popular, with a string of military victories to identify him as a strong and capable leader, the outcome of his coup was far from certain. During several instances it seemed chance had a strong role in determining the outcome – at one point, when confronting a large assembly of politicians in the Council of Five Hundred, Napoleon was physically assaulted and only escaped unharmed with the aid of his brother Lucien.

Even after the initial coup events, Napoleon's power did not reach its zenith until he was able to push thru a constitution that profoundly concentrated power with the First Consul of France, a position he already held. The new constitution allowed him to appoint the Senate, which thru legislation allowed him to rule by decree, and subsequent judicial reform aimed to turn judges into "into automata simply enforcing his code" (Glaeser and Shleifer [33]). Despite Napoleon's coming to power thru extralegal methods and the use of force, his power emanated thru a set of institutions that significantly concentrated power within the executive at the expense of any constraints previously in place.

Ever since Napoleon, numerous coups d'état have occurred throughout the world, for varying reasons and in different circumstances. Some, like the coups of Chile in 1973 and Turkey in 1980, have

[5] http://www.napoleon-series.org/research/government/legislation/c_proclamation.html

overthrown democratically elected governments, resulting in political institutions heavily influenced by authoritarianism with continuing military prerogatives in place even after a return to democracy. In others, like any of the many coups in Africa, coups have come the prevailing way in which state leaders alternate.

Military coups tend to occur in conjunction with larger social conflicts between different groups in society. Two such opposing groups have often been workers and employers. The 1973 coup in Chile followed substantial social conflict over redistribution among the country's working class and its business elite; in Algeria in the late 1980s, much of the political Islamist support came from the large masses of unemployed men in urban areas, united in its anger over corruption and cronyism among the political connected establishment. Many military coups have thus been particularly supported by the economic elites, as a means to protect their interests (Stepan [64]). As early as 1852, Karl Marx explained the bourgeoisie's support for the authoritarian regime of Louis Napoleon as an abdication of political rights in exchange for protection of its economic rents (Marx [48]). It is thus possible that periods of contention, or crises, allow the military establishment the means to negotiate higher rents for themselves in return for supporting either of the conflicting parties.[6] As the military will often have vested economic and political interests in maintaining the status quo, it is therefore no coincidence that coup-makers tend to side more often with existing elites.

Once a coup plan has been hatched, the execution tends to follow a similar, carefully-planned pattern. A selected group, usually officers or other members of the security establishment, surround or take over various strategic locations, such as the airport, TV or stations, parliament, cutting phone lines to influential individuals who may object, and neutralizing political opponents, which mostly means arresting them. Whether by radio or television, the coup-plotters typically announce their coup, blaming the deposed government and its members for the country's problems, and ensuring quick resolution to said problems.

At this point a sensitive period follows, as the remainder of the security forces and the population as a whole decide whether to accept the coup as fait accompli or whether to resist. Public support is often of very important, and many successful coups have received fair amounts of support among the populace, yet knowing the degree of support ahead of the coup can be tricky and small mistakes can have large consequences. In the Venezuelan coup attempt of 2002 which failed to oust Hugo Chávez, did so partly due to loyalists within the military as well as Chávez's popularity compared to the coup-plotters. The coup attempt of Alberto Natusch in Bolivia in 1979 failed after unexpected resistance especially by the labor unions. In Spain on February 18th 1981, a coup attempt by Lieutenant-Colonel Antonio Tejero and 200 members of the Guardia Civil may have failed due to a misjudgment of King Juan Carlos support – the coup-plotters gave up shortly after the King of Spain publicly denounced the coup makers.[7] In Chile's 1973, the main obstacle to Pinochet's coup, Admiral Montero, a well-known loyalist to sitting President Allende, was supposedly incapacitated by cutting his phone lines and sabotaging his car. As such, history is full of coup attempts that have both failed and succeeded for reasons that were not always beyond the role of chance.

[6] For a theoretical analysis along these lines, see Acemoglu et al [6].

[7] According to Colomer [25], one of the conspirators is said to have exclaimed "The next time, cut the King's phone line!"

When a coup is successful, a council of military leaders is often set up to determine the next couple of steps. At this point, the course of action differs widely. In cases where the coup leadership is firmly vested in one person, that person tends to quickly become the one in control. This sometimes led to strains between the new leader and the military, as in the case of Ziaur Rahman's rule in Bangladesh (1977-1981). Ziaur's strategy of creating a political power base around himself failed to the extent that he was assassinated in a coup attempt in 1981. The seizing of power of Rafael Trujillo in the Dominican Republic, Idi Amin in Uganda, or Muammar Gaddafi in Libya, over time led to personality cults around these military strongmen.

In cases where coup leadership was initially more diffuse among the members of the top brass, the new leadership tended to be less personalized, or at least the new leader was usually given a more limited mandate for governing. In the military regimes of Argentina (Fontana [29]) or Brazil (Stepan [63]), it was common to rotate leadership among the generals. Over the longer term, even though military leadership tended to prefer to not actively govern the country (Cook [21]), they nonetheless retained the ability to make sure their preferred civilian candidates came to hold senior positions. In Turkey, even after democratic elections for parliament were reintroduced after a coup, generals typically claimed the right to have their preferred candidate elected as president of the country. In yet other cases, such as Bangladesh under Ziaur and Ershad, these military leaders attempted to remodel themselves as civilian leaders by establishing political parties and actively participating in elections.

2.1 Case Studies

> *"Egyptians would be lucky if their new ruling generals turn out to be in the mold of Chile's Augusto Pinochet, who took power amid chaos but hired free-market reformers and midwifed a transition to democracy."*
>
> – "After the Coup in Cairo", Editorial in *The Wall Street Journal*, July 7, 2013.

This section discusses four cases of military coups: Algeria in 1992, Bangladesh in 1982, Chile in 1973, and Turkey in 1980. Each of these differ in many ways but share at least one important similarity; in all the cases, military intervention either overthrew popularly elected sitting governments or those about to win power through democratic elections. The experiences of Algeria and Turkey represent their prominence in debates regarding the current institutional transformation in the Middle East. As for the other two; Bangladesh is the eight largest country in the world and thus of great significance; Chile remains a controversial case, as the brutal military regime's application of neoliberal economic policies is often credited as a cause for its subsequent economic growth (Barro [12], Becker [14]).

Algeria 1992.[8] Ever since its independence in 1962, Algeria had been a socialist single-party autocracy, with a centrally planned economy dominated by natural gas. As oil prices fell in the late 1980s, however, this put considerable strain on the government budget, undercutting any attempt at resolving the country's growing social and economic problems. A high birth rate, rapid urbanization and unemployment above 20 percent created large urban areas simmering with discontent not seen

[8] This section draws on Kepel [37] and Quandt [60]

since the Independence War of the 1950s. Grievances against perceived corruption and favoritism on the part of the francophone, politically-connected elite, added to tensions.

To stave off rising dissent over its economic failure, and as means to ensure political survival the regime of the FLN (Front de Libération Nationale), led by President Chadli Bendjedid, moved towards introducing multiparty democracy and fair elections for the first time in its history. A new constitution in 1989 paved the way for this political reform. Despite an upswing in political participation among all segments of society, the Islamic Salvation Front (FIS) – a coalition of both radical and moderate Islamists – successfully coalesced pious segments across all social classes. From the start, FIS represented an uneasy cooperation between two larger groupings. Both envisioned Algeria as an Islamic state, but along different strategies. The first, made up of relatively moderate Islamists often referred to as *Djazaarists*, preferred some cooperation with the incumbent regime and gradual reform. The more radical *Salafists*, however, preferred a full implementation of Sharia law, and within this faction, some members did not spurn the use of violence to achieve their goal.

In the 1990 local elections, the FIS won nearly 54 percent of the vote, against the incumbent's 28 percent. At the local level, the FIS improved local service delivery and living standards. At the national level, however, divisions among the FIS leadership on the role of Sharia law in Algeria became more apparent and alienated many moderates. During the Gulf War, the Salafist faction staged a demonstration in front of the Defense Ministry demanding a volunteer force to go join Saddam Hussein in Iraq, a message the military took as trespassing on their turf.

The regime increasingly sought to limit Islamist electoral success through any means available, including gerrymandering legislation. This, in turn, undermined Djazaarist attempts to negotiate with government, and a general strike was called. Quickly spiraling out of control, violent protests were met by tanks, and the FIS leadership was detained (and would remain in prison for most of the 1990s, on charges of inciting and organizing an armed insurrection against the state). Many among the more radical faction of the party, disillusioned by recent events, left the party, some choosing to go underground joining more militant organizations. This had the result of the moderates gaining control, and a reassertion of the FIS commitment to electoral participation was made by their new leader Abdelkader Hachani.

Although the FIS lost many votes in the 1991 first round general election, it nonetheless received a majority, soundly beating the incumbent FLN. Yet lingering concerns over the FIS's radical influences, the military's future role as well as the regional implications of a democratically elected Islamist government, led the military to intervene on January 11th, 1992. In an unexpected appearance on live television, President Benjedid announced the failure of the democratic practices, that he could no longer ensure law and order, a covert dissolution of parliament, and finally his own resignation. A day later, Algeria's Supreme Court declared this situation not specified in the Constitution, temporarily transferring both legislative and executive powers to a council overrepresented by military officers. Among its first decrees was the suspension of any further elections.

In the following crackdown, FIS members, imams, and journalists were imprisoned along with many militant Islamists; the second-round elections were also called off. Shortly afterwards, the first terrorist attacks started. The following decade would be marred by bloody civil war pitting Islamic fundamentalists under the Groupe Islamique Armé (GIA) against government forces; a conflict that

would claim a death toll of more than 100,000. Despite a ceasefire in 1997, factions of the GIA remained fighting and have today become an integral component in the Al-Qaeda in the Islamic Maghreb (AQIM).

In addition to skepticism over FIS policies, the military also had an interest in the status quo, for it provided substantial material benefits to the armed forces. For example, the partial economic liberalization policies under FLN meant lucrative business opportunities for military leaders and their civilian allies (Cook [21]). Over time, "some of Algeria'ss top generals have transformed into an informal but influential trade lobby that ensures the country's key business deals enrich them and their families."[9]

The need to preserve military rents also lay behind the demise of the first post-coup leader, Mohamed Boudiaf. Almost immediately after the coup he was called back from exile in Morocco to serve as President. As a veteran of the Independence War and cofounder of the FLN, the then 72-year-old was seen as an independent moderate, an outsider who could navigate a difficult path between a hawkish military and the poor and pious working class. The military had not counted on Boudiaf's concern over corruption within certain segments of the military. A short while after announcing a campaign of trying senior officers for corruption, Boudiaf was assassinated by his own bodyguard during a televised interview. Although the perpetrator was said to have Islamist sympathies, some observers have seen the assassination of Boudiaf as a "consequence of the behind-the-scenes power struggle between top military officers" (Volpi [65]).

Bangladesh 1982. Bangladesh came to existence through a bloody and scarring war with Pakistan in 1971. Almost immediately following independence, a bitter rivalry arose between factions arguing for more secular and socialist policies versus those espousing more socially conservative and Islamic ideals (Lewis [42]. Moreover, the independence war had blurred the line between civil and military authority, and post-independence patronage in the armed forces led to fractures and resentment over promotions in the military. After a failed stint of civilian rule under the secular-nationalist Awami league – which degenerated into the founding leader Mujib proclaiming a one-party state and the establishment of his own personal army – this gave way to a volatile period of military rule, coups, assassinations, and martial law.

In 1977, General Ziaur Rahman (also known as Zia) came to power, and whilst continuing to fight off repeated coup attempts, he oversaw the reintroduction of multiparty elections. His own party – the moderately Islamist and center-right Bangladesh National Party (BNP) – won two thirds of the votes in 1979 and Zia became president. Relations improved with its archival Pakistan, the West, and many Gulf states. A series of controversial policies overturned previous governments' secular restrictions, as well as some of the stigma associated with anti-liberation activists during the independence war.

Despite suppression of many of the opposing factions within the military, Zia was himself assassinated in a coup attempt in 1981. Mostly due to the actions of his Chief of Staff Ershad, the coup failed. As such, power for the first time transitioned to civilian rule as the new leader of Zia's BNP became Abdus Sattar, a 75-year-old former lawyer plagued by ill health. The presidential elections

[9] "Will Algeria's army be the dark horse in the next election?," Erin Cunningham, The Global Post, March 26 2013, http://www.globalpost.com/dispatch/news/regions/africa/130326/algeria-military-algerian-elections

of the same year galvanized the nation, and partly due to the BNP's own popularity and the main opposition candidate being too young to contend, Sattar became the first democratically elected president in Bangladesh's history. In a New York Times article at the time, Ershad - the then de facto head of the military, vowed commitment to democratic principles but also said that "the process can be best protected by providing opportunities for military participation in government."[10] The civilian president, however, had different ideas of military participation, attempting to minimize the role of military offices in government. This tension ultimately lead to Ershad overthrow of Sattar in bloodless coup on March 24th, 1982. Military rule, as well as martial law, returned.

The period under Ershad has been characterized as "one of the most centralized and corrupt in the history of Bangladesh" (Lewis [42]). Despite repeated commitments to the democratic process, Ershad lacked the popular support enjoyed by Zia and previous leaders. And in spite of renewed efforts to improve relations with the West as well as increased cooperation with international organizations like the World Bank, Ershad repeatedly tended to fall back on state patronage networks in order to boost his own failing popularity. An attempt to form a political party stumbled in the absence of meaningful grassroots support. Policies to promote the export sector failed under the weight of opposition from the comparatively popular Awami League. Some reforms, such as the implementation of the *upazila* local administrative bodies, while not necessarily a failure in their own, still struggled to provide Ershad with any sense of legitimate rule. Another attempt to provided an essential and low-cost drugs policy buckled under its non-consultational implementation, the ensuing conflict with international drug companies, and low product quality.

Over the years, Ershad's reliance on patronage and rigged elections further eroded his popularity, and in 1990 a widespread protest movement succeeded in forcing his removal. The 1991 election returned civilians to government, and except for a two-year stint following a military intervention in 2007, this form of government has prevailed. The military still retains an influential role in politics, as witnessed in the 2007 coup. Furthermore, it sits over a, by Bangladeshi standards, vast business empire, and recent audits have showed extensive privileges accorded to the military.[11]

Chile 1973. A high demand for redistribution among the country's poorer segments, a faltering economy, and high inflation resulted in the close presidential election of a leftist Popular Unity candidate Salvador Allende in 1970. Allende pursued a program of nationalization in several industries, while also turning over large estates to farm laborers. Just during his first year, 47 industrial firms were nationalized, along with most of the banking system. Agrarian reform saw the expropriation and incorporation into communal property of six million acres of land formerly held by the large landowners. Many of these policies were directed at US business interests; one legal act, supported by all of the nation's popular parties, nationalized all copper deposits worked by the subsidiaries of the US firms Anaconda and Kennecott. This largely served the country's working class, leading to nearly

[10] "In Bangladesh Election, The Aura of Two Dead Leaders is Pervasive",The New York Times, November 14, 1981 http://www.nytimes.com/1981/11/14/world/in-bangladesh-election-the-aura-of-two-dead-leaders-is-pervasive.html

[11] "Bangladesh army's advancing business interests", BBC News, August 10, 2010, http://www.bbc.co.uk/news/world-south-asia-10801268

full employment and a reported 30 percent increase in wages.[12]

Although Popular Unity controlled the executive, its main opposition the Christian Democrats and allies held sway in parliament. The former found most of its support among the working class and farm laborers, while the latter had extensive support among the upper and middle classes. These socioeconomic cleavages, inflamed by the party leaders, made the political atmosphere heavily polarized.

Allende's initial economic success proved short-lived; a US-sponsored economic blockade by the United States effectively shut down the economy. Despite its relatively diverse industrial base, Chile, was heavily dependent on external capital; among its 160 most important firms, 60 per cent of the capital was foreign and 80 per cent of the basic materials were imported. The blockade thus hampered the country's ability to finance imports as well as to cover interest payments on its foreign debt.

Despite the challenges facing the government – many which were part of a deliberate US covert campaign to undermine the Allende government (Kornbluh [38]) – failed to dent Allende's popularity. In the 1973 parliamentary elections, Popular Unity gained in vote share, but not enough to attain a majority. Shortly thereafter, the trucker's union called a strike paralyzing the country. Days before the coup, the army was purged of its high ranking officers supportive to Allende, and on September 11th 1973, the military led by Augusto Pinochet Ugarte intervened. The aftermath was bloody. According to the "The National Commission on Political Imprisonment and Torture Report" published in 2004, during the 17-year-long military dictatorship nearly 40,000 people were detained, 28,000 tortured, and more than a thousand killed. As a result nearly 200,000 Chileans went into exile.

A military junta under Pinochet suspended both the Constitution and Congress, imposed strict censorship and curfews, and banned all political activities. The junta exercised both legislative and executive powers for a year, after which it transferred said powers to Pinochet, proclaiming himself initially "Supreme Chief of the Nation," and, later on, President of Chile. The de facto concentration of powers received its de jure correspondence in 1980 when the 1925 constitution was replaced with one that concentrated power to a large extent with the president, and largely insulated the military from civilian oversight. Pinochet would rule Chile for 15 years until, in 1988, when he lost a plebiscite on whether to serve another eight years as president. A year later, Patricio Aylwin became Chile's first democratically elected leader in sixteen years. Regardless, Pinochet and the military continued to wield significant influence due to the 1980 constitution, and only in 2010 were the last of the military's special privileges removed.

In contrast to the devastating human rights record of the 1973 coup, the dictatorship's economic policies are often lauded as the main conduit for achieving high economic growth.[13] During the years following the coup, the regime dramatically lowered trade barriers, implemented large scale liberalization policies, privatized many of the industries previously nationalized by the Allende government, and a new law severely restricted worker's rights.

Over the next ten years, little of the fruits of these policies would be visible. High unemployment

[12] "Why Allende had to die," Gabriel García Márquez, The New Statesman, March 1974, http://www.newstatesman.com/2013/03/why-allende-had-die

[13] "What Latin America Owes to the 'Chicago Boys'," Gary Becker, Hoover Digest, October 30, 1997 http://www.hoover.org/publications/hoover-digest/article/7743

and recurring economic crises became the hallmark of Pinochet's first decade in power; the dictator "presided over the two deepest recessions to affect the Chilean economy since the 1930s" (Meller [49]). It would take 15 years for Chile to regain its pre-coup level.

In the mid-1980s, however, growth increased, and ever since, Chile has stood out among its contemporaries for achieving such high growth rates, although not without costs; the post-coup economic policies widened the income distribution, exacerbating poverty levels (Laban [41]). Among those voting against Pinochet in the 1988 plebiscite were a large group of citizens who for one and a half decade had lived through high unemployment and poverty.

The legacy of Pinochet's economic legacy remains a contested subject, even among economists.[14] Some have withheld the dictator's role in midwifing the country into what would later become to be called the "Chilean Miracle." Others have pointed out not only that it took more than a decade for Chile to regain it's pre-coup level of income per capita, but that many pre-coup policies and institutional changes trump any reforms implemented during the post-73 regime.[15]

Turkey, 1980. In the 1970s, Turkey experienced a combination of economic crisis, civil violence, and political deadlock unprecedented in the country's history (Ahmad [9]). Clashes between extreme factions of both the left and right forced the government to proclaim martial law over vast areas of the country. The country's current account buckled under an increased oil price, debt repayments, inflation, and unemployment. Meanwhile, an electoral system conducive to fragmentation of votes across parties meant weak and brief government coalitions. During the period between 1974 and leading up the coup in 1980, the person holding the position of prime minister altered seven times. The few times politicians did agree were when they faced interference from the military, and a refusal to elect the military's preferred candidate for president in 1973, normally a formality, frustrated an already annoyed military. The government coalitions required the support of fringe parties to survive. One of them was an ultranationalist and militant party which used most of its political power to infiltrate state security institutions, and inflame the violence through its youth movements. Another was an Islamist party whose rhetoric of the need for Sharia law incensed the secular establishment overall but especially the military. In 1979, Iran went through its Islamic Revolution and the Soviet Union invaded Afghanistan. Turkey thus gained renewed strategic importance, and the need for political stability was not lost on the top brass.

The 1980 coup itself was largely implemented without much violence, but the repression and human suffering that followed was substantial. According the Turkish newspaper Hurriyet Daily News 650,000 people were detained, 230,000 prosecuted, 517 received the death penalty, and 1,683,000 people were blacklisted.[16]

The military ruled directly for three years and during this time completely revamped Turkey's in-

[14] See for example Barro [12], Becker [14], and Krugman [39]

[15] For example, according to Munõz [52], much of the groundwork for Chile's economic success lay in the land reform of the 1960s, which broke up semi-feudal estates, allowing the Pinochet regime an export-oriented economy driven by large-scale agricultural production. Moreover, state institutions like the central bank, Internal Revenue Service and General Comptroller's Office, were all in place due to a modernization process that started as early as the 1920s.

[16] "Turkey's 1980 coup facts," Hürriyet Daily News, April 4th 2012, http://www.hurriyetdailynews.com/1980-coup-facts.aspx?pageID=238&nid=17628.

stitutions, concentrating more power with the government, severely restricting political as well as civil liberties, especially on the left side of the political spectrum and with regards to ethnic minorities. Labor unions were similarly hamstrung. The extreme right-wing was largely co-opted through increasing the state's accommodation of ultranationalist and Islamic ideologies, the ensuing state dogma often referred to as the "Turkish-Islamic synthesis." Whereas those civil associations based on Marxist or Kurdish ideals were hardly suppressed, those with a more Islamic character flourished.

A controlled election was held in 1983, and the new constrained political system gave enormous power to the newly elected Turgut Özal, which for the rest of the decade set upon promoting a set of economic policies without much public consultation. As concerns over his unwillingness to combine economic liberalization with a corresponding political liberalization, his efforts turned more towards gerrymandering legislation and patronage to remain in power. The combination of liberalization policies and heavy borrowing eventually resulted in a series of financial crises. Özal's party became increasingly unpopular as other parties gained access to the political sphere, and the situation reverted to one with political bickering and brief weak coalition governments, not unlike the poisonous political climate preceding the coup.

The post-1980 institutions gave significant powers to the judiciary to regulate political participation; over the period 1983-2009, the Supreme Court closed down more than 21 political parties, many of them religious, Kurdish, and left-wing. The electoral system further reflected attempts to prevent participation by unwanted political movements; any party hoping to gain representation in parliament needed at least 10 percent of the popular vote. In 1987 an insurgency eruputed in the country's southeastern region pitting the Kurdish Worker's Party (PKK) against state forces, a conflict that has resulted in tens of thousands of deaths and over a million internally displaced persons.[17]

Meanwhile, the military benefited economically from the coup. Its pension fund is today the country's third largest conglomerate, and enjoys tax-exempt status due to a special law (Akça [10]). Concerns over a preferential access to policy deliberations, and privileged business deals remain. Twice since the 1980 coup, the military has attempted to induce the resignation of a democratically-elected government; once in 1997 when it forced the Islamist-led coalition to resign, and once in 2007 when it failed to oust a moderately Islamic majority government.

3 Analysis of Coup Attempts

3.1 Data and Empirical Strategy

A main challenge in estimating the causal effect of coups is the unobserved risk of a coup. Although the risk of a coup may be correlated with observable factors such as GDP per capita, poor growth, and degrees of violence, just as important are a range of unobservable factors. These may include the relative power balance between the incumbent leader and the military, the cohesion within the military, as well as complex processes that result in conflicts between social groups, and in turn, political instability.[18] These factors may themselves have ambiguous direct effects on economic development,

[17] http://www.internal-displacement.org/8025708F004CE90B/(httpCountrySummaries)/66D21F80E3A69E41C125732200255E35?OpenDocument&count=10000

[18] For a more expansive list of reasons for coups see Belkin and Schofer [15]

and so any analysis that does not account for these confounding factors is unlikely to be informative of the development consequences of coups. The empirical design in this paper uses a comparison of coup attempts to analyze the effect of coup success in a setting where these confounding factors arguably exhibit less variation.

In estimating the development consequences of military coups, I use a dataset of military coup attempts collected by Powell and Thyne [56]. They define a coup attempts as "illegal and overt attempts by the military or other elites within the state apparatus to unseat the sitting executive." They further define a successful from a failed coup by whether the perpetrators were able to "seize and hold power for at least seven days." Over the period 1950-2010 this results in a total of 457 individual coup attempts in 94 countries, of which roughly half were successful.

Africa and Latin America saw the largest number of coups (37 and 32 percent, respectively), with the Middle East and Asia (13 and 16 percent respectively) trailing behind. Europe with the fewest number of coup attempts, only experienced 2.6 percent of all coups during the period.

Figure 1 shows the annual number of coup attempts and success rates in five-year moving averages over the full sample. A clearly non-linear trend can be seen in the climax of coups in the 1960s and a subsequent decline to less than three per year after 2005. Success rates in coups somewhat trails that of the number of coups until the end of the 1990s whereafter the former increases dramatically while the latter continues to decline.

The period covered in this paper will be limited to the 1953-2001 period, due to the focus on estimating longer-run effects.[19] The coup dataset is collapsed to annual levels and is matched with a panel of country-year data, described below. [20] The main focus will be on the growth in income per capita collected form the Penn World Tables. I calculate the growth rate as the difference in log GDP per capita between year $t+10$ and $t-1$. Calculating growth using the year before the coup attempt as base is done so as to not contaminate the outcome variable by immediate effects of the coup in period t. This ten-year window after the coup is further a result of the tradeoff between estimating longer-run development effects while leaving a large enough sample for analysis. In estimating the effect of a successful coup on development outcomes I use the following specification:

$$\Delta y_{i,t+10} = \alpha + \beta S_{it} + \mathbf{X'}_{i,t-1}\boldsymbol{\gamma} + \delta_g + \zeta_t + \varepsilon_{it} \tag{1}$$

where $\Delta y_{i,t+10} \equiv ln(y_{i,t+10}) - ln(y_{i,t-1})$ is difference in the natural logarithm of GDP per capita between year $t+10$ and $t-1$ in country i, S_{it} is the incidence of a successful coup in year t, and $\mathbf{X}_{i,t-1}$ is a vector of controls in period $t-1$. The specification includes fixed effects for years (ζ_t) and geographic region (δ_g).

The key identification assumption in this empirical design is consequently that, conditional on a coup attempt and the set of covariates, $\mathbf{X}_{i,t-1}$, any omitted factor which systematically affects coup

[19] Thus, while post-2000 decoupling of trends in both number and the success rate of coups is interesting, this will have little impact on the conducted analysis.

[20] In seven instances, there were two successful coups in the same year and in the analysis these are treated as one successful coup per year. These were Benin (1965), Bolivia (1978), Brazil (1964), Republic of Congo (1968), Haiti (1988), Nigeria (1966), and Suriname (1980). Exclusion of observations with more than one successful coup has no bearing on the results.

success has no bearing on an economy's growth prospects. To the extent that $E[\varepsilon_{it}|S_{it}, \mathbf{X}_{i,t-1}] = 0$, the effect of a successful coup is

$$\beta = E[\Delta y_{i,t+10}|S_{it} = 1, \mathbf{X}_{i,t-1}] - E[\Delta y_{i,t+10}|S_{it} = 0, \mathbf{X}_{i,t-1}] \tag{2}$$

This expression illustrates the estimand as the treatment effect of a successful versus a failed coup conditional on a coup attempt occurring. The analysis to a sample of coup attempts allows comparisons of treatment and control groups with much more similar degrees of coup risk than otherwise.

Summary statistics of the vector of controls included are described in Table 2. These variables are likely strong predictors of coup risk and ought to have some bearing on the likelihood of success. These include the natural logarithms of GDP per capita and population at period $t-1$ respectively, as well as the lagged annual growth rate from $t-2$ to $t-1$; all from the Penn World Tables.[21] In order to control for past coup experience, I also include the number of years since the last successful coup and the past number of coup successes divided by number of coup attempts. These two variables represent proxies for both the military's past willingness towards, as well as success in, intervening in politics. Furthermore, I add fixed effects for the number of coup attempts per year – as pointed out by Jones and Olken [36], a likely assumption is that the likelihood of success is increasing in the number of attempts per year.

As measures of military power, I include one-year lags of military expenditures as a share of GDP, the ratio of military personnel to the total population, and the lagged annual change in military expenditure per GDP. These variables are drawn from the COW Material National Capabilities.[22] Whereas the two former variables give some indication of the economic and social importance of the military in a country, the latter variable is included to proxy for whether there may be any recent cutbacks in military expenditure, which could result in strains between military and civilian authorities.

As proxies for the institutional environment I control for the past year's level of the Polity Index as well as its lagged annual change. In countries with less open institutions or where power is more concentrated with the executive, this may provide a more amenable environment for a coup. A recent change in such institutions could also have further upset the power balance risking a response from the military. I also control for civil violence using an index from Systemic Peace's (hereby SP) *Major Episodes of Political Violence* which ranks the degree of civil violence on a score between 0 and 10, with 0 being no violence and 10 being the worst.[23] Many countries that eventually experienced a coup – both Chile and Turkey, for example – were preceded by extensive civil violence and unrest. Both Polity and civil violence data is from the Center for Systemic Peace database.

A final control is leader tenure; the number of years the sitting executive has been in power the year before the coup. Leader tenure may proxy for actual political power (especially in a dictatorship) and popularity (especially in a democracy) thus making an attempted overthrow less likely to succeed. It may also give and indication of the stability of the regime – for example, the position of Turkey's prime minister changed 5 times in the same number of years preceding the 1980 coup. This variable

[21] https://pwt.sas.upenn.edu/

[22] http://www.correlatesofwar.org/COW2%20Data/Capabilities/nmc3-02.htm#data

[23] http://www.systemicpeace.org/polity/polity4.htm

is from Cheibub et al's [19] (hereby CGV) classification of political regimes. Additional controls are added in Section 3.3.

Of all the variables listed in Table 2, only pre-coup means of leader tenure are systematically different across successful and failed coups. Given the large number of controls, this is not unusual – a joint test whether pre-intervention means across successful and failed coups are different for all the variables is insignificant with a p-value of 0.77. Similar tests for split samples of democracies and autocracies show corresponding p-values of 0.34 and 0.86. As such, while it may be somewhat naive to assume that coup success is random, it is nonetheless noteworthy that the control variables do not systematically vary across successful and failed coups. Sections 3.3 and 3.4 will further test the validity of the identification strategy.

A central focus in the analysis is estimating the effect across countries with more or less democratic institutions preceding the coup. An obvious way to do this would be to split the sample by democracies and non-democracies at $t-1$ and estimate separate effects in these two samples. Yet this would leave out many countries who, albeit not considered full democracies, still include certain democratic institutions. The interesting comparison, is the one between a pluralistically elected, but perhaps not fully, democratic regime with at least some legitimacy versus a military-dictated regime.

As coups are more likely to occur in countries with less democratic institutions overall, I therefore set a lower bar for democracy in splitting the sample. For most of the main analysis I will employ CGV's classification of democratic regimes to split coups into two groups. The first group of countries, which I refer to as "more democratic," are those that at the time just before the coup had experienced at least one year as a full democracy in any of the last five years. Coup attempts in countries without a single year of democracy during the same time frame are classified as "more autocratic". This way of splitting the sample is expanded further in section 3.3 where I show that this result is robust to alternative measures of democracy.

Before getting to the results, it is useful to briefly illustrate the immediate consequences of a successful coup versus both unsuccessful coups and instances with no coups. Table 1 shows several statistics defined as changes between the coup and pre-coup years, illustrating what coups imply for politics, as well as how they differ across those committed against democratic versus autocratic regimes. The first two reported statistics are one variable indicating leader turnover and another indicating military leader turnover (i.e. indicating a change in leader towards or away from a military leader). The second two variables measure transition to and from democracy as a change in the dummy variable of whether a country counts as a democracy by either CGV or Polity2. The following three variables indicate changes in Polity's Executive constraints index, change in the MEP indicator of civil violence as well as the annual growth rate in GDP per capita. Means of these variables are shown for any political regime in Panel A, for democracies (as described above) in Panel B, and for autocracies in Panel C.

This table illustrates the immediate consequences of, on one hand, coup attempts compared to instances without coup attempts, and on the other hand, the different consequences of failed versus successful coup attempts. The important point is that it illustrates the systematically different nature of coups depending on whether they overthrow democratically-elected leaders or not.

For example, in democracies, successful coups do not just imply higher rates of leader turnover,

but also a higher likelihood of a military leader – roughly half the initial post-coup leaders tend to be defined as military by CGV. Failed coups, in turn, are associated with less leader turnover, even less than the normal rate as can be seen in the column for non-coup attempts. In autocracies, successful coups also imply leader turnover, but somewhat less so the coming to power of military leaders. Leader turnover is nonethless higher in cases of failed coups than in cases without coups for this subsample.

Coups in democracies also tend to have more pronounced institutional changes, as can be seen by the larger negative changes in measures of transitions and executive constraints in Panel B. For both measures of democratic transitions as well as changes in executive constraints these show the starkly negative consequences of successful versus failed coups. When coup attempts occur in autocracies, they tend to have very small consequences for either transitions to and from democracy, or changes in constraints on the executive. Another difference is that, while in democracies coup success means more violence, this is much less so for coup success in autocracies. The growth rate is also larger when a coup succeeds in democracies, but not so in autocracies.

As coups exhibit such different characteristics based on the type of regime overthrown, I will estimate separate effects of coup success for democracies and autocracies. The next section examines consequences coups over a longer time period.

3.2 Results

Table 3 presents the main effects of military coups on growth, as estimated using equation (1). Each odd column represents an estimate of the effect with only year and region controls whereas even columns include the full set of controls described in the previous section. Splitting the sample into the more autocratic versus more democratic reveals two groups with widely different growth rates. The former experienced an average ten-year growth rate of 6.2 percent in log points, the latter 18.1 percent in log points; or equivalently 6.4 percent (0.6 percent per year) and 19.8 percent (1.66 percent per year) respectively.

In the first two columns, coup success has little bearing on growth for the whole sample with estimates with and without controls remaining statistically insignificant and small. Splitting the sample into democracies and autocracies, however, reveals estimates of opposite signs. In columns 3-4, for countries considered more democratic, the estimate is -8.3 percent without, and -11.9 percent with, covariates. Both estimates are statistically significant at 5 percent. In countries considered more autocratic, the estimate is 2.4 percent without, and 7.6 percent with, covariates. Only the latter estimate is significant at 10 percent. Using the estimates with controls in columns 4 and 6, this represents an annual *reduction* of around 1.1 percent for democracies and an annual *increase* of 0.69 for autocracies. Both can be considered large effects, suggesting a successful coup has significant growth effects, but of opposite signs depending on the pre-coup type of political regime.

It is tempting to view the marginally significant positive effects in autocracies in the light of their role as a modus operandi for leader turnover; the effect of a coup thus marks the effect a new ruler, which may have positive growth consequences. It is equally tempting to see the large negative effect on ten-year growth in the more democratic countries as result of the institutional change following coups. Whereas in the former case, the successful coup marks an effective leader change, in the latter

the institutional consequences are potentially much more far-reaching.

Of some interest is also the coefficients representing the control variables. In neither specification is pre-coup leader tenure correlated with growth despite its correlation with coup success in Table 2; in fact none of the listed covariates are significant for autocracies. For democracies, only three of the listed pre-coup variables are significantly correlated with the outcome; level of GDP per capita, the lagged change in military expenditures and the level of civil violence. As such, among coup attempts occurring in more democratic countries, those where the military's economic role is pushed back and those with higher levels of civil violence tend to exhibit higher growth.

Before discussing the mechanisms more I examine the robustness of the results below.

3.3 Robustness Checks

The robustness of the main results is explored in Tables 4 and 5. The first of these two tables compares the baseline result in column 1 with a range of other specifications in columns 2-10. Column 2 adds additional coup-related controls: the total number of any previous coup attempts, the number of years since the last coup attempt, two controls for a country's global military rank – both in terms of expenditure and personnel respectively – as well as the number of previous times the country has transitioned to an autocracy.[24] These covariates further serve to control for factors related to military's strength as well as its political past. Column 3 adds additional leader controls including pre-coup leader age, the number of instances of irregular leader turnovers in the last five years, as well as a dummy variable for whether the leader implemented any radical change. All these variables except the last one are from the Archigos dataset. The variable on radical policy dummy is from Colgan [22] and takes on the value of one if at least three of the following policy changes were implemented: major changes to the constitution, adoption of Marxism or fascism as a political ideology, change in official state name, major changes in property rights law (such as nationalization or land reform), major policy changes with regards gender, changes in state religion, and the creation of any government council with significant powers. This last variable is meant to capture variation related to controversial reforms that may have emboldened political elites and the military to act. Column 4 includes additional controls for whether a country was involved in any civil, interstate, or extrastate warfare in period $t-1$ using the PRIO/Uppsala Armed Conflicts Database as well as the number of peace years preceding the coup. An unpopular war may serve as a strong motive for a coup d'etat. Column 5 adds controls for years of schooling as well as the share of population with completed tertiary education using data from Barro and Lee [13]. Column 6 adds pre-coup controls for the oil and gas value as a share of GDP, the oil price, and the lagged five-year change in the oil price, all from Ross [61]. Neither of the above mentioned specification checks affect the coefficients in any meaningful way.

Columns 7 and 8 weights observations differently than in the baseline specification; by the inverse number of total coups preceding the coup in the former column; and by the number of years since the last successful coup in the latter. The former specification thus puts greater weight on countries where coups are less common, essentially giving each country a more equal weight. The latter specification

[24] All but the last of these outcomes are constructed using data from Powell and Thyne [56]. Data on transitions to autocracy is from Cheibub et al [19].

instead puts more weight on instances preceded by longer periods of non-intervention. Although in the latter of these columns the estimate on successful coup is statistically insignificant, the magnitude remains unchanged. These two specifications therefore suggest that the baseline effect is not driven by a few particularly coup-prone countries, such as Argentina, Bolivia, or Sudan; nor is it driven by "follow-up" coups, like those in Benin, Ecuador and, or Syria.

The last two columns adds region-decade fixed effects in column 9 and a stratified propensity score in column 10. In the former, there may be region-specific factors that make coup success for more likely in different decades. For example, the 1960s and 1970s in Latin America etc. In the latter column, the propensity score is obtained by estimating a probit regression of successful coup instances on the covariates from the baseline regression in column 1, then splitting the predicted probability into ten dummy variables for every decile of the propensity score. These dummies are then added to the growth regression in column 9. Whereas adding region-decade fixed effects lowers precision of the estimate, it does not affect the magnitude for democracies in any meaningful way. Adding the stratified propensity score if anything increases this estimate and remains statistically significant.[25] The baseline results are also robust to controlling for past growth rates over longer periods, 5 years and 10 years as can be seen in column 11.

Panel A of Table 5 varies the measure used to separate the two groups of democracies and autocracies from each other. Columns 1 and 2 divide the groups by whether a country had at least one year of CGV defining it as a democracy over 5 years (column 1, i.e. the baseline estimate) and 10 years (column 2). In column 3, the sample is split by whether CGV defined the country as a democracy in $t-1$. In the following two columns, I split the sample using a lagged average Polity score above 0.5 (i.e. when SP's *DEMOC* indicator is larger than the *AUTOC* indicator) over 5 years (column 4) and 10 years (column 5) respectively. Column 6 splits the sample by whether a country had been a CGV democracy in the last 5 years or whether the lagged five year change in the Polity variable increased by at least one standard deviation (0.26). This last split groups democratic countries together with those having made significant strides towards democracy.

Overall for the sample of autocracies, the estimates remain positive although some lose significance and vary somewhat in magnitude. For the sample of democracies, none of the ensuing estimates deviate meaningfully in magnitude – albeit in statistical significance – and all are within half a standard error of the baseline estimate of a ten percent drop in growth over ten years.

Panel B of the table report results from splits using placebo variables. Countries that are relatively more democratic tend to be both richer, more educated, and more populous. Of additional interest is to what extent effect of coups vary by the availability of natural resources. Furthermore, recent work by Marinov and Goemans [47] suggest the effects of coups may systematically differ depending on whether the coup occurred during or after the Cold War. Columns 1-6 therefore splits the sample by a dummy for natural gas or oil resources (column 1), median GDP per Capita (column 2), years of schooling (column 3), and population (column 4), past five-year growth (column 5) respectively. The final column 6 splits the sample by whether coup occur before or after the end of the Cold War in 1989.

[25] Additional estimates using bias-corrected matching estimation of Abadie and Imbens [1] gives very similar estimates, albeit somewhat larger, than the baseline OLS estimates. These results are available on request.

As can be seen from results in Panel B, in none of these alternative interactions are there any statistically significant growth effects of successful coups that may explain why there are differing effects by political regime. Thus, the result that successful coups affect growth is robust to a large degree in democracies, to a lesser degree in autocracies, and unlikely driven by dimensions correlated with democracy or of systematic interest for other reasons.

3.4 Fixed-Effects Results

In this subsection I use panel data with country fixed effects to estimate the ten-year growth effect of a successful coup conditional on a coup attempt. In Table 6, I use the following fixed-effects regression specification:

$$\Delta y_{i,t+10} = \alpha + \beta_A A_{it} + \beta_S S_{it} + \mathbf{X'}_{i,t-1}\boldsymbol{\delta} + \zeta_i + \theta_t + \varepsilon_{it} \tag{3}$$

where $\Delta y_{i,t+10} \equiv ln(y_{i,t+10}) - ln(y_{i,t-1})$ is the difference in the logarithm of GDP per capita between $t+s$ and $t-1$, A_{it} is the incidence of any coup attempt in year t, S_{it} is the incidence of successful coup attempt in year t, and $\mathbf{X}_{i,t-1}$ is a vector of controls in period $t-1$. The specification includes fixed effects for years (θ_t) and countries (ζ_g).

The interpretation of the coefficients $\hat{\beta}_S$ has the same interpretation as in previous sections, the effect of a successful coup conditional on a coup attempt. The interpretation of the coefficient $\hat{\beta}_A$, however, is not necessarily the effect of a failed coup, but also captures various elements of coup risk, political instability etc. The latter coefficient is thus seen as a control variable combining the consequences of a coup failing and the factors that resulted in the coup in the first place. Similar to the identification assumption in previous section as long as $E[\varepsilon_{it}|S_{it}, A_{it}, \mathbf{X}_{i,t-1}, \zeta_i, \theta_t] = 0$

$$\beta_S = E[\Delta y_{i,t+10}|S_{it} = 1, A_{it} = 1, \mathbf{X}, \zeta_i, \theta_{t_{i,t-1}}] - E[\Delta y_{i,t+10}|S_{it} = 0, A_{it} = 1, \mathbf{X}_{i,t-1}, \zeta_i, \theta_t] \tag{4}$$

is informative of the development consequences of a successful coup.

In the first column of Table 6, in addition to indicators for a coup attempts and a successful coup attempt, only year- and country-specific fixed effects are included. Column 2 further adds the same controls from the baseline regression in Table 3. Column 3 adds five-year, as well as yen-year, lagged values of the growth rate, and column 4 adds one-year lags of the consumption, government, and investment shares of GDP, as well as total trade divided by GDP and the price level of GDP, all from the Penn World Tables. Throughout these specifications, estimates of a successful coup remains positive and statistically significant.

One concern is that any effects of coups are driven by unobserved differences in quality between pre- and post-coup governments. If military coups usher in leaders with systematically different qualities, then any found effect of coups on growth could be confounded by simultaneous changes in leader quality. Given previous research on the importance of irregular leader transitions (Besley et al [17], Jones and Olken [35] & [36]), in order to accommodate this possibility, I add fixed effects for the period t effective leader of the government in column 5. This partials out variation in growth constant

over a leader's tenure. Column 6 and 7 add linear country trends and country-decade fixed effects respectively. Column 8 adds a stratified propensity score, where the score is obtained from a probit regression of the incidence of any coup attempt on the observable covariates in column 1 (except for the indicators for coup occurrence themselves). The predicted value of this probit regression is then stratified into deciles, and a dummy for each decile of the score is added to the regression in column 8 in Table 6. Finally, column 9 only includes countries with at least one coup attempt.

Across these specifications, for the full sample in Panel A, the estimates of a successful coup is small and statistically insignificant. Panel B, however, reveal larger and statistically significant negative effects of successful coups. For example, in column 4, the difference estimate is -0.1, roughly equal to the baseline estimate in Table 3. The other estimates are somewhat smaller but remain statistically significant. Several of the estimates on coup attempts are positive significant although overall these results are less robust. In Panel C, I find no similarly robust effect of successful coups among the countries considered more autocratic.

Although the coefficient on coup attempts, β_A, is not meant to have a causal interpretation in this context, it is nonetheless interesting that this coefficient is positive significant for most of the specifications. This suggests that, in the absence of a successful coup, failed coup attempts – and in extension, the factors driving these attempts – tend to result in higher economic growth over a ten-year period. This could be due to the absence (or loss) of military influence, or a resolution of the underlying conflict without a violent coup. Alternatively, given the low growth rates preceding coup attempt (on average, zero growth as seen in Table 2), it could also be mean reversion, a country mechanically bouncing back from a period of abnormally low growth and economic crisis.

Regardless, this stands in stark contrast to common perceptions of the counterfactual outcomes to the coups of Chile and Turkey etc, that absent, for example, Pinochet and Evren's respective interventions, the outcome would have been much worse. Instead it is consistent with a view that military coups overthrowing democracies do not generally resolve the problems underlying the conflict. This can be further seen in the estimates and respective p-values of the sum of the coefficients of a successful coup and a coup attempt, $\beta_S + \beta_A$, which is consistently negative and in some specifications statistically significant. Military coups overthrowing democracies thus tend to lock in economies into periods of low economic growth, even when the factors underlying the conflict may have growth-inducing consequences themselves.[26]

Including cases with and without coup attempts while also adding fixed effects does not change the main result from the previous section that a successful coup, conditional on a coup attempt, results in substantial reductions in the ten-year economic growth rate. Furthermore, this main result is unaffected by unobservable time-varying leader- as well as country-decade fixed effects.

[26] The violent conflict in Turkey during the 1970s focused to a large extent around universities where radical leftist ideas met those of the extreme right-wing. This was preceded by a socio-economic processes including increased urbanization and university enrollment, factors usually considered conducive to economic growth. In Chile, similar increases in rates of university enrollment previously limited to the incumbent elite, as well as the land reforms of the 1960s, may have contributed to an increasingly educated and politically assertive population. This may in turn have been the first signs of the country's emerging middle class, which would play an important role in the high rates of economic growth in Chile during the 1990s.

4 Potential Mechanisms

In this section I examine several possible channels in which coups could affect development. Many of these are often quoted reasons for coups themselves. These relate to the degree of institutional change, political stability, military rents (Table 7) as well as the intensity of violence and human rights abuses (Table 8). I employ here the same methodology as in Section 3 and the results in this section should be seen as informative of a non-exhaustive set of channels through which coups may affect development.

4.1 Institutions and Stability

> *"Once we have carried out our coup and established control over the bureaucracy and the armed forces, our long-term political survival will largely depend on our management of the problem of economic development. Economic development is generally regarded as a "good thing" and almost everybody wants more of it, but for us... the pursuit of economic development will be undesirable, since it militates against our main goal: political stability."*
>
> – Robert Luttwak, *Coup d'État – A Practical Handbook'*

As was shown in Table 1, coups overthrowing democratically-elected leaders typically imply a significant change in a country's political institutions towards authoritarianism and increased military influence in politics. Coup-makers tend explain the concentration of powers into the hands of juntas or military leaders as temporary, and instrumental in order to ensure political stability and to solve the problems underlying the reason for the coup. In fact, however, these institutional changes tend to remain in places for a significant period of time. This section thus examines the degree to which coups affect the degree of authoritarianism, the concentration of power, as well as the power of the military over a longer period.

In Table 7, the first four columns measure institutions at time $t + 10$. Of these, the first two are dummy variables taking the value of one if a country is defined as a democracy in $t + 10$ – by Cheibub et al [19] in column 1 and by the Polity Index in column 2 – and zero otherwise. In addition, columns 3 and 4 have as outcomes two sub-indices of the Polity index; one measure of constraints to executive power of the leader (column 3) and a measure of the degree of political competition overall (column 4). By definition, military coups imply an authoritarian takeover in the short term. The reason for looking at outcomes ten years after the coup is to measure the effect on democratic institutions over the longer term.

Panel A shows consistently negative effects of successful coups on all measures of democratic institutions regardless of pre-coup institutions. This result holds up in both the autocratic and democratic samples in Panels B and C although the magnitudes of the estimates are larger among democracies. Moreover, for autocracies, the reduction in the Polity indicator seems particularly driven by lower political competition, while for democracies there is also a clear effect on eroding constraints on the executive. One interpretation of the coup effects on institutional outcomes in autocracies is that they serve to purge political opponents. In democracies, the results are – in addition – indicative of coups' wider institutional effects by concentrating power into a more powerful, military-appointed, executive.

As documented by scholars of military coups (Finer [28] and Luttwak [46]) achieving political stability is often a main goal. As an example, the late 1970s in Turkey saw nearly annual leader turnover, an inability to elect a head of state, and the risk that the security institutions might dissolve into polarized political groups. Therefore, as measures of political stability I use two outcomes. The first, in column 5, is the average incidence of leader turnover over a period extending from $t+1$ to $t+10$. The second outcome, in column 6, is the average number of years, during the same period, that Polity IV defines the country as being in "state failure" or "complete collapse of central authority" (Marshall et al [50]). Here of relevance is the degree to which these measures of political stability are affected over the duration of the following ten years after the coup. For both these measures of political stability, I fail to find significant effects for either the full sample or for autocracies, but in democracies coups significantly lowered both leader turnover as well all as the years in state failure. These effects thus reflect an opposing side to the adverse development outcomes documented so far, and reinforces the view that coups, when overthrowing democratic elections, bring more political regime stability.

The last columns have as outcomes three measures of military power ten years after the attempt. These serve to measure the military's power, both politically and economically, a substantial after a substantial period of time as has passed since the coup. The first, in column 7 is a dummy variable for whether the state is ruled by a military regime. Columns 8 and 9 have as outcomes the military expenditures per GDP (in percent) and the personnel share per (thousand) population.

A successful coup has a large positive effect on having military rule ten years after the coup regardless of the pre-intervention regime; this likelihood of 0.2 increase is around 40 percent higher relative to the mean. For democracies, a successful coup nearly doubles its expenditures as a share per GDP in relative terms and nearly as much for military personnel. The increase in expenditures per GDP is unlikely driven by lower growth; estimating the effect on absolute expenditures or expenditures per population results in positive estimates although with less precision. The increase in the these two outcomes is consistent with the idea that coups overthrowing more democratic regimes serves to increase the military's power politically, economically, and socially in manner that is visible even a decade after a coup.

Geddes [30] argues that when coups occur by a more professional military, the military is often set to retain and increase its rents as well as to make sure that leader succession occurs within its own ranks. When coups occur in countries with less professional armies, the leaders may attempt to weaken the army in part to reduce the likelihood of another coup, but also as a means to cement power around the new leadership. Seen in the light of this, the absence of effects on military rents in the more autocratic countries may be an indication that these occur in cases where the armed forces are weaker institutionally, and as stated before, a coup may mean the change in the reins of power from one leader to another. The strong negative effects in pre-coup democracies are instead consistent with the notion that these represent coups where the armed forces consist a more cohesive institution on its own.

4.2 Conflict and Human Rights Abuse

"Only those who believe in democracy are entitled to democratic freedoms."

– Kenan Evren, Chief of the General Staff 1978-1983, President of Turkey 1980-1989.

Military coups often occur in association with civil violence preceding a coup (Finer [28] and Luttwak [46]). Another raison d'être for military intervention is therefore the restoration of law and order, and and a natural outcome to investigate is how various forms of violence are affected by a coup. Meanwhile, the extensive human rights abuses associated with coups is well documented. The systematic use of torture in the 1980s became a hallmark of the post-coup regime in Turkey, and as late as 1989 the Human Rights Watch reported that "well over 90 per cent of political prisoners and over half of detainees suspected of common crimes are tortured."[27]. During the Argentine military dictatorship of 1979-1983, "between 1979 and 1983, up to 30,000 people are thought to have been tortured and killed."[28] In Chile, Pinochet's own secret police, the DINA, came to represent "the psychotic edge of a society whose democratic values had collapsed" (Constable and Valenzuela [20]). Through a brutal strategy of torturing and turning political activists, DINA created a web of informants, sowing a culture of fear and distrust. In some cases, coups preceded even more extensive degrees of violence occasionally spilling out into full-scale civil wars or insurgencies. Two such examples are the Algerian Civil War of the 1990s and the Kurdish insurgency in Turkey during ongoing since the 1980s.

The effects of coups on violence is pursued in Table 8 looking at both formal and informal measures of violence. For the incidence of formal conflict I use measures of civil and interstate war produced by PRIO and COW respectively. The PRIO war variables are defined as taking on values 0 if no conflict, 1 if there are above 25 and below 1000 battle deaths per year, and 2 if there are 1000 or more battle deaths per year. The COW war variables are dummy variables for whether the year saw any conflict or not. The civil war and interstate conflict variables from both COW and PRIO are averaged over the period $t+1$ to $t+10$.

These outcomes can be seen in the first four columns of Table 8; civil (columns 1-2) and interstate (columns 3-4) types of wars with PRIO data in odd- and COW data in even columns. The following two columns have as the outcome a violence index from the SP's "Major Episodes of Political Violence" with a measure of civil violence in column 5 and ethnic violence in column 6. Columns 7 and 8 have as outcomes the two measures of Political Terror from the State Department and Amnesty International as coded by Gibney et al [31]. These take on values between 1 to 5 with higher values indicating worse human rights abuse. Finally, columns 9-11 report results on mortality outcomes measured as the average of natural logarithm of mortality between $t+1$ to $t+10$; crude death rates for the whole population in column 9, infant mortality in column 10, and child mortality in column 11.

For the whole sample, Panel A shows no clear effects of a successful coup on any of the outcomes, and neither does Panel C when only autocracies are considered. In Panel B for democracies, however, I document positive effects on civil war on both measures (albeit both are marginally significant), effectively more than doubling the intensity of civil war in relative terms. Similarly large positive effects can be found on the ethnic violence score in column 6 as well as the degree of human rights abuse in columns 7 and 8. The final three columns further reveal the human cost of coups when they

[27] Human Rights Watch, World Report 1989, http://www.hrw.org/reports/1989/WR89/Turkey.htm#TopOfPage

[28] "Top-secret files shed new light on Argentinas Dirty War," The Independent, December 22 2013, http://www.independent.co.uk/news/world/americas/topsecret-files-shed-new-light-on-argentinas-dirty-war-8923307.html

occur in democracies; the estimate from Panel B suggests a successful coup results in a 6 percent increase in deaths over the following ten-year period. This does not necessarily mean all these deaths occur in a manner as suggested by the previous columns' results. However, the absence of any clear effects on infant- or child mortality – outcomes that are usually more sensitive to changes in the environment than death rates – precludes an explanation for the effect on death rates relying solely on worsening economic conditions.

Thus, military coups not only come with an economic and institutional cost, they also increase the degree of violence, state repression, and deaths within a country. This relates to the previous result of coups reducing incidences of state failure; any increased political stability is essentially traded off against increased state repression and higher risk of civil war.

4.3 Wages, Jobs, and Labor Productivity - Evidence from the Manufacturing Sector

> *"[T]the Pinochet government imposed an extraordinarily repressive labor code that bars trade unions from political activity and requires sworn statements from union leaders that they do not belong to any political party. Collective bargaining is limited to the single work site, preventing effective company-wide or industry-wide bargaining. A strike may last only 60 days, at which time workers must accept the employer's last offer or abandon their jobs."*
>
> – "Stop Sending Mixed Signals to Gen. Pinochet," Washington Post, Tuesday, Jan 5, 1988.

This subsection examines the effect of coups on a different set of outcomes, moving towards alternative measures of development. A well-documented feature of democracies is the degree to which they tend to pay higher wages. Rodrik [57], for example, shows a robust and statistically significant cross-country association between the extent of democracy and the level of manufacturing wages, and points to various ways in which democracies may increase the bargaining power of workers. Similarly, given the often prevailing levels of economic crises with accompanying bouts of high unemployment preceding coups, of equal interest is how coups affect the country's ability to generate new jobs.

There is ample anecdotal evidence that military coups overthrowing democracies tend to severely restrict worker's rights, through legislation or force, often both, which may have consequences for wages. According to Ahmad [9] repressive labor laws limiting collective bargaining and a public anti-labor campaign led to workers being among the main economic losers of the 1980 coup in Turkey. After two years of dictatorship in Chile, wages had decreased by more than 60 percent. Early on during Pinochet's rule, labor unions suffered under the same repression as many other civil organizations, after 1979 a major labor reform established collective bargaining at the firm level, relaxed the prohibition on dismissals, and restricted strikes, consequently reducing the negotiating power of workers (Laban [41]).

Due to a lack of available data for a wide enough cross-country sample, I will rely on panel data with a smaller sample of countries that in the previous section, focusing instead on estimating variations on equation 3 in Table 9. For this purpose I use data from the manufacturing sector from UNIDO's

Industrial Statistics Database (INDSTAT2) to specify three outcomes of interest. The first and second outcomes are the difference in the natural logarithm of wages per employee as well as the number of employees, serving as indicators of workers' living standards. The third outcome, the natural logarithm of value added per employee, serves as a measure of labor productivity.

I show both results at the country-year unit of observations for total manufacturing outcomes (columns 1, 3, and 5) as well as at the sector-year unit of observation (in columns 2, 4, 6, 7, and 8). In the former, I control for the same controls as in the column 8 from Table 6 as well as the one-year lags of the natural logarithms of wage per employee, value added per employee, and the number of employees in the manufacturing sector. In the latter I also control for sector-specific values of the natural logarithms of wage per employee, value added per employee, and the number of employees, and a country-sector fixed effects.

The first set of columns have as outcomes the difference between $t + 10$ and $t - 1$ values of log wages per employee (column 1-2), log employment (column 3-4), and log value added per employee (column 5-6) respectively. The estimates for the full sample in Panel A reveal negative and significant coefficients for wages. According to column 2, given a coup attempt, a successful coup reduces wages by just over 0.25 log points (or 28 percent) and labor productivity by 0.11 log points (or 12 percent).

In the more democratic sample in Panel B, effects tend to be of larger magnitude overall. Columns 1-2 reveal large negative effects of a successful coup on wage growth, the estimate in column 2 of an effect of -0.43 log points, effectively a 53 percent decrease in wages and equivalent to a 4 percent reduction per year. In columns 3-4, estimates on successful coups are both negative, but only the industry-level estimate is negative significant. The estimates on labor productivity growth in columns 5-6 are of similar magnitude but only statistically significant at the industry-level. Taken at face value the estimate in column 6 points to a 16 log point (17 percent) reduction in labor productivity.

One possibility is that successful coups overthrowing democratic leaders tend to concentrate manufacturing into fewer sectors. The occasional discrepancy between nation-wide and industry specific results could thus be explained by the coup regime closing down certain sectors without having as large an effect on total manufacturing employment. If the sectors shut down tend to be the most unproductive, this may explain the much more precise results with regards to sector-level, as opposed to nation-wide, productivity in column 5-6. In order to examine this, the last two columns estimate coup effects on labor productivity at the sector-level, splitting the sample by whether it is below or above the median distance to the technology frontier in terms of labor productivity.[29]. Column 7 (8) thus examines the effects of coups for sectors that are closer to (farther from) the technological frontier (i.e. the sector with the highest productivity in the world that year) than the median in that country. Comparing estimates in Panel B, we see that the estimate for a country's sectors closest to the technological frontier exhibit larger negative and more significant estimates than those farther from the frontier. As such, it is highly unlikely that reductions in labor productivity are due to cutbacks in economically unprofitable sectors.

In Panel C, for autocracies, successful coups have smaller negative effects on wage growth, a positive effect on employment growth, and no discernible effect on growth in labor productivity. If

[29]This measure of the distance to frontier is defined as $DISTANCE_{ict} = 1-(VA_{ict}/EMP_{ict})/(max(VA_{ict}/EMP_{ict}))$, similar to Aghion et al [8].

the overthrown leaders has been involved in patronage, giving jobs only to certain groups, the positive effect of a successful coup is consistent with this result.

The results from democracies suggest that the previously estimated effects on GDP per capita growth may be dwarfed by effects on wages; an indication that successful coups – when overthrowing democratic regimes – significantly reduce the economic living standards of wage-earners. The absence of any real positive effects on employment growth further suggests that coups did not solve the issue of high unemployment, a common underlying factor behind many coups. The predominantly negative estimates on labor productivity confirm that, at least for overthrown democracies, wage cuts do not come as a result of a tradeoff between wages and productivity.

These results resonate with recent research on the appropriateness of institutions for sectors depending on their proximity to the frontier. For example Acemoglu, Aghion, and Zilibotti [3] and Aghion, Alesina, and Trebbi [8] point out the importance for pro-democratic institutions for sectors where innovation is more important, and to the extent that sectors with higher labor productivity require higher degrees of innovation, these results herein are consistent with this notion. Coups are particularly harmful to productivity in those sectors where the previously democratic institutions were most important.

Moreover, the finding that coups significant reduce wages is consistent with the findings of Rodrik [57] that wages tend to be higher in democracies, possibly due to the median voter's ability to influence better working rights. Lastly, to the extent that coup-plotters either constitute, or are allied with, a political elite with significant business interests, these results are consistent with coups implying increased rents to the elites (Acemoglu and Robinson [4]).

4.4 Long-term and short-run effects

Up until now, the outcome variable has mostly been defined on a ten-year basis, but of interest is also to what that extent development effects of coups have different short- vs long-term effects. For this reason I estimate the effect of a successful coup among all coup attempts for three outcome variables; growth in GDP per capita, PolityIV's Executive Constraints Index, and the military expenditure share of GDP. The two latter outcome are included for the purpose of both showing the degree to which successful coups serve to concentrate power in the executive as well as the extent to which the military gains more rents as a result of the coup.

Figure 2 shows nine graphs, each corresponding to a set of regression estimates of the same specification as in equation 1, where the outcome variable is measured over a sequence of years since the coup. The outcome variables are ordered by column and the sample is ordered by row. For example, the top left graph shows regression estimates of the effect of a successful coup among all coup attempts on GDP per capita growth between $t-1$ and $t+s$ where s is the year since the coup as seen on the x-axis. The bottom middle graph correspondingly shows the effect of successful coups on the level of executive constraints s years since the coup for the sample of more democratic countries etc.

In column 1, panel A, successful coups for the whole sample have little bearing on growth over any period within the first 15 years since the coup. In panel B of the same column, coups have imprecise positive effects on growth among more autocratic countries, where this effect dissipates over time to

become both closer to, and statistically indifferent from, zero. However, in the bottom row of column 1, the sample that can be considered more democratic before the coup, the effect of a successful coup is not just statistically significant at many values but is also consistently negative even after 15 years since the coup. This particular graph further shows the absence of any clear short-run effects on growth, and even a positive effect in the same year as the coup itself. This is not too surprising; a successful coup often brings about period of relative stability, an end to a political crisis deadlock, and often at least temporarily reverses some of the symptoms of the crisis. Soon after Chile's 1973 coup, many of the sanctions that had contributed to paralyze the country's economy were lifted. After the 1980 coup in Turkey, much of the street violence that had overwhelmed the previous governments ceased. Nonetheless, the negative effects of coups that overthrow democratic regimes tend to become visible only in the longer term. At this point the temporary benefits of ending the political crisis may have worn off and the structural consequences of the institutional chances brought by the coup start to take form. And in contrary to the effects in more autocratic countries, the effect for democracies remains persistently negative throughout the time period analyzed.

Repeating the same exercise for the Executive Constraints index in column 2 reveals negligible institutional consequences in the more autocratic countries whereas in the more democratic countries coups result in significant reductions in the constraints facing the leader. Notwithstanding the wider confidence interval in these estimates, the effect of coups in the latter case remain negative throughout the coup's 15th anniversary.

The last column looks at the effect on military expenditure share of GDP. In contrast to the previous two outcomes, in this case the estimates appear most precisely estimated when using the full sample. Yet, as can be seen from comparing autocracies and democracies panels B and C, this still seems to be driven by the effects among the latter. For the more autocratic sample in panel B, the estimates are also positive but smaller and with larger standard errors. The degree to which coup leaders overthrowing autocrats increase rents to the armed forces may in turn depend on the degree to which it controls the armed forces. This may depend on the strategy chosen by the coup leader; limiting the resources of the armed forces may be a way to reduce the risk of future coups.[30]

All in all, analyzing the the effects of successful coups both in the shorter- as well as the longer run points to the resilient negative development consequences of coups. Even though a military coup against a democratically elected regime may have short-run benefits in ending a crisis, the damages of the ensuing institutional changes become visible only over time. Researchers investigating the consequences of coups thus need to not just take into account the underlying heterogeneous effects depending on the level of pre-coup institutions, but also look at effects beyond the first few years after the coup.

5 Concluding Remarks

"As he came leaping in, the poodle did not heed it. The matter now seems turned about; The Devil's in the house and can't get out."

[30] See for example Geddes [30] and in the case of Bangladesh, Lewis [42].

– Johann Wolfgang von Goethe, Faust: First Part.

The development consequences of military coups remains a widely debated topic, both in economics and beyond. In July 2013, a military coup in Egypt overthrew a sitting and highly controversial president elected by a popular majority. Despite the questionable legal manner in which the coup occurred or the bloody aftermath that ensued, many commentators either expressed either direct or indirect support for the coup.[31] Together with recent coups overthrowing democratically elected leaders in Honduras in 2009, Maldives in 2012, Mali in 2012, and Thailand in 2006, these illustrate the continued relevance of the military both in politics as well as for development. Even in countries where coups have not occurred for long periods, constitutions nonetheless maintain an ambiguous role for the military as guardian of the state.[32]

Whereas in more autocratic countries, coups may represent a kind of modus operandi for political turnover, in democratic countries they often result in deeper institutional change with consequences beyond leader turnover. The imposition of martial law and the associated human rights abuses that follow are testament to the human suffering of the interventions. In the longer run, constitutions are rewritten, power reallocated across interest groups, and the ability for citizens' preferences to be aggregated into policy severely restricted. Undoubtedly, as the discussed examples from Algeria, Bangladesh, Chile, and Turkey reveal, the situations in which the coups occurred involving political deadlock, economic crises, civil strife, and fragile institutions were all very serious. Indeed, coup leaders who have overthrown democratically elected governments have ascended to power promising to restore law and order, safeguarding democratic institutions, and pursuing economic progress. And as coups predominantly occur in periods of political and economic crises, they are not always without popular support. Yet just as the these examples show the severity of the crises in which coups occurred, each of them also point to the potential problems occurring after the coups, when power has been concentrated into an executive heavily influenced by the military; the violence and human rights abuse, the corruption and cronyism of politically connected elites, as well as the substantial repression of organized labor and the working classes.

Despite the lack of systematic evidence of the development consequences of coups in democracies, opinions of such consequences exist in abundance. Among those who would argue that coups were instrumental in implementing tough but sorely needed reform, many point to such countries' subsequent economic success. Phenomena like the 'Chilean Miracle' or the economic boom of Turkey in the 1980s are occasionally laid at the feet of the military leaders who during the same time oversaw extensive human rights violations and an uprooting – if not destruction – of the prevailing democratic

[31] For example, see "Egypt's second change," Richard N. Haas, Financial Times, July 3 2013, http://blogs.ft.com/the-a-list/2013/07/03/egypts-second-chance/?; "After the Coup in Cairo – The U.S. shouldn't cut off aid to a new Egyptian government", Wall Street Editorial, July 7 2013, http://online.wsj.com/news/articles/SB10001424127887324399404578583932317286550; and "Democracy in Egypt Can Wait," Charles A. Kupchan, New York Times, ; http://www.nytimes.com/2013/08/17/opinion/democracy-in-egypt-can-wait.html

[32] In 2013, sixteen years after the last time the military ousted a democratically elected government, Turkey's parliament amended a crucial law to limit the military's role as defending only against external threats. As late as in 2010, twenty years after its transition to democracy, the last vestiges that gave special privileges to the armed forces was removed in Chile. In both Brazil and Colombia, constitutions define highly ambiguous rules under what conditions the armed forces may intervene in politics (Wiarda and Collins [66]).

institutions. A typical argument in support for a coup overthrowing a democratic regime often invokes a counterfactual outcome that, without a coup, the consequences would have been much worse; a Chile without Pinochet's right-wing dictatorship would have resulted in a Castro-style Marxist dictatorship; an Algeria without the military regime would have resulted in an Islamist dictatorship in the Maghreb; a Turkey without Evren would have descended into civil war and anarchy and so on. Such comparisons invoke a specific counterfactual impossible to observe. The purpose of this paper has been to invoke a different counterfactual, one based on the comparison between successful and failed coup attempts.

Based on past coups as examined in this paper, there is little basis for an optimistic assessment of coups' development prospects when they overthrow democratically-elected leaders, either with regards to economic growth or a speedy implementation of democratic institutions. Instead, when coups overthrow democratically elected leaders, they tend to be near-overwhelmingly detrimental. Using a sample of coup attempts I show that successful coups result in sharp reductions in growth over a ten-year period. These results also hold up in a panel data setting controlling for unobserved fixed factors related to both countries and leaders.

Although coups reduce the likelihood of state failure and reduce leader turnover, this is accompanied by deteriorating democratic institutions, violence, and human rights abuses, as well as an increasing military share of a country's resources. Military coups' legacy of violence is well documented with many human rights organizations, and further confirmed here in the results on death rates. Any claim that coups result in political stability must therefore rely on a definition that does not incorporate political violence, civil wars, or death rates.

Focusing on the manufacturing sector, I find negative coup effects on wage growth dwarfing the effects on aggregate growth in GDP per capita. I also find significant negative effects on growth in labor productivity, especially driven by sectors closer to the world technology frontier. This is consistent with the role democracies play in allowing workers to negotiate for better rights, as well as the importance of democratic institutions for ensuring productivity growth in certain types of sectors.

Debates over the development consequences of military coups often center around ensuing economic policies, such as the free-market-oriented policies implemented in Brazil, Chile, and Turkey to name a few. Yet to reduce the discussion of the economic legacy of coups to these policies risks overlooking the broader institutional reshaping of the balance of power that many coups have resulted in, as well as the significant rent increases accruing to the military establishment. Even after coup-overthrown countries revert back to democratic elections, institutions remain heavily influenced by the military. These not just protect the military's economic rents, but also contain legal language that open up the possibility for future intervention. As such, a full understanding of the development consequences of military intervention in politics requires more analysis, both theoretical and empirical, on the military's role as a self-interested actor.

Coups mostly occur in dire situations, yet their prescriptions rarely constitute adequate remedies to the underlying problems. The institutional changes brought by these events instead seem to benefit the military and its civilian allies, with coups often representing a Faustian bargain to the detriment of citizens and economies at large. Any short-term benefit of regime stability a coup brings thus comes at a steep economic, political, and human cost in the longer run.

References

[1] Abadie Alberto, and Guido Imbens, 2011, "Bias-Corrected Matching Estimators for Average Treatment Effects," Journal of Business and Economic Statistics; 29(1):1-11.

[2] Acemoglu, Daron, 2006, "A Simple Model of Inefficient Institutions," Scandinavian Journal of Economics 108(4), 515546, 2006

[3] Acemoglu, Daron, Philippe Aghion, and Fabrizio Zilibotti, 2006, "Distance to Frontier, Selection, and Economic Growth", Journal of the European Economic Association March 2006 4(1):37-74.

[4] Acemoglu, Daron and James A. Robinson, "A Theory of Political Transitions," The American Economic Review, Vol. 91, No. 4 (Sep., 2001), pp. 938-963

[5] Acemoglu, Daron, Tristan Reed, and James A. Robinson, 2013, "Chiefs - Economic Development and Elite Control of Civil Society in Sierra Leone", Forthcoming, Journal of Political Economy

[6] Acemoglu Daron, Davide Ticchi, and Andrea Vindigni, "A Theory of Military Dictatorships" American Economic Journal: Macroeconomics 2010, 2:1, 1?42.

[7] Acemoglu, Daron, Simon Johnson, James A. Robinson, "Institutions as the Fundamental Cause of Long-Run Growth," in Handbook of Economic Growth, eds. Philippe Aghion and Stephen Durlauf, Elsevier, North Holland, 2005.

[8] Aghion, Philippe, Alberto Alesina, and Francesco Trebbi, 2007, "Democracy, Technology, and Growth", NBER Working Paper 13180.

[9] Ahmad, Feroz, *The Making of Modern Turkey*, Routledge (May 21, 1993)

[10] Akca, Ismet, "Military-Economic Structure in Turkey: Present Situation, Problems, and Solutions," TESEV Policy Report http://goo.gl/NmMFbj

[11] Bardhan, Pranab, and Dilip Mookherjee, 2000. "Capture of Government at Local and National Levels." American Economic Review, 90 (2):135-139.

[12] Barro, Robert, "One Pinochet Legacy that deserves to live," Business Week, January 17, 2000, http://scholar.harvard.edu/files/barro/files/00_0117_pinochet_bw.pdf

[13] Barro, Robert and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010." forthcoming, Journal of Development Economics.

[14] Becker, Gary, 1997, "What Latin America Owes to the "Chicago Boys'," Hoover Digest, No.4, http://www.hoover.org/publications/hoover-digest/article/7743

[15] Belkin, Aaron, and Evan Schofer, 2003,"Toward a Structural Understanding of Coup Risk", Journal of Conflict Resolution, Vol. 47 No. 5, October 2003 594-620

[16] Berger, Daniel, William Easterly, Nathan Nunn, and Shanker Satyanath. 2013. "Commercial Imperialism? Political Influence and Trade during the Cold War." American Economic Review, 103(2): 863-96.

[17] Besley, Timothy, Jose G. Montalvo, and Marta Reynal-Querol, 2011, "Do Educated Leaders Matter?," The Economic Journal, 121 (August)

[18] Besley, Timothy, Torsten Persson, and Marta Reynal-Querol, 2013, "Political Instability and Institutional Reform: Theory and Evidence," working paper.

[19] Cheibub, José Antonio, Jennifer Gandhi, and James Raymond Vreeland, 2010, "Democracy and dictatorship revisited," Public Choice (2010) 143: 67-101.

[20] Constable, Pamela, and Arturo Valenzuela, *A Nation of Enemies*, W.W Norton 1993.

[21] Cook, Steven A, *Ruling But Not Governing - The Military and Political Development in Egypt, Algeria, and Turkey*, The Johns Hopkins University Press 2007.

[22] Colgan, Jeff, 2012, "Measuring Revolution," Conflict Management and Peace Science 2012 29: 444

[23] Collier, Paul and Anke Hoeffler, 2006, "Grand Extortion: Coup Risk and the Military as a Protection Racket," working paper

[24] Collier, Paul and Anke Hoeffler, 2007, "Military Spending and the Risks of Coups d'état," working paper.

[25] Colomer, Josep M., "Game Theory and the Transition to Democracy – The Spanish Model", Edward Elger Publishing Company 1995.

[26] Dahl, Robert A., Polyarchy: Participation and Opposition, Yale University Press 1971.

[27] Dube, Arindrajit, Ethan Kaplan, and Suresh Naidu, "Coups, Corporations, and Classified Information", Quarterly Journal of Economics, Quarterly Journal of Economics, 2011 (Vol. 126, Issue 3)

[28] Finer, Samulel, "The Man on Horseback: The Role of the Military in Politics" Pall Mall Press, 1962

[29] Fontana, Andrés, 1987, "Political Decision-Making by a Military Corporation: Argentina, 1976-83," Ph.D. dissertation, University of Texas.

[30] Geddes, Barbara, 2010, "How the Military Shapes Dictatorships", working paper, http://www.yale.edu/leitner/resources/papers/Geddes2010.pdf

[31] Gibney, M., Cornett, L., and Wood, R., 2011, Political Terror Scale 1976-2008, http://www.politicalterrorscale.org/

[32] Glaeser, Edward L., Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer. "Do Institutions Cause Growth?," Journal of Economic Growth, 2004, v9(3,Sep), 271-303.

[33] Glaeser, Edward L., and Andrei Shleifer, 2002, "Legal Origins", The Quarterly Journal of Economics 117 (4): 1193-1229.

[34] Huntington, Samuel P., 1965, "Political Development and Political Decay," World Politics, 386-429

[35] Jones, Benjamin, and Benjamin Olken, "Do Leaders Matter? National Leadership and Growth Since World War II" The Quarterly Journal of Economics, August 2005

[36] Jones, Benjamin F., and Benjamin A. Olken. 2009. "Hit or Miss? The Effect of Assassinations on Institutions and War." American Economic Journal: Macroeconomics, 1(2): 55-87.

[37] Kepel, Gilles, Jihad: The Trail of Political Islam, Belknap Press 2002.

[38] Kornbluh, Peter, *The Pinochet File: A Declassified Dossier on Atrocity and Accountability*, The New Press 2003.

[39] , Krugman, Paul, "Fantasies of the Chicago Boys", The New York Times, March 3, 2010, http://krugman.blogs.nytimes.com/2010/03/03/fantasies-of-the-chicago-boys/

[40] Gabriel Leon, 2010, "The Economic Causes of Coups," working paper

[41] Labán, Raúl, and Felipe Larraín, "Continuity, Change, and the Political Economy of Transition in Chile," Chapter 4 in Reform, Recovery, and Growth: Latin America and the Middle East, ed. Rudiger Dornbusch and Sebastian Edwards, University of Chicago Press 1995

[42] Lewis, David, 2011, *Bangladesh Politics, Economy and Civil Society*, Cambridge University Press.

[43] Londregan, John B and Kenneth T. Poole, "The Coup Trap, and the Seizure of Executive Power," World Politics, Vol. 42, No. 2 (Jan., 1990), pp. 151-183

[44] Lipset, Seymour Martin, 1959 "Some Social Requisites of Democracy: Economic Development and Political Legitimacy", American Political Science Review, Vol. 53, No. 1, Mar.

[45] Linz, Juan, and Alfred Stepan, Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe, Johns Hopkins University 1996

[46] Luttwak, Edward, "Coup d'état: A Practical Handbook," Harvard University Press (November 12, 1979)

[47] Marinov, Nikolay, and Hein Goemans, 2013, "Coups and Democracy", British Journal of Political Science, forthcoming

[48] Marx, Karl, 1852, "The Eighteenth Brumaire of Louis Bonaparte", Die Revolution, 1852, New York.

[49] Meller, Particio, *The Unidad Popular and the Pinochet Dictatorship*, MacMillan Press, 2000.

[50] Marshall, Monty G., Ted Robert Gurr, and Keith Jaggers, "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2012, Dataset Users' Manual," Center for Systemic Peace.

[51] Munõz, Heraldo, "Is Augusto Pinochet responsible for Chile's success?", The Washington Post, http://articles.washingtonpost.com/2013-09-12/opinions/42004968_1_chicago-boys-washington-consensus-economy

[52] Munõz, Heraldo, *The Dictator's Shadow: Life Under Augusto Pinochet*, Basic Books 2008.

[53] Douglass North, *Structure and Change in Economic History*, W.W. Norton & Company, 1981

[54] Olsen, Mancur, "Rapid Growth as a Destabilizing Force," The Journal of Economic History, Vol. 23, No. 4 (Dec., 1963), pp. 529-552

[55] Papaioannou, Elias and Gregorios Siourounis, 2008, "Democratisation and Growth", The Economic Journal, 118 (October), 1520?1551.

[56] Powell, Jonathan M, and Clayton L Thyne, 2012, "Global instances of coups from 1950 to 2010: A new dataset," Journal of Peace Research 48(2) 249-259

[57] Rodrik, Dani, 1999, "Democracies Pay Higher Wages," Quarterly Journal of Economics, Vol. 114, No. 3

[58] Rodrik, Dani, Arvind Subramanian and Francesco Trebbi. "Institutions Rule: The Primacy Of Institutions Over Geography And Integration In Economic Development," Journal of Economic Growth, 2004, v9(2,Jun), 131-165.

[59] Rodrik, Dani and Romain Wacziarg, 2005, "Do Democratic Transitions Produce Bad Economic Outcomes?", American Economic Review Vol. 95 No.2.

[60] Quandt, William B., "Algeria's Uneasy Peace", Journal of Democracy, 13.4 (2002) 15-23

[61] Ross, Michael L, 2013, "Oil and Gas Data, 1932-2011", http://hdl.handle.net/1902.1/20369 UNF:5:dc22RlDasveOTAJvwIjBTA== V2 [Version].

[62] Schmitz, David F. *"The United States and Right-Wing Dictatorships"*, Cambridge University Press 2006

[63] Stepan, Alfred, *The Military in Politics: Changing Patterns in Brazil* (Princeton 1971).

[64] Stepan, Alfred, *Rethinking Military Politics – Brazil and the Southern Cone*, Princeton University Press 1988.

[65] Volpi, Frédéric, *Islam and Democracy – The Failure of Dialogue in Algeria*, Pluto Press 2003.

[66] Wiarda, Howard J. and Hillary Collins, 2011, "Constitutional Coups – Military Interventions in Latin America," A Report of the CSIS Americas Program, Center for Strategic and International Studies.

[67] Woloch, Isser, *Napoleon and His Collaborators - The Making of a Dictatorship*, The Norton Company 2001.

[68] The World Bank, 2011, *World Development Report – Conflict, Security, and Development*, http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/0,,contentMDK:23256432~pagePK:478093~piPK:477627~theSitePK:477624,00.html

Table 1: Immediate Consequences Following Coup Attempts

	No	Coup attempts		
	Attempts	Failed	Successful	All
	(1)	(2)	(3)	(4)
Panel A. Full sample				
Δ Leader	0.167	0.195	0.966	0.599
Δ Military Leader	-0.005	-0.053	0.390	0.179
Δ CGV Democracy	0.008	0.045	-0.212	-0.090
Δ Polity2	0.006	0.030	-0.137	-0.057
Δ Executive constraints	0.003	-0.003	-0.175	-0.090
Δ Civil violence	-0.001	0.008	0.069	0.040
Δ Growth	2.009	-0.164	-0.111	-0.136
Panel B. Democracies				
Δ Leader	0.263	0.191	0.981	0.606
Δ Military Leader	-0.003	-0.021	0.558	0.283
Δ CGV Democracy	-0.001	0.000	-0.673	-0.354
Δ Polity2	0.003	-0.043	-0.442	-0.253
Δ Executive constraints	0.003	-0.030	-0.348	-0.189
Δ Civil violence	0.003	-0.064	0.096	0.020
Δ Growth	2.275	-0.250	0.384	0.083
Panel C. Autocracies				
Δ Leader	0.078	0.198	0.957	0.594
Δ Military Leader	-0.009	-0.070	0.298	0.122
Δ CGV Democracy	0.018	0.070	0.043	0.056
Δ Polity2	0.013	0.070	0.032	0.050
Δ Executive constraints	0.006	0.014	-0.073	-0.031
Δ Civil violence	-0.005	0.047	0.054	0.050
Δ Growth	1.994	-0.117	-0.385	-0.257

Notes: All variables are calculatecd as changes between period t and $t-1$. Panel A reports summary statistics for all political regimes, Panel B includes cases where a country was counted as a CGV democracy in any of the past 5 years, Panel C includes cases where a country was categorized as an autocracy in all of the past 5 years. Column shows means for country-years without coup attempts whereas columns 2, 3, and 4 show means for failed, successful, and any coup attempts respectively.

Table 2: Summary Statistics of Successful and Failed Coups

	All Coups	Coups by Outcome		Difference
		Success	Failure	(2)-(3)
	(1)	(2)	(3)	(4)
	Mean	Mean	Mean	Est.
	S.D.	S.D.	S.D.	S.E.
Control variables				
Log GDP per Capita (t-1)	7.506	7.462	7.554	-0.092
	(0.879)	(0.870)	(0.891)	(0.105)
Δ GDP per Capita btw t-1 and t-2	-0.001	-0.001	-0.002	0.001
	(0.102)	(0.081)	(0.122)	(0.012)
Log population (t-1)	15.759	15.728	15.794	-0.066
	(1.318)	(1.330)	(1.310)	(0.158)
Past Coup Success rate	0.506	0.506	0.507	-0.001
	(0.372)	(0.380)	(0.365)	(0.045)
Years since last successful coup	13.376	13.295	13.466	-0.172
	(14.579)	(14.021)	(15.221)	(1.751)
Military exp/GDP (%) (t-1)	2.139	1.851	2.456	-0.605
	(3.517)	(1.960)	(4.652)	(0.421)
Military pers./pop ('000) (t-1)	4.949	4.489	5.455	-0.966
	(7.051)	(5.112)	(8.690)	(0.845)
Δ mil. exp./GDP btw t-1 and t-2	-0.046	-0.226	0.153	-0.379
	(1.775)	(0.919)	(2.373)	(0.212)
Polity index (t-1)	0.376	0.366	0.387	-0.021
	(0.286)	(0.279)	(0.293)	(0.034)
Polity change between t-1 and t-2	0.007	-0.000	0.014	-0.014
	(0.155)	(0.159)	(0.151)	(0.019)
Civil violence score (t-1)	0.065	0.062	0.068	-0.006
	(0.374)	(0.393)	(0.352)	(0.045)
Leader tenure (t-1)	8.821	6.568	11.293	-4.725***
	(9.680)	(7.469)	(11.149)	(1.127)
GEO==Africa	0.416	0.425	0.406	0.019
	(0.494)	(0.496)	(0.493)	(0.059)
GEO==Asia	0.111	0.123	0.098	0.026
	(0.315)	(0.330)	(0.298)	(0.038)
GEO==Europe	0.025	0.027	0.023	0.005
	(0.157)	(0.164)	(0.149)	(0.019)
GEO==Latin America	0.341	0.342	0.338	0.004
	(0.475)	(0.476)	(0.475)	(0.057)
GEO==Middle East	0.108	0.082	0.135	-0.053
	(0.310)	(0.276)	(0.343)	(0.037)
p-value for covariates	.	.	.	0.769
p-value (Autocracies)	.	.	.	0.863
p-value (Democracies)	.	.	.	0.336
Observations	279	133	146	279

Table 3: Ten-year Growth Effects of a Successful Coup

Outcome is Growth per Capita between $t+10$ and $t-1$						
	Full sample		Democracies		Autocracies	
	(1)	(2)	(3)	(4)	(5)	(6)
Mean	0.104	0.104	0.181	0.181	0.062	0.062
Success	-0.013	0.015	-0.083**	-0.119**	0.024	0.076*
	(0.030)	(0.031)	(0.041)	(0.050)	(0.043)	(0.043)
Log GDP per Capita (t-1)		-0.009		-0.205***		-0.025
		(0.044)		(0.073)		(0.052)
Δ GDP per Capita btw t-1 and t-2		-0.127		0.081		-0.034
		(0.174)		(0.412)		(0.279)
Log population (t-1)		0.016		0.020		-0.017
		(0.017)		(0.018)		(0.020)
Past Coup Success rate		-0.012		0.030		-0.093
		(0.067)		(0.080)		(0.097)
Years since last successful coup		-0.000		0.002		-0.002
		(0.002)		(0.003)		(0.003)
Military exp/GDP (%) (t-1)		0.015**		0.019		0.009
		(0.006)		(0.015)		(0.007)
Military pers./pop ('000) (t-1)		-0.001		-0.001		-0.001
		(0.002)		(0.005)		(0.002)
Δ mil. exp./GDP btw t-1 and t-2		0.012		-0.054***		0.030*
		(0.013)		(0.017)		(0.017)
Polity index (t-1)		0.082		-0.112		0.128
		(0.062)		(0.079)		(0.104)
Polity change between t-1 and t-2		-0.063		0.041		0.096
		(0.084)		(0.128)		(0.163)
Civil violence score (t-1)		0.024		0.103**		-0.062
		(0.036)		(0.048)		(0.038)
Leader tenure (t-1)		0.001		-0.003		0.002
		(0.002)		(0.011)		(0.003)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj R2	0.36	0.39	0.48	0.62	0.33	0.40
Obs	279	279	99	99	180	180

Notes: In all columns the outcome is the difference in log income per capita between periods $t+10$ and $t-1$. Columns 1-2 include the full sample of all coup attempts over the period 1953-2001. Columns 3-4 include the sample of observations, called *Democracies*, where the last 5 years included at least on year in which Cheibub et al [19] classified it as a democracy. Columns 5-6 includes observations, called *Autocracies*, that had not been classified as democracies by Cheibub et al [19] in the past 5 years. Odd columns include as controls year and region fixed effects. Even columns include, in addition, period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively. Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 4: Robustness Checks

	Outcome is Growth per Capita between $t+10$ and $t-1$										
	Baseline estimates	Expanded Coup/Military Controls	Leader controls	War controls	Barro-Lee Education Controls	Natural Resources Controls	Weighted: Inverse No. of Coups	Weighted: Years since Last Coup	Region-Decade Fixed Effects	Stratified Propensity Score	Lagged Dep. Vars.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: Full Sample											
Success	0.015	0.020	0.025	0.011	-0.008	0.006	0.042	0.034	0.005	0.007	0.012
	(0.031)	(0.031)	(0.031)	(0.031)	(0.038)	(0.037)	(0.029)	(0.033)	(0.032)	(0.030)	(0.034)
Obs	279	279	259	279	234	226	279	244	279	279	228
Panel B: Democracy											
Success	-0.119**	-0.109**	-0.134**	-0.118**	-0.125**	-0.144***	-0.132***	-0.114	-0.093	-0.151**	-0.137***
	(0.050)	(0.048)	(0.057)	(0.052)	(0.059)	(0.046)	(0.046)	(0.072)	(0.066)	(0.059)	(0.046)
Obs	99	99	88	99	91	84	99	87	99	99	85
Panel C: Autocracy											
Success	0.076*	0.073*	0.087*	0.072	0.076	0.055	0.081**	0.109**	0.057	0.075*	0.065
	(0.043)	(0.043)	(0.047)	(0.044)	(0.058)	(0.056)	(0.037)	(0.054)	(0.047)	(0.044)	(0.054)
Obs	180	180	171	180	143	142	180	157	180	180	143

Notes: In all columns the outcome is the difference in log income per capita between periods $t+10$ and $t-1$. Panel A includes the full sample of all coup attempts over the period 1953-2001. Panel B includes the sample of observations, called *Democracies*, where the last 5 years included at least on year in which Cheibub et al [19] classified it as a democracy. Panel C includes the sample of observations, called *Autocracies* that had not been classified as democracies by Cheibub et al [19] in the past 5 years. Column 1 includes as controls year and region fixed effects, as well as the period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively. Column 2 adds period $t-1$ controls for number of total previous coup attempts, years since last coup attempt, global military expenditure and personnel ranks respectively, as well as the number of previous times a country transitioned to autocracy as defined by Cheibub et al [19]. Column 3 adds period $t-1$ values of leader age, number of instances of irregular leader turnover in past 5 years, and an indicator for radical policy change. Column 4 adds dummy variables for whether period $t-1$ witnessed any civil-, interstate-, or extra state wars using PRIO/UACP data. Column 5 adds controls from the Barro-Lee database for one-year lags of average years of schooling and the share of the population with completed tertiary education. Column 6 adds period $t-1$ controls for the oil and gas production value per GDP and the change in the oil price between $t-1$ and $t-5$. Columns 7 and 8 weights observations from the baseline specification; by the inverse number of total coups preceding the coup in the former column; and by the number of years since the last successful coup in the latter. Column 9 adds region-decade fixed effects. Column 10 includes a stratified propensity score from a probit regression of a successful coup on the controls from the baseline regression in Table 3. Column 11 includes lagged growth 5-year and 10-year rates respectively. Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 5: Sample Splits By Alternative Democracy Measures

Outcome is Growth per Capita between $t+10$ and $t-1$						
Panel A: Alternative Democracy Measures						
	≥ 1 yr as CGV Democracy		CGV Demo. at	$DEMOC > AUTOC$ in any of		CGV Democracy or Democ. chg.
	last 5 yrs	last 10 yrs	at t-1	last 5 yrs	last 10 yrs	last 5 yrs
	(1)	(2)	(3)	(4)	(5)	(6)
			More Democratic			
Success	-0.119**	-0.123**	-0.105	-0.096	-0.100	-0.111**
	(0.050)	(0.046)	(0.075)	(0.085)	(0.117)	(0.046)
Obs	99	104	75	73	49	114
			More Autocratic			
Success	0.076*	0.108**	0.054	0.037	0.063	0.097*
	(0.043)	(0.051)	(0.044)	(0.040)	(0.038)	(0.052)
Obs	180	134	204	204	180	163
Panel B: Placebo interactors						
	Oil/Gas	Above/below median				Before/After
	Dummy	GDP per Capita	Yrs. Sch.	Population	Past growth	1989
	(1)	(2)	(3)	(4)	(5)	(6)
	1		*Above median*			*After 1989*
Success	-0.015	0.013	-0.082	-0.022	-0.020	0.030
	(0.057)	(0.035)	(0.054)	(0.035)	(0.043)	(0.076)
Obs	126	139	117	139	136	58
	0		*Below median*			*Before 1989*
Success	0.063	0.031	0.087	0.035	0.003	0.025
	(0.046)	(0.051)	(0.093)	(0.060)	(0.044)	(0.036)
Obs	143	140	117	140	136	221

Notes: In all columns the outcome is the difference in log income per capita between periods $t+10$ and $t-1$. In the first two columns of Panel A the sample is split by whether a country had been a democracy – as defined by Cheibub et al [19] – for any of the last 5 and 10 years in columns 1 and 2 respectively. Column 3 splits the sample by whether countries were democratic in period $t-1$ according to CGV. In columns 4 and 5 the sample is split by whether a country had been a democracy – as defined by whether the difference between Polity's subindices $DEMOC \geq AUTOC$ was positive or not – for any of the last 5 and 10 years respectively. Columns splits the sample by whether a country had either been a CGV democracy in the past 5 years or whether its Polity score had increase by more than a standard deviation (.26) over the last 5 years. In column 1 of Panel B, the sample is split by the existence of oil or gas reserves, whereas in columns 2, 3 and 4 the sample is split by median GDP per capita (column 2), median years of schooling (column 4), median population size (column 4), median lagged five-year growth rate (column 6), and whether the coup occurs before or after the year 1989 (column 5). All specifications include as controls year and region fixed effects, as well as the period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 6: Fixed-Effects Results of Coups on Growth

Outcome is GDP per Capita Growth between t+10 and t-1									
Controls	Country Year FEs	Baseline controls	Lagged growth 5-yr & 10-yr	Policy controls	Leader FE	Linear trends	Country-decade FE	Propensity score	Coup Countries
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Full Sample									
Mean	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.120
Coup Success	-0.042	-0.013	-0.015	-0.016	0.035	-0.002	-0.003	-0.015	-0.004
	(0.030)	(0.028)	(0.027)	(0.029)	(0.034)	(0.020)	(0.018)	(0.029)	(0.029)
Coup Attempt	-0.005	-0.008	-0.006	-0.006	-0.017	-0.010	-0.009	-0.004	0.001
	(0.030)	(0.026)	(0.027)	(0.028)	(0.026)	(0.014)	(0.013)	(0.028)	(0.029)
Est.[A+S]	-0.047	-0.021	-0.021	-0.022	0.017	-0.012	-0.012	-0.019	-0.003
p[A+S]	[0.005]	[0.156]	[0.141]	[0.127]	[0.572]	[0.318]	[0.251]	[0.169]	[0.863]
Adj R2	0.13	0.38	0.38	0.39	0.37	0.81	0.83	0.39	0.43
Obs	4523	4523	4523	4523	4523	4523	4523	4523	2299
Panel B: More Democratic									
Mean	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.231	0.180
Coup Success	-0.065***	-0.067*	-0.074**	-0.096***	-0.046**	-0.044*	-0.051**	-0.074**	-0.074**
	(0.024)	(0.034)	(0.032)	(0.032)	(0.023)	(0.026)	(0.023)	(0.030)	(0.028)
Coup Attempt	0.035	0.040*	0.044**	0.065***	-0.004	0.010	0.027**	0.053**	0.069***
	(0.025)	(0.023)	(0.021)	(0.023)	(0.012)	(0.016)	(0.013)	(0.021)	(0.016)
Est.[A+S]	-0.031	-0.026	-0.030	-0.031	-0.051	-0.035	-0.024	-0.020	-0.005
p[A+S]	[0.157]	[0.256]	[0.193]	[0.175]	[0.021]	[0.047]	[0.129]	[0.401]	[0.823]
Adj R2	0.19	0.46	0.47	0.52	0.50	0.79	0.88	0.54	0.62
Obs	2070	2070	2070	2070	2070	2070	2070	1633	863
Panel C: More Autocratic									
Mean	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.149	0.085
Coup Success	-0.011	0.030	0.027	0.031	0.081*	0.018	0.031	0.030	0.057
	(0.045)	(0.039)	(0.039)	(0.038)	(0.047)	(0.027)	(0.023)	(0.039)	(0.039)
Coup Attempt	-0.049	-0.054	-0.049	-0.052	-0.015	-0.016	-0.037**	-0.053	-0.052
	(0.042)	(0.036)	(0.037)	(0.036)	(0.035)	(0.018)	(0.018)	(0.036)	(0.035)
Est.[A+S]	-0.060	-0.024	-0.022	-0.021	0.066	0.003	-0.006	-0.022	0.005
p[A+S]	[0.035]	[0.211]	[0.258]	[0.271]	[0.117]	[0.873]	[0.652]	[0.265]	[0.780]
Adj R2	0.13	0.39	0.40	0.43	0.37	0.84	0.81	0.43	0.52
Obs	2387	2387	2387	2387	2387	2387	2387	2387	1397
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Main ctrls.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The outcome in all regression specifications is the growth in GDP per Capita between year t+10 and t-1, for the full sample of all country-years in Panel A. In panels B and C, the sample is split by democracies (A) and autocracies (B) whether the CGV indicator of democracy was positive in any of the preceding 5 years. All specifications include individual fixed effects for country and year respectively. Column 1 only includes country and year effects respectively. The reaming columns add the following controls; Column 2: the set of controls from Table 3; Column 3: lagged growth rates between year t-1 and t-5 as well as t-1 and t-10 respectively; Column 4: one-year lagged values of government, investment,consumption and exports plus imports, all divided by GDP respectively as well as the price level of GDP; Column 5: Leader Fixed effects; Column 6: linear time trends for every country; Column 7: Country-decade fixed effects; column 8 stratified (by decile) propensity score of coup attempt incidence on the same set of controls as in column 1 except for the successful and failed coup indicators. Column 9 includes only countries that have had at least one coup attempt during the examined period. Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 7: Institutional Quality and Stability

	Institutions at $t+10$				Political Stability 10-yr avg.		Military Power at $t+10$		
	Democracy indicator	Polity indicator	Polity sub-indices		Leader Turnover	State Failure	Military Regime	Military exp/GDP	Military pers./pop
			Exec. Constr.	Pol. Comp.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Full Sample									
Mean	0.32	0.45	0.39	0.40	0.25	0.04	0.46	1.55	4.77
Success	-0.090*	-0.163***	-0.125***	-0.118***	-0.011	-0.019	0.180***	0.133	0.709
	(0.049)	(0.061)	(0.045)	(0.038)	(0.025)	(0.018)	(0.058)	(0.358)	(0.578)
Obs	279	276	269	269	278	279	268	241	241
Panel B: Democracies									
Mean	0.49	0.55	0.45	0.50	0.29	0.02	0.40	1.09	4.56
Success	-0.359*	-0.311*	-0.312**	-0.305**	-0.103**	-0.050**	0.293	0.443**	1.982**
	(0.187)	(0.178)	(0.152)	(0.122)	(0.051)	(0.021)	(0.241)	(0.193)	(0.918)
Obs	99	99	98	98	98	99	95	87	87
Panel C: Autocracies									
Mean	0.22	0.40	0.35	0.34	0.23	0.06	0.49	1.81	4.88
Success	-0.012	-0.196**	-0.096	-0.104**	-0.014	0.007	0.175	-0.364	-0.002
	(0.052)	(0.090)	(0.066)	(0.045)	(0.032)	(0.023)	(0.108)	(0.597)	(0.931)
Obs	180	177	171	171	180	180	173	154	154

Notes: Panel A includes the full sample of coup attempts, panels B and C occurring those country-years where any in any of the 5 preceding years CGV classified the regime as democratic or autocratic respectively. The outcomes are the following, column 1: a dummy variable taking the value one if Cheibub et al. [19] classifies the regime as democratic and zero otherwise; column 2: a dummy variable taking the value one if the Polity's index $DEMOC \geq AUTOC$; column 3: Polity IV Executive constraints index ranging from 0 to 1 with higher values indicating more constraints; column 4: Polity IV Competition index ranging from 0 to 1, with higher values indicating more competition; column 5: average number of years with leader turnover over 10 years; column 6: average years with state failure as determined by Polity IV; column 7: Military regime at time $t+10$ as determined by CGV; columns 8 and 9: military expenditure per GDP (column8) and military personnel per thousand population (column 9) at time $t+10$ as determined by the COW National Material Capabilities database. All specifications include as controls year and region fixed effects, as well as the period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively. Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 8: War, Political Violence and Human Rights Abuse

	Civil War		Interstate War		Political Violence		Political Terror		Mortality rate		
	PRIO	COW	PRIO	COW	Civil	Ethnic	Amnesty	State Dep	Death	Infant	Child
	Average between t+1 and t+10						Value at t+10		Average between $t+1$ and $t+10$		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: Full Sample											
Mean	0.26	0.12	0.05	0.01	0.05	0.09	3.00	2.83	2.50	4.34	4.73
Success	0.014	-0.016	0.026	0.012	0.027	0.068	0.131	-0.026	-0.002	-0.008	-0.004
	(0.074)	(0.041)	(0.021)	(0.009)	(0.032)	(0.050)	(0.153)	(0.143)	(0.014)	(0.013)	(0.017)
Obs	279	279	279	279	279	279	211	222	243	243	243
Panel B: Democracy											
Mean	0.26	0.08	0.06	0.01	0.07	0.09	2.92	2.63	2.32	4.12	4.45
Success	0.293*	0.120*	0.018	-0.000	0.119	0.326***	0.916**	0.820**	0.062**	0.039	0.030
	(0.154)	(0.070)	(0.061)	(0.023)	(0.073)	(0.113)	(0.395)	(0.385)	(0.029)	(0.044)	(0.050)
Obs	99	99	99	99	99	99	65	67	85	85	85
Panel C: Autocracy											
Mean	0.26	0.15	0.04	0.02	0.04	0.08	3.03	2.92	2.60	4.45	4.89
Success	-0.022	-0.004	0.008	0.001	0.002	-0.002	-0.064	-0.156	-0.008	-0.005	-0.003
	(0.128)	(0.076)	(0.026)	(0.013)	(0.035)	(0.054)	(0.215)	(0.212)	(0.025)	(0.017)	(0.025)
Obs	180	180	180	180	180	180	146	155	158	158	158

Notes: Panel A includes the full sample of coup attempts, panels B and C occurring those country-years where any in any of the 5 preceding years CGV classified the regime as democratic or autocratic respectively. The outcomes are the following, column 1: PRIO indicator of civil war; column 2: COW indicator of civil war; column 3: PRIO indicator of interstate war; column 4: COW indicator of interstate war; Column 5 Systemic Peace index of civil violence; column 6: Systemic Peace ethnic violence indicator; column 7: Political Terror indicator of state repression, Amnesty sources; column 8: Political Terror indicator of state repression, State Department sources; columns 9-11: ten-year average values in natural logarithm of death rates (column 9), infant mortality (column 10), and child mortality (column 11). All specifications include as controls year and region fixed effects, as well as the period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Table 9: The Effect of Coups on Wages, Jobs, and Labor Productivity

Outcome defined as $ln(y_{i,t+10}) - ln(y_{i,t-1})$								
	Wages per				Value Added (VA)		Close/Far from distance-to-frontier	
Outcome	Employee		Employees		per Employee		VA/Emp.	
Panel unit	Country	Sector	Country	Sector	Country	Sector	Sector	Sector
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Full Sample								
Mean	0.064	0.094	0.181	0.146	0.137	0.142	0.177	0.195
Coup Success	-0.298**	-0.251***	0.021	-0.033	-0.190**	-0.110***	-0.157***	-0.097
	(0.140)	(0.041)	(0.066)	(0.035)	(0.093)	(0.037)	(0.054)	(0.060)
Coup Attempt	0.184**	0.140***	-0.047	0.023	0.075	0.117***	0.169***	0.127***
	(0.082)	(0.022)	(0.060)	(0.027)	(0.074)	(0.028)	(0.033)	(0.046)
Est.[A+S]	-0.114	-0.111	-0.025	-0.010	-0.115	0.007	0.012	0.030
p[A+S]	[0.236]	[0.003]	[0.486]	[0.641]	[0.153]	[0.814]	[0.786]	[0.541]
Adj R2	0.61	0.71	0.53	0.68	0.62	0.65	0.68	0.63
Obs	2028	28408	2266	28408	2014	27817	17787	13582
Panel B: More Democratic								
Mean	0.108	0.116	0.077	0.030	0.179	0.177	0.131	0.224
Coup Success	-0.491**	-0.426***	-0.057	-0.191***	-0.177	-0.157***	-0.178**	-0.129*
	(0.222)	(0.069)	(0.133)	(0.046)	(0.130)	(0.054)	(0.075)	(0.077)
Coup Attempt	0.252**	0.185***	-0.025	0.077**	0.120	0.169***	0.176***	0.168***
	(0.104)	(0.032)	(0.137)	(0.034)	(0.106)	(0.033)	(0.038)	(0.052)
Est.[A+S]	-0.239	-0.241	-0.082	-0.114	-0.056	0.012	-0.002	0.038
p[A+S]	[0.116]	[0.000]	[0.045]	[0.000]	[0.462]	[0.786]	[0.974]	[0.530]
Adj R2	0.69	0.76	0.45	0.67	0.66	0.68	0.72	0.68
Obs	1194	18095	1322	18095	1202	17787	9097	8690
Panel C: More Autocratic								
Mean	-0.004	0.056	0.317	0.350	0.073	0.079	0.018	0.143
Coup Success	-0.138	-0.100**	0.136*	0.182***	-0.227	-0.053	-0.050	-0.079
	(0.161)	(0.045)	(0.073)	(0.049)	(0.167)	(0.048)	(0.064)	(0.084)
Coup Attempt	0.068	0.066*	-0.082	-0.035	0.012	0.025	0.013	0.046
	(0.116)	(0.034)	(0.053)	(0.036)	(0.080)	(0.033)	(0.045)	(0.057)
Est.[A+S]	-0.069	-0.034	0.054	0.147	-0.215	-0.027	-0.037	-0.033
p[A+S]	[0.511]	[0.255]	[0.217]	[0.000]	[0.190]	[0.462]	[0.459]	[0.589]
Adj R2	0.57	0.74	0.56	0.73	0.58	0.66	0.69	0.66
Obs	812	10313	921	10313	790	10030	5138	4892

Notes: The outcomes in this table are the following; growth in the manufacturing sector between t+10 and t-1 in log wages per employee (column 1-2), log employment (column 3-4), and log of valued added per employee (column 5-6). The unit of observation in columns 1, 3, and 4 is the country-year, whereas the unit of observation in columns 2, 4, 6-8 is the sector-year. Columns 7-8 have as the outcome log value added per employee for industries Panel A includes data for the full sample of all country- or sector years, whereas in panels B and C, the sample is split by democracies (A) and autocracies (B) depending on whether the CGV indicator of democracy was positive in any of the preceding 5 years or note. All specifications include as controls year and region fixed effects, as well as the period $t-1$ values of the following variables: log income per capita, growth in income per capita, log population, years since last successful coup, success rate among all past coup attempts, military expenditure per GDP, change in military expenditure per GDP, military personnel per GDP, the Polity index, Civil Violence score, and leader tenure respectively. Robust standard errors clustered by country are in parenthesis.***, **, and * denote significance at the 1, 5, and 10 percent levels respectively.

Figure 1: Military Coups 1950-2010

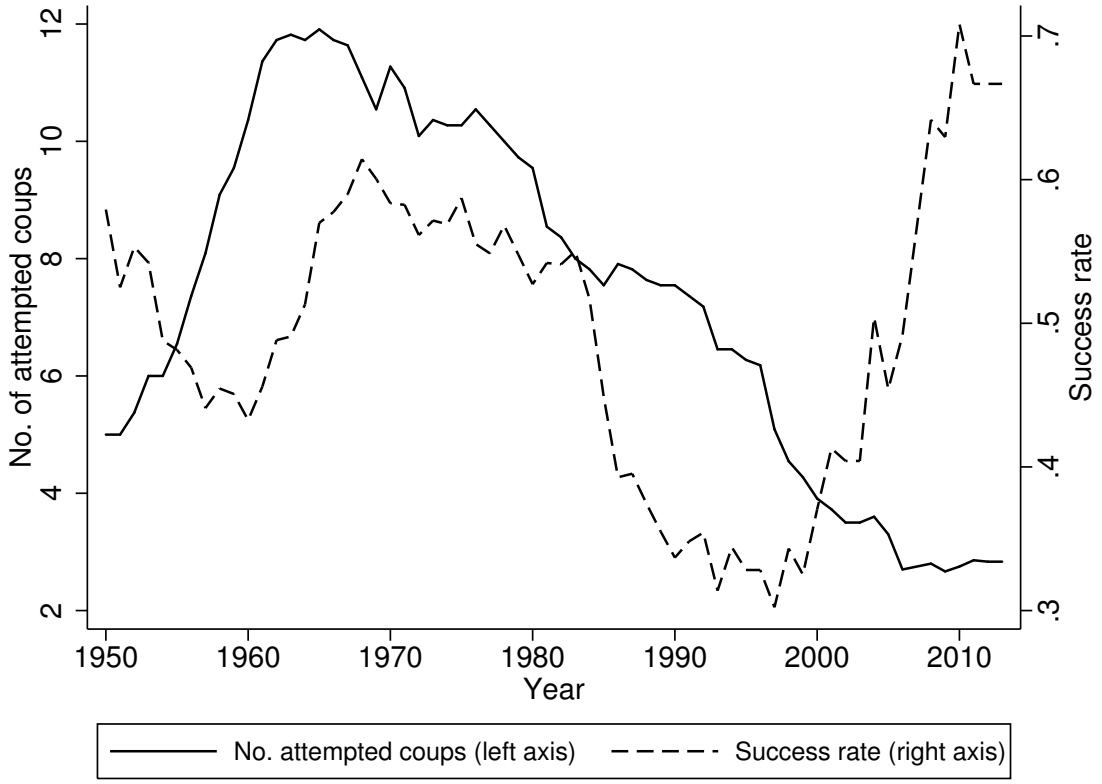
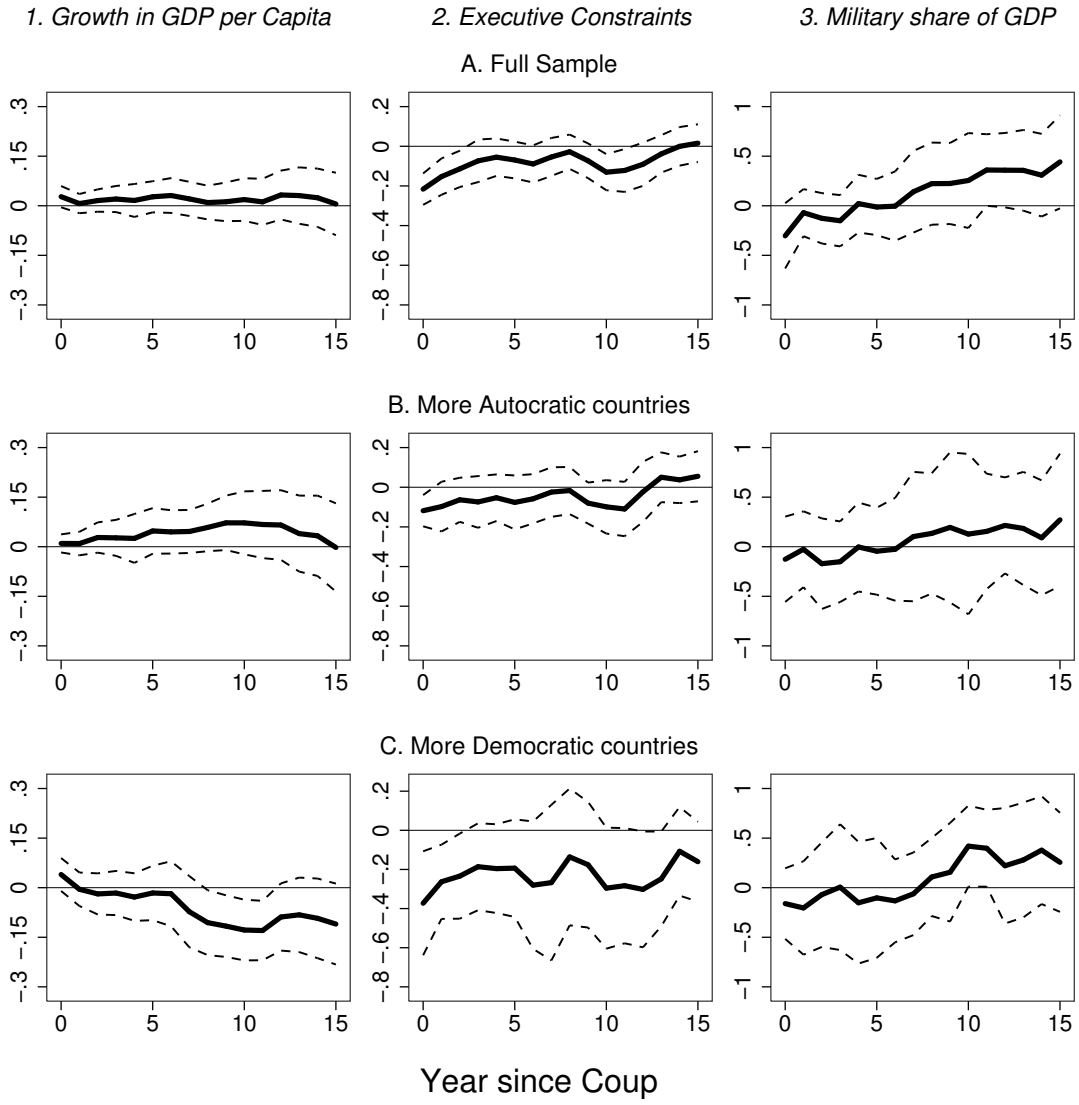


FIGURE 2: DEVELOPMENT EFFECTS OF SUCCESSFUL COUPS BY YEAR SINCE COUP



Notes: Figure shows regression estimates of a successful coups on Growth in GDP per Capita (column 1), Polity IV's Executive constraints index (column 2), and Military expenditures as a share of GDP (column 3), in the full sample of all coup attempts (panel A), the sample of pre-coup autocracies (panel B), and the sample of pre-coup democracies (panel C). Each annual point in any graph is the corresponding effect of a successful coup on the outcome value for the year specified on the x-axis. Controls are the same as in Table 3 except for the addition of the growth in GDP per Capita between t-1 and t-5.