

## ABSTRACT

Title of Dissertation: TAKING CARE OF THEIR OWN: THE CAUSES AND CONSEQUENCES OF SOLDIERS IN BUSINESS

By

David P Prina, Doctor of Philosophy, 2017

Dissertation directed by: Professor Paul Huth, Department of Government and Politics

This study examines the causes and consequences of involvement in commercial activities by armed forces with regards to coup risk, development and regime transitions. Utilizing an original dataset on military-owned business enterprises, this dissertation examines the links between armed forces control of business enterprises and finds that military controlled enterprises arise out of strategic resource allocation by leaders to minimize coup risk, and that these economic institutions do indeed work to reduce coup risk, though the effect is mediated by the regime type and wealth of a state.



TAKING CARE OF THEIR OWN: THE CAUSES AND CONSEQUENCES OF SOLDIERS  
IN BUSINESS

by

David P. Prina

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## Preface

This dissertation is an original, unpublished independent work by the author David Prina. It was the result of three years of study of primary and secondary resources, as well as interviews of both subject matter and country experts, former political appointees and military personnel. All work was sanctioned by the Institutional Review Board for involvement of human subject research. Aside from authors named in published works, the names of all experts involved in the survey are not included in this work, as well as interview subjects who requested not to be named. All views reflect solely those of the author.

## Dedication

*To my parents, Dennis and Linda Prina, whose love and support got me through the toughest of times and whose confidence in my abilities buoyed me during the times when I could not find my own.*

*And to my sisters, Lauren, Kathleen and Carolyn, who will probably still not call me “Doctor”, even after all this.*

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## Chapter 1: From Majors to Managers – Soldiers in Business

### Introduction

Sometimes the business of the military is security, other times the business of the military is business. There are some armed forces that have control of vast commercial enterprises, while others have never even dabbled in entrepreneurial schemes. This is a rather puzzling arrangement: the armed forces of a state are established to address security concerns, and dividing their attention towards commercial endeavors seems counter to their core mission. The idea that armed forces would ever have to engage in their own production or financing challenges core assumptions of many (especially Western-centric) civil-military models. The factors that lead the military into business have their roots in a variety of factors: the strength of political institutions, leader perceptions of their security, the level of development of the state, and the strength of the central government to provide adequate support for its soldiers are some of the few among others. This study seeks to find an approach to studying the phenomenon of military-owned businesses that is grounded in the strategic political decisions of a state's political and military leaders, and comes about as a result of a leader's attempt to mitigate political risk of removal by the armed forces.

More important than the reasons behind why the armed forces become commercial players in the first place is whether and what implications military control of enterprises has for the political development of a state. Military control of revenue-generating enterprises seems anathema to the received wisdom of fifty years of literature on civil-military relations, and runs counter to the idea of military subordination to the political

institutions of a state.<sup>1</sup> The central claims in much of the civil-military relations literature on what constitutes healthy relations between the state and the armed forces do not include institutional arrangements wherein the military has independent control of revenue-generating enterprises.<sup>23</sup> In a literature dominated by the idea of military professionalism as a key driver of stability within civil-military relations, military control of business enterprises is an anomaly.<sup>4</sup> Most conceptions of civil-military relations envision an armed force that receives its funding from a central governmental source, which means that the study of military-controlled business enterprises lies somewhat outside of even the most modern theories of state-military relations.<sup>5</sup>

The older theories of civil-military relations would likely have the following analysis of military-controlled businesses: Independent control of revenue-generating enterprises by the military cannot be good for establishing stable civil-military relations, and certainly will not help establish civilian control of the armed forces, as it eliminates or weakens the most important source of civilian leverage over the military, which is civilian control of the budget.<sup>6</sup> In many cases of military ownership there is little to no civilian oversight of military-controlled enterprises (MCEs), and there is often a total lack of institutions with

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<sup>1</sup> Feaver, Peter, "Civil-Military Relations", *Annual Review of Political Science* 1999. 2:211-41

<sup>2</sup> Ibid.

<sup>3</sup> Mulvenon, James, "PLA Divestiture and Civil-Military Relations: Implications for the Sixteenth Party Congress Leadership", *China Leadership Monitor*, No. 1 Part 2

<sup>4</sup> Huntington, Samuel. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. New York: Belknap Press, 1957

<sup>5</sup> There are of course exceptions, as scholars like Kristani Mani have sought to take a more systematic approach to the military and business.

<sup>6</sup> Pantev, Plamen; Ratchev, Valeri; Tagarev, Todor; Zaprianova, Viara, *Civil-Military Relations and Democratic Control of the Security Sector: A Handbook for military officers, servicemen and servicewomen of the security and intelligence agencies and for civilian politicians and security experts*, United States Institute of Peace, Washington DC, USA, 2005

formal auditing authority.<sup>7</sup> In addition, officers and enlisted personnel receiving their benefits straight from the military institutions themselves instead of through the government will likely not produce much loyalty to the civilian government. This kind of financial arrangement weakens the mechanisms of political oversight, and can potentially give generals additional leverage over political leaders when political squabbles do arise. Military control of enterprises could also give military leaders additional autonomy when it comes to policies or procurement by limiting the capability that the political leaders have to sanction a wayward military establishment.

While classic theories of civil-military relations frown upon this arrangement from a normative perspective, these military-controlled enterprises (MCEs) have to be studied empirically as the products of complex political interactions in their own right. Most prominent theories of civil-military relations are based heavily on the Western democratic model of politics, which sees military subordination to civilians as the most important and challenging aspect of civil-military relations.<sup>8</sup> MCEs may be perceived as a sacrifice of strong civilian control in civil-military relations, a normatively negative outcome. But MCEs could also be seen in another light, which is that the establishment of MCEs are the results of political activity by political leaders to limit the likelihood of the most disruptive military behavior in politics: the coup d'état. Viewing these enterprises outside of the strictly normative interpretation allows for more careful review

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<sup>7</sup> Transparency International UK Defence and Security Programme, "Military-owned businesses: corruption and risk reform", January 2012, London

<sup>8</sup> Caparini, Marina, "The Relevance of Democratic Control of the Security Sector", Geneva Centre for the Control of Armed Forces, Switzerland, Working Paper Series no. 24, April 2002

and analysis, seeing the establishment of MCEs as the result of political processes both within and outside of the military establishment.

As the armed forces are variously both a leaders' greatest asset and greatest threat, political leaders in both autocratic and democratic states have taken a variety of actions to keep the armed forces under control. Purges, reassignment, coup-proofing, increasing spending, etc., are all ways that leaders can keep the armed forces content or in control.<sup>9</sup> In this light of political leaders making decisions for political expediency, the establishment of revenue-generating MCEs is essentially a transferring of benefits directly from one political group to another, and as the theory and case study sections will expand upon, these transfers were made during times of heightened political instability and fears of a military coup. By providing the armed forces with businesses, leaders act to minimize the possibility of a coup attempt, making exceptions to taxation, customs duties, and offering subsidies to cover the initial start-up costs of these enterprises. Once established, these MCEs provide benefits to officers and soldiers alike, and enjoying the legal financial exceptions to their business operations that other businesses would face, often are able to expand quite rapidly.<sup>10</sup>

This study examines the phenomenon of military-controlled enterprises with an original dataset on the institution and traces the effect that such institutions have on political behavior by the military. This study will have a "Theory Chapter" beginning with an

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<sup>9</sup> Jun Koga, "Military Purges in Dictatorships: A New Dataset"

<sup>10</sup> Rieffel, Alex, & Jaleswari Pramodhawardani, *Out of Business and On Budget: The Challenge of Military Financing in Indonesia*, June 2007, Brooking Institution

examination of the theoretical exploration of MCEs, setting up both the theoretical framework and the expectations of how MCEs should affect military political behavior. Next the study will have the “Dataset Chapter” introducing the dataset, gathered from a variety of interviews and secondary sources, with an explanation of the methods used to construct the dataset, as well as the major trends of most important variables. The next section on analysis and methods will include a statistical analysis of the dataset on the major theoretical expectations of the theory chapter. There will be a case study chapter on Egypt which will delve into the mechanisms of MCEs creation and its effects on the political development of the state. Finally the study will wrap up with a “Conclusion” chapter.

#### Literature Review on Military-Commercial Ties

The literature on military ownership of business enterprises is sparse within academic circles, but has more attention within advocacy circles, transparency and corruption monitoring NGOs and those studying security-sector reform in the developing world.

While the civil-military relations field continues to have a robust literature and following, examination of military-entrepreneurial relationships has not developed much in the way of consistent scholarship. Civil-military relations has received a boost in interest in recent years with several high-profile coup attempts catching world and scholarly attention in places like Turkey, Egypt and Mali, and an important democratic transition from a long-standing military regimes in Myanmar.<sup>11</sup> Despite this upsurge in activity, most of the

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<sup>11</sup> Bunte, Marco, “Burma’s Transition to ‘Disciplined Democracy’: Abdication or Institutionalization of Military Rule?”, GIGA Working Papers, German Institute of Global and Area Studies, August 2011, No. 117

literature has focused on the causes of military defection and loyalty from or to long-standing dictatorships in regions such as the Middle East during the Arab Spring.<sup>12</sup>

There remains no systematic, cross-national study of the effects of MCEs within either the civil-military relations literature or the comparative politics literature. There are several important authors who have examined the phenomenon within their own spheres of expertise, and their analysis remains limited to a particular country or region. James Mulvenon wrote extensively of the phenomenon of the meteoric investment in commercial business enterprises, and the later quick but incomplete divestment, of the People's Liberation Army in China between 1980 and 2000.<sup>13</sup> Carl Thayer wrote extensively of the party-military relations in Vietnam, highlighting the large development role of the Vietnamese military in society as a mechanism through which the military supported the party's development goals, as well as the establishment of several large firms such as South East Asian telecommunications giant Viettel.<sup>14</sup> Other important single-country studies included examinations of Egypt, Cuba, Syria, the Congo, Pakistan, Bangladesh and Indonesia, each of which highlighted the particular aspects of military-business relationships in their countries of expertise.<sup>15</sup> Brommelhorster and Paes were

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<sup>12</sup> Ulrich, Marybeth; Atkinson, Carol, "The Arab Spring and Arab Militaries: The Role of the Military in the Transitioning Middle East", International Political Science Association World Congress, 8-12 July, Madrid, Spain

<sup>13</sup> Mulvenon, James, "Soldiers of Fortune: The Rise and Fall of the Chinese Military-Business Complex, 1978-1999", Taylor and Francis, 2001

<sup>14</sup> Thayer, Carl, "The Political Role of the Vietnam People's Army: Corporate Interests and Military Professionalism", Paper to panel on Understanding Vietnamese Politics: New Approaches and Issues from the Field, March, 2012

<sup>15</sup> Marhsall, Shana "The Egyptian armed Forces and the Remaking of an Economic Empire", Carnegie Middle East Center, April 2015; Mora, Frank, Wikotorowicz, Quintan, "Economic Reform and the Military: China, Cuba and Syria in Comparative Perspective", de Sitter Publications; Paes, W.C. and Shaw, T. "Praetorians or Profiteers? The Role of Entrepreneurial Armed Forces in Congo-Kinshasa" in Brommelhorster, J. Paes, W. (eds), *The Military as an Economic Actor – Soldiers in Business*, Houndsmill,



able to call upon several important experts and bring the study of military commercial enterprises in several different countries together in one book, though it lacked a larger theoretical framework in which to examine the political implications of such a phenomenon.<sup>16</sup>

Kristani Mani took a regional approach by analyzing military-business relationships as a function of three major factors: critical economic junctures, military's strategic priorities and coalitional opportunities. Mani theorized that based upon certain configurations of these factors different kinds of military entrepreneurship have evolved along two complimentary axes of military goals and military political strength. Building off of her expertise in Latin America, Mani has proposed that these factors can help explain the disparate types of military business, and their political consequences across the region.<sup>17</sup> The strength of Mani's approach is that military involvement in economic activities can take on a range of approaches, from nation-building to industrializer, though with the caution that she does seem to exclude the possibility of rent-seeking or wealth-maximizing behavior by the military. Her typology is interesting in that it discusses military involvement in economic activities as a result of political conditions and

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2003; Siddiq, Ayesha, *Military Inc. Inside Pakistan's Military Economy*, June 2007; Rieffel, Alex, & Jaleswari Pramodhawardani, *Out of Business and On Budget: The Challenge of Military Financing in Indonesia*, June 2007, Brookings Institution

<sup>16</sup> J. Brommelhorster, & W. Paes, *The Military as an Economic Actor: Soldiers in Business*, Palgrave Macmillan UK, 2003 It also combined several different types of military-business relationships that are out of the scope of this study but are important nonetheless.

<sup>17</sup> Kristani Mani, "Military Empresarios: Approaches to Studying the Military as an Economic Actor", *Journal of the Society for Latin American Studies, Bulletin of Latin American Research*, 2010; In addition: Mani 2010, 2007, 2011a, 2011b

coalitions, with varying degrees of political viability. This approach is satisfying in that it situates itself in the larger political arena of a state.

Outside of the strictly academic scholarship, military businesses have been the focus of several prominent NGO, think tanks and other watchdog organizations. Transparency International includes a measure of military-owned businesses on their Government Defence Anti-Corruption Index, which includes survey information on corruption indicators in armed forces starting in 2010.<sup>18</sup> Human Rights Watch has noted the role of military-commercial activities in a multitude of human rights abuses that illegal lumber operations under the control of military officers have engaged in.<sup>19</sup> Other organizations like the CMI (CHR. Michelson Institute) or the Geneva Center for the Democratic Control of Armed Forces have noted the presence of military businesses and the potential democratic deficit created by these organizations.<sup>20</sup> The phenomenon of MCEs remains understudied, even within the more policy-oriented and security-sector reform minded organizations. This is likely due to for several reasons: 1) information on the operations of these enterprises is sparing, 2) examining these institutional arrangements likely strikes a nerve with military members which they perceive as a threat to their core security and developmental missions, and 3) in many states with MCEs, access by NGOs or security-sector reform organizations to key personnel and institutional information is likely limited.

<sup>18</sup> Transparency International, *Government Defence Anti-Corruption Index*, 2015, London

<sup>19</sup> Human Rights Watch, *Too High a Price: The Human Rights Cost of the Indonesian Military's Economic Activities*, New York, June 2006.

<sup>20</sup> CMI Insights, Dr. Zenaib Abul-Magd, "The Egyptian military in politics and the economy: Recent history and current transition status", October 2013 No. 2

The field as a whole does not have much written about these relationships, which means that there are important gaps in the civil-military relations literature which this study seeks to fill.

### Literature Review on Civil-Military Relations and Coups

While the field of scholarship is quite thin with regards to military-business relationships, the study of the coup d'etat is undergoing somewhat of a renaissance. The field is rife with recent scholarship on this most destructive of military interventions. New quantitative models and game theoretic approaches have been applied to the area of civil-military relations. New approaches to understanding coup risk as a contagion utilizing methods such as the extreme bounds analysis find that coups and elite-driven movements are much less likely to spread as mass-driven movements such as demonstrations or riots.<sup>21</sup> The role of international institutions such as IMF intervention has also been brought into the analysis, showing that economic rents are key to maintain the support of regime elites and when IMF programs erode leaders' ability to distribute rents the chances for a coup rise.<sup>22</sup> The interaction between electoral institutions and dictatorships has also been explored, as close elections can reveal a dictator to be much weaker than originally thought, emboldening insider political elites to try to seize power.<sup>23</sup>

<sup>21</sup> Miller, Michael; Joseph, Michael; Ohl, Dorothy; "Are Coups Really Contagious? An Extreme Bounds Analysis of Political Diffusion", *Journal of Conflict Resolution*, May 26, 2016, p. 1-32

<sup>22</sup> Casper, Brett, "IMF Programs and the Risk of a Coup d'etat", *Journal of Conflict Resolution*, August 2015, 1-33

<sup>23</sup> Wig, Tore, Rod, Espen, "Cues to Coup Plotters: Elections as Coup Triggers in Dictatorships", *Journal of Conflict Resolution*, October 2014, 1-26

Leaders have it tough: they must balance between different threats both internal to their party, their regime, armed forces and enemies abroad. This model of leaders being pulled in multiple directions to keep their political coalitions together while fending off threats from other directions is what informs the rest of this paper, derived from studies where leader must select how to defend against different removal risks. Newer, more expansive models of leader succession and regime turnover include a discussion of coups and removal from power by the armed forces as one of a multitude of threats that a leader must balance against with limited resources.<sup>24</sup> The interrelated processes of coups and civil wars have also been explored, with evidence suggesting that resource-strapped leaders in poorer nations often have to make strategic choices of resource apportioning that balances between their chances of removal via government insiders in the form of a coup versus removal via outsiders in the form of a civil war.<sup>25</sup> The threats leaders face can come from within their elite structure, from within opposition parties, excluded political groups, the armed forces or from outside the state, and the leader must use their resources wisely to reduce the risk that they face from being removed by any one source. It is this leader balancing between threats with few resources to control that can lead to the creation of institutions like MCEs, which will be fully explored further in this study. When leaders face resource constraints, such as a very small budget or few resource endowments, and a high threat of removal by groups like the armed forces, leaders must get creative in how they limit their exposure. MCEs are one option that leaders can pursue if they are strapped for resources and face a threat of removal by the armed forces.

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<sup>24</sup> Bueno de Mesquita, Bruce, Smith, Alastair, "Political Succession: A model of coups, revolution, purges and everyday politics", *Journal of Conflict Resolution*, September 2015, 1-37

<sup>25</sup> Philip Roessler, "The Enemy Within: Personal Rule, Coups and Civil War in Africa", *World Politics*, 63, no. 2, (April 2011), 300-346

Current research now focuses on treating the armed forces as one of a multitude of political groups instead of as its own special category of political actor. By treating the armed forces as one more political group that leaders must account for, the behavior of the armed forces can be more accurately modeled. And indeed this seems to be appropriate: previous research has shown that armed forces are responsive to material incentives, with higher spending leading to a lower coup risk. This finding informs the idea that other material incentives beyond military spending might serve the same function as a coup-proofing arrangement.<sup>26,27,28</sup> While the precise mechanism of how spending reduces coup risk is undetermined, it is suspected that higher spending fulfills the core needs of the armed forces, decreasing the grievances that the armed forces may have against the government. Other research has shown that governments are also responsive to coup risks as they raise military spending when there is an active or suspected coup plot.<sup>29</sup> Kim et al. find that military regimes tend to increase military spending to appeal to their winning coalition, consisting mainly of other generals.<sup>30</sup>

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<sup>26</sup> Bellin, "The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective"; Byman and Lind, "Pyongyang's Survival Strategy: Tools of Authoritarian Control in North Korea"; Cook, Ruling but Not Governing: The Military and Political Development in Egypt, Algeria, and Turkey; Mehran Kamrava, "Military Professionalization and Civil-Military Relations in the Middle East," *Political Science Quarterly* 115, no. 1 (2000): 67–92; Powell J., "Determinants of the Attempting and Outcome of Coups d'etat". *Journal of Conflict Resolution* 56(6): 1017-1040

<sup>27</sup> Ibid.; Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'etats", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007; Gabriel, Leon "Loyalty for Sale? Military Spending and Coups d'Etat", Feb 1. 2012, Faculty Workshop; Barka Ben, Habi ba & Ncube, Mthuli "Political Fragility in Africa: Are Military Coups d'etat a Never-Ending Phenomenon?", African Development Bankm Chief Economist Complex, September 2012;

<sup>28</sup> Ibid, Powell,

<sup>29</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'etats", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007

<sup>30</sup> Hong-Cheol Kim, Hyung Min Kim & Jaechul Lee, "The Post-Coup Military Spending Question Revisited, 1960-2000", *International Interactions*, April 2013, p.367-385

Leaders are well aware of the threat posed by the armed forces and evidence shows that leaders cater to the needs of the armed forces in order to guarantee their political survival by increasing military spending. Higher spending is just one strategy for a leader to pursue to lower coup-risk: James Quinlivan shows that regimes often times employ selective benefits in order to placate their armed forces, using divide and conquer tactics on the armed forces by lavishing equipment, pay and copious perks on several important factions within the military while leaving the rest substantially underfunded and far away from critical government and military centers such as the capital<sup>31</sup>. The armed forces in general, and the officer corps in particular, are shown to be sensitive to material incentives such as spending, and that by varying ones' tactics, a leader can pursue multiple strategies simultaneously to reduce their coup risk. The study cited not only coup-proofing divisions along ideology and ethnic lines, but also outlined how the material benefits given to privileged units raised their loyalty to the regime and enhanced their ability to respond to internal threats. The important element of Quinlivan's study above is to show how the armed forces are responsive to material incentives when they are apportioned correctly, and that multiple strategies of both deprivation and lavishing of material benefits can be effective in curtailing coup risk.

The question of this study is whether MCEs can fill a similar role in coup-proofing by providing material benefits to military personnel. As will be shown both in this and later chapters, MCEs can provide both short term benefits in the form of subsidies towards

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<sup>31</sup> Quinlivan, James, "Coup-Proofing: Its Practices and Consequences in the Middle East", RAND Corporations, 2000

meager salaries and longer term benefits such as retirement benefits doled out by enterprises under the sole control of the armed forces. In addition to these material benefits, MCEs can help fulfill critical military materiel needs with native defense industries, assuaging the security imperatives of military officers.

Again, the primary claim of the paper is that MCEs can be used as a coup proofing mechanism to keep the armed forces out of politics. Leaders, under pressure from a variety of challengers for resources, respond to the risk of a coup by the armed forces with higher spending, or other benefits such as MCEs. When leaders are unable to increase spending from the government's budget they need to find alternative ways to either assuage military grievances or win military loyalty when political battles erupt between elites. Poorer, conflict-ridden nations are especially susceptible to the establishment of MCEs, as leader may lack resources but face many threats. Leaders may turn a blind eye towards military business activities or actively empower them, in the hopes that the military establishment will stay out of politics. Once established, these MCEs will reduce the risk of a coup as the officer corps has one or many fewer grievances against the central government since they are able to provide substantial benefits to the officer corps that the central government would not have been able to provide.

The case study later in the study will explain in greater detail, but an example may be instructive: in the 1970s, Egyptian leader Anwar Sadat was facing incredible political pressures from within and without during his reign. Having just come out of a costly

engagement with Yemen, and facing the Israeli military juggernaut, Sadat was not expected to last as leader. Increasing military spending was not an option, as military spending of the government regularly topped 30% of the government's budget in his first years, and reaching a peak of 70% in 1974.<sup>32</sup> As a way to cope with the limits of his state's resources, Sadat turned over control of more economic enterprises to the military. This gambit worked, and Sadat remained in power until his assassination at the hands of extremist Islamists.

This relationship between the armed forces, leadership survival strategies and resource endowments is central to this study. Strategic behavior to reduce the risks of removal are central to how civil-military relations develop, especially in developing states. As leaders face threats they may leverage their access to businesses or state-owned enterprises to reduce the threat from the military, and use these businesses to gain military loyalty which they can then use against other political rivals. By turning over business enterprises to the military, leaders pursue a short-term politically expedient strategy which offers them a cheaper solution to political stability than they might have been able to do otherwise. Leaders have to make decisions in the short-term, such as handing over control of state-owned enterprises to military leaders, which can have lasting impacts on the nature of civil-military relations and how the business of the security of the state is managed in the future. Leaders, under pressure in their own times, have sometimes had to choose between their political survival and long-term political control of the armed forces by the state.

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<sup>32</sup> Stephen Gotowicki, US Army, "The Role of the Egyptian Military in Domestic Society", National Defense University, 1997



MCEs, as one kind of solution to a leader's coup risk, appear to work on the aggregate, reducing the risk of a coup in the long term as well as the short term. The rest of this study will be spent reinforcing this claim and exploring the mechanisms of how MCEs can help leaders stay in power. MCEs are not a silver bullet to ending or reducing coup risk, as the turning over of MCEs might have to happen multiple times and over multiple political crises as leaders again have to work to mitigate their risks of removal. Indeed, the story of most states with MCEs is that the armed forces are continually empowered with more MCEs as leaders are faced with more challenges over the course of their rule. It is rare for the armed forces to be stripped of their MCEs, likely because the armed forces remain a constant threat that must be placated.

These MCEs do not function in a political vacuum, and their effects will be tempered by their political environment. The role of the military and military governments in both democratization and democratic breakdown is well-established and explored via both qualitative and quantitative methods.<sup>33</sup> The "kingmaker" role of the armed forces in autocratic societies is also very important, and MCEs are expected to have differential

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<sup>33</sup> Stepan, Alfred, *Rethinking Military Politics: Brazil and the Southern Cone*, Princeton University Press, March 1998; --- "The Military in Politics: Changing Patterns in Brazil", Princeton University Press, June 1971; Bebler A. 1973. *Military Rule in Africa: Dahomey, Ghana, Sierra Leone, and Mali*. New York: Praeger; Biglaiser G. 2002. *Guardians of the Nation? Economists, Generals, and Economic Reform in Latin America*. Notre Dame, IN: Univ. Notre Dame Press; Cheibub JA, Gandhi J, Vreeland JR. 2010. *Democracy and dictatorship data set*; Finer SE. 1976. *The Man on Horseback: The Role of the Military in Politics*. Harmondsworth, UK: Penguin. 2<sup>nd</sup> ed.; Johnson JL. 1962. The Latin-American military as a politically competing group in transitional society. In *The Role of the Military in Underdeveloped Countries*, ed. JL Johnson, pp.91–129. Princeton, NJ: Princeton Univ. Press; Nordlinger E. 1977. *Soldiers in Politics: Military Coups and Governments*. Englewood Cliffs, NJ: Prentice-Hall; Potash RA. 1996. *The Army and Politics in Argentina, 1962–1973: From Frondizi's Fall to the Peronist Restoration*. Stanford, CA: Stanford Univ. Press; Remmer K. 1989. *Military Rule in Latin America*. New York: Unwin Hymen

effects based on regime type. The armed forces have been examined as important agents of regime transitions, and sometimes as the pivotal actor for the political direction of a state.

While it is beyond the scope of this paper, the strategies that these leaders pursue have implications beyond mitigating coup risk. A further study of the long-term impact of the establishment of MCEs on civil-military relations and authoritarianism would most certainly be appropriate since the turning over of MCEs could almost certainly lead to the empowerment of military forces as political actors. There might be a long-term versus short term tradeoff when it comes to MCEs, where leaders secure their regime but saddle their states with a long-term civil-military relations tension.

## Chapter 2: Risky Business - Origins and Effects of Soldiers in Business

### Introduction

This chapter explores how military involvement in business can have potentially profound effects on military institutions, incentives of those in the officer corps and actions by the military elite. The chapter will contain a discussion of how the incentives of military personnel can be shaped by the establishment of military-controlled enterprises (MCEs). The chapter will introduce military enterprises as a mechanism for leaders who want to leverage military support for themselves or to control the risks of a coup attempt, and how this kind of institutional arrangement affects military behavior. The central claim of this study is that MCEs serve as an institutional arrangement to keep the armed forces from seizing power in a coup by both satisfying basic military needs and acting as a channel of patronage from leaders to the officer corps. Leaders act strategically to remain in power and use MCEs as a way to keep military officers loyal, resorting to turning over businesses to the control of the military establishment to reduce the likelihood of officers trying to remove the leader from power.

This chapter will start with a literature review on the most recent civil-military scholarship before moving to a discussion of the major findings among the coup d'état and coup-proofing literature. Then there will be a discussion of the literature on the origins of MCEs, ranging from the mundane origins to the more interesting political origins of such institutions. Then the theoretical framework will be laid out with the primary actors in the model and how their choices are shaped by their environment, and why some leaders resort to the creation of MCEs. Finally, the major theoretical

expectations will be laid out in the form of hypotheses, ending with a discussion of the endogenous nature of the expected findings.

### Literature Review on Coups and Coup-proofing

Despite a relative lull in the interest of civil-military relations in the broader academic field, research on this important relationship has recently been on the upswing, with a special focus on one of the most important political activities the armed forces can engage in: the coup d'état. Assumptions about military behavior and previous findings have been challenged as new quantitative models and game theoretic approaches have been applied to the area of civil-military relations. Deeper and more expansive approaches to the study of civil-military relations have created a much richer scholarly environment with respect to civil-military relations.

Other new approaches revolve around treating a coup as a game in which officers, the potential coup plotters, engage in both learning and coordination simultaneously in iterated games, with those regimes that survive several early coup attempts being much less likely to suffer them later on, even if the grievances of the officers are high.<sup>34</sup> Newer, more expansive models of leader succession and regime turnover include a discussion of coups and removal from power as one of a multitude of threats that a leader must balance against with limited resources.<sup>35</sup> This trade-off between resources and regime vulnerability is present in strategic decision-making on the national level as well, with

<sup>34</sup> Little, Andrew, "Coordination, Learning, and Coups", *Journal of Conflict Resolution*, February 2015, 1-31

<sup>35</sup> Bueno de Mesquita, Bruce, Smith, Alastair, "Political Succession: A model of coups, revolution, purges and everyday politics", *Journal of Conflict Resolution*, September 2015, 1-37

leaders pursuing diversionary threats of force only when they believe their current stocks of resources are insufficient to placate officers.<sup>36</sup>

Initial civil-military literature focused on the ideal versions of the military: a professionalized, non-political armed service whose actions were guided by the political wing of a civilian government. Professionalism, esprit d' corps, and a non-political orientation were thought to be the foundations of a system of stable civil-military relations, with the civilian regime calling the shots.<sup>37</sup> The failure of many a states' military to keep themselves out of politics, even in nations that had highly trained and well-equipped militaries, presented a challenge to this initial conception of civil-military relations, as those militaries that did seize their respective state governments could hardly be called "unprofessional" in the sense of technical proficiency of undertaking violence.<sup>38</sup>

Finer provided a succinct reply to Huntington's thesis on professionalism when he pointed out that even with a technically proficient and professional military, the desire to intervene might be borne of a sense of responsibility to the state's protection. If the military perceived that the civilian government might be failing in its job to protect society, the military would be well within its institutional objectives to seize the government and take over the state for itself. The divergence between loyalty to the "state" and loyalty to the "government" provided room for the military to intervene.

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<sup>36</sup> Powell, Jonathan, "Regime vulnerability and the diversionary threat of force", *Journal of Conflict Resolution*, February 2012, 169-196

<sup>37</sup> Samuel Huntington, "The Soldier and the State"

<sup>38</sup> Huntington's conception of professionalism included expertise or "specialized knowledge in warfare", a sense of responsibility to society to ensure its protection, and corporateness or organic unity and consciousness as being part of a group.

Professional militaries might be inclined to intervene “for the good of the state”, to ensure that its mandate of protection was upheld.<sup>39</sup> Finer then highlighted two important factors that could determine military involvement in politics: motive to intervene and the opportunity to intervene. His subsequent focus was on political culture, domestic circumstances and civilian dependence on the military determining the severity of military intervention in politics.<sup>40</sup> The military in Finer’s conception takes the best-case scenario of the military acting in what it thinks are the best interests of the state, which later researchers take issue with.<sup>41</sup> The great value of Finer’s work was to highlight that the military was an independent political actor, meaning that it has its own institutional concerns and pressures aside from that of the government’s leaders or civilian groups within society which could cause divergence between the civilian and the military.

Despite coup d’etats dominating the civil-military relations literature, there is a great amount of variation within the category of coups. Not all coups are the same, with some of them being undertaken by a few determined officers, such as the Malian coup of 2012 while others are the result of series of decisions by the top military leaders that incorporates the whole organization. In his work on Bolivia, Bruce Farcau found that far from a coup being a solitary and high-risk venture for a small cabal of plotters, coup leaders would openly recruit as many officers as possible despite the risk of discovery so

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<sup>39</sup> Finer, Samuel, “The Man on Horseback”

<sup>40</sup> Finer also further differentiated military intervention into several different categories, ranging from simple advisory functions to full-on military control in the form of coups. Military non-action was also a form of intervention, as not suppressing a popular movement means that the military is implicitly making a political decision.

<sup>41</sup> To be sure, Finer did not actually think all militaries were incorruptible, but wanted to demonstrate how, even in the best-case scenario the military could still have an excuse to intervene.

as to increase the chances of success and to spread the culpability for the coup to as many people as possible in the case of a failure.<sup>42</sup> In others, the coup is planned solely within one branch of the military, and is executed to the surprise of other branches, as famously occurred in Argentina when the Navy decided to bomb the Plaza de Mayo during protests in support of the then-President Peron buildings in 1955.<sup>43</sup> Still others are the result of leadership at the highest levels executing a carefully orchestrated takeover, as in recent takeovers in Burma or Thailand, where the military suspended the constitution, instituted a caretaker government and arrested opposition leaders. Still others are hastily arranged affairs that breakdown within hours, such as the 2016 coup attempt in Turkey that resulted in the deaths of over 200 people and over a thousand injuries.

The answer of what constitutes a coup is an important one in the literature. There is some disagreement as to what can be classified as a coup, with Powell and Thyne (2011) survey of the coup literature revealing fifteen different classifications. Most of them include a definition of the perpetrator, the tactics used and the target of the action as important elements in defining a coup. There is widespread agreement that coups generally come from within the state apparatus (Luttwak 1969), the political elite (Marshall et. Al 2007), or some militarized actor within the state (McGowan 2007; Moreno et.al 2004; Thompson 2973). The target of the coup is alternatively the government (Ferguson 1988), the regime (Lunde 1991), or the chief executive (Taylor & Jodice 1983). The tactics used in perpetrating the coup range from a forceful seizure

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<sup>42</sup> Farcau, Bruce, "The Coup: Tactics in the Seizure of Power", Praeger, 1994

<sup>43</sup> Portugheis, Elsa, "Bombardeo del 16 de junio de 1995", Buenos Aires: Secretaria de Derechos Humanos de la Nacion Argentina

(Marhsall et.al, 2007), the use or threat of the use of force (Kennedy 1974), or forced changes (Banks 2001). The common elements of these definitions include some elements of “within regime-actors” taking quick action to displace the chief executive of the state and/or his political allies by means of the threat of use or actual use of force. Powell and Thyne synthesized the definition of a coup into an “illegal attempt by the military or other elites within the state apparatus to unseat the sitting executive”. Powell and Thyne go to great lengths to synthesize the multiple facets of a coup attempt into one kind of distinct political activity, and in so doing eliminated extraneous definitions and constraints present in other studies. For example, Powell and Thyne dropped the need for a coup to be relatively bloodless, the coup needed to come from within-regime elites, the coup attempt must be illegal, and the coup attempt must have some kinetic action – thus eliminating alleged coup plots which might be the result of political intrigue. For their due diligence in synthesizing the coup attempt literature, Powell and Thyne’s definition of a coup attempt will be used for this study as it encompasses the kind of political activity by the military that is important for this study.

Coups are the result of complex political activities that have profound consequences for the political development of a nation. The academic understanding of coups though is at once both exhaustive and indecisive as to the core reasons for coups: In their 2003 article, Belkin and Schoefer take a sample of the most popular coup-related literature, and identify 21 different factors that could explain coup likelihood.<sup>44</sup> While the purpose of

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<sup>44</sup> Belkin, Aaron and Schoer, Evan, “Toward a Structural Understanding of Coup Risk” *Journal of Conflict Resolution* 2003 47: 594



their paper was to highlight their own conception of structural coup risk, (the underlying likelihood of a coup occurring on a given year such as the latent risk of a heart attack in a person), their study highlighted the multiplicity of views on the causes of coups, and just how many different hypothesized causes for coups there are.

A half century of research into civil-military relations has revealed a plethora of independent variables and mechanisms for military intervention into politics. In terms of motives, the personal grievances of officers have been found to be important,<sup>45</sup> along as well as organizational military grievances.<sup>46</sup> Grievances held by the military against the government over the methods of promotion to senior ranks, the pay of officers, or the lack of budgetary attention paid to the military needs have been cited as producing grievances worthy of taking over the state. In many states, historical military recruitment of officers or enlisted men has privileged some classes, ethnic groups or religions over others. In Syria, the French colonial government had recruited predominantly from the minority Alawite group into the military as officers over the majority Sunni population. Post-colonial policies designed to increase the number of non-Alawites into the officer corps (among other policies) provoked a decades-long series of coups which ended in 1970 with Alawites firmly in charge of the military officer corps, and subsequently the rest of the nation.

Newer studies have reviewed these older works with fresh eyes: The long-standing received wisdom of coup risk being positively associated with negative economic shocks

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<sup>45</sup>Thompson 1973, 1980; Farcau 1994; Decalo 1976

<sup>46</sup> Thompson 1973; Nordliner 1977

has been challenged with a greater dissection of permanent versus transitory economic shocks, suggesting that the negative material impacts of a shock can spur intervention by the military.<sup>47</sup> The interrelated processes of coups and civil wars have also been explored, with evidence suggesting that resource-strapped leaders in poorer nations often have to make strategic choices of resource apportioning that balances between their chances of removal via government insiders in the form of a coup versus removal via outsiders in the form of a civil war.<sup>48</sup> The interaction of civil wars with coups has been explored in work showing that civil war greatly increases the likelihood of a coup, though not coup success, with the likely mechanism being that as war continues the welfare of coup plotters continues to diminish, leaving them more risk acceptant towards risky coups as the resources that could keep them happy dwindle.<sup>49</sup> The interrelated processes of coups and civil wars have also been explored, with evidence suggesting that resource-strapped leaders in poorer nations often have to make strategic choices of resource apportioning that balances between their chances of removal via government insiders in the form of a coup versus removal via outsiders in the form of a civil war.<sup>50</sup>

A common thread through many of these studies though, is that the military has been consistently found to be responsive to material incentives when it comes to coup attempts and coup risk. Powell finds that higher military spending is associated with a lower

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<sup>47</sup> Nam Kyu Kim, "Revisiting Economic Shocks and Coups", *Journal of Conflict Resolution*, February 2016 vol. 60 no.1 3-31

<sup>48</sup> Philip Roessler, "The Enemy Within: Personal Rule, Coups and Civil War in Africa", *World Politics*, 63, no. 2, (April 2011), 300-346

<sup>49</sup> Bell, Curtis, and Jun Koga Sudduth, "The Causes and Outcomes of Coup during Civil War", *Journal of Conflict Resolution* September 22, 2015,

<sup>50</sup> Philip Roessler, "The Enemy Within: Personal Rule, Coups and Civil War in Africa", *World Politics*, 63, no. 2, (April 2011), 300-346

overall coup risk.<sup>51</sup> Collier finds that the government often raises military spending when there is an active or suspected coup plot.<sup>52</sup> This suggests that one important route to a military coup is that when officers are discontent about their material conditions or the conditions of the armed forces in general, they are more likely to resort to rebellion, in this case in the form of a coup attempt. This can be compounded by the lack of official channels for officers to redress these financial woes, especially if they are geographically distributed. An officer class that sees itself as being consistently underfunded might see a coup as the only way to redress some of its major concerns, among which could be salary, equipment and a lack of other benefits.

Instead of looking at the military in isolation, civil-military relations literature has also begun to adopt theoretical models focusing on the military as just one political actor embedded in an environment rife with political actors, and how strategic political decisions by leaders have important consequences for political behavior by the military. Importantly, the military has begun to be considered as yet another one of many political actors posing a threat to leader tenure that must be sated through the distribution of resources. Some literature considers the military as an actor in a larger web of actors, which forces leaders to engage in a strategic balancing of resources by those same leaders between different threats to leader tenure, which is also the approach adopted by this study.

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<sup>51</sup> Though not a higher likelihood of coup success. Powell J., "Determinants of the Attempting and Outcome of Coups d'état". *Journal of Conflict Resolution* 56(6):1017-1040

<sup>52</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'états", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007

As the armed forces are responsive to material incentives in terms of lowering the likelihood of coup risk, it stands to reason that other forms of material incentives beyond military spending might serve the same function.<sup>53</sup> Higher military spending by states is strongly associated with a lower coup risk in past studies, with the mechanism that higher military spending makes the military much more content with the status quo.<sup>54</sup> While a much better funded military could theoretically have a better chance of seizing and holding power, higher spending seems to be associated with a much lower coup risk.<sup>55</sup> While the precise mechanism of how spending reduces coup risk is yet to be determined, it is suspected that higher spending fulfills the core needs of the armed forces, decreasing the grievances that the armed forces may have against the government.

That the armed forces are responsive to material incentives is not lost on either leaders or academics: It has been shown in other research that governments are also responsive to coup risks, often raising military spending when there is an active or suspected coup plot.<sup>56</sup> Kim et al. find that military regimes tend to increase military spending to appeal to

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<sup>53</sup> Bellin, "The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective"; Byman and Lind, "Pyongyang's Survival Strategy: Tools of Authoritarian Control in North Korea"; Cook, Ruling but Not Governing: The Military and Political Development in Egypt, Algeria, and Turkey; Mehran Kamrava, "Military Professionalization and Civil-Military Relations in the Middle East," *Political Science Quarterly* 115, no. 1 (2000): 67–92; Powell J., "Determinants of the Attempting and Outcome of Coups d'etat". *Journal of Conflict Resolution* 56(6):1017-1040

<sup>54</sup> Ibid.; Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'etats", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007; Gabriel, Leon "Loyalty for Sale? Military Spending and Coups d'Etat", Feb 1. 2012, Faculty Workshop; Barka Ben, Habiba & Ncube, Mthuli "Political Fragility in Africa: Are Military Coups d'etat a Never-Ending Phenomenon?", African Development Bankm Chief Economist Complex, September 2012;

<sup>55</sup> Ibid, Powell

<sup>56</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'etats", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007

their winning coalition, especially when it consists mainly of other generals.<sup>57</sup> Generals, and civilian leaders with a military background, are well aware of the threat posed by the armed forces and cater to the needs of the armed forces in order to guarantee their political survival by increasing military spending far above those of other regimes. In a ground-breaking qualitative study of civil-military relations in the Middle East, James Quinlivan shows that regimes often times employ a large toolkit in order to placate their armed forces, using what could be called “coup-proofing” tactics. Quinlivan shows how some regimes use divide and conquer tactics on the armed forces by lavishing equipment, pay and copious perks on several important factions within the military while leaving the rest substantially underfunded and far away from critical government and military centers such as the capital<sup>58</sup>. The study outlined how leaders not only coup-proofed divisions along ideology and ethnic lines, but also outlined how the material benefits given to privileged units raised their loyalty to the regime and enhanced their ability to respond to internal threats. These strategic decisions have had profound implications, as the divide-and-lavish coup-proofing strategy of Syria’s Bashar Al-Assad was successful in keeping him in power from other military challengers, even as the neglected parts of the Syrian army disintegrated, and the country descended into civil-war.

The central claim of this study is that, along with increases in the military budget, MCEs act as a way to address the grievances of the officer class and thereby reduce the likelihood that elements of the officer class will perceive themselves as neglected. MCEs

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<sup>57</sup> Hong-Cheol Kim, Hyung Min Kim & Jaechul Lee, “The Post-Coup Military Spending Question Revisited, 1960-2000”, *International Interactions*, April 2013, p.367-385

<sup>58</sup> Quinlivan, James, “Coup-Proofing: Its Practices and Consequences in the Middle East”, RAND Corporations, 2000

providing benefits to the officer class make it less likely that the state will face internal threats from the armed forces. MCEs provide benefits to officers and encourage them to stay loyal, or at least reduces one potential avenue for the officer class to feel aggrieved with the state's or the military's leadership. In the long term, the presence of MCEs means that armed forces have more resources at their disposal which means that the military is able to apportion benefits towards the officer class, and keep officers well-provided for.

After a discussion of the origins of military-controlled enterprises (MCEs), detailing the various ways in which different kinds of MCEs were formed, this section will move into a theoretical discussion of how MCEs may change incentives for actors within the armed forces. The building blocks of the theory rest upon the reality of the onerous material and financial requirements of outfitting a professional armed force capable of projecting power both within and beyond a state's borders. The large financial burden of equipping and maintaining a military, especially upon poorer states, often leaves individual military personnel at a disadvantage financially, sometimes well below others in their socio-economic peers.<sup>59</sup> Many governments are unable to afford both a strong military one in which its members are well-taken care of financially. Armed forces use MCEs as a way to relieve financial pressure on the military institution to maintain a well-paid, well-equipped and effective fighting force, and use the profits from MCEs to provide benefits to officers that the state could not. While there is a great deal of variety in the ways that MCEs came to be in the hands of military officers, these MCEs, however they were

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<sup>59</sup> Grefer, James E., Gregory, David, Rebhan, M., *Chapter 1 "Military and Civilian Compensation: How do they compare?"*, Eleventh Quadrennial Review of Military Compensation, 2011

established, then create an incentive structure for the officer class that leads to a lower risk of discontent within the military and subsequently a lower coup risk.

### Literature Review on Military-controlled enterprises

The literature on military ownership of business enterprises is relatively new within academic circles, with the first publications on the subject being written around individual case studies as odd cases within civil-military relations. This subject has tended to garner more attention within advocacy, NGOs and those studying security-sector reform in the developing world than in the academic field. The institutional relationship of military control of economic enterprises receives some attention, especially in scholarship in places like Egypt, but generally has not attracted attention enough to garner prolonged study in its own right.

There is no systematic, cross-national study of the origins and possible effects of MCEs within either the civil-military relations literature or the comparative politics literature. There are several important authors who have examined the phenomenon as single-off cases within own states of expertise, but their analysis remains limited to a particular country or region. For example, James Mulvenon wrote extensively of the PLA's investment in commercial business enterprises in China between 1980 and 2000.<sup>60</sup> Carl Thayer, an expert on all things South-East Asia, wrote on party-military relations in Vietnam, highlighting the development role of the Vietnamese military as an extension of the Communist party's development goals, as pointed to the establishment of several

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<sup>60</sup> Mulvenon, James, "Soldiers of Fortune: The Rise and Fall of the Chinese Military-Business Complex, 1978-1999", Taylor and Francis, 2001

large firms such as South East Asian telecommunications giant Viettel as an outcome of this trend.<sup>61</sup> Other important single-country studies included examinations of Egypt, Cuba, Syria, the Congo, Pakistan, Bangladesh and Indonesia, each of which highlighted their particular aspects of military-business relationships.<sup>62</sup>

The only cross-national study of MCEs was done by Brommelhorster and Paes, who were able to call upon several important experts and bring the study of military commercial enterprises in several different countries together in one book. The publication looked at various types of military-commercial relationships through different countries, trying to find a common theme as to their development. While highlighting an important series of relationships, it lacked a larger theoretical framework in which to examine the political implications of such a phenomenon. The book stopped short of offering a unified approach to studying military-commercial relationships in favor of expanding upon the range of possible relationships that do exist.<sup>63</sup>

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<sup>61</sup> Thayer, Carl, "The Political Role of the Vietnam People's Army: Corporate Interests and Military Professionalism", Paper to panel on Understanding Vietnamese Politics: New Approaches and Issues from the Field, March, 2012

<sup>62</sup> Marhsall, Shana "The Egyptian armed Forces and the Remaking of an Economic Empire", Carnegie Middle East Center, April 2015; Mora, Frank, Wikotorowicz, Quintan, "Economic Reform and the Military: China, Cuba and Syria in Comparative Perspective", de Sitter Publications; Paes, W.C. and Shaw, T. "Praetorians or Profiteers? The Role of Entrepreneurial Armed Forces in Congo-Kinshasa" in Brommelhorster, J. Paes, W. (eds), *The Military as an Economic Actor – Soldiers in Business*, Houndsmill, 2003; Siddiq, Ayesha, *Military Inc. Inside Pakistan's Military Economy*, June 2007; Rieffel, Alex, & Jaleswari Pramodhawardani, *Out of Business and On Budget: The Challenge of Military Financing in Indonesia*, June 2007, Brookings Institution

<sup>63</sup> J. Brommelhorster, & W. Paes, *The Military as an Economic Actor: Soldiers in Business*, Palgrave Macmillan UK, 2003 It also combined several different types of military-business relationships that are out of the scope of this study but are important nonetheless.



A step in the direction of a larger theoretical framework to understand military-commercial relationships, Kristani Mani took a regional approach by analyzing military-business relationships as a function of three major factors: critical economic junctures, military's strategic priorities and coalitional opportunities. Mani theorized that based upon certain configurations of these factors different kinds of military entrepreneurship have evolved along two complimentary axes of military goals and military political strength. Building off of her expertise in Latin America, Mani has proposed that these factors can help explain the disparate types of military business, and their political consequences across the region.<sup>64</sup>

NGOs and prominent think tanks have approached the study of military business. Transparency International includes a measure of military-owned businesses on their Government Defence Anti-Corruption Index.<sup>65</sup> Human Rights Watch has noted the role of military-commercial activities in a multitude of human rights abuses that illegal lumber operations under the control of military officers have engaged in.<sup>66</sup> These organizations have larger objectives, and as such have not dedicated as many resources to gathering data on the phenomenon of military-owned businesses. Despite this, these organizations have provided a wealth of data to use in order to construct a new typology and dataset of military-business relationships.

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<sup>64</sup> Kristani Mani, "Military Empresarios: Approaches to Studying the Military as an Economic Actor", *Journal of the Society for Latin American Studies, Bulletin of Latin American Research*, 2010; In addition: Mani 2010, 2007, 2011a, 2011b

<sup>65</sup> Transparency International, *Government Defence Anti-Corruption Index*, 2015, London

<sup>66</sup> Human Rights Watch, *Too High a Price: The Human Rights Cost of the Indonesian Military's Economic Activities*, New York, June 2006.

### The Types of Military Controlled Enterprises

From various sources it became clear that there was a wide variety of MCEs and institutional arrangements between the armed forces and economic enterprises. Only a few of these kinds of relationships are politically relevant, but included below were the primary metrics by which the theoretically important categories were constructed. With respect to the relationship between the armed forces and economic enterprises, there are several distinguishing characteristics: individual vs. institutional control, ministry or armed forces and commercial versus defense. The following section will delve into the differences between these categories.

The first distinction between MCEs is between individual versus institutional control. This is important because it distinguishes between the concentration of control of MCEs in the hands of a few officers (individual) versus control of the MCEs being distributed through many bodies or agencies within the armed forces (institutional). The difference is not trivial, as distinguishing between different patterns of control affects the kind of patronage network that develops. Within an individual control scheme, the individual owning officers are in control of their MCEs totally as it is their property, and may choose how they use them. Institutional arrangements are schemes wherein the management of these MCEs is integrated into the larger military structure, and management decisions are made by a body or bodies of active duty or retired officers.

Institutional MCEs, by virtue of being integrated into the armed forces' administrative bodies, are much more likely to distribute benefits widely due both to their size and complexity. Institutional MCEs are often pension funds, charitable trusts, holding

companies or other large corporations with complex governance structures. Institutional MCEs are typically governed by multiple bodies, such as assemblies or boards that are composed of acting or retired senior officers. Representation by the officer class is much broader, and subsequently institutional MCEs tend to distribute their benefits widely to the whole of the officer class (or to all members of the branch to which the MCEs belongs) in regular patterns according to a schedule, such as a pension fund. Institutional MCEs tend to be regulated by military officers for the benefit of other military officers and distribute benefits to the officer corps as a whole.

Individual MCEs have a much more concentrated and narrower distribution due to their smaller size and ownership patterns. Individual MCEs tend to be enterprises that are relatively simple, such as farms, travel agencies, mines, or malls, that do not have the complex governance structures of the institutional MCEs. This is a meaningful distinction, because a different arrangement can have a profound effect changing the incentives those controlling MCEs. Individual owners of MCEs would have incentives to maximize their gains while keeping their patronage network as small possible. Those in charge of institutional MCEs do not have the same personal financial stake, even though they will themselves benefit from the MCEs, and thus do not have an incentive to keep the patronage network as small as possible.<sup>67</sup>

There is another clear divergence between two kinds of institutional relationships: ones in which the ministry was the final authority with respect to MCEs and another in which

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<sup>67</sup> It is possible for there to be both individual and institutional MCEs existing at the same time in a state. In the data section there is a breakdown of which country-years have both versus one or the other.

was armed forces itself was specifically named as the owner or manager. This is an important divergence as in some states the difference between the ministry and the armed forces is non-trivial. In some states the ministry is a clearly civilian-dominated institution with strong auditing, oversight, control of budget and direction by civilians. In other states the ministry is not much more than a public-facing institution of the military itself, with nominal control by civilians if that. Indeed, there are some states where a ministry of defense does not exist at all. And of course there is a full spectrum of different kinds of civilian-military control of ministries across time and space. For the purposes of this study it was important to establish if the control of the MCEs was directly attributable to the ministry or the armed forces directly. The purpose of differentiating is to separate out those relationships that highlight armed forces independence and power separate from the rest of government, and those that reflect much more mundane, administrative relationships between civilian-controlled military agencies and commercial enterprises. For the purposes of this study, while there will be a discussion of the data with respect to ministry versus armed forces control, this study will concentrate on the role of control by the armed forces.<sup>68</sup>

Finally, MCEs can be either commercial or defense in nature. By “commercial enterprise” it is meant to include any enterprise that engages in the production of goods or services that are available to the general public. While this may seem obvious, this is an important distinction that separates two entities: those that have offerings to only the

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<sup>68</sup> It is possible for there to be MCEs controlled by the armed forces and the ministry at the same time in a state. In some cases the ministry shares control of the same enterprises, or has control of separate enterprises. In the data section there is a breakdown of which country-years have both versus one or the other.

military members versus those that offer services to the general public. All armed forces offer some kind of benefits to their members in the form of cheaper goods or discounts, but if the armed forces are offering services outside the military it implies a much larger reach of commercial enterprises as well as implies greater economic capacity by the armed forces. By “defense enterprise” it is meant an enterprise that engages in the production of military equipment, ammunition or weapons.

The inclusion of commercial MCEs should be fairly obvious, as these enterprises can be profitable, and their profits can be ploughed back into the armed forces’ coffers and other holdings. The inclusion of defense MCEs might seem odd, but the production of military equipment is big business and very expensive, which gives opportunities for military leaders to spread the money earmarked for defense purposes around both for legitimate warfighting purposes as well as for patronage purposes. By having control of these enterprises it enhances the military’s political power relative to other actors in society, in addition to providing the military with the ability to supply itself with needed equipment and munitions. Outside of deep investigative reporting on notable cases, it is difficult to say if these funds are used honestly by military institutions or for patronage purposes. Having control over such enterprises, at the least, does pose a corruption risk and can only add to the ability of military leaders to use such resources for non-warfighting purposes. This is especially true in environments where the budget is not regularly audited and financial oversight powers of other agencies are weak or non-existent.

**Figure 1: MCE Typology Examples**

<b>MCE Typology Examples<sup>69</sup></b>			
	<b>Institutional Control</b>	<b>Individual Control</b>	<b>Both Exist Simultaneously</b>
<b>Commercial MCE</b>	El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Sri Lanka	Burundi, Burkina Faso, Libya, Paraguay	Cambodia, Mauritania, Panama, Paraguay
<b>Defense MCE</b>	Ethiopia, Zimbabwe	None <sup>70</sup>	None
<b>Both MCEs Exist Simultaneously</b>	Argentina, Bangladesh, Chile, Colombia, Cuba, Egypt, Myanmar, Pakistan, Turkey	None	China, South Sudan

There are nine possible institutional arrangements where MCEs are concerned.<sup>71</sup> The most important of these cells is the institutional control where both MCEs exist. Where the armed forces have control of both kinds of enterprises as well as have a strong institutional control of these enterprises implies that the military is both very well organized and has considerable assets. Having control of both commercial and defense assets means that the armed forces have multiple channels through which to channel patronage and reap profits. This kind of institutional arrangement provides the ideal relationship through which patronage can operate – providing both the size and channels

<sup>69</sup> Does not have the full list of all states in each category.

<sup>70</sup> I could not find any examples of privately-owned defense MCEs by armed forces personnel, nor in the other two adjacent categories.

<sup>71</sup> This does not include the typologies including ministry control, but as stated above earlier, they are not important theoretically in this study.

through which military patronage can flow.<sup>72</sup> For this study, the most important relationship is that in which the armed forces have institutional control of both commercial and defense enterprises as it implies the greatest degree of organization and size of the economic strength of the armed forces.

### Anatomy of an MCE

To demonstrate a typical example of an institutional MCE, and how MCEs can be used to provide benefits to officers, the case of Indonesia is instructive. The Indonesian Armed forces (TNI) have never in their history been fully funded by the central government.<sup>73</sup> In 2002, the Indonesian defense budget was \$800 million, less than one percent of GDP and less than 4 percent of the government budget.<sup>74</sup> This amount is estimated to have been less than a third of the TNI's total operating cost in that year, with the rest being made up from their business holdings. The TNI's business holdings are quite large, and are responsible for providing healthcare, schools and social services to its soldiers. In addition, these MCEs provide a social safety net and provides a supplement to the low salaries of its members.<sup>75</sup>

There are three different levels to the TNI's MCE: the first are the state enterprises under military management, military cooperatives and the military foundations or "yayasans".

The state enterprises, such as Pertamina which is an Indonesian state oil corporation, or

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<sup>72</sup> During the data acquisition phase, only six of the nine possible categories could be populated with examples, as no examples of individually controlled defense MCEs could be found. This is not entirely surprising, as owning defense industries are not the most profitable of enterprises, especially when other alternatives exist such as extractive and loot-able resources exist.

<sup>73</sup> Rabasa, Angel., Haseman, Angel, *The military and democracy in Indonesia: Challenges, Politics and Power*, RAND Corporation, 2002, pg. 70

<sup>74</sup> Ibid. pg 70

<sup>75</sup> Ibid. pg. 71

the Badan Urusan Logistik, which is the state logistic agency, controls the distribution of foodstuffs.<sup>76</sup> Other state enterprises operate telecommunications agencies, banks, and electricity companies.<sup>77</sup> The second component of the armed forces' MCEs are the cooperatives, which are wholesale distribution businesses that operate at both the local and national level. Their operations help to fund shortfalls left by the central budget as well as provide affordable goods to service members. Their operations are in turn funded by member dues and the holding companies that the cooperatives own.

The final, and perhaps most important component of the TNI's MCEs are the yayasans, which are technically charitable foundations exempt from a variety of laws such as tariffs and taxation that allow them to operate their holding companies without having to compete on the same level as other Indonesian businesses. These yayasans are funded by several large holding companies, usually at least one each, which are typically joint ventures with private businessmen.<sup>78</sup> There are at least nine yayasans, with each belonging to a particular branch or military agency. These yayasans were expressly created to provide benefits to the members of their particular agency or branch, supplementing officer salaries directly or just covering other operating costs not covered by the central budget.

The Indonesian Army has a large network of business holdings, including the foundation Yayasan Karitka Eka Paksi (YKEP), a military cooperative called the Inkopad and

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<sup>76</sup> Ibid. pg. 73

<sup>77</sup> McCulloch 2000, pg. 23-24

<sup>78</sup> Samego et. al, 1998a pp. 77-79



another cooperative named the Primkopad.<sup>79</sup> These MCEs collectively own or manage the land of a business district in Jakarta, banks, insurance companies, hotels, real estate, timber, construction firms, fisheries, chemical storage, plastics companies, luxury car import business, shipping, forestry businesses, golf courses and manufacturing enterprises. These holdings provide social welfare that assists in finding and funding housing for soldiers, the Army University, and distributes holiday bonuses to officers. The army's Red Berets Welfare Foundation, founded in 1993, provides salary supplements and retirement packages to current and former soldiers.<sup>80</sup> The Indonesian Navy similarly has MCEs in the form of the Yayasan Bhumiymca, the cooperative Inkopal, and another cooperative named Primkopal. Through its yayasans and cooperatives the Navy owns or manages shipping, resorts, oil refineries, property rental, import-export companies, cocoa plantations, maritime electronics, telecommunications, taxi companies and driving services.<sup>81</sup> Among the services that these business perform for the service men are providing orphanages for the children of dead seamen, provide scholarships and operates schools for the children of seamen. The air force and national police also have their own business interests, though they are smaller than the other two branches: golf courses, container services, hotels, logging, aviation, insurance companies, etc., all provide cheap housing, scholarships, and healthcare to their members.<sup>82</sup>

The base salaries in Indonesia are quite low, owing in part to the underdeveloped state of Indonesia's taxation system. Much of the profit generated from these MCEs goes right

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<sup>79</sup> Rabasa, Ibid. pg 74

<sup>80</sup> Singh, 2001, pp. 19-20

<sup>81</sup> Samego, et al. 1998a, p.83

<sup>82</sup> Ibid. 1998a

back into the businesses, but a substantial amount is given away as salary relief to its soldiers. Both national and local commanders distribute supplemental income to their soldiers.<sup>83</sup> According to one study by Lex Rieffel and Jaleswari Pramodhawardani, the base salary of a civil-servant typically represent less than one-half of total compensation, including those who serve in the military.<sup>84</sup> For soldiers serving in the TNI, the rest of their compensation comes in the form of off-budget compensation such as housing, healthcare, scholarships, direct transfers or bonuses.<sup>85</sup>

Indonesia is instructive as a single case, but it also quite typical of these kinds of institutionally-owned and operated MCEs. The pattern is repeated in many states in much the same way – the Burmese armed force’s Myanmar Economic Holdings Corporation (MEHC) was established in 1990 for much the same reason as the yayasans: veterans who were in dire economic straits needed support from the state that the state-allocated military budget could not provide.<sup>86</sup> The capitalization of the MEHC was provided from shares being sold to current military officers as well as the Ministry of Defense, amounting to \$1.4 billion in initial capitalization. The 34 subsidiaries that make up the MEC<sup>87</sup> are responsible for both producing a wide variety of goods, as well also providing support to veterans. Active duty officers are the only ones allowed to purchase private shares in the MEHC, and the business decisions of the largest Burmese conglomerations are controlled entirely by military officers.<sup>88</sup>

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<sup>83</sup> Rieffel et al. pg. 54

<sup>84</sup> Rieffel et al. “On budget and out of business”, pg. 108

<sup>85</sup> Rieffel et al. Ibid. pg. 54

<sup>86</sup> Steinberg, David I. “Burma/Myanmar: The role of the military in the economy”, Burma Economic Watch, 1/2005

<sup>87</sup> As of 2014.

<sup>88</sup> Min, Aung; Kudo Toshihiro, “Chapter 6: Business Conglomerates of Myanmar’s Economic Reform”, *Myanmar’s Integration with Global Economy*, 2014

These benefits provide soldiers of all types with relief from their base salaries, and most importantly, the benefits are channeled directly from a military institution to its members. There is little to no civilian oversight, and commanders from the national level down to the local level have a great deal of leeway in how they distribute benefits within their networks. The central government plays almost no role in providing additional benefits to soldiers, instead funding capital acquisitions such as new equipment. The soldiers, especially the officers, are well aware that the source of much of their benefits lies in the military establishment, and not all in their state's government.

#### Origins of a business

There are numerous historical factors that led to the development of military controlled enterprises, and their origins are quite varied. The ultimate claim of this paper is that MCEs were developed as a way to mitigate political risk, but it is worth exploring the disparate origins of many MCEs. In Pakistan, the tradition of MCEs grew out of a military-controlled pension fund which got its start in 1953 with the founding of the Fauji Foundation, paid for with the money owed by the UK to Pakistani soldiers serving in World War II.<sup>89</sup> Indonesia's business activities can be traced back to 1945 with the constitution of Indonesia giving the armed forces a distinctly non-military role in the new state. In 1957 the Indonesian military took the opportunity of violent instability to expand their economic role and seized control of formerly Dutch enterprises, putting officers in charge of enterprises such as village-level rice mills<sup>90</sup>. The Egyptian military's foray into business began after Nasser's seizure of power in 1952, when the state began to

<sup>89</sup> Sidiq, Ayesha, "Military Inc.: Inside Pakistan's Military Economy", Pluto Press, 2007

<sup>90</sup> J. Brommelhorster, W. Paes, *The Military as an Economic Actor: Soldiers in Business*, International Political Economy Series, BICC, pg. 100

nationalize the assets of the *muamassirum*, handing control of their assets over to the Free Officers over time<sup>9192</sup>. Routes to the establishment of MCEs are varied, and are often the products of complex interactions between actors and environments.

There are six conditions that led most MCEs: budgetary assistance, pensions and welfare support, developmental role of the military, import substitution, economic opportunism, and opportunities for corruption. This project posits that there is an additional reason, and that is that MCEs play a role as a crucial link in a network of patronage that connects military and government leaders, which both use to engender the support of the officer class by offering them tangible financial benefits. Below is a discussion of each of these motivating factors, before moving on to this project's theory as to the political role these organizations can play within the armed forces themselves.

### Budget and Welfare

In many nations, the combination of poverty and insecurity led states to turn to MCEs as one way for the armed forces to overcome these budgetary restraints. Armed forces capable of producing their own financial support can free themselves from reliance upon the state's coffers and the whims of government leaders who might not prioritize military needs above other state concerns.<sup>93</sup> Budgetary assistance is one reason for the

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<sup>91</sup> Springborg, Robert, "Globalization and the Politics of Development in the Middle East", Cambridge University Press 2010

<sup>92</sup> *Mutamassirum* is a term referring to the capitalist class of Egypt at the time, a large group of native Egyptians who were wealthy business people. *Mutamassirum* were of both Egyptian and foreign, mainly Greek, origin. Most had fled by 1960, some leaving before their assets could be seized, triggering a flood of outgoing wealth from Egypt during this period.

<sup>93</sup> Franko, Patrice, "De-facto Demilitarization: Budget-Driven Downsizing in Latin America", Journal of Interamerican Studies and World Affairs, Vol. 36, No.1 (Spring 1994)

establishment of MCEs, as military leaders sought ways to take care of their soldiers, and minimize their organization's exposure to changes in political climate and thus their budget.<sup>94</sup>

Several prominent examples of states with MCEs have a history of MCEs beginning their existence as pension funds. Offering subsidies to these pension funds from MCEs are one way that the armed forces can reward servicemen for their work. Turkey's Armed Forces Pension Fund (OYAK) is an example of such an organization, which is a large holding company that finances the armed services' pension fund by investing heavily in other businesses around Turkey<sup>95</sup>. The OYAK group currently employs about 28,000 people in roughly 70 companies in a variety of sectors, including industry, finance and services<sup>96</sup>. OYAK is funded from profits made by these operations as well as a 10 percent levy on the base salary of Turkey's military officers. In addition to its estimated \$15 billion revenue, the group also has a 49% share in OYAK-Renault, the largest Renault factory outside of Western Europe, among other holdings. OYAK is owned, operated and managed by the Armed Forces of Turkey. The Ministry of National Defence has a role in its governance, but serving officers are present in all its governance bodies. The Representative Assembly consists entirely of military officers; the General Assembly of 20 has at least 5 officers; the Board of Directors has 7, of whom 3 are serving military

<sup>94</sup> J. Brommelhorster, W. Paes, *The Military as an Economic Actor: Soldiers in Business*, International Political Economy Series, BICC, pg. 189

<sup>95</sup> Ahmad, Ishtiaq, "The Role of the Military in the Polity and Economy under Globalization: A Comparative Study of Turkey and Pakistan", European University Institute, Workshop 12, "The Role of the Military in the Politics and Economics of the Middle East", 2003

<sup>96</sup> "OYAK Group Subsidies" Website, <http://www.oyak.com.tr/EN/corporate/subsidiaries.html> (Accessed May 16, 2016) Uniformed military personnel are directly represented on each governance body.

officers.<sup>97</sup> The armed forces have a great deal of leverage with regard to the operations of OYAK, but it should be noted that as far as the typical governance of MCEs goes, Turkey is itself somewhat exceptional for how integrated civilians are into its corporate structure.

For many MCEs, such as the Burmese military's Union of Myanmar Economic Holdings (UMEHL) and the Myanmar Economic Corporation (MEC), the two major conglomerations of the Burmese military, civilians are almost entirely excluded from governance positions or from having a stake in its shares.<sup>98</sup> While technically under the control of the Ministry of Defence, a nominally civilian organization, the Ministry is itself staffed and managed almost entirely by either current or former military officers. This pattern is repeated in MCEs like the National Service Products Organization of the Egyptian military, which is run under the management of the Ministry of Defense and Military Production which is itself both headed by and run primarily by officers.<sup>99</sup> The Fauji Foundation (FF) of Pakistan, an enterprise founded as a charitable trust in 1947 as a pension fund for soldiers, employs more than 12,000 people among dozens of privately owned companies.<sup>100</sup> The FF has two major governance bodies, the Committee of Administration and the Central Board of Directors. The Committee is wholly staffed by serving or retired military officers while the Board of Directors is nearly all retired

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<sup>97</sup> Military Personnel Assistance and Pension Fund Law, No. 205, 3 January 1961, Available at: <http://www.ovak.com.tr/ovakdosyalar/media/editor/files/CORPORATE/ovak-in-brief/lawofovak.pdf> (Accessed June 16, 2016)

<sup>98</sup> Singh, Ravi Shekhar Narain (2005). *Asian Strategic and Military Perspective*. Lancer Publishers. p. 209

<sup>99</sup> "Egypt's Military Factories", Federation of American Scientists, 1998 Available at: <http://fas.org/nuke/guide/egypt/facility/mark0033.htm> (Accessed June 16, 2016)

<sup>100</sup> "Fauji" in Urdu means "soldier".

officers.<sup>101</sup> The exact institutional arrangements may be slightly different, but for most MCEs the armed forces retain a controlling or significant amount of control over the operations, investments and disbursements of their enterprises.

Assisting the military in budgetary matters is one function that MCEs fulfill. By taking at least some of their financial needs off the books of the state, the military is able to be more independent from the state government and have much tighter control of how many resource they have and where those resources are allocated. Many military officers in states with MCEs like to highlight that having MCEs relieves the state budget of the onerous task of funding the military, thus freeing up resources for development and other civilian purposes.<sup>102</sup> While this claim may be dubious, the reality of over-stretched state budgets in states with large security concerns is not. As a matter of course, many MCEs do indeed fulfill the function of filling the gaps in perceived resource deprivation within the armed forces.

#### National Development & Import Substitution

MCEs also aid the state in a development role, and are often a technological spearhead in delivering infrastructure projects to underdeveloped regions. Armed forces have very well-developed construction and earthmoving capabilities, and member of the armed forces are also some of the most technically proficient member of society, with many members having had years of technical training in engineering, logistics and

<sup>101</sup> "Governance Structure", Fauji Foundation Website, Available at: <http://www.fauji.org.pk/fauji/about-us/governance-structure> (Accessed June 16, 2016)

<sup>102</sup> Interview with Egyptian officer, 2014

construction<sup>103</sup>. This is especially the case for developing societies that initially lacked well-established university-level engineering schools. Even in the highly developed and engineer-saturated United States, the US Army Corps of Engineers for decades has been regularly tasked with heavy construction work that other companies are either incapable of doing or would be too costly for strictly commercial businesses such as dam safety, flood risk management, levee safety, navigation, etc..<sup>104</sup>

The engineering corps of many armed forces have been put to work constructing roads, canals, bridges, levees and managing important strategic waterways<sup>105</sup>. For many states, the armed forces have had a long history of development work, and it is not a huge leap for members of the military to be re-tasked from state-tasked development work to operating MCEs with technical and engineering specialties.<sup>106</sup> For example, the Frontier Works Organization (FWO) of the Pakistan Army has been an important agent in its state's development, constructing bridges, roads, railways, canals, fencing, tunnels, airfields and dams all across Pakistan.<sup>107</sup> The FWO was also responsible for building the "Eighth Wonder of the World", the highest paved road in the world, known as the Karakoram Highway. The Highway connected China and Pakistan, covering

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<sup>103</sup> J. Brommelhorster, W. Paes, *The Military as an Economic Actor: Soldiers in Business*, International Political Economy Series, BICC, pg. 188

<sup>104</sup> US Army Corps of Engineers website, (<http://www.usace.army.mil/Missions/CivilWorks.aspx>) Accessed May 16<sup>th</sup>, 2016

<sup>105</sup> The Egyptian armed forces, for example, manage the strategic Suez Canal through the Suez Canal Authority. An Egyptian officer has been in charge of the Suez Canal Authority since at least 1965, with an admiral directly in charge since 1996. Suez Canal Authority Website, <http://www.suezcanal.gov.eg/sc.aspx?show=3> (Accessed May 16<sup>th</sup>, 2016)

<sup>106</sup> Joseph Babatunde Fagoyinbo, "The Armed Forces: Instrument of Peace, Strength, Development and Prosperity", Authorhouse, 2013

<sup>107</sup> "Overview", Frontier Works Organization website, Available at: <http://www.fwo.com.pk/extensions/overview> (Accessed June 16, 2016)



approximately 550 miles, completed in 1979, running through some of the toughest terrain in the world. Without an accompanying industrialized and competitive construction sector, the government of Pakistan, as have many other governments, had to rely upon the military to provide the necessary expertise and manpower for national development projects.

Many armed forces have as part of their *raison d'être* and organizational mission to help their nations develop and modernize economically. In many cases the military took center stage as the primary driver of development through massive national projects with the express purpose of revitalizing and modernizing the economy<sup>108</sup>. Still others leveraged their technical skills to become one of the largest economic actors in their states. There are also cases where military were envisioned as taking an important role in industrial development, leading to policies of military-directed import substitution. In some states, armed forces wanted to lessen their dependence on foreign suppliers of strategic commodities such as fossil fuels, aircraft, and especially of weapons systems. Thus, many armed forces assumed control of industrial organizations such as coal mines, aerospace firms, coal mines and shipyards and were heavily subsidized<sup>109</sup>. Many of these enterprises were state-owned enterprises put under military management, while others were entirely the products of military entrepreneurship.

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<sup>108</sup> Nasser came to power through the armed forces, but also helped found the Arab Socialist Union both give the military regime more legitimacy and to promulgate a policy of what was termed "Arab Socialism", seeking to use the armed forces as a way to help develop the nation and create a larger role for the government in the lives of Egyptian citizens.

<sup>109</sup> Scheetz, Thomas, "The Argentine Defense Industry, its Past and Current State, an Evaluation", Universidad de Argentina de la Empresa, Buenos Aires. Available at: [https://www.researchgate.net/profile/Thomas\\_Scheetz/publication/254718013\\_1\\_The\\_Argentine\\_Defense\\_Industry\\_its\\_Past\\_and\\_Current\\_State\\_an\\_Evaluation/links/54d13bbe0cf25ba0f040fc37](https://www.researchgate.net/profile/Thomas_Scheetz/publication/254718013_1_The_Argentine_Defense_Industry_its_Past_and_Current_State_an_Evaluation/links/54d13bbe0cf25ba0f040fc37). (Accessed may 16<sup>th</sup>, 2016)

National security also involved improving national self-sufficiency, with many armed forces leading the way to create new industries as both its manager and its biggest client. Some states were much more successful than others in this endeavor, with Brazil having a vibrant and large defense industry in aeronautics corporations like Embraer. Others were much less successful, such as Argentina's flagship aeronautics firm struggling to compete for years, producing only 20 aircraft between 1980 and 2015<sup>110</sup>. Brazil is emblematic of this drive for total national security, as their national security doctrine, the *National Strategy of Defense*, lists self-sufficiency and a lack of relying upon imported weaponry and technology is listed among their many priorities.<sup>111</sup> Other states have pursued similar, albeit smaller defense programs mainly focused on small arms and light vehicles, and have simply turned to relying upon foreign arms markets as their major suppliers for complex weapons systems.

#### Economic Opportunism & Corruption

In still other cases, armed forces came into business by way of opportunism. Generals in states without strong central governments were able to set up their own enterprises or seize control of them from others. High-ranking military officers were able to carve out lucrative economic empires in a variety of areas, which is prevalent in Africa and elsewhere with very weak central governments.<sup>112</sup> Extractive resources such as timber,

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<sup>110</sup> Interview with Thomas Scheetz, March 2015

<sup>111</sup> *National Strategy of Defense*, p. 18, Available at: [http://www.defesa.gov.br/projetosweb/estrategia/arquivos/estrategia\\_defesa\\_nacional\\_ingles.pdf](http://www.defesa.gov.br/projetosweb/estrategia/arquivos/estrategia_defesa_nacional_ingles.pdf) (Accessed May 16th, 2016)

<sup>112</sup> J. Brommelhorster, W. Paes, *The Military as an Economic Actor: Soldiers in Business*, International Political Economy Series, BICC, pg. 190

oil or diamonds are all products that military leaders have been able to secure for themselves and their supporters. The Indonesian military's historic involvement in the timber industry has been traced to human rights abuses and violence between government and rebel groups.<sup>113</sup> There are even cases of military leaders from neighboring states such as Rwanda setting up shop in countries such as the DRC as a way to funnel these valuable resources to foreign markets<sup>114</sup>. Cambodian military units, sponsored by powerful politicians and businessmen, have used their power to displace peasants for their powerful patrons in return for economic benefits.<sup>115</sup> In all these cases, officers of the armed forces are able to leverage their strength over local populations to seize control of valuable resources from others for their own personal benefit and that of their patronage network.

While some of these business ventures may be above board legally, some MCEs also take advantage of the opportunities for corruption that business can provide.<sup>116</sup> Commercial operations provide a way for military leaders to move money around within and between enterprises to avoid notice of any regulatory bodies and news organizations that may exist. These MCEs could be used as a means of strengthening the institution of the armed forces, securing loyalty of political supporters or simply subsidizing the generally low military wages. Military businesses are also susceptible to illegal business operations, as

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<sup>113</sup> Human Rights Watch, *Too High A Price: The Human Costs of the Indonesian Military's Economic Activities*, June 2006, Vol. 18, No. 5(C) Available at: <https://www.hrw.org/reports/2006/indonesia0606/indonesia0606webwcover.pdf>, (Accessed May 16<sup>th</sup>, 2016)

<sup>114</sup> Transparency International Rwanda Country Report, 2015

<sup>115</sup> Email Interview with Global Witness expert, Sept. 2015

<sup>116</sup> J. Brommelhorster, W. Paes, *The Military as an Economic Actor: Soldiers in Business*, International Political Economy Series, BICC, pg. 190

their access to both transportation and muscle gives them opportunities for business. The armed forces' plausible claims of keeping operations secret for the sake of national security can also keep prying eyes away from business operations. Enterprising military leaders can establish MCEs as a way to set up or enhance patronage networks, shifting benefits as needed to ensure the loyalty of their troops. Transparency International lists military-owned businesses as a corruption risk for this very reason: it is already difficult enough to root out corruption for regular businesses, but the military adds a layer of complexity that makes it almost impossible to all but armed forces insiders to find evidence of corruption without insider help.<sup>117</sup>

#### Taking Care of Their Own

MCEs are run by officers, for officers and the primary beneficiaries are the officers.<sup>118</sup> In the Indonesian case above, all MCEs are run by either active duty military officers or retired officers, with nominal or partial involvement by civilians. It is also worth noting that in almost all states where MCEs exist, there is a reliance upon conscription for enlisted personnel to fill out the lower ranks. The normal two-year rotation of enlisted recruits means that enlisted personnel are constantly shifting in and out of the ranks, not providing a permanent political bloc or voice within the military. Thus in most cases the enlisted conscripts are excluded from the more substantial benefits of the officer corps, and the officer corps remains the most powerful political unit within the armed forces.

<sup>117</sup> Transparency International UK, *Military-owned Businesses: Corruption and Risk Reform*, 2012 Available at: [http://ti-defence.org/wp-content/uploads/2016/03/2012-01\\_MilitaryOwnedBusinesses.pdf](http://ti-defence.org/wp-content/uploads/2016/03/2012-01_MilitaryOwnedBusinesses.pdf) (Accessed May 16, 2016)

<sup>118</sup> In the Indonesian case, enlisted personnel are beneficiaries of the programs supported by these MCEs as well, but in other states, such as Egypt, conscripts are excluded from second-order benefits packages.

Indonesia is certainly an instructive case in that there is clear leadership by the officer corps in the administration of these MCEs. Military control certainly is not uniform across all MCEs, however, in order to be considered an MCE in the first place there must be some substantial representation of the armed forces in the management of these MCEs.<sup>119</sup> Going back to the example of Turkey's OYAK, while the military does not have an absolutely majority in every administrative body, they are substantially represented in all bodies. An enterprise without significant representation or clear ownership by the armed forces in its governance bodies is not considered an MCE.

Officers are the primary beneficiaries of the operations of MCEs. Having management or ownership over commercial enterprises means that the military leadership now has control over a potentially profit-making enterprise, or at the very least a vehicle through which benefits can flow. In many states the armed forces established at least a partial stake in some of their states' most lucrative industries, ensuring that there would be a constant flow of income. In Ecuador and Peru, the military has a stake in the petroleum industry and the petroleum transportation industry<sup>120</sup>. In Egypt, the military has a management stake in the daily operations of the Suez Canal and its expansion, with every head executive of the Suez Canal Authority since 1960 being either an active or former

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<sup>119</sup> The later data section has a much more in-depth discussion of the components of what is considered "military-controlled", which includes substantial representation on governance bodies.

<sup>120</sup> Mani, Kristina, "Military Empresarios: Approaches to Studying the Military as an Economic Actor", *Bulletin of Latin American Research*, 2010

military officer<sup>121</sup>. In Chile, since 1958 the armed forces have been guaranteed a portion of the profits of the state-owned copper mines of CODELCO.<sup>122</sup>

Through MCEs the armed forces have increased their own resources, which they can apportion out to others as the officers in charge see fit through internal decision-making process within the military leadership. Both junior and senior officers are the beneficiaries of MCEs: the military can afford to better pay junior officers, offer officers benefits packages that would otherwise be unavailable to them, provide a stable and guaranteed retirement package, and reward them with benefits related to the enterprises that are under control of the armed forces.

These MCEs allow the leadership to subsidize the normal officers' wages with earnings from these enterprises in the form of both direct supplements and secondary supplements like low-cost housing, healthcare etc. In addition, an important component of MCEs is that many of them also include an institutionalized pension fund that draws upon the officers' own resources in the form of dues or withheld wages. Many MCEs either began as pension funds, and later expanded into economic giants, or began as business which later were used as a way to increase pension funds or related disability programs. Many of these pension funds utilize the wages of officers as a way to pool risk and to invest their officers into the larger military-commercial apparatus. This arrangement functions much the way of any pay-into-retirement plan, and by giving officers a direct financial

<sup>121</sup> Suez Canal Authority Website, Ibid.

<sup>122</sup> Barton J., Campero C., Maher R., "The Chilean Wage': Mining and the Janus face of the Chilean Development Model", from *Resource Governance in the Global South: Critical International Political Economy Perspectives*, Edited by Nem Singh and France Bourgoiuin, 2013

stake in the military institution, decreases their likelihood of rebellion against any regime, civilian or military, over poor conditions.

### Patronage and Corruption Risks

Many MCEs are straightforward affairs where enterprises are used as a way to fund general benefits to the entire officer class, but MCEs can also be used for more targeted benefits in the form of patronage. There is a reason military ownership of business is listed as a corruption risk by Transparency International, and that is that military enterprises generally do not have outside oversight by civilian bodies<sup>123</sup>. Some enterprises, especially large, formerly state-owned enterprises, will be under much public scrutiny, but many MCEs, especially MCEs under the exclusive control of individuals or local commanders, have no such history of oversight. Indeed, many of them were created entirely from and for military personnel, with civilians playing either a minor or no role.

This kind of patronage relationship can be present at multiple levels: either at the national, sub-national or local level. It was of little surprise that, when the list of winning contractors was announced for the newest expansion of Suez Canal, (the expansion itself was being managed by the Egyptian military) several large Egyptian military-owned construction firms were the primary beneficiaries and winners of the contracts.<sup>124</sup> In the Indonesian case, in addition to the larger institutionalized MCEs that provide benefits to all members of their respective branches, there is also another strata of MCEs in which

<sup>123</sup> Transparency International UK, *Military-owned Businesses: Corruption and Risk Reform*, 2012 Available at: [http://ti-defence.org/wp-content/uploads/2016/03/2012-01\\_MilitaryOwnedBusinesses.pdf](http://ti-defence.org/wp-content/uploads/2016/03/2012-01_MilitaryOwnedBusinesses.pdf) (Accessed May 16, 2016)

<sup>124</sup> "Bahrain's Dar Al-Handasah, Egypt army wins Suez hub project", TradeArabia.com, Available at: [http://www.tradearabia.com/news/CONS\\_263935.html](http://www.tradearabia.com/news/CONS_263935.html) (Accessed June 18, 2016)

local commanders own or operate smaller businesses or conglomerations within their territory. These MCEs are not regulated or subject to the same amount of scrutiny as the national or regional MCEs. In fact, many of the human rights violations reported by groups like Human Rights Watch seem to occur within this strata of MCEs, including logging operations in areas with marginalized or impoverished communities.<sup>125</sup> Local commanders are given substantial autonomy in how they operate their unit's businesses and how they distribute revenues from those businesses.

The existence of these MCEs and their patronage behavior, tolerated or perhaps even encouraged from the national or regional level leadership, are a way for the leadership to keep their officer contingents happy. With military operations having the cover of being vital security operations, and civilian oversight being generally low to non-existent, it is much easier to hide the movement of goods and money. MCEs allow military leaders the opportunity to move goods through patronage networks to disaffected military members or to enhance the loyalty of key military officers. Military ownership of enterprises such as railways and airports allow the military to move goods at will and off book, while ownership of enterprises such as resorts or hotel chains allow leadership to reward loyal members with tangible benefits such as vacations or international travel.

#### Economic Opportunities for Officers

MCEs also provide substantial economic opportunities for officers during active service in the form of training and experience, but also after retirement in the form of a second

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<sup>125</sup> "Too High a Price: The Human Rights Cost of Indonesian Military's Economic Activities", Human Rights Watch, 2006, Available at: <https://www.hrw.org/reports/2006/indonesia0606/> (Accessed June 18, 2016)



possible career. MCEs can also help alleviate the problems of advancement and turnover. Even the largest military institutions have limits on the benefits that they can provide to their soldiers. By enlarging the size of the military with MCEs the military has more both more benefits and more positions to offer its soldiers that are self-sustaining. A junior officer in a state with MCEs can reasonably expect that, if they stay loyal to the military they can expect to enjoy some of the benefits of those MCEs after they have retired.<sup>126</sup> These benefits can take the form of financial subsidies to their salaries or additional important business connections. Experience running businesses will also expand the opportunities that junior officers have should they ever choose to leave military service.

The potential business connections made while in the service can also be a major incentive for junior officers who might think of leaving the service, as access to the correct military personnel at the right time can lead to lucrative contracts. This is well-known in the American experience, as very senior officers are often hired very quickly after retirement by those firms that need an edge in the security industry or with government contracts. In the US, roughly 80% of retired 3-star and 4-star officers worked as defense consultants for major firms once they were out of service.<sup>127</sup> One can extrapolate that an officer with substantial experience as both an officer, and with experience in non-military business affairs will have a wide range of opportunities, both within MCEs and out. A junior officer with an expectation of personal advancement and

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<sup>126</sup> <sup>126</sup> Steinberg, David I. "Burma/Myanmar: The role of the military in the economy", Burma Economic Watch, 1/2005, pg. 18

<sup>127</sup> Bender, Bryan, "From the Pentagon to the private sector", Available at: [http://archive.boston.com/news/nation/washington/articles/2010/12/26/defense\\_firms\\_lure\\_retired\\_generals/](http://archive.boston.com/news/nation/washington/articles/2010/12/26/defense_firms_lure_retired_generals/) (Accessed May 17<sup>th</sup>, 2016)

opportunity within and without the military is much more likely to stay loyal and be happy with the leadership. A junior officer corps struggling to make ends meet is going to be much less predisposed towards giving their leadership the benefit of the doubt, and could provide ample motivation for rebellion in the form of a coup, mutiny or other kind of resistance.

MCEs also fulfill a similar role in placating senior leadership. Senior officers are generally concerned with the long-term aspects of the military as an institution. Development goals and the establishment of MCEs can help alleviate concerns for senior leadership by giving a plausible goal and direction for the military of building up its capacity. In addition, as discussed above, the opportunities for senior officers to be put in positions of immense influence within military MCEs will almost certainly enhance their loyalty to any military regime. MCEs also provide a guarantee that after retirement most senior officers will have an income that can be traced right back to the armed forces instead of the government.

#### MCEs and Political Origins

The central claim of this study is that MCEs serve as an institutional arrangement to keep the armed forces from seizing power in a coup by both satisfying basic military needs and acting as a channel of patronage from leaders to the officer corps. In this way MCEs are established primarily to serve a political end, which is to keep the military out of politics and the leaders in power.

The primary threat to military rule is other military challengers, and MCEs provide a way for leaders to mitigate their political risk. Anticipating challenges from within the ranks of the armed forces is important for the survival of any regime, military or civilian. One of the strongest predictors of an attempted coup is whether or not there was a coup the year before, suggesting that once a military coup has occurred other armed actors might be emboldened to act in the same manner in the future<sup>128</sup>. Indeed, military regimes are one of the most likely governments to be victims of a coup, other than new democracies.<sup>129</sup> Military coups open up the rest of the military as a political actor, empowering not only the original coup actors, but empowering other groups within the military to organize and consider themselves political actors.

Coups encourage other actors to attempt to seize power to claim the benefits of state capture. Military coups are also highly contentious events that are generally considered illegitimate usurpations of the political process, many even among member of the military.<sup>130</sup> While many politicians spend years trying to build coalitions among key elites to maintain their power, coup conspirators may not have had the time to establish themselves in a larger political network and could face major challenges from elements both within and without armed forces that they had not yet had a chance to bring into their political fold.<sup>131</sup> This pattern of coup and counter-coup can also be explained by reactions by the previous regime attempting to return to power, or fissures developing

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<sup>128</sup> Geddes, Wright and Frantz, "Autocratic Breakdown and Regime Transitions", *Perspectives on Politics*, 12(2)

<sup>129</sup> Ibid

<sup>130</sup> This is especially true when there is an ethnic or religious component to the coup, which can encourage military members of a competing ethnicity or religion to oppose the new regime.

<sup>131</sup> There are of course exceptions to this

within the ruling military elite. Regardless of the reason, the military regime not only has the shortest average duration, but also has the highest chance of experiencing challenges to its rule from within the military itself.

The greatest threat a military regime can have is a fracturing of the military's loyalties from within. A military divided against itself can prove disastrous, especially in the worst case scenario of actual violence between armed factions. Even short of violence, publicly-known disputes between pivotal officers can provide opportunities for civilians to mobilize and demand change, which can be a thorn in the side of a military regime and provide a focal point for opposition to the regime. Ensuring that the military does not face internal divisions is of paramount importance to regime leadership, and there are certainly steps the leadership can take to co-opt potential rivals and keep the remaining officer corps happy.<sup>132</sup>

The case study on Egypt will further elaborate on this point, but an instructive example is the relationship between the leadership and the armed forces in the aftermath of the coup bringing Nasser to power. Nasser, Sadat and Mubarak all found themselves during the course of their reigns challenged by powerful opponents within the military.<sup>133</sup> While each leader pursued slightly different strategies, each of them responded in a roughly

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<sup>132</sup> In many cases, military regimes have purged the officer corps of reactionary elements and supporters of the old regime. Koga, Jun, "Authoritarian Consolidation of Power: When can a dictator undermine the threat of coup replacement?", Presentation at Annual Meeting of Southern Political Science Association, Orlando, Florida, 2013

<sup>133</sup> It should be noted that all three were former military, but formally became civilians when they ran for the Presidency. For only a few years Nasser was both a military man and in charge of Egypt, while both Sadat and Mubarak were formally civilians for their entire reigns.

similar way. As both an officer and later a civilian, Nasser increased the military budget and turned over property seized from political opponents to key officers for their support. Sadat, faced with a military budget already consisting of between 35-40% of government expenditures between 1970 and 1978, and nearly 80% in 1973, could not turn to the already cash-strapped government.<sup>134</sup><sup>135</sup> Instead, Sadat encouraged the creation and consolidation of commercial and defense enterprises under the direction of the armed forces. Mubarak also allowed the expansion of military enterprises, passed laws exempting military enterprises from taxation and tariffs, and sold poorly operated state-owned enterprises at low costs to the armed forces. When faced with challenges, each of these leaders transferred enterprises into the hands of the armed forces to engender their loyalty and to keep the military from challenging their rule.

Both military and civilian leadership is certainly aware of the coup challenge from the military, as Collier and Hoeffler find that when the risk of a coup is high in Africa, the government tends to increase the military's budget, regardless of whether the regime was military or civilian<sup>136</sup>. One obvious solution is to raise salaries of junior officers or provide better benefits, which is one reason why the military's budget often increases in

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<sup>134</sup> Gotowicki, Stephen, "The Military in Egyptian Society", Available at: [http://mercury.ethz.ch/serviceengine/Files/ISN/110173/ichaptersection\\_singledocument/f8f2e57-d498-4030-a2da-415bbd572790/en/7.pdf](http://mercury.ethz.ch/serviceengine/Files/ISN/110173/ichaptersection_singledocument/f8f2e57-d498-4030-a2da-415bbd572790/en/7.pdf), pg. 108

<sup>135</sup> According to the United States Arms Control and Disarmament Agency, Egypt was spending roughly 19.6% of its GNP on military spending in 1975, with an average of 14.13% between 1970 and 1979. Source: *World Military Expenditures and Arms Transfers 1970-1979*, United States Arms Control and Disarmament Agency, 1981, Available at: <http://www.state.gov/documents/organization/185663.pdf> (Accessed June 17, 2016)

<sup>136</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'états", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007

the wake of a successful coup<sup>137</sup>. In fact, according to earlier work, higher spending per soldier is highly correlated with much lower coup risk, while lower spending is correlated with a much higher coup risk<sup>138</sup>. Lavish military spending can come at a price though, as a marked increase in military spending can come out of the budget for other non-military programs and undermine support for a military regime or topple a civilian one.

Simply increasing salaries is also not a lasting solution: salaries can be just as sensitive to politics as anything else and it may not be possible for either a civilian or a military regime to commit to increased spending, especially if the budget is already overstretched, as was the case in Egypt under Sadat. There is also no guarantee that increased spending will last, as other priorities or crises may take the attention of either military or civilian regimes. Subsequent regimes might also not be as military-friendly, or have other major priorities that clash with military objectives.

MCEs can be a longer-term solution to all of these considerations of budget and financing that those leaders with foresight can use to their advantage in placating military threats to their tenure. Turning over enterprises to military control can provide relief from military threats and creates a patronage relationship between leaders and the officer corps, increasing regime stability. Beyond just the immediate material benefits that MCEs can provide the officers, MCEs are also fundamentally different in that they also appeal to the more nationalistic or security-concerned officers who want to ensure that the military is

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<sup>137</sup> Leon, Gabriel, "Loyalty for Sale? Military Spending and Coups d'Etat", Address, Faculty of Economics, University of Cambridge, Feb 2012

<sup>138</sup> Powell J., "Determinants of the Attempting and Outcome of Coups d'etat". *Journal of Conflict Resolution* 56(6): 1017-1040

self-sufficient and independent of meddling foreign powers. By giving the armed forces control of their own enterprises, leaders can set up a patronage relationship while still appealing to the basic concerns of the security-minded officer.

### Theory of MCEs and Coup Risk: The Relevant Actors

The military is a gigantic organization with a multitude of actors, all of which are important for its functioning. From a theoretical point of view, there are really only two groups that are politically relevant in this analysis: senior military officers and junior military officers. While other groups are important, it is the officers that are typically the most educated, most motivated, possess the necessary leadership qualities, have political connections outside the military and have the legitimacy and training to lead others<sup>139</sup>. Enlisted personnel, non-commissioned officers and civilian employees of defense institutions are important in their own right to keep the military functioning, but they typically lack the same advantages that the officer class has when it comes to organizing action. More importantly, these groups are typically not politically important or relevant. The civilian components of the military establishment are certainly important, but they are often not subject to the same disciplinary structure or the ideological training as their enlisted or officer counterparts<sup>140</sup>.

<sup>139</sup> For a full demographic breakdown of the US military, for example, the latest *Profile of the Military Community: 2014 Demographics* has information on education attainment, income, family size etc. The overwhelming majority of enlisted personnel (92.1%) have only a high school or GED equivalent, while officers generally also have a high percentage of bachelor's degrees (83.8%) or even an advanced degree (41.3%).

<sup>140</sup> In 2014, the US Department of Defense consisted of over 700,000 civilian employees compared to 1.3 million active duty personnel. <http://www.defense.gov/About-DoD> (Accessed 5/15/2016)

Officers have an advantage over other personnel enlisted personnel as well by virtue of their training: they are much better equipped to organize people into action, whether on the battlefield, in non-combat operations or with regards to political activity by the military. Officers provide the leadership, organization and oftentimes serve as the source of the esprit d'corps that keeps the military functioning as a cohesive unit.

This is borne out empirically as well, with numerous examples of military coups led by the officer corps. The Free Officers of Egypt and Syria are two examples of such coups, which were both perpetrated by junior officers, displacing both the current government and their military superiors. The Coup Group in Thailand was composed of forty junior officers who seized power in 1947<sup>141</sup>. Chile's Augusto Pinochet was a senior general at the time of the 1973 coup, stepping into power within the military junta that seized control of the government<sup>142</sup>. The vast majority of military coups, especially successful ones, are organized and led by officers<sup>143144</sup>.

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<sup>141</sup> Judith, Stowe, "Thailand Becomes Thailand: A Story of Intrigue", C Hurst and Co. Publishers, Ltd, 1991

<sup>142</sup> Valenzuela, Arturo, *A Nation of Enemies: Chile Under Pinochet*. New York, W.W. Norton and Company, 1993

<sup>143</sup> This stylized fact is largely due to many revolts by enlisted personnel being considered mutinies instead of coups. It is often the case that mutinies are put down by other groups within the armed forces, or that the mutineers' aims are much more limited than seizure of the government. For a good discussion on mutinies, see: Hamby, E. Joel, "The Munity Wagon Wheel: A Leadership Model for Munity in Combat", *Armed Forces and Society*, Summer 2002, vol. 28, no. 4 575-600.

<sup>144</sup> This is not to say that enlisted personnel have never rebelled or attempted to seize power, but it is a rare occurrence for their activities to have a large political impact. Indeed, in many cases of enlisted-led rebellion there is typically an attempt to recruit other officers to act as leaders of the coup to legitimize their cause. It is the officer that is almost always behind any political action of consequence by the armed forces, which is why officers will be the subject of analysis for this study.



The two most politically relevant groups, senior officers and the junior officers, both present a threat to leaders, and each have unique personal and institutional incentives<sup>145</sup>. It is the interaction of these incentives and the political-security environment that can produce some important military behavior<sup>146</sup>. In the ideal Huntingtonian conception of senior officers, those who are in the highest leadership positions within the military, have among their highest priorities those which affect the institution of the armed forces as a whole: maintaining respect by the lower ranks of the internal military hierarchy, instilling discipline, managing the loyalty of their troops, administering the military organizations, providing equipment to their troops and pushing government leadership to prioritize security issues in the budget.<sup>147</sup>

The above is not to say that senior leadership is without personal ambition, political agenda or aims that do not align with the defense of the government. There are multiple examples of military officers who came to power for personal benefit, delivery of patronage to their ethnic kinsfolk, or to stamp out a political ideology that directly threatened political allies.<sup>148</sup> Mumamar Gaddafi, a politically active officer from an impoverished Bedouin family, seized power in a coup in 1969, lavishing his tribesmen

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<sup>145</sup> While there is of course a great deal of variety across time and state as to the priorities of either group, generally speaking these two groups in many armed forces face similar dynamics of being in leadership versus being one of many younger, less influential officers.

<sup>146</sup> For the purposes of this project, "junior" and "senior" designations do not align perfectly with a given rank. Rather, Senior officers are those in high command positions while junior officers are generally not. There are of course middle officer ranks such as captain to major. For the purposes of this project, any rank below that of brigadier general is considered "junior", and brigadier and above considered "senior".

<sup>147</sup> Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge: Belknap Press of Harvard University Press, 1957. Print.

<sup>148</sup> Harkness, Kristen "The ethnic army and the state: explaining coup traps and the difficulties of democratization in Africa", *Journal of Conflict Resolution*, June 2016, vol. 60(4), 587-616

with patronage over other Libyan ethnic groups.<sup>149</sup> He also famously filled the ranks of his personal bodyguard with hand-picked women, his so-called Amazonian Guard of which allegations of sexual misconduct by Gaddafi and his inner circle were well-known.<sup>150</sup> <sup>151</sup> Idi Amin, Commander of the Ugandan army at the time of the 1971 coup, established a regime characterized by vicious suppression of rival ethnic groups, along with lavishing his family and supporters with patronage. Indeed, even before his reign he was personally implicated in a scandal involving smuggling the ivory and gold through Uganda from the Democratic Republic of the Congo.<sup>152</sup> That senior leadership have political and personal ambitions beyond those ascribed to them by their uniform is important, as a wealth of evidence suggests that even those in the highest military offices are sensitive to material incentives.

Junior officers also tend to share many of these institutional priorities, along with the power to overturn a leader's regime. Many junior officers are justly concerned about the future direction of the military, especially since their lives may depend upon the decisions of their superiors, both military and political. Where junior and senior officers tend to differ though relates to their relative position within the hierarchy. Senior officers in positions of high leadership are usually at the end of their careers, collecting much higher wages and better benefits, in addition to enjoying political access that such positions may

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<sup>149</sup> Lacher, Wolfram "Libya's Local Elites and the Politics of Alliance Building", *Mediterranean Politics*, 21:1 64-85

<sup>150</sup> Flock, Elizabeth, "Gaddafi's female bodyguards say they were raped, abused by Libyan leader", *Washington Post*, August 29, 2011

<sup>152</sup> Vadav, Vineeta, Bumba Mukherjee, "The Politics of Corruption in Dictatorships", Cambridge University Press, 2016, p.242

provide. In addition, a common complaint heard from junior officers in the developing world is that senior leadership reach their positions by virtue of their political connections, not their skill.<sup>153</sup>

Threat to a leader's survival can come from both the junior and senior officer levels. MCEs can help alleviate the concerns of both: senior officers will have opportunities in these MCEs after retirement, thus not having to worry about their livelihoods and giving them ample contacts within the military-business circles. Junior officers benefit especially because at early career stages, when their pay is much less substantial, they are better provided for with material benefits.

#### A Model of MCEs and Coup Risk

The above informs the theoretical underpinnings of the following theory about how MCEs come about, and have political effects. In the theoretical model for this study, the chief executive of a state is endowed with a certain amount of resources which it can apportion as it needs. Leaders face multiple threats of removal from power, be it replacement from within their own political party, opposition parties, removal by foreign enemies or removal by the armed forces via coup attempt. Leaders must use these resources strategically to reduce their likelihood of removal by any one actor and constantly face pressure by possible usurpers to increase their share of resources. Leaders must act rationally and strategically to maximize their chances of staying in office over time, and shift their resources as new threats rise or increase in magnitude accordingly.

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<sup>153</sup> This was a common complaint heard in the Free Officers' movement of Egypt in the 1950s, mirrored in other parallel officer movements in the region.

Leader decisions about how they allocate resources in this simple model are informed by two major factors: the risks they face from their potential rivals and their resource endowments. It is the combination of these two factors that can lead towards the establishment of MCEs. Leaders will be more responsive to those threats that they believe pose the biggest threat, and consequently allocate the resources commensurate with the amount of risk they face from each threat.<sup>154</sup>

A major assumption in this model is that leaders want to stay in power because it guarantees them a larger share of resources than if they were not in power, even if there are risks associated with some modes of removal as a leader. Leaders have to choose strategically which groups they give resources to, whether those resources will accomplish their goal of reducing removal risk and what the chances of a removal attempt will be both pre- and post-distribution of resources.<sup>155</sup> Those groups that can make credible threats and have the power to remove the leader will get more resources, while those groups that cannot will receive less.<sup>156</sup>

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<sup>154</sup> There is of course, the distinct possibility that leaders have different profiles when it comes to risk assessment and risk acceptance or avoidance. It is also possible that leaders weigh additional factors such as their fates post-removal: leaders likely to face death from removal are going to have a different strategic logic than those leaders faced with returning to be leaders of their own parties. The manner of exit almost certainly matters, but for the purposes of this model removal from power is to be avoided at all costs.

<sup>155</sup> In a more complete model there would also be uncertainty about the actual to perceived threat, and a game within the game where different groups try to exaggerate the amount of removal risk they pose to the leader in order to get more resources. This strategic bluffing on the part of rivals, with the leaders having to assess the threat that each group poses is certainly interesting, but for the purposes of this study a simpler model of non-endogenous removal risk is not needed and beyond the scope of this paper.

<sup>156</sup> Again, a more complete model would include terms for uncertainty, and include additional choices such as the leader spending resources to try and discover the true magnitude of the threat by a group in order to maximize the risk reduction and the resources kept by the leader.

**Table 2: Theoretical Breakdown of the establishment of MCEs**

	<b>High Coup Risk</b>	<b>Low Coup Risk</b>
<b>High Income State</b>	Few cases - Low Probability of MCEs	Low Probability of MCEs
<b>Low Income State</b>	High Probability of MCEs	Low Probability of MCEs

As has been shown above in the literature review, the armed forces are certainly both a threat to leader tenure and sensitive to material incentives. Armed forces that pose a greater coup risk to the leader are more likely to get more resources as leaders fear both the chances of coup success and the possible outcome of a successful coup attempt (i.e. imprisonment, exile or death). The threat of removal by the armed forces is enhanced by factors like prior armed forces coup attempts, statements by military leaders expressing dissatisfaction with leaders, arrests of political personnel or even violence by the armed forces. The threat posed by the armed forces, even if no explicit threat is given or verbalized, is easily recognized by leaders, and the risk of a coup is much more credible in a state with a past history of coups. Given what is at stake for leaders, placating the armed forces is often an important element in determining military spending. However, coup risk alone is not sufficient for explaining the establishment of MCEs. After all leaders could simply offer a higher budget for the military given sufficiently high coup risk and justify the high level of spending by reminding other rivals of what is at stake if the armed forces decide to act.

The resource endowments of leaders are the second important element in the establishment of MCEs. In wealthier nations leaders may be able to afford providing enough resources to reduce their risks of removal to a negligible point for most threats,

and only face a handful of major threats to their removal, such as during elections or intra-party rivalries. In poorer nations leaders may not have enough resources to assuage the demands of any major rivals, leading to chronic instability and very real threats of removal from almost all political quarters. It is already known from copious literature that poorer states tend to have higher rates of instability, especially coups. Often times the leader faces a high coup risk just by being a leader of a resource-poor nation. So when armed forces have a high coup risk, leaders in poor nations may not have enough resources available to sufficiently reduce the risk of a coup attempt to a lower level.

Poor nations often lack reliable taxation collection, suffer from poor credit ratings, low development and have major industries concentrated in a few export goods which are sensitive to price fluctuations. Thus leaders may not have the resources or the flexibility to quickly move resources when their threat profiles change.

If the armed forces pose a big enough threat of removal, and they often do in poorer nations, leaders have to find something to distribute to survive. Leaders then can get creative by offering to turn over other state resources outside of the budget, or by offering the armed forces control over resources that the state does not currently reap much benefit from. Offering ownership or management of businesses to the military can help fill the coup risk gap by providing the armed forces with resources that would not have been of immediate help to the leader. Leaders can offer the armed forces recently nationalized properties, give them exclusive rights to certain industries, give them tax or customs exceptions or empower them as the only legal provider of transportation etc., all

of which may result in negligible increases in risk from other parties but greatly decreases the risk of removal by the military. Giving the armed forces MCEs can be a way of reducing coup risk relatively cheaply, at least in political terms.

In Egypt and Cuba, the armed forces were given miles and miles of beach front property that at that time was completely undeveloped but was in a prime location for tourism. Much of the property had been in the hands of political opponents or businessmen that had fled the country after political turmoil. The state was not currently reaping any benefits from those areas in the form of taxes or other levies, but by handing it over for military ownership the leaders were able to off-load properties that were at the time useless for the leader but could prove useful to the military if given time and resources to be developed – resources that the leaders did not have at their respective times. Nasser was too busy consolidating his rule and building up his forces for a confrontation with Israel, while Castro was doing the same. By turning over properties that were not immediately valuable to the leader, the armed forces were able to gain future properties that would prove to be valuable.<sup>157</sup>

The creation of MCEs then is a strategic choice by leaders, both civilian and military, as a way to discourage discontent and rebellion within the ranks of the officer corps. MCEs are a result of leaders making decisions about how to apportion their limited resources

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<sup>157</sup> In these two cases, the prospects of the leader being able to sell these properties to interested buyers was likely beyond their capabilities and anathema to their political agendas as the time. Castro selling these properties in order to use the funds to consolidate his rule would have run against his political ideology. Nasser selling his properties to foreign businessmen would have been unlikely given the political climate, security environment and Egypt's rather undeveloped tourism industry at the time.

both to decrease the chances of revolt within the military and to satisfy the basic requirements of national security. In the same way that previous studies had found that increased military spending is correlated with a lower coup risk, the financial benefits MCEs should also serve much the same function.

This also means that the creation of MCEs and their hypothesized effects on civil-military relations, which is to reduce coup risk, is also dependent upon initial coup risk. This endogenous relationship is important to note because MCEs are not created in a political vacuum, but rather as a result of leaders having to make strategic decisions under political pressure. By establishing MCEs leaders are turning over control of important entities to the military not necessarily because they have faith in the military's ability to aid in development or have a high amount of confidence in military entrepreneurship, but rather because leaders are faced with extreme resource constraints and needed to provide something to the armed forces to survive as leader. Leaders are able to use MCEs as bargaining chips in order to gain political favor with the officer corps, turning over businesses and properties to military leaders in order to undermine rivals, all of which reduces the likelihood of a coup attempt.

This strategic logic applies to civilian and military chief executives alike. This seems an odd statement to make, because after all if a military officer takes charge it is expected that the officer or officers in charge will represent the view of the officer corps. While military leaders may be more predisposed towards understanding military needs than civilians, both civilian and military leaders can be deposed by a coup attempt. Military



leaders may initially have more political capital with the officer corps than a civilian leader, but military leaders will be under intense scrutiny from the rest of the officer corps to deliver on their promises, and their chances of being punished for not living up to those expectations are non-trivial. Limitations on leaders by their resource endowments will still limit a military leader's options, giving them very similar choice sets as their civilian leader counterparts. Military leaders will have to scare up additional resources that civilian leaders were unable to uncover if they want to change the equation, which means that resource endowments will remain an enduring constraint on leaders of any origins. Military leaders turning to the creation of MCEs also reduces the likelihood that a military leader will be removed via coup, as the turning over of MCEs is a visible sign that the leader is taking core officer interests seriously.

Conversely, it is also expected that if a leader tries to take away MCEs from the armed forces there will be a higher coup risk. During times of low coup risk a leader might decide that taking control of military MCEs might be a good policy, either for reasons of professionalism or politics, and move to restrict access by the armed forces, remove monopolies or reduce subsidies etc. This can be seen as a direct threat to the welfare of the officer corps, especially as these MCEs usually provide direct financial benefits to the officers personally. Moving too quickly to remove MCEs from military control can result in a higher coup risk and a possible coup, as the officers will see a marked decrease in quality of life as a result of losing their MCEs with the sole responsibility being hung upon the leader's shoulders. Thus leaders will have to move carefully to fill the financial gap left by the MCEs, and increase defense spending to cover the costs and previous

benefits the officer corps enjoyed as a result of the MCEs, if they do decide to remove MCEs.

Two examples of this dynamic are Egypt and China. President Morsi was widely viewed within the military with skepticism, but the armed forces largely worked with him at arms' length until his proposed Suez Canal proposal, which wanted to utilize non-military contractors to improve the Canal. Military opinion shifted as Morsi was seen to be undermining military control of economic resources, and he was removed from power shortly after.

A different example of this is with the Chinese PLA's growth and fall in military entrepreneurship. During the 1980s and 90s, the PLA engaged heartily in business operations, with very nearly every military unit creating or establishing businesses. At its height, the PLA had thousands of businesses across China at all levels of command, and was a major driver of China's explosive economic growth during that time. The Communist Party, in response to the growing potential threat this posed, and the renewed threat that the US posed during the Taiwan Straits crisis, decided to order the PLA out of business. While the PLA largely complied with the orders, the military budget over the next few years expanded considerably, which was seen as the result of bargaining between the party and the PLA. By taking on the role and responsibility of funding PLA personnel that MCEs had earlier provided, the Communist Party was able to limit the discontent with the order to get out of business and keep the PLA happy.

The establishment of MCEs then is not a one-way street of poverty and coup risk leading towards ever more and larger MCEs. As resource endowments change, leaders have more options to deal with threats to their leadership and can afford to decouple military control of MCEs with promises of more benefits coming from state coffers instead of MCEs themselves. So there is a route out of a MCE-coup trap: development. This also means that in states with chronic poverty and coup risk, both of which are related to one another, leaders may never be able to break the cycle barring outside intervention.

It is important to remember the critical role that resource endowments have in this theory. Most wealthy nations need not worry about this issue, as they have enough resources to keep their officers' salaries competitive, benefits reasonable, and their protectors happy. Poor nations often lack these basic capabilities, and MCEs usually fill this role that central governments are incapable or unwilling to take on. Wealthy nations' leaders need not have MCEs as their state budgets can accommodate the financial needs of an expensive military, while poorer nations' leaders develop them out of both political expediency to reduce the risk of a coup and to fulfill basic needs of their soldiery.

#### MCEs, Regime Type, and Income

The above theoretical framework makes it clear that resource endowments and coup risk are important factors for both the establishment of MCEs. The effects of MCEs on coup risk though, are themselves mediated by a variety of other related factors such as the wealth of a state and its regime type. The following section explores how the effects of MCEs are mediated by these factors.

Of primary importance to the theory, the mechanism through which MCEs affect coup risk are primarily through the transference of goods to the control of the officer corps which improves their material well-being. In states with lower income, MCEs allow both political and military leaders to distribute more goods to the officer corps. MCEs serve to fill in the gap for officer pay and benefits when the government is unable or unwilling to provide such benefits, and allow political leaders to reduce their coup risk cheaply. In poorer states, where the government is unable to pay competitive salaries or provide long-term benefits to soldiers, the benefits provided to officers by these MCEs will have a great impact on their livelihoods. As a state's wealth increases, a state will be able to apportion more wealth towards its armed forces, decreasing the marginal increase in benefits per officer provided by MCEs. The richer the state, the lower the marginal benefit provided by MCEs, and thus the lower effect of MCEs on coup risk as income increases.

An increase in wealth also has other related effects that could impact coup risk, and other scholarship has found that an increase in wealth leads to lower likelihood of coup attempts overall<sup>158</sup>. So while MCEs have a significant impact at lower levels of development, their effects will be muted as income rises. An increase in the level of development of a state will override the benefits of MCEs, especially if the government is willing to spend more on the armed forces commensurate with their increase in revenue.

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<sup>158</sup> Collier, Paul, Hoeffler, Anke, "Grand Extortion: Coup Risk and the Military as a Protection Racket", Centre for the Study of African Economics, Department of Economics, Oxford University, April 2006

The long-standing debate about the relationship between democracy and development also figures into the discussion of MCEs. Przeworski et. al. make the claim that income does not necessarily lead towards democratization, but rather that as income increases the likelihood that a state transitions away from democracy becomes increasingly unlikely<sup>159</sup>. The major claim is that democratization is the result of an exogenous change in development – democracy does not have a large impact on development but development has a large impact on the reversion from democracy to autocracy. The authors delve into the possible mechanisms of how development helps democracies from reverting to autocracy, but they remain agnostic on the subject of whether development has a relationship with the occurrence of regime transitions, only that it is extremely unlikely for a democracy to revert to autocracy past a certain level of development. The level of development that the paper arrives at for democratization is \$7,000 – past this point it is exceedingly unlikely for a democracy to transition to autocracy.

Przeworski et. al.'s work on democratization and development shows evidence that development is in some way related to regime transitions, but their argument is still lacking in disaggregated evidence that shows that certain types of regime transitions are more or less likely to occur given different levels of income. If their theory is correct, then at higher levels of income we should see fewer of those kinds of transition events

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<sup>159</sup> PRZEWORSKI, A., and LIMONGI, F. 1997. Modernization: theories and facts. *World Politics* , 49: 155–83.; PRZEWORSKI, A., ALVAREZ, M. E., CHEIBUB, J. A. and LIMONGI, F. 2000. *Democracy and Development: Political Institutions and Well-Being in the World , 1950–1990*. Princeton: Princeton University Press.

that are likely to lead towards democratic breakdown. Conversely, we should see more of those kinds of events at lower levels of development.<sup>160</sup>

Coups are one such transition event that are likely to lead to military governments or autocracy. A plausible mechanism for the decrease in transitions from democracy at higher levels of income, left unexplored by Przeworski et.al, is that as income increases, governments are able to spend increasing amounts on their armed forces. If this is true, then we should see fewer coup attempts at higher levels of development, which could confirm one part of Przeworski et.al's argument that development leads to lower levels of certain kinds of events that more likely lead to autocratization.<sup>161</sup> This is not to suggest that coups and military political interventions are the most important part or even the bulk of all cases of regime transitions, but rather that as income increases it leads towards one particular avenue of democratic breakdown, the coup d'état, becoming less likely.

There is some evidence to support this proposition: Poor autocracies behave much the same as poor democracies when it comes to coup risk (6% chance of a coup attempt in a given country for autocracies year versus 4.5% for democracies).<sup>162</sup> The coup risk in richer countries for democracies is only 0.3%, while in richer autocracies the risk is 2.3%.

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<sup>160</sup> A transition event is anything that leads to a change in leadership. Thus, you can have a transition event that leads from democracy to autocracy, autocracy to democracy, one level of democracy to another level democracy or one level of autocracy to another level of autocracy. The transition events Przeworski et. al. focused on were primarily of the first two varieties.

<sup>161</sup> Military coups, to be sure, can also eventually lead to democratization, though there is also typically in those cases an interim military caretaker government in which the military is the political power of the state.

<sup>162</sup> Poor in this case means any state with less than \$7,000 GDP per capita. While rich are those above \$7,000.

This gives at least some preliminary evidence that, as income increases, one mode of regime breakdown that favors changes to autocracy are significantly reduced, which supports Przeworski et. al.'s thesis, and this study's claim that there is an underlying mechanism that reduces the likelihood of at least this particular form of democratic breakdown.

Coups are not just a means of democratic breakdown, but also a means of autocratic breakdown as well. Poor autocracies are 50% more likely to experience coups than poor democracies, and rich autocracies are seven and a half more times likely to experience coups than rich democracies, which means that for autocrats the specter of a military takeover is a much greater worry on average. Autocrats are sensitive to the needs of the armed forces, and set up a wide variety of institutions to ward off challenges to their rule from a variety of potential challengers.<sup>163</sup> Autocrats can set up nominally democratic institutions, single-party systems or engage in coup-proofing, depending on their particular removal risk profile. In the case of the armed forces, fewer political institutional options are available, so autocrats have to become more creative in order to lower their risk of removal – of which MCEs can play a part.

**Table 3: Average Spending per soldier by regime type and MCE presence**

Average Spending per Soldier				
	Autocracies (All)	Poor Autocracies	Democracies (All)	Poor Democracies
All	13,596.40	4,786.00	34,077.30	7,161.00
With MCEs	8,492.70	7,948.00	15,027.30	8,420.00

<sup>163</sup> Gandhi, Jennifer; Przeworski, Adam, "Authoritarian Institutions and the Survival of Autocrats", *Comparative Political Studies*, Vol. 40, No. 11, November 2007

<b>Without MCEs</b>	15,257.10	4,347.00	35,921.80	7,061.00
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Table 3 shows some interesting trends with respect to expenditures per soldier between democracies and autocracies, broken down by income. In this table, the division between a “rich” and a “poor” state is the \$7,000 GDP per capita mark identified by Przeworski et. al. Interestingly, as row 1 shows, on average all autocracies tend to spend almost half as much as all democracies do on their soldiers. The difference between poor autocracies and poor democracies is a difference of roughly \$2,300, with spending per soldier in autocracies roughly 66% of that in even poor democracies. This suggests that soldiers in democracies are much better taken care of than their autocratic counter-parts, which likely spills over into areas such as pay, healthcare, education and other benefits that have a meaningful impact on their personal welfare.<sup>164</sup> Given that we are looking just at poor democracies, there must be something about democracies, not income alone, that lead the state to provide more for its soldiers than poor autocracies in the same wealth category.

The difference is quite stark between autocracies and democracies when it comes to expenditures per soldier, and even more stark when it comes to the presence of MCEs. In those poor autocracies without MCEs, the spending per soldier is roughly the same as the full sample: \$4,786. In those poor autocracies with MCEs, the military spending per soldier almost doubles to \$7,948, or just \$500 shy of poor democracies with MCEs, and higher than poor democracies without MCEs! This suggests that poor autocracies with MCEs are able to effectively use those MCEs to funnel material benefits to their soldiers

<sup>164</sup> Poor autocracies generally have larger armies than poorer democracies, as poor autocracies on average have armies of 180,000 while poor democracies average 120,000.



through these MCEs.<sup>165</sup> Moving from \$4,786 to \$7,948 is an over 80% increase in spending, which means that the marginal benefit of having an MCE in a poor autocracy leads is very high. By comparison, MCEs in poor democracies also increases spending per soldier, but only by 20% on average from \$7,061 to \$8,420. This marginal difference is substantial, but not nearly as great as an 80% leap in spending per soldier. This means that MCEs have an incredible marginal benefit in poor autocracies, and likely have a large effect on coup risk in poor autocracies. And conversely, that that their marginal benefit in democracies leads to a much lower effect on coup risk in poor democracies.

### Hypotheses

This framework informs the first of several hypotheses about the role of MCEs in politics. MCEs provide the military with additional resources to buttress the financial situation of its officers. This in turn reduces the likelihood that officers will feel discontent and attempt to rectify their situation with violence. Having more benefits means that officers, of both the senior and junior variety, will be less likely to plan and execute coup attempts if they are well taken care of. An important note here is that when discussing MCEs, the type of MCE that should have the most important theorized impact are those highly institutionalized MCEs that encompass both commercial and defense MCEs.

Institutional MCEs are the best equipped to take care of the welfare of its soldiers, owing that the fact that they are typically much larger, and those in charge of administering

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<sup>165</sup> It should be pointed out that for most armed forces with MCEs, expenditures related to their economic holdings are not reported in military spending according to sources such as the IISS and SIPRI, which tracks military expenditures.

these MCEs have a much different incentive structure than those officers who might own MCEs individually. In addition, those states where both commercial and defense MCEs exist simultaneously suggest several points 1) that the military is much better organized, suggesting a higher degree of institutionalization, 2) that the military controls more than one potential avenue through which it can push benefits and patronage, 3) that the military-business-defense complex is highly developed and 4) that by having both commercial and defense MCEs the military leadership's concerns encompass the entirety of the military mission, not simply their own narrow personal interests.

**Hypothesis 1: *Institutional MCEs will reduce the likelihood of a coup attempt within autocracies.***

This leads into a secondary hypothesis, which is that MCEs can take several years to see the immediate benefits. An MCE in its first year cannot possibly have the same reach and strength that a well-developed MCE in its 10<sup>th</sup> or 20<sup>th</sup> year could have. MCEs require time to grow in order to see much progress and to acquire new holdings to be able to disburse benefits. As many MCEs have a pension fund as a component of their financing, it may take decades for officers that were at a junior level when an MCE was established to actually see the financial benefits that they were contributing towards. So the longer an MCE is in operation, the more institutionalized the benefits will be, the greater benefits there will be for individual officers, and a higher chance that the officers will actually see benefits and see an improvement in their conditions.

**Hypothesis 2: The longer a state has an institutional MCEs, the lower the probability that it will suffer a coup attempt.**

The primary mechanism through which *Institutional MCEs* work to reduce coup risk is by benefitting the material welfare of the state's officers. In states with lower income, MCEs allow both political and military leaders to distribute more goods to the officer corps. This is especially important in states where states have smaller budgets and fewer resources to spend on the armed forces – *Institutional MCEs* are an alternative way for cash-strapped leaders to reduce their coup risk. As income increases though, the amount that a state is able to apportion towards the armed forces will increase. It is expected that as a state is better able to provide financial benefits directly from the state budget instead of through MCEs, that the effects of *Institutional MCEs* in reducing coup likelihood will fall.

**Hypothesis 3: *Institutional MCEs* will reduce the likelihood of a coup attempt at lower levels of income, and have increasingly smaller effects as income increases.**

In line with the above hypothesis, *Institutional MCEs* will have increasingly smaller impact with regard to coup risk as income increases. This hypothesis is based upon the literature on exogenous democratization by Przeworski et. al., in which higher income prevents democratic regimes from failing and reverting to autocracy. In their work they found that past \$7,000 GDP per capita, the likelihood of a democratic reversion to autocracy was incredibly unlikely. While their overall conclusion was that development

has a role in preventing democratic failure, they remain agnostic on whether or not development has a causal role in the frequency of *any* transition occurring. The following study disputes this claim, showing that development does seem to decrease the likelihood of one vehicle for regime transition: the coup attempt by armed forces.

### Conclusion

This chapter set forth the necessary background on MCEs, and provided both the theoretical framework and theoretical expectations for the relationship between military ownership of businesses and coup risk. MCEs are a strategic choice by leaders to minimize their coup risk given few state resources. This section laid out the expectations with regards to coup risk, income, and regime types, showing the disparate effects of MCEs by these critical categories. The next section will evaluate whether these hypotheses are correct using an original dataset that collected data on military control of enterprises between 1950 and 2010. The data will test the above hypotheses about the political impact of MCEs on behavior by the armed forces. Testing the coup-proofing qualities of MCEs will be the next step.

## Chapter 3: Introducing the Military-Controlled Enterprises Dataset

### Introduction and Definitions

This chapter will explore the primary explanatory variable of interest in this study, military ownership or management of economic enterprises. This chapter will begin with an introduction to the multiple approaches used to gather the data, how coding decisions were made, how the challenge of a data-poor environment was overcome, and ending with a discussion of the major descriptive statistics. The purpose of this chapter is to familiarize the reader with the primary explanatory variable of interest, Military-Controlled Enterprises (MCEs) and describe the original dataset that has been constructed to answer the question of whether these MCEs matter for reducing coup risk. The chapter will familiarize the reader with the coding decisions making up the primary explanatory variable, *Institutional Control of MCEs*, as well as some summary statistics and data visualizations. A summary of the steps taken to create this dataset, including a full list of all sources used is available in the appendix under “Sources”.

The motivating interest in this project is the relationship between military institutions and commercial institutions. The point is to explore whether there are any political consequences of military institutions having a large economic footprint in the form of ownership or management roles of enterprises. As the theory chapter delved into, there may be a compelling reason to think that MCEs are a vehicle for leaders to coup-proof their regimes. By creating businesses under the control of the armed forces, leaders create networks of patronage that provide tangible benefits to the officer corps, the class most able to seize power in the armed forces. An officer corps that feels neglected, underpaid or whose basic needs are not provided for in a dangerous line of work is fertile ground for

a rebellion. Exploring this particular coup-proofing strategy by leaders to address or head off grievances within the officer corps is the centerpiece of this study.

Towards that end, at the outset this project needed to disentangle several important phenomena with clear definitions of each in order to move forward. Firstly, there must be an appropriate definition of terms for what exactly is meant by “military”. In the broadest sense, the military is the collection of officers, enlisted personnel, and the civilian employees of defense agencies who are tasked with the defense of a state. This should distinguish between the three major groups of military institutions: officers, enlisted and civilians. While there is a robust literature on the oftentimes major differences in both preferences and motivations of officers and enlisted, there is an undeniably closer connection between officers and enlisted than between civilian and either other category<sup>166</sup>. Officers and enlisted work and train together every day, belong to the same chain of command, and operate under the same set of legal rules and regulations. It makes sense then to group officers and enlisted under one umbrella group of the “armed forces” as distinct from the civilian members or civilian agencies. “Armed forces” shall refer to the officers and enlisted personnel of the state’s security services.

In many states there are other groups besides formal, Western-style military organizations: many states include in their state security sector paramilitary organizations, gendarmerie, mercenary auxiliaries, national police, people’s defense

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<sup>166</sup> As a short example, the US military demographic report for 2013 shows a large disparity between minority representation in the officer corps versus enlisted ranks. There are further disparities along educational attainment, age, marital status gender,

units, subnational regional defense units, internal security, pro-government militias etc. For the purposes of this project, any organization that is not under the umbrella of a state's official security apparatus is not included. This also excludes rebel groups unless they are able to capture the state and become part of the formal security sector of the state. Armed groups aligned with the government, but not formally part of the state are not included.

The other pillar of this project is the observation of enterprises that could be under the control of the military. The term "military-controlled enterprise", or MCE, refers to an enterprise under the control of the armed forces. The project is focused upon both commercial ownership and on enterprises engaged in the production of military equipment- weapons, ammunition, transports, armor etc., in addition to enterprises that produce goods of a non-military nature. "Commercial" MCEs are those that are engaged in the production of goods that are strictly non-military in purpose, including things like manufactured products, transportation, financial goods, hospitality etc.. "Defense" MCEs include all enterprises that are engaged in the production of military or dual-use products such as arms, equipment and ammunition for war-fighting. Including both of these phenomena is important for constructing the *Institutional MCE* variable and it is important at the outset to establish the parameter of what is being studied.

### Theory

As stated in the theory chapter, leaders must make strategic calculations about how state resources are appropriated. These strategic calculations are molded by a variety of factors, though from the standpoint of a strictly rational choice theory, the chief among

these factors must be the motivation to stay in power and therefore to stay in control of state resources. Leaders face a variety of challenges to their rule, from opposition parties, rebels, intra-party rivals to the armed forces, and must allocate resources to minimize their risks of removal from any one source. The armed forces in particular is one group that has both the capability and oftentimes the credibility to remove a leader from power, with their access to weapons and history of intervention in many states. Leaders lavishing the armed forces with an increased military budget is one way to keep the officers of the armed forces from accumulating grievances, but by doing so leaders stretch state resources. In states with few government resources leaders may face many threats but not have nearly enough resources to lower coup risk to acceptable levels with available resources. As a result, leaders may have to seek alternative ways to lower their coup risks.

MCEs are one alternative that leaders can turn to in order to lower coup risk. A leader may not have in their immediate control fungible monetary resources to give the armed forces, but could hand over control of state institutions, enterprises or sanction the exclusive rights of military units to engage in a commercial activity. Cash-strapped regimes can transfer state-owned enterprises to military control or provide start-up funding for military enterprises. Lower-income states that may not have available capital can turn to MCEs as a method to lower coup risks.

These MCEs provide several coup-proofing benefits: by establishing MCEs the armed forces are able to generate their own funding to cover personnel costs and reduce



grievances that could be created by poor pay or benefits in a hazardous job. MCEs provide material benefits to the officer corps, lowering personal grievances while creating more financial opportunities for officers. Commercial MCEs fulfill the material needs of personnel through pension funds, income supplements and benefits. Defense MCEs provide the military with the ability to produce its own weapons and equipment, allowing the leader and military elites to publicly show that they take military concerns seriously. Defense MCEs also typically require intense financial capitalization in order to function, and as with commercial MCEs, the flow of capital can also be used as a channel of patronage between state leaders and military leaders and between military elite and other officers. The effect should then come from two routes: the officer corps should have far fewer grievances stemming from personal financial or material issues, and the military elite will be able to allocate resources across the officer corps to limit the likelihood of intra-service grievances among military leadership.

The presence of both commercial and defense MCEs in a given country-year should reduce the likelihood that the armed forces will attempt to remove the leader in the form of a coup attempt. Commercial and defense MCEs are vehicles for resource allocation, both through the legitimate establishment of benefits programs and through more illegitimate forms of corruption and patronage. The data on MCEs below is designed to measure whether in a given country-year whether the armed forces have control of both commercial and defense MCEs. Below is the coding criterion, along with some summary statistics of the data.

### Data – Coding Criterion

The overall strategy for this data portion was to gather data on several major categories with the anticipation that they would be combined into meaningful composite variables later on. For this project, the unit of analysis is the country-year. In all there were 5 variables coded for each country year with regards to the military-commercial relationships with an explanation to follow for each<sup>167</sup>:

**Table 1: Major Variables Collected**

Major Variables	Description
Military Controlled Enterprises	Coded as "1" if there were any MCEs in that year
Commercial MCE	Coded as "1" if there were any commercial MCEs in that year
Defense Production MCE	Coded as "1" if there were any Defense MCEs in that year
Individual vs. Institutional	Coded as a "1" for institutional control, "2" for individual control, "3" for both
Controlling Entity	Coded as a "1" for armed forces, "2" for ministry, "3" for both

Table 1 displays the major variables that will serve as the larger categories to be used when creating composite variables. These variables differentiate between several kinds of military-commercial relationships. There were some methodological difficulties that arose when coding the data, and encountering certain circumstances and relationships that were not anticipated at the beginning of the data-gathering process. These are discussed below with each corresponding variable.

<sup>167</sup> There were three additional variables that I collected early on, including military-ownership, state-owned enterprises and a variable for which sectors the ownership/management occurred in but that data collection had to be dropped due to lack of consistent, and quality data.

In addition there were three other variables that accompanied the above four that reference the relative confidence that was felt when coding the data. These will be used in the analytics section as a weight for each country-year data point:

**Table 2: Reference Variables**

Reference Variables	Description
Coder Confidence	Coded "1-4" for level of confidence in coding decisions
References	Coded "1-8" for type of source used in coding decisions
Coding Regime	Coded "1" for original scheme, "2" for expanded

Table 2 is has a list of reference variables. Further explanation of how each of these variables were coded is included below as well. These are available in the appendix.

### Military Controlled Enterprises

The primary relationship that is of interest is that of control of an enterprise by the armed forces and uniformed officers. The first variable, *Military-Controlled Enterprise*, is a placeholder for whether *any defense institution has ownership or management over any commercial or defense production enterprises*. This is both the most important barometer, and a first-cut variable for the rest of the dataset: ownership and management give the armed forces access to resources, economic privileges and insider information that can be used to enhance its own power or use as leverage against opponents internal to the armed forces and political bodies outside the military. There had to be clear evidence that an enterprise was either owned or managed by a military or defense institution to be counted as a "1" in *Military Controlled Enterprise*.

Ownership was established through several metrics<sup>168</sup>:

<sup>168</sup> There are certainly other metrics to establish management or ownership between military institutions and commercial enterprises, such as laws allowing military voting rights in parliament, military control of

- 1) Formal legally sanctioned ownership of business enterprises
- 2) Formal legally sanctioned management duties of an enterprise
- 3) Majority or entirety representation of or by active military personnel on governance or executive bodies in an enterprise
- 4) A controlling financial stake in the enterprise
- 5) "Informal" management or ownership of a business enterprise

A country-year was coded as a "1" if any one of these categories was found to exist, and "0" if none of them existed. Evidence of any of these relationships were found in a number of sources: national legislation, organizational charts showing clear hierarchy and placement of enterprises, financial reporting from 3<sup>rd</sup> party sites, audits of military organizations, enterprise websites, enterprise by-laws, news reports, government press releases, NGO reports, interviews with experts. If documentation clearly showed that there was a relationship where a defense institution had a clear controlling interest in an enterprise it would be included in this criterion. Ideally there would be multiple corroborating sources, but more often ownership was established through a collection of expert opinion, enterprise websites, and legal documentation found by other experts.

Ownership metrics for one, two and three were the easiest to establish and the most plentiful. There are plenty of experts well-versed in their country of expertise who were able to uncover legal documentation of ownership or management. In addition, many enterprises had websites with the full panel of executive directors, board members or specifically include a governance panel that was made primarily of military personnel. The fourth metric was a bit trickier to establish outside of Europe and North America- oftentimes these enterprises would include some kind of statement of ownership in their

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government, or official military membership on political economic committees etc. but I think that these provide the clearest and least ambiguous story with regards to patterns of power between military and commercial enterprises.

company histories or document changes of ownership. Third-party companies that collected financial stake or percentage ownership data were also sometimes available. The final metrics, informal ownership or management, was also plentiful but also the least verifiable. Often times this kind of relationship was difficult to pin down and was reliant upon expert opinions and accounts. When only expert opinion (and no other documentation verifying the relationship) was available, these were counted as evidence positive, but given the lowest confidence so as to have the lowest weight<sup>169</sup>.

Finding positive evidence of the ownership by military institutions was complicated, but finding evidence of a lack of ownership was also complicated. If an exhaustive search of secondary literature and available open-source resources did not reveal any sources with evidence of military ownership of commercial enterprises, one could not simply use this as evidence that military-ownership did not exist. At best it could be considered a missing value, as coding it as a “0” would be suspect, even with the lowest confidence. Instead, to compensate for this the only time a “0” was coded was when an expert’s opinion explicitly said there was no ownership of business by military institutions. While it is likely that the expert themselves combed their own sources and went through the same process of not finding anything and forming an opinion, their expert opinions would hopefully go much further with a skeptical audience than a graduate student unfamiliar with the nuances of Moldovan military organization putting forward a similar opinion. Thus, in a strange twist for a dataset on an information poor subject, there are more “1”s

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<sup>169</sup> There were of course exceptions- some expert opinions did not seem wholly reliable and thus were treated as a missing value for that country year. Most experts were quite honest in their lack of knowledge however, especially in the TI surveys.

coded in the dataset than “0”s for the variable **mce**. A second coding regime to alleviate the issue of missing values will be explained later on.

#### Military-controlled enterprises – Commercial

The criterion for inclusion as a commercial MCE was that the enterprise be a:

- 1) commercial enterprise that is
- 2) owned or managed by a military institution that
- 3) offered goods and services to the general public and
- 4) there must be at least one *named enterprise*.

If all of these criterion are met, that country year is coded as a “1”. What is meant by “control” has been established already. By “commercial enterprise” it is meant to include any enterprise that engages in the production or goods or services that are available to the *general public*. While this may seem obvious, this is an important distinction that separates two entities: those that have offerings to only the military “public” versus those that offer services to the general public.

To some degree, all armed forces own or operate some enterprises dedicated to serving their personnel in which goods or services are exchanged for monetary compensation, often at deep discounts beyond what could be found on the open civilian market. The US military has ownership of and manages several such companies, such as the US Defense Commissary Agency, which secures food and other supplies for resale to military bases around the world at subsidized prices for military personnel<sup>170</sup>. These opportunities are available solely for military personnel and their immediate family. Other enterprises such as Navy Federal Credit Union operate under the jurisdiction of the National Credit Union

<sup>170</sup> <https://www.commissaries.com/history.cfm>

Administration, but under its charter serves only uniformed and retired military personnel and their families<sup>171</sup>.

While it is tempting to include these enterprises as examples of military-controlled commercial enterprises there are two points to be made: 1) including enterprises such as these would have undoubtedly expanded the dataset but it would have also led to absolutely no variation as virtually all countries would have had these kinds of military-owned enterprises, 2) military-service only enterprises only serve a small portion of the population at any given time and thus their footprint is typically relatively small, 3) the dataset is supposed to provide an idea of military-commercial power outside of the organization itself- it should be no surprise that the armed forces is able to control the flow of benefits within its membership and 4) while these enterprises can certainly be used to influence its members, it is difficult to see how ownership of these enterprises is *politically meaningful*. For all these reasons the decision was made to include only those enterprises that serve a population outside of the armed forces establishment.

The final criterion is that there must be a named enterprise in the country-year. This is to provide an extra layer of authenticity to the dataset, and provide additional credence to the coding decisions. If the enterprise did not have a name, and no names could be found to corroborate expert or secondary sources, then it was not included as a “1”.<sup>172</sup>

<sup>171</sup> <https://www.navyfederal.org/about/about.php>

<sup>172</sup> The only exception to this is if there was an overwhelming majority of sources (i.e. more than 4) that confirmed the existence of commercial MCEs- but this was a rare occurrence to have such agreement without named enterprises.

Additionally, the same procedure for “0” coding decisions was used here, that an expert would have to explicitly say that there was no MCE.

#### Military-controlled enterprises – Defense Production

There are some very good reasons to include a variable on the production of military equipment despite its non-commercial nature. The production of military equipment is big business and very expensive, which gives opportunities for military leaders to spread that money around both for legitimate warfighting purposes as well as for patronage purposes. By having control of these enterprises it enhances the military’s power relative to other actors in society, in addition to providing the military with the ability to supply itself with needed equipment and munitions. Outside of deep investigative reporting on notable cases, it is impossible to say if these funds are used honestly by military institutions or for patronage purposes. Having control over such enterprises, at the least, does pose a corruption risk and can only add to the ability of military leaders to use such resources for non-warfighting purposes. This is especially true in environments where the budget is not regularly audited and financial oversight powers of other agencies are weak or non-existent.

The criterion for inclusion as a defense production MCE was that the enterprise must be:

- 1) capable of producing military goods
- 2) owned or managed by a military institution.

A country-year was coded as a “1” if all of these were found to exist simultaneously, and “0” if one of did not exist. A slightly different criterion was used here for the defense production MCEs than for the commercial. There are more plentiful sources when it comes to native defense industries, and much more comprehensive and in-depth



resources to explore. Several reliable sources were consulted for each country to check if there was in fact first a native defense industry. Then every listed entity was checked to see if it was or ever had been owned and operated by the military, and if so, the date it was created, and when management changed to or from civilian control, if at all.

### Military controlled Enterprises – Type

There were three possible coding choices for this variable:

- 1) institutional control of MCEs
- 2) individual control of MCEs
- 3) the existence of both kinds of control relationships.

The purpose of this variable was to differentiate between different patterns of ownership - if the control was fragmented between multiple owners or if there was a tighter, stronger control of MCEs by a central institution. This is a meaningful distinction, because it is a profoundly different arrangement if a single general or cabal of officers has a personal financial stake in these enterprises than if they are controlled through an institutional arrangement.

In order to be coded as a “1” for institutional control the MCEs had to be clearly under the control of the the armed services as an institution. There had to be a clear relationship between the MCE and the organization of the military, with the following kinds of organizations being designated as a military institution: a military agency, a branch of the military, a subcommand of the military, a military central directorate, a subsidiary of another MCE, a military council among others.<sup>173</sup> The MCEs need not all report directly to a single body, but rather that there is an institutional control or direction. For example,

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<sup>173</sup> Other examples include evidence that the MCE is reporting directly to a military junta - as long as the evidence points to the junta as a body making the decision.

in Indonesia some MCEs report directly to regional commands instead of the branch command, or even the unified military command as a whole. This would still count as an institutional relationship, even if the body is not national in scope.

The second coding possibility, individual control, can only be coded as such if there is a general agreement among sources that there is either 1) widespread ownership of MCEs by individual soldiers with individuals engaging in business activities while actively serving in their capacity military personnel, or 2) that ownership of MCEs is tied directly to the actual military person, not the office, command or rank while serving. An important consideration here is that the armed forces personnel are engaging in commercial activity while serving. In all sources, there was not found to be any individual ownership of defense firms or enterprises capable of producing arms, so individual ownership refers only to commercial enterprises.

This is where there is a slight departure from earlier coding rules: There must be a general consensus among experts in order for this to be coded as such where a named enterprise must be found. In many cases where this was found, the business activity ranged from a general personally owning a colossal business to lower ranking soldiers owning stores, operating travel agencies or leasing military property for individual use. Many of these smaller enterprises were not large enough to have names, and indeed in a few cases of huge business holdings the enterprises did not have a name. This kind of relationship was mostly concentrated in African nations, and would have seemed odd not to at least make note of it. Thus, in order for this to be counted as ownership at the

individual level I do require there to be a consensus, even if this is a lesser threshold to reach than having a named enterprise.

There was an additional difficulty with the coding of individual vs. institutional ownership being that in many countries with reserve or part-time military personnel, many of them do in fact have another, non-military related businesses when they are not actively serving. For the purposes of this study, I did not count veteran-owned or reserve troops owning businesses if there was no evidence that they were operating these businesses while on duty.

If both kinds of ownership relationships were found to be active, where there existed both institutional control and individual ownership that country year was counted as a “3”.

#### Ministry vs. Armed forces

When coding MCEs in general there was a clear divergence between two kinds of institutional relationships: ones in which the ministry was the final authority with respect to MCE operations and another in which was armed forces itself was specifically named as the owner or manager. This is an important divergence as in some states the difference between the ministry and the armed forces is non-trivial. In some states the ministry is a clearly civilian-dominated institution with strong auditing, oversight, control of budget and direction by civilians. In other states the ministry is not much more than a public-facing institution of the military itself, with nominal control by civilians, if that. Indeed, there are some states where a ministry of defense does not exist at all. And of course there is a full spectrum of civilian-military control of ministries across time and space.

For the purposes of this study it was important to establish if the control of the MCEs was directly attributable to the ministry or the armed forces directly. For this study, all data presented in this chapter and all analyses will be performed only on the *Institutional MCE* variable, which is coded as the armed forces being the controlling entity. The purpose of differentiating is to separate out those relationships that highlight armed forces independence and power separate from the rest of government, and those that reflect much more mundane, administrative relationships between civilian-controlled military agencies and commercial enterprises. But for the purposes of this study only those MCEs under the control of the armed forces will be considered.

### Descriptive Statistics

This section will describe in depth the overall landscape of the data that has been collected. It will be broken into three sections: the first describing the larger category variables, the second describing the composite variables and the third describing the reference and confidence variables. In each section there will be a breakdown according to important cross-tabulations and over time.

**Table 8: Descriptive statistics of major variables**

Descriptive Statistics for Main Categories					
Variable	Obs	Mean	Std. Dev.	Min	Max
MCE	8566	0.569227	0.721972	0	3
MCE Commercial	8143	0.319538	0.466326	0	1
MCE Armed forces	8087	0.349202	0.481651	0	1
MCE Type	3838	1.310318	0.729049	1	4
MOD vs. Armed forces	3527	1.943578	0.893947	1	4
Coder Confidence	8172	2.58627	1.088327	1	4
Coding Regime	8566	1.609736	0.574446	1	2

Table 8 contains the descriptive statistics of the major variables. Of special note is that there are 8,566 observations in total, ranging from the time period of 1950 to 2013. There were 3,694 observations of MCEs existing in the dataset for which there was either a coding of defense or commercial production. Out of those 3,694 observations, I was able to find enough data on the phenomenon to code the “MCE Type” and “Ministry versus Armed Forces” for 3,527 country years. The remaining were either missing or there were no MCEs for those country years. This accounted for slightly over 41% of all qualified country years<sup>174</sup>. As discussed before the coding regime 2 accounted for just over half of all observations, while coder confidence averaged around 2.5 for the entire dataset.

#### Armed Forces MCEs

The following section describes the distribution of Armed Forces MCEs and MCE types, along with a discussion of the trends found in the data.

**Table 9: Number of Armed Forces MCEs, Commercial and Defense Combined**

	MCEs	No MCE	Percentage MCEs
<b>Armed Forces Control - Total</b>	2102	6464	24.54%
<b>Commercial</b>	1690	6876	19.73%
<b>Defense</b>	1491	7075	17.41%
<b>Both</b>	1091	7475	12.74%

<sup>174</sup> If no MCE was present, the “MCE Type” and “Ministry versus Armed Forces” variables were kept as missing values.

Table 9 is a tabulation of the Armed Forces control of MCEs broken down by commercial, defense and whether both MCEs existed simultaneously. Close to 25% of all country years in the dataset have at least one MCE under the control of the armed forces, with commercial and defense MCEs existing simultaneously in roughly 13% of all country years. Commercial MCEs make up the larger portion of MCEs, at almost 20% of all country years having at least one commercial MCE, with slightly fewer defense MCEs by only a percentage point. It must be pointed out that over 75% of all country years have neither kind of MCE throughout the dataset, which makes MCEs of any kind fairly uncommon but by no means unlikely to exist. Out of 161 qualifying countries, 89 states had commercial MCEs at one point in their history, and 70 states at one point had the armed forces in control over defense MCEs. 43 countries had at one point in their history both commercial and defense MCEs, which suggests that this institutional arrangement is a fairly common occurrence.

#### Armed Forces MCE Data and Description by Type

The following section describes the distribution of MCEs, of both commercial and defense types, with a discussion of the trends and major findings. In this section, the major explanatory variable is *Institutional MCE*, which as mentioned above is the combination of armed forces control of both commercial and defense MCEs that is institutional in nature. Figure 3 has a distribution and yearly plot of the *Institutional MCE* variable.

**Figure 2: Distribution of Armed Forces MCEs over time (1950-2010)**

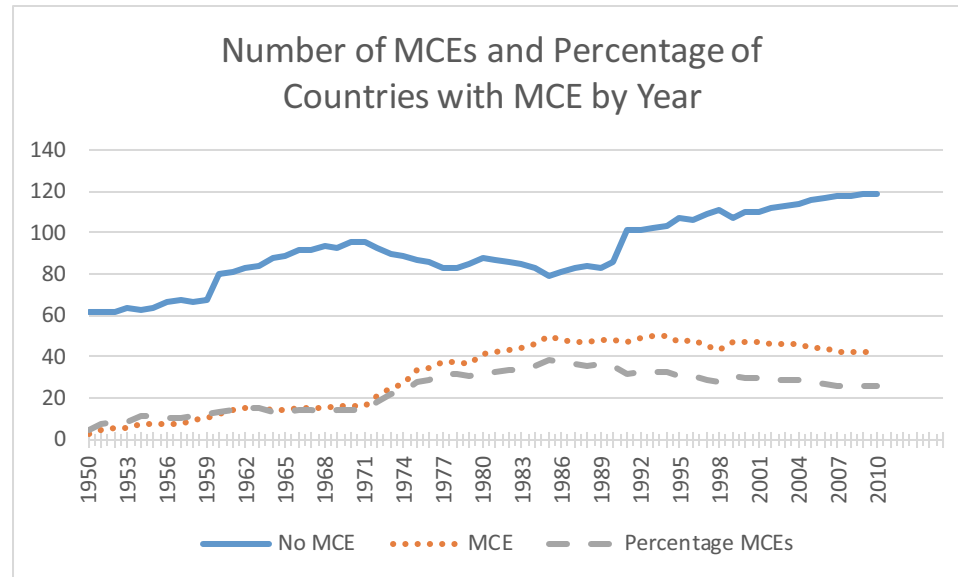


Figure 2 shows the distribution and trends of the existence of armed forces' MCEs over time, along with the percentage by year. The overall time span of MCEs shows that over time the number of MCEs has grown. There is a steady rise in MCEs throughout the whole dataset, with the growth leveling off between 1985 and 1993, at a little over 38% of all countries having any kind of MCE at all. The number of MCEs increases the most during the 1960s and 1980s until it reaches at early peak in 1985 at 50, before peaking again at 50 countries in 1994. The number of any MCEs per year never reaches more than 50. Two notable trends during this time are that the number of states with MCEs increases greatly during the 1970s and early 1980s peaking at the end of the Cold War before beginning to drop off by 1997. The early increase is explicable in that many military regimes came to power during the 1970s and 80s and set up enduring regimes with MCEs in some cases, or set up their own MCEs that lasted after they left power in

others. The shift after the Cold War is also explicable: the sudden inclusion of fourteen new Post-Soviet states explains why the percentage of states with MCEs drops while the overall number of MCEs does not significantly fall. The gradual decrease in MCEs is also explainable to some degree due to the change in many states' civil-military relations as civilian regimes became more assertive in their control over their states where military political power receded.

**Figure 3: Distribution of MCEs by Type by year (1950-2010)**

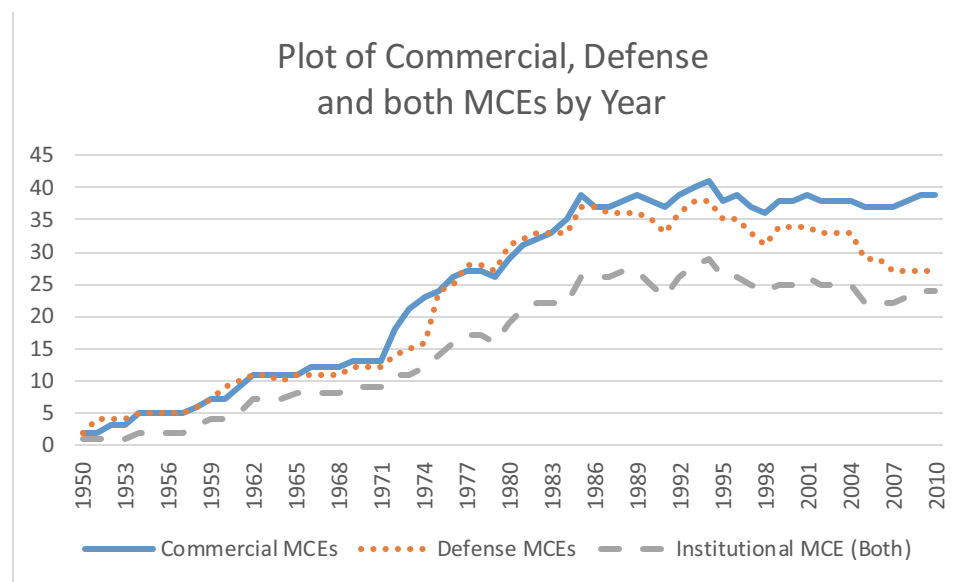


Figure 3 shows the distribution in types of MCEs, by year along with showing those years where there was both commercial and defense MCEs (*Institutional MCE*). There are several points to highlight: one is the gradual nature of the increase of any kind of MCEs from its relatively low point in 1950 when only 2 nations had commercial MCEs, to its gradual increase to 13 nations having some kind of MCE in 1970. The explosive growth in both commercial and defense MCEs during the 1970s and 1980s is noteworthy because in the span of only a decade the number of commercial MCEs doubled to 29 in 1980, and reached a peak of 41 by 1994 because there was a gradual decline. Defense



MCEs charted a similar course as the commercial MCEs. The second point to highlight is the main growth period of MCEs in the first decades after the sweeping independence movements of the 1950s, 60s and 70s, where MCEs saw the highest increases.

There are two explanations for the growth in these early periods of the 50-70s. After independence many nations experienced political turmoil which saw the increase in the political and economic relevancy of the military in many post-colonial societies<sup>175</sup>. The first explanation is that in many states, the armed forces simply took over, and their leaders were able to secure for themselves a lasting seat at the political and economic tables of their nations, and increased the privileges of their martial comrades at the expense of other sectors of society.<sup>176</sup> In some other cases, the military establishment delegated its needs to civilian ministerial agencies instead of taking direct control themselves, which is present in the full dataset that includes ministerial control.

The second explanation is that the leaders of many of these post-colonial states were faced with armed forces that needed many resources but were in control of a state that did not have the resources available to fulfill their needs. The turning over of MCEs to the control of the armed forces was one way for leaders to maintain their hold on power. There was also a need in many newly independent nations for a steady supply of arms and ammunition to fight the frequent civil wars and inter-state wars, and stay well-armed to deter regime adversaries. Oftentimes that meant dependence on a foreign supplier for a

<sup>175</sup> Ziankhan, Daniel D. "The Impact of Military Coups d'état on West Africa's Socio-Economic and Political Development", Zion University College, Monrovia, Liberia, 2001

<sup>176</sup> ECOWAS Parliament-DCAF Guide for West African Parliamentarians, "Parliamentary Oversight in the Security Sector", Sept 29, 2010, Geneva Center for the Democratic Control of Armed Forces, ECOWAS

country's security needs, which would leave them vulnerable to the desires of foreign powers, greatly upsetting the local armed forces if they felt hamstrung by international regulations. Incidents would arise in which the supplier would use their leverage for political gain if they were the primary supplier. Egypt's modern defense industry was, in part, motivated by Nasser's fear of becoming a dependent of either the US or the USSR for its defense needs, and turning it over to control by the military allowed him the dual purpose of showing he was working to make Egypt independent while giving the military a new important enterprise to work with. The Arab Organization for Industrialization was formed in part to alleviate this fear in 1975 to provide the Arab world with its first premier defense production establishment.

There is also an interesting trend in that while the number of commercial MCEs and defense MCEs are roughly equivalent in the 1950-1970s, commercial MCEs begin to outpace defense MCEs starting in the 1980s. This may have to do with the security environment both during the Cold War's détente era and after: many militaries had become incredibly large and bloated during the Cold War or during their own civil wars or international wars. As their security environments changed, some countries' respective militaries gradually shifted into commerce both as a deliberate policy shift and as a short-term fix to cover costs. Defense production MCEs are capital intensive and not very profitable, so armed forces were willing, if not entirely happy, to get them off their budgets and from under their jurisdiction, while civilians governments that came to power after the armed forces were likely looking to offload some military assets as a way to distance themselves from the military's legacy.

Commercial MCEs, on the other hand, are lucrative and offer an alternative funding source to meet budgetary demands. Many armed forces have been reluctant to see these leave their control, as the case of Indonesia where in the early 2000s the armed forces pledged that they would fully divest themselves from their business interests. 15 years later and hardly any Indonesian businesses have been divorced from armed forces control<sup>177</sup>. The Chinese armed forces is another such example- at a 1998 meeting of the Central Military Commission, the armed forces was given an order to divest itself of all business holdings. While the large majority of enterprises were either sold off to private investors or to state entities over the next few years, several businesses still remain under direct armed forces control, with the another group of enterprises under the control of the ministry of defense<sup>178</sup>. This reluctance to part with commercial MCEs means that the institution of commercial MCEs is more “sticky”, in the sense that once it begins, it is very difficult to extract business interests from the armed forces once they are embedded in the military organization.

Another reason for the enduring military presence in commercial affairs is that, given the many technical skills that military personnel learn during the course of their service, military members in developing nations often are at the forefront of industries where their skills can be put to commercial use. Armed forces around the world have been put to use

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<sup>177</sup> Rieffel, Alexis; Pramodhawardani, Jaleswari, “Out of Business and On Budget: The challenge of military financing on Indonesia”

<sup>178</sup> Many businesses were unofficially sold or divested to members of officers’ families or friends, which, though there might still be a potential military-business connection, did assuage most of the Party leadership’s fears of a “military-business complex”.

on large national development projects, such as civil-engineering projects on environmental disaster mitigation projects, and sometimes these units are put to other uses as well. One prominent example of this is the military-run Vietnamese telecommunications giant Viettel, which is now serves over 76 million people across Asia. While in other states the military might help start a venture and then let civilians take over, in some states the military is a consistent source of technical expertise, and maintains a constant presence in commercial enterprises.

#### Transitions in control by the armed forces

This section describes the major transitions in the control of MCEs. The section will have information on when either the armed forces lost control or gained control of MCEs. It will also have a description of which kinds of MCEs came under the control of the armed forces.

**Table 10: Tabulation of Transitions To and From Control of Armed Forces**

<b>Any MCEs</b>	Freq.
To Armed forces control	62
From armed forces control	18
<b>Commercial MCEs</b>	
To Armed forces control	39
From armed forces control	11
<b>Defense production MCEs</b>	
To Armed forces control	23
From armed forces control	7

Table 10 displays information on when transitions in MCEs control occurred from 1950 to 2010. In terms of change in control, the table above shows both the frequency and direction of control transitions. In the entire dataset, there were 61 transitions in which the armed forces gained control of either type of MCE. On the opposite trend, there were 18 cases where the armed forces did lose control of some kind of MCE. The rest of the chart shows the distribution of commercial to defense production MCEs. The data show that far and away the armed forces acquired control over more commercial MCEs than defense production MCEs, and were slightly less likely to lose or cede control of commercial MCEs than defense production MCEs. This is consistent with the data above which shows more commercial MCEs being retained than defense MCEs over time.

**Figure 4: Distribution of Transitions from or to Armed Forces Control by year**

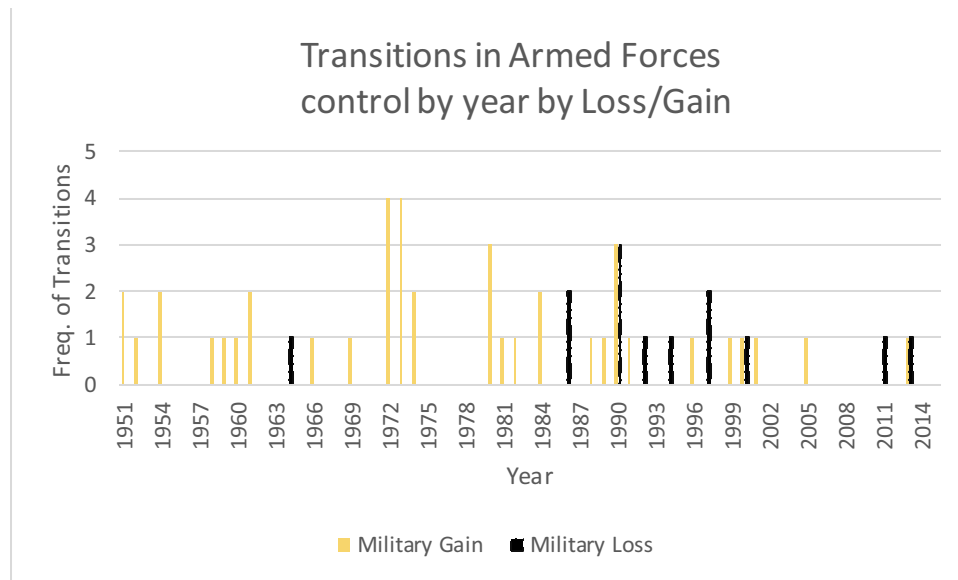


Figure 8 displays information on when transitions of control of MCEs occurred, both into and out of armed forces control. In terms of the timing, the striking trend follows that of earlier charts which shows that the 1960 and 1970s were the time of the ascendancy of

the armed forces in terms of commercial and defense production. The number of gains by the Armed forces leveled out by 1987, and between 1990 and 2010, the armed forces were gaining as many MCEs as there were MCEs transitioning from armed forces control. This matches well with anecdotal evidence on armed forces control and power throughout this period, along with the earlier data presented in figures above.

An example of a transition from the control of the armed forces is in Argentina. The military had long had control over a number of important industries, some reaching back to the 1940s. In the wake of the armed forces' withdrawal from power, the entities that were owned by the armed forces were some of the first to be targeted for seizure. Over the course of the late 1980s many of these enterprises were seized from the military and put under civilian control, with some going under the jurisdiction of the ministry of defense while others were privatized.<sup>179</sup>

### Regional Variation

This section describes regional variation in the control of MCEs by the armed forces.

There is a discussion of the trends and distribution of the kinds of both kinds of MCEs along with the major explanatory variable in *Institutional MCEs*.

**Table 11: Tabulation of Armed Forces Control by Region (Country-years with MCEs present)**

	Commercial	Defense	Institutional MCEs	Percentage of Institutional MCE
<b>Africa</b>	249	254	131	12.01%
<b>Asia</b>	433	432	353	32.36%
<b>Europe</b>	80	135	80	7.33%

<sup>179</sup> Interview with an expert on Argentinian civil-military relations.

<b>Middle East</b>	358	332	275	25.21%
<b>The Americas</b>	570	338	252	23.10%
<b>Totals</b>	1,690	1,491	1,091	

Table 11 displays the total number of country-years in which there was armed forces control. The percent column displays the percent of the total number of country-years in which *Institutional MCEs* under the control of the armed forces existed for the entire dataset. In terms of regional variation for MCEs under control by the armed forces, there are stark differences in distribution. Roughly 80% of *Institutional MCE* country-years come from Asia, the Middle East and the Americas. Europe has virtually no armed forces-controlled MCEs, while Africa consists of 12% of all *Institutional MCE* country years. Africa has roughly equal numbers of both commercial and defense MCEs, but only about half of those country years with MCEs are counted as *Institutional MCEs*, meaning both existed at the same time. In Asia and the Middle East it is the reverse, with the majority of the cases overlapping in the *Institutional MCE* category. The Americas have many more commercial MCE country-years than defense MCE country years, with less than half of those commercial MCEs belonging to a year in which *Institutional MCEs* also exist. The differences in these reveal that within Asia and the Middle East there was a great deal of consistency: those countries with MCEs tended to be the same countries and the armed forces held onto their MCEs for decades. These regions tended to have strong militaries or ruled outright, such as in Egypt or Myanmar, that established both commercial and defense MCEs and retained enough influence to keep control over both for long periods.

**Figure 5: Distribution of *Institutional MCEs* by Region and by Year**

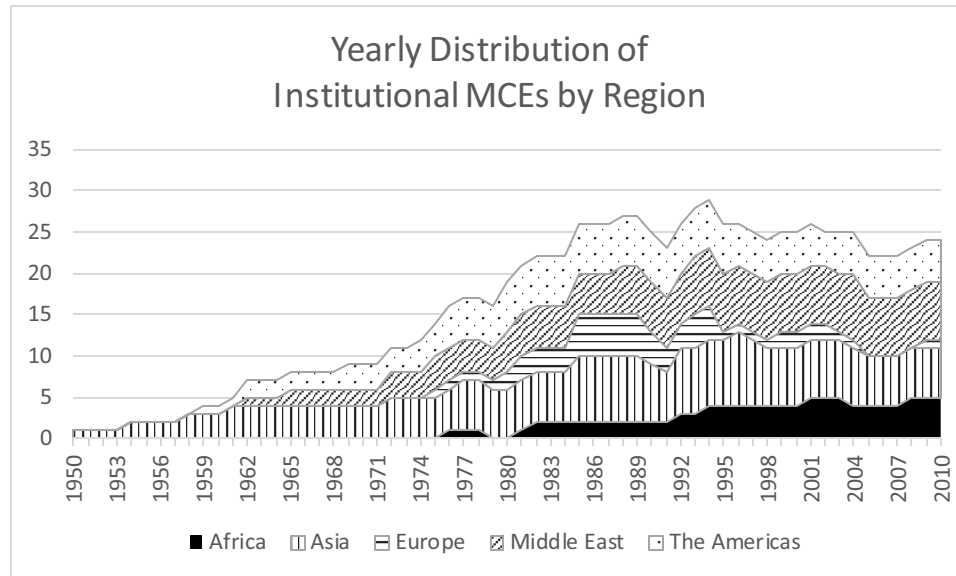


Figure 5 displays the distribution of the number of states in which *Institutional MCEs* existed by year and by region. The trend in armed forces control is very striking over time, as it shows the consistent existence of *Institutional MCEs* in Asia with very little change past the 1980s. The growth and stability of *Institutional MCEs* in the Middle East is also important. The Middle East grows slowly until the 70s and peaks in 1990, remaining steady until 2010. Europe has a brief period between the 1970s and the 2000s with a handful of *Institutional MCE* country-years. Africa also shows substantial growth beginning in the 1980s before leveling off in the 2000s with only minor growth. The Americas also have consistent growth in MCEs starting in the seventies and growing well into the late 80s before leveling off into a consistent number. It should be noted that these are all *Institutional MCEs*, not their constituent commercial or defense MCE values. These charts by region are available in the appendix.



## Conclusion

This chapter set out to familiarize the reader with the basics of the data collection, categorization, methods used to overcome difficulties of information-poor environments, and methods used to overcome difficulties relating to missing values. This chapter then turned to a discussion of the major explanatory variable, *Institutional MCE*, as well as its constituent variables of commercial and defense MCEs. Each section contained a discussion of the trends and distribution of the data in order to make the read comfortable with the data in preparation for the analysis section.

## Appendix - Sources

### Data Background

The following will provide a background on how the data for this project was put together. The purpose of the project is to generate data on relationships between the armed forces and business. Of special interest in the project is when the armed forces of a nation are the direct owners and managers of commercial and defense interests, and whether or not there are political consequences from such a relationship. While finding data for this project it was discovered that there was a wealth of data beyond just simply information on ownership of commercial and defense enterprises by the armed forces. In fact, there was a whole range of interesting information related to the control of commercial enterprises by the armed forces, and the data collection effort was expanded

to include several other categories for further clarity.<sup>180</sup> There were also very interesting relationships that did not fit into the simple categorization that inspired this project, which were noted in the country records made for this project<sup>181</sup>. There were a host of other variables of interest for the larger project of documenting the range of MCEs that exist, but are not included in this study.<sup>182</sup>

The most important remains *Institutional MCEs*, which is a composite variable of three different variables that will be explained later on: having both commercial and defense MCEs, institutional control and control by the armed forces.<sup>183</sup> Commercial enterprises and defense industries are included as a category because they are both vehicles for providing officers with benefits and with the necessary material for security. Commercial MCEs are very effective for creating opportunities for revenue and expanding into civilian markets, while defense MCEs can act as vehicles for patronage due to their high capitalization requirements. The hypotheses in the theory chapter refer to both commercial and defense MCEs since they are both vehicles for patronage, but those

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<sup>180</sup> Some examples of different arrangements are joint-ventures between the military and foreign companies, sponsorship of military units by businessmen, and of course military involvement in conflict resources or the trade in illegal goods.

<sup>181</sup> Cambodia, for instance, was a special case. While there were some MCEs present in the Cambodia data, there was also an incredibly interesting relationship wherein units of the armed forces were supported monetarily by individual businesses, leading to a very corrupt environment where the armed forces have been known to partner with their sponsors to evict peasants from land with natural resources or for development. <https://www.hrw.org/news/2015/01/24/cambodia-commander-admits-partisan-use-force>

<sup>182</sup> The full dataset includes variables differentiating between commercial and defense MCEs, control by the ministry vs. the armed forces, and institutional control vs. individual control. The appendix contains details of these variables that are not included in the body of the data chapter.

<sup>183</sup> Again this is to differentiate between those MCEs that could be controlled by the ministry, or are controlled primarily through individual military officers. The variable counting ministry control of MCEs is not included in this data chapter.

states with both commercial and defense MCEs imply more avenues for patronage than simply having one or the other.

Institutional control versus individual control is gathered as it is important to differentiate between those states where the locus of control is the individual leaders within the military or the military as an institution. Individual control of MCEs means that the levers of control of the flow of benefits are in the hands of a concentrated few. Institutional control of MCEs means that the levers of control of the flow of benefits are centered into formal agencies within the armed forces, and the direction of these MCEs is under the control of a centralized body. The distribution of benefits to the officer corps is much more spread out to the officer corps as a whole, while the distribution of benefits with individual control is much smaller and targeted towards key members of the armed forces.<sup>184</sup>

The following sections will have a broader discussion of the coding requirements for each of the variables that make up the *Institutional MCE* variable.

#### Collection History

Given the lack of an extant dataset on armed forces-commercial relationships the only possible option forward was to triangulate sources in order to construct a viable dataset. The literature on MCEs of any type was not systematic and largely regionally focused. No one has so far yet attempted to document these kinds of relationships before on a

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<sup>184</sup> It is of course theoretically possible that institutional control can lead to a more narrow distribution of benefits, but that has not been empirically found to be the case.

cross-national level. There were a few books of collected essays on the phenomenon, but again these were hardly the systematic sources one would hope to find on the subject.

Four major sources for information on military-commercial relationships were used to code the data:<sup>185</sup>

- 1) Expert testimony
- 2) Secondary sources
- 3) Transparency International's Government Defence Anti-Corruption Index
- 4) Interviews

All four were used in constructing this dataset, as explained below in greater detail. For each state there is a Country Narrative Document (CND) that has an account of all the information gleaned from the four above sources. These country narratives would form the foundation of the rest of the dataset, as I used it as both reference and depository for all information obtained. CNDs would have an evaluation of the information as well as an executive summary of the findings.

#### Expert Testimony

In order to collect expert testimony I used the University of Maryland's Qualtrics survey website. I sent over 500 emails over the course of six months to experts in civil-military relations requesting their assistance to fill out a short 10 question survey on the subject of military-commercial relationships, with a longer follow-on survey if they had the time and inclination to do so. The survey was designed to collect data on the nature and magnitude of the relationship between the military and the economic realm with a breakdown of five categories: manufacturing, finance, resource extraction, basic services

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<sup>185</sup> Additionally several news crawlers such as Factiva were used to find information on military-owned or operated businesses. While there was some useful information found that was added to the CND, it proved of limited utility, missing quite a few positive cases, and providing quite a few false positives as well.

and production of military equipment. In addition, each survey also asked about the size of the military owned/managed portfolio in terms of the number of firms<sup>186</sup>. Each question also included a comment section where the respondents could share additional information. The survey is available in the appendix for this chapter.

I received 40 completed surveys, 25 of which were usable<sup>187</sup>. The 15 excluded were of a very poor quality and the responses were suspicious in light of other sources. This was far below the 10% response rate hoped for, but did provide at least some useful information.

The survey asked the experts to answer questions in the period of 1980-2015.

Unfortunately, given the small volume of respondents, only two pairs of respondents took a survey on the same country, so the problem of inter-coder reliability could not be addressed with only the survey results received.

Those 25 respondents did include commentary that ranged from single sentences to full paragraphs describing the reasoning behind their selections. Some of the most useful information gleaned came from the comments section below where the respondents named individual firms, relevant laws and named additional experts and sources for me to pursue on my own. All this information was logged into the individual CND I had on

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<sup>186</sup> Number of firms or enterprises was included in lieu of other kinds of indicators because the data was quite sparse to begin with. One prominent expert suggested including monetary values or goods produced, but even in the cases with great information that kind of data was unavailable or would have had a great deal of uncertainty.

<sup>187</sup> At least 15 of the responses were not of high enough quality to include in the final dataset. Of those 15 responses left out, they were highly suspect. Some did not include any comments, while still others seemed to have been randomly filled out, and at least one was filled out in a purely step-function without comments, explanations or contact information. All in all, roughly 70 responses were logged in Qualtrics, but nearly 40 of them only filled out one question then left the rest blank.

each country included in the dataset, and added to that country's narrative, sources and data. In addition to the survey results, a number of experts respond without completing a survey but providing some commentary with sources, thoughts and further experts for me to follow-up with. These comments were logged into the CNDs. Despite the low returns from the survey, a great deal of information was gained from the few responses.

With regards to the final portion of the expert survey, seven respondents came through and answered the follow-up survey, including even more in-depth information on the nature of military-commercial relationships in the country for which they were responding. This information was immensely helpful in finding additional information and directing me towards other sources that I had not yet consulted. Again, all this information was stored in the CNDs. Other experts provided information or further contacts via email without taking the survey. This information was included in the CNDs.

The depth of some responses was incredibly helpful, but the lack of a critical mass of respondents, along with the lack of a way to address inter-coder reliability, meant that other avenues of investigation had to be pursued. It was an incredibly useful first step.

#### Secondary Sources

Secondary sources were the second major effort used to triangulate information on military-commercial relationships. Collecting major studies on military-commercial relationships, as well as works on civil-military relations had been occurring concurrently with the release of the survey. Secondary sources were used to log firm names, establishment dates of enterprises, controlling entities and additional information on

military-commercial relationships in those countries. This was a very slow and laborious process, as not every civil-military relations book had information on military-commercial ties. While there was a wealth of information, more often than not these sources were used to confirm survey results as respondents' information came in. As will be explained later with regards to coding regime, the secondary source literature was extremely useful in highlighting other sources and uncovering the presence of MCEs. Often times the sources made no mention of any MCEs, which was logged in the CNDs. It was very difficult to track down this information except outside of works authored specifically for the purpose<sup>188</sup>. Information gleaned from secondary sources was also added to the CNDs and used to make a determination on the variables listed above.

The sources consulted for each country were as follows. These sources were included because: 1) they had consistent coverage across both years and different countries, 2) they had been used to find positive evidence of MCEs existing, or 3) because they are considered excellent sources of expert opinions.:

- 1) Expert testimony from my surveys and interviews
- 2) The 2013-2015 Transparency International Anti-Corruption in Government and Defence Index
- 3) Publications on country studies from the Geneva Center for the Democratic Control of Armed Forces<sup>189</sup> (DCAF)
- 4) The BTI Transformation reports from 2003-2016<sup>190</sup>

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<sup>188</sup> In this regard, *The military as an economic actor: soldiers in business* was a very handy resource. In addition to the list of experts, it provided a large bibliography and some good information on the countries explored. It was a collection of essays on military entrepreneurs, but only covered less than a dozen countries.

<sup>189</sup> DCAF is a government institution that partners with academics and practitioners to encourage security sector reform and has worked with many partners in other countries to encourage democratic civil-military relations. They release occasional papers and regional round-ups of their works as well as country-specific reports.

<sup>190</sup> The BTI is an organization dedicated to transforming politics in at-risk countries, including civil-military relations. They release country reports every 3-5 years on each country, leveraging over 300 experts.

- 5) The International Security Sector Advisory Team country reports<sup>191</sup>
- 6) Armed Forces and Society & Journal of Democracy<sup>192</sup>
- 7) JSTOR & regional studies journal<sup>193</sup>
- 8) Factiva<sup>194</sup>
- 9) Amnesty International<sup>195</sup>
- 10) Ministry of Defense websites<sup>196</sup>
- 11) Google Scholar and Google searches<sup>197</sup>
- 12) Search of Social Science Research Network

### Transparency International

The third leg of the data collection process was to use the *Transparency International Government Defence Anti-Corruption Index*. The index is a collection of surveys from military experts around the world on a given country with respect to corruption in the defense sector. The experts are asked a variety of questions on the military, with an emphasis on corruption with respect to issues of leadership, risk management, policies and code, training, and personnel. The surveys are used to create an overall index of a given country's "Corruption Risk", which also places it in a "band" of its relative corruption risk. Included in the survey are three questions about military-owned or managed businesses. The most important of these was<sup>198</sup>:

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<sup>191</sup> This is a subsidiary of DCAF, but it also puts out its own reports on its website. They support DCAF on the ground.

<sup>192</sup> AFAS and JoD was searched for each country- and articles specific to that country was searched for keywords.

<sup>193</sup> I would find the most popular regional security or regional studies journal and run searches for both that country and keywords, and save articles relevant to different time periods.

<sup>194</sup> Similar to the above I would run keyword searches for each and save relevant articles.

<sup>195</sup> Amnesty International has done an excellent job of uncovering military-political collusion to force people off lucrative land for development, seize natural resources or force people into labor. Their coverage is best closer to the present, but sometimes their sources extend further back in time, as well as point to additional sources for earlier times.

<sup>196</sup> I would search specifically for Organizational charts and investigate promising leads

<sup>197</sup> This would sometimes have publicly available articles, and would occasional link to books of interest that held important keywords. Generally speaking, regular google searches would return some very useful information- and often led to additional resources.

<sup>198</sup> There were two other questions with respect to military enterprises. One asked the question with explicit reference to natural resources, and the other with respect to oversight by other governmental offices. All three were used and included in the CNDs.



“Do national defence and security institutions have beneficial ownership of commercial businesses? If so, how transparent are details of the operations and finances of such businesses?”

The respondents were asked to assign a value from 1-5 on the “risk” that this posed in terms of a corruption risk within the military. While the number is useful in quantifying corruption risk (each value had a corresponding explanation) it was not particularly useful for coding a dataset. The numbering scheme did not have a latent scale that would easily distinguish the meaning of one number from another for the purposes of the project- the difference between a 2 and 3 score was not meaningful from a data gathering perspective. The most useful part of the Transparency International survey was that for each question each respondent was required to submit a summary of their own findings and sources. This was useful in its own right, but the TI survey goes a step further: it has each question peer reviewed by between one and three other respondents. Some of the comments were very short- a simple “agree”, while others were much more substantial, providing corroborating sources. When there was disagreement the reviewer would provide a justification, a critique, and importantly, additional sources. The TI survey even included responses by government representatives, though these tended to be much rarer and often objected to minor points in the summaries instead of the larger point about ownership or management. If there was substantial disagreement, another reviewer would be included and add their own comments. Transparency International also made every effort to make sure that reviewers did not know one another’s identities, using a 3<sup>rd</sup> party website to allow the reviewers’ identities to be anonymous to one another to guard against contamination of responses.

The TI survey has only been extant since 2013 when it included only 28 countries, and did not have peer reviewers, only summaries from respondents. The 2014 TI survey included 79 countries, and began including peer reviewers with their comments. The 2015 TI Survey included 111 countries along with an expanded peer review section. Due to the quality of the data it was necessary, in the first iteration of the dataset, to code the responses only for the years of inclusion. The number of countries in the 2013 survey were 28 countries, 79 in 2014 and 111 in 2015<sup>199</sup>.

The incredible breadth of information and additional sources was a huge boon and a great resource. The information included in the summaries contained entity names, dates of establishment, purposes, and reported ownership. Information on each entity, privately-owned companies, state-owned enterprises or some other kind of joint-ownership scheme, were added to the CNDs. Many of these entities had websites or were mentioned in other sources such as stock websites or due diligence sites. Using company histories, secondary sources and the available TI sources in the reviews a history of some of these countries with respect to their military-commercial relationships could be constructed. The secondary data was used to backdate some of the coding choices for countries. Often times the investigatory process would lead to other entities, which would allow for more confident coding<sup>200</sup>.

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<sup>199</sup> And those entries included is always less than the max, given that sometimes the responses of the respondents was to say that there simply was no data or no way to know.

<sup>200</sup> For example, when investigating the UK, the ministry of defense website provided in the TI survey listed one entity as owned by the MOD. Further investigation revealed that it was not in fact owned by the MOD, but that a sister organization that was spun off from a government research organization as a private institution had, for a period of ten years, as its major shareholder the MOD, which had a controlling financial interest.

### Interviews

The final data source used were interviews. In addition to interviewing experts on several countries, I also targeted interviews around constructing a case study on Egypt. I interviewed several past US officials, including one former ambassador to Egypt, several respected Egyptian military experts and Egypt's military attaché to the US. Often times these interviews would lead to further leads for interviews, which I also conducted in person, by phone and via skype. The responses, along with notes on my impressions, are included in the CNDs. The information gleaned from these interviews was very useful, and gave much deeper insights into the role that these enterprises played in Egypt and elsewhere. In particular the meeting with the Egyptian defense attaché was very enlightening as the general was very much willing to give his own views on the role that Egypt's armed forces play in society, and how the enterprises that they control further the military's goal of stability and security. The meeting was conducted in the presence of several other highly respected Egypt experts, who took turns giving their own perspectives on the issue. It became apparent halfway through the interview that the other experts were there at the behest of the general, several of them being employees of a consulting firm whose primary client was the office of the Egyptian defense attaché. Their candor and extremely polished talking points revealed that they were likely running support for the general during the interview. Regardless, the interview was valuable in establishing a baseline as to what the Egyptian military would like outsiders to know about their enterprises. Other interviews with academics and experts did not have this manufactured sense, and provided valuable insights into the views of both insiders and outsiders as to the role of MCEs.

### Coping With Information-Poor Environments

In order to compensate for the relative lack of high-quality information in many states, the dataset includes various markers for the quality of a given country-year's coding decision. The three variables that used for this were *Reference*, *Coding Confidence* and *Coding Regime*. While the *Reference* variable is more of an internal document to track progress, the coding confidence is my attempt to let the quality of the data have more weight. While in many datasets there is an explicit understanding that there may have been errors in coding decisions which are taken care of by using inter-coder reliability measures, this project was not able to secure such support to do so. With other datasets, the understanding that there are errors made in dataset construction is implicit. This dataset includes an explicit measurement of the coder's own confidence in making the coding decision. This is to both provide the highest degree of honesty with regards to the data, as well as give higher weight to better quality data.

### Reference

The first such variable is the reference variable which is an index from 0-8 of the different kinds of sources used for the dataset. It refers to different combinations of three sources: interviews/expert surveys, secondary material and news stories. A "0" means that no sources could be found while a seven means that a combination of all three could be found for that country-year. This is a measure of the breadth of the different kinds of sources, not the overall quantity or quality of sources used. The reference variable was used in the construction of the confidence variable, but will only be presented in the appendix.

### Confidence

The confidence variable ranges from 1-4 and matches up very closely with the reference variable. Whereas reference refers to the kinds of sources used, confidence reflects the user's confidence that the available sources point to a definitive coding decisions for that country year. The following scale was used for 1 – 4<sup>201</sup>:

**Table 3: Breakdown of Coding Confidence**

Confidence Level	Name	Description
.	Missing	No sources or totally inconclusive
1	Very low confidence	there were conflicting reports or low quality data; a few sources disagreed with one another
2	Low confidence	Most reports agreed, but there were some conflicting accounts; sources are authoritative but data is not completely conclusive; much better data and much less reliance on judgment by coder
3	Confident	Most reports are in agreement; minor quibbles between sources; coding is very clear for the coder; sources are authoritative and consistent
4	High Confidence	All reports are in agreement; coding is obvious from plentiful, available and authoritative sources

Table 3 shows that scale used for Using these two confidence variables the relative weights of these variables are used in the analytical portion. While the descriptions above describe the confidence levels, the scale was influenced by 1) the authoritativeness of the sources, 2) the quantity of the sources and 3) whether or not I could independently verify some of the claims of one source in other sources.<sup>202</sup>

<sup>201</sup> The confidence markers here are not normally distributed from a 0-100% scale of confidence: a "1" confidence level was coded to mean that, given the sources and my interpretation of them, 70% confident that the coding is correct; 2 was roughly 80%; 3 was roughly 90%; and 4 was from 95-100%.

<sup>202</sup> There will be no frequency weighting in the analysis section, as this is included more as a reference for future iterations of this project.

### Coding Regime

The information poor environment made data collection a challenge. Finding evidence of an MCE relationship, and the nature of the relationship, was quite simple. For many countries, finding data on existing relationships was a relatively straightforward matter: pursuing secondary sources, keyword searches, consulting the Transparency International Index, and asking experts would typically reveal positive evidence of MCEs if they exist or ever existed. It was much more difficult to find authoritative sources that would be able to declare that an MCE did *not exist*. If a relationship did not exist, an expert can hardly be expected to highlight the lack of such a relationship in their work on military history or civil-military relations in their given country. Thus, there was a clear bias in the original coding regime towards including positive evidence of MCEs, and an overreliance on expert opinion for the coding of a lack of MCEs in a given country year.

In order to overcome this bias, I included two separate coding regimes: the first was the “restricted” dataset, which would include only those country years where a source could be found to corroborate the coding, either “1” or “0”. This is the much more authoritative dataset, but there are far fewer observations, and a clear majority of the cases are coded as “1”. Of 8,566 possible observations for qualifying country years<sup>203</sup>, only 3,737 country years could be coded according to the restricted coding rules.

The second coding regime followed a procedure to systematically eliminate a missing value from a negative finding for a country year, and relaxes some of the restrictions of the restricted coding regime. The procedure was to consult the same series of sources for

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<sup>203</sup> Those states that were both independent, and had a population of at least 500,000.

each state, collect sources on their civil-military relations, military history, security sector reform, and writings on their military-societal relations, all to populate a checklist on each of their CNDs. The information gleaned was then entered into the CND.

The CNDs have notes on the coverage of the sources found, as well as their quality. If, at the end of this coding procedure, there were sufficient sources, yearly coverage, and sources of sufficient quality, then a country year was coded as a “0”. If, on the other hand, there was not enough sources of sufficient quality, or there was not coverage for certain years, then the country-year remained a missing value. This rests on a very straightforward argument: if, for the entire time period from 1950-2015 no expert had ever made mention of an MCE, then there is a good chance that one never existed.

**Table 4: Coding results across the different coding regimes**

<b>Coding Results By Rules</b>				
	<b>No MCE</b>	<b>MCE</b>	<b>Missing Values</b>	<b>Total Coded</b>
<b>Restricted Only</b>	866 (19.40%) )	3,612 (80.6%)	4,088	4,701
<b>Expanded Only</b>	2,871 (77.70%) )	823 (22.30%) )	4,872	3,914 7
<b>Combined Regimes</b>	3,737 (45.70%) )	4,435 (54.30%) )	394	8,566
Percentages shown are calculated from “Total Coded” Column				

Table 4 displays the coding results by the two coding regimes, with the combined dataset in the bottom row. In the restricted model, the results can be broken down into two

different groups, the first as a percentage of coded cases, and in the second as a percentage of all qualifying country years. A majority of the cases for which a coding decision could be made found evidence of MCEs making up 80.6% of cases, whereas there was only evidence of no MCEs in 19.4% of the cases coded. In all there were 8,566 qualifying country years. When looking at the percentage of MCEs in the larger set of qualifying country years, 40% of the years were coded as having MCEs, with no MCEs making up 10% of the dataset. The percentage of missing values made up the lion's share at 48%, which is clearly problematic for analysis. The original coding regime was much too restrictive, and any statement about trends over time would have to be couched in the highest possible uncertainty.

The expanded coding regime included an additional 3,694 observations, greatly adding to the dataset. In terms of the ratio of MCE/No MCE, the results were flipped, with the expanded coding regime having only 22% of the coded observations as MCEs. The other 88% of coded observations were coded as no MCE present.<sup>204</sup> When combined, the restrictive and expanded datasets have over 8,172 observations, with 394 missing values over the two datasets. This amounts to about 5% of the qualifying country years being missing values, an amount that decreases significantly as in later years. Roughly 78% of all missing values occur before 1980, with over 95% occurring before 1995. Again, these missing values are those country years for which there was little information on their

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<sup>204</sup> There was an additional change to the coding regime, where if country X was coded as having an MCE in 1980, no evidence in 1981, but evidence in 1982, the intervening year was also coded as a 1. Thus, many of the MCEs included in coding regime 2 were connecting those observations - as long as there was no information to the contrary.



civil-military relations for the given time periods. Below in Table 5 is the full list of countries and the number of years for which data is missing.

**Table 5: Missing countries 1950-2010**

Countries with Missing Data		
Country	Years	Percent
Afghanistan	44	11.17
Benin	10	2.54
Burundi	18	4.57
Central African Republic	40	10.15
Comoros	15	3.81
Congo Brazzaville	40	10.15
Congo Kinshasa	40	10.15
Cyprus	20	5.08
Ethiopia	3	0.76
Gabon	18	4.57
Gambia	6	1.52
Ghana	13	3.3
Guinea	12	3.05
Iraq	13	3.3
Liberia	30	7.61
Libya	9	2.28
Romania	9	2.28
Somalia	20	5.08
Togo	20	5.08
Yemen, Rep.	11	2.79
Total	391	100

The majority of missing values, 71.5% of all missing values, come from 13 African countries in years in which it was difficult to find coverage literature. The period of lowest coverage is between 1960 and 1980, in the two decades after most African states became independent. The events surrounding the process of independence and the resultant institutional changes, revolts and civil wars mean that data is sparse as data are hard to find for those years. In many cases there were transitions from the traditional

colonial army being replaced by an indigenous one, which would subsequently either disintegrate in the wake of a coup or rebellion, or itself become a rebellious faction<sup>205</sup>.

There likely two big reasons for this trend: 1) in the wake of the transition there was an interregnum as it became difficult to differentiate between which faction was the formal military of a particular state, and 2) the majority of the literature at the time focuses on military units as a faction within a larger ethnic group engaged in a struggle for dominance and thus the characteristics of the armed forces was subordinate to the characteristics of the ethnic group, party or movement.

**Table 6: Distribution of Missing Values by decade**

Yearly Distribution of Missing Values		
Year	Frequency	Percent
1950-59	52	13.2
1960-69	130	33.0
1970-79	112	28.4
1980-89	47	11.9
1990-99	36	9.1
2000-2009	12	3.0
2010-15	5	1.3

Table 6 is a table of the distribution of missing values by decade. Each row is the percent of missing values from the total number of missing values, not the percent missing from that decade. I don't believe that these provide a meaningful challenge to the integrity of the data for the following reasons. First, the dataset focuses on states with a formal armed forces, and in many of these missing cases it would be arguable at best if an armed force

<sup>205</sup> Harkness, Kristen Angela, "The Origins of African Civil-Military Relations: Ethnic Armies and the Development of Coup Traps", Princeton University, June 2012

that called itself a formal armed forces representing a state government could actually be considered the formal military of the state. In many of the above cases, what was called the military might be better considered an armed faction of an ethnic movement. Excluding these I don't feel would bias the results, especially since most of them are included in later years when better data is available. Second, the reason for the majority of the distribution of the missing values is known- which can be accounted for with proper statistical tests. The remaining missing values are also dependent very much on time, which again, can be accounted for using statistical tests and sampling within time periods. Most of the missing values can be explained by time, which, since it is known, can also be accounted for statistically. Different imputation tests can be used to see if these missing observations would noticeably change results, along with running models with restricted years.

**Figure 1: Percent of missing values by year**

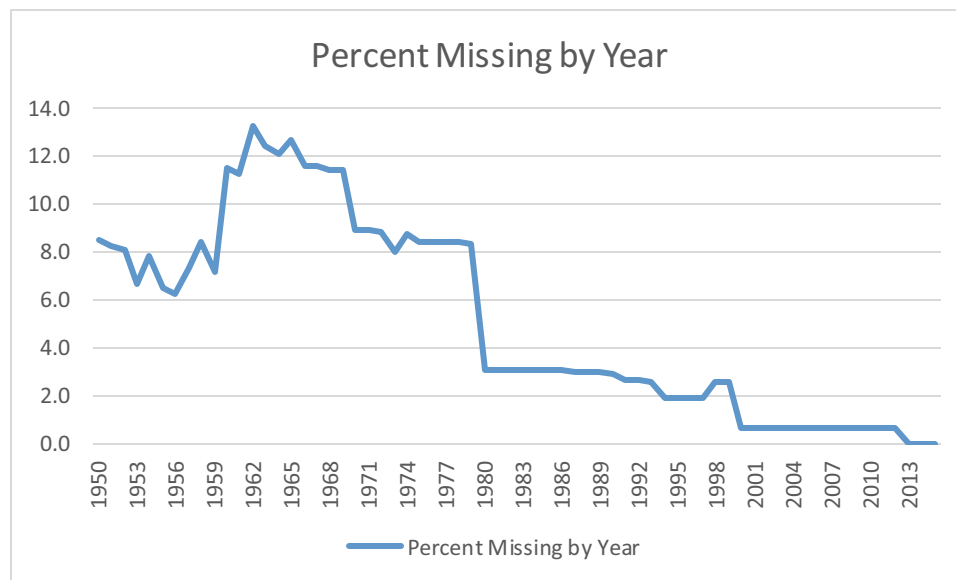
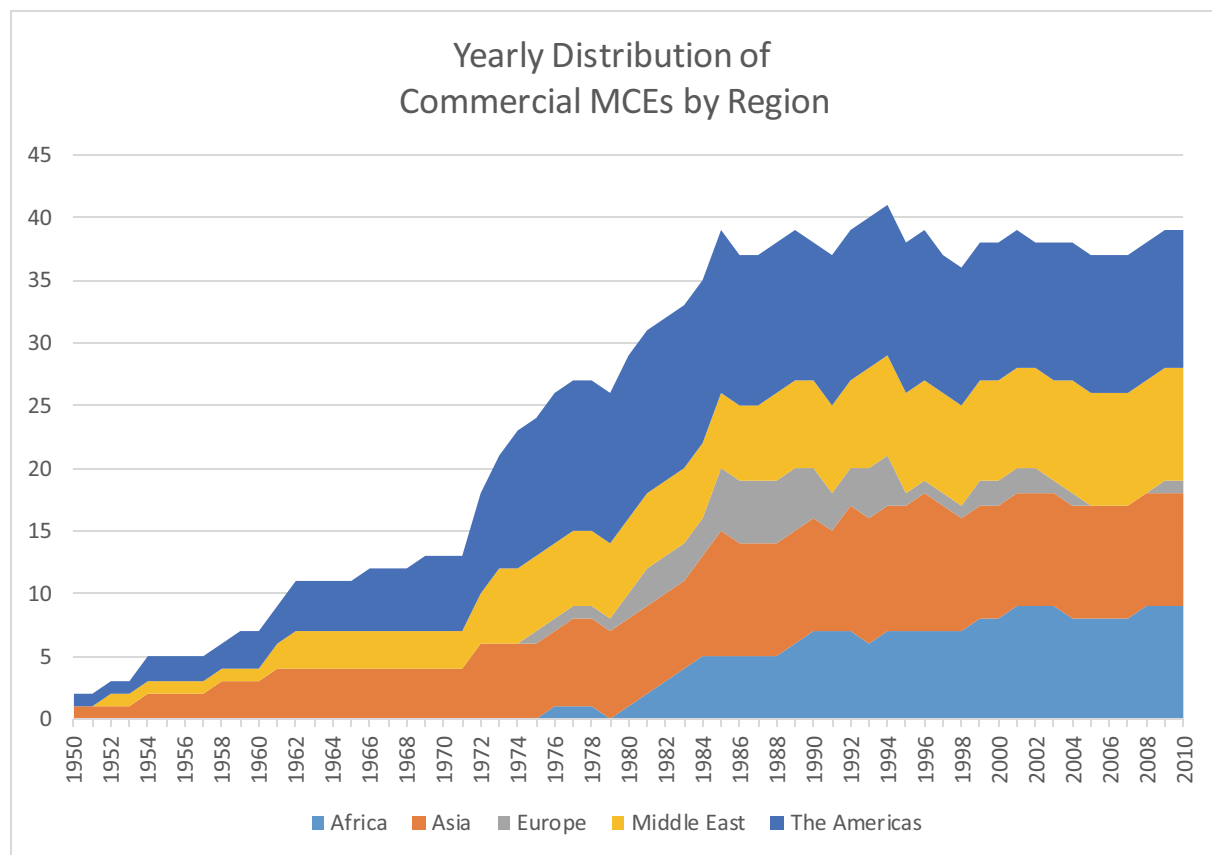


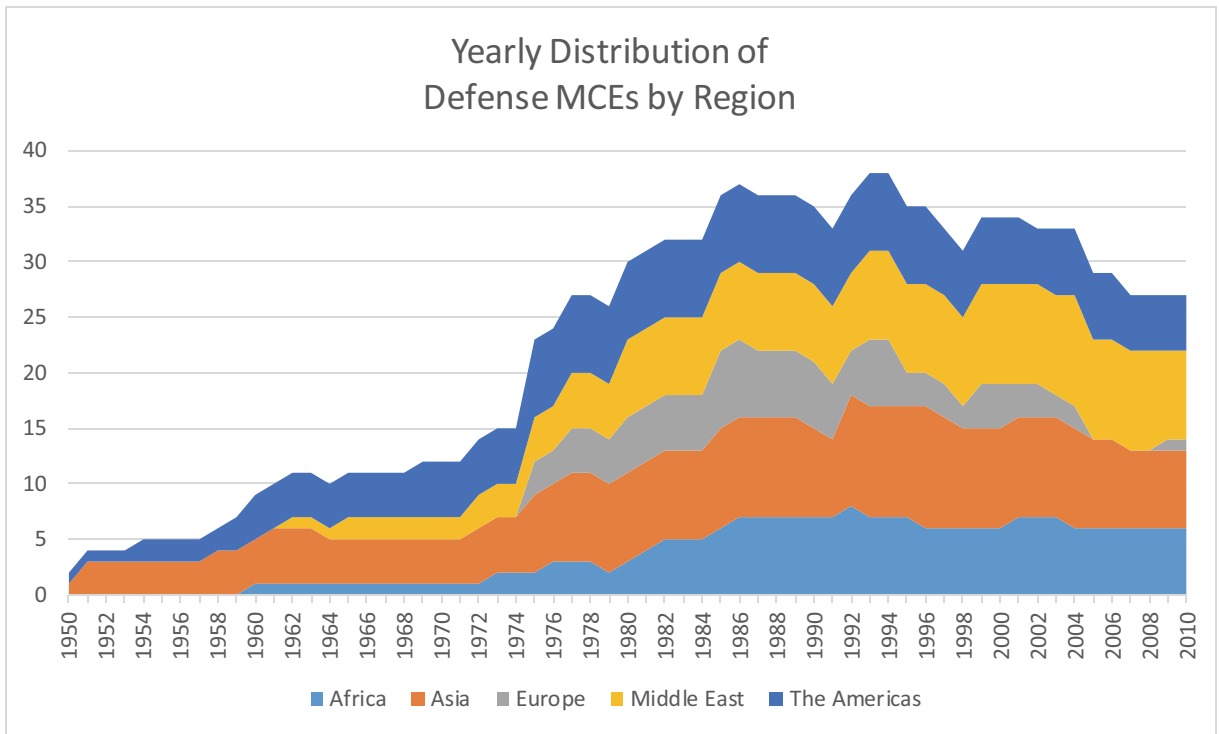
Figure 1 displays the percent of missing cases by year. As the above shows, by 1968 the percent of observations missing per year is below 10%, with missing observations accounting for less than 3% in 1980. This means running separate tests on the data- one for the full dataset from 1950-2012, another from 1968-2012 and a third 1980-2012. This way it can be tested to see if the missing values over time produce significantly different results when the same models are run on different time periods. Thankfully, in the analysis section, most of these missing values drop out entirely as data are not available for the same country years in other datasets, which suggests that while the distribution of missing values is non-random, this is not a problem unique to this dataset.

Additional Figures:

**Figure 1: Yearly Distribution of Commercial MCE Country-years by region**



**Figure 2: Yearly Distribution of Defense MCEs country-years by Region**



**Table 1A: Complete List of Countries with Armed Forces Control of MCEs (part 1)**

Complete List of Countries with Armed Forces Control of MCEs											
Country	Com	Def	Both	Start Year	End Year	Country	Com	Def	Both	Start Year	End Year
Algeria	54	54	54	1962	2015	Ethiopia	0	22	0	1959	2015
Angola	35	35	35	1975	2015	Georgia	0	12	0	1991	2015
Argentina	20	38	20	1950	2015	Ghana	3	0	3	1957	2015
Armenia	4	4	4	1992	2015	Guatemala	50	0	6	1950	2015
Bangladesh	44	44	44	1972	2015	Ghana	0	3	0	1970	2015
Belize	17	0	0	1960	2015	Haiti	6	0	0	1950	2015
Brazil	47	47	47	1950	2015	Honduras	44	0	1	1950	2015
Bulgaria	17	17	17	1959	2015	Hungary	6	6	0	1959	2015
Burkina Faso	10	0	0	1960	2015	India	0	1	0	1959	2015
Burundi	36	0	0	1962	2015	Indonesia	52	57	52	1951	2015
Cambodia	26	0	0	1953	2015	Iran	28	39	28	1950	2015
Chile	42	56	42	1950	2015	Iraq	0	36	0	1963	2015
China	57	57	57	1950	2015	Israel	0	5	0	1959	2015
Colombia	54	57	54	1950	2015	Jordan	12	17	12	1950	2015
Croatia	2	0	0	1950	2015	Kazakhstan	0	15	0	1991	2015
Cuba	57	57	57	1950	2015	Kenya	0	43	0	1964	2015
Ecuador	44	0	0	1950	2015	Korea South	3	3	3	1950	2015
Egypt	57	41	41	1950	2015	Laos	29	0	0	1954	2015
El Salvador	42	0	0	1950	2015	Libya	38	25	25	1960	2015
Eritrea	15	15	15	1993	2015						

\*Denotes the year of entry into the dataset, not when armed forces control began.

**Table 1B: Complete List of Countries with Armed Forces Control of MCEs (part 2)**

Complete List of Countries with Armed Forces Control of MCEs											
Country	Com	Def	Both	Start Year	End Year	Country	Com	Def	Both	Start Year	End Year
Mauritania	29	0	0	1960	2015	South Sudan	2	2	2	2011	2015
Mexico	0	32	0	1959	2015	Sri Lanka	11	0	0	1972	2015
Myanmar (Burma)	57	57	57	1950	2015	Sudan	20	20	20	1959	2015
Nicaragua	26	0	0	1950	2015	Syria	44	44	44	1950	2015
Nigeria	10	44	10	1960	2015	Tanzania	34	34	34	1961	2015
North Korea	0	38	0	1975	2015	Thailand	21	21	21	1959	2015
Pakistan	57	57	57	1950	2015	Turkey	55	51	51	1950	2015
Panama	31	0	0	1950	2015	USSR	12	12	12	1959	1991
Paraguay	31	0	0	1950	2015	Uganda	27	24	24	1962	2015
Philippines	14	0	0	1950	2015	Ukraine	9	9	9	1991	2015
Poland	9	23	9	1950	2015	Uruguay	13	0	0	1950	2015
Portugal	0	10	0	1959	2015	Uzbekistan	13	13	13	1991	2015
Romania	10	10	10	1959	2015	Venezuela	32	37	32	1959	2015
Russia	11	11	11	1992	2015	Vietnam	28	38	28	1959	2015
Rwanda	14	0	0	1962	2015	Yemen	28	0	0	1988	2015
Sierra Leone	10	0	0	1961	2015	Yemen, Rep.	15	0	0	1962	1987
Slovak Republic	2	2	2	1993	2015	Yugoslavia	0	17	0	1959	1991
South Africa	0	8	0	1959	2015	Zambia	16	0	0	1964	2015
South Korea	5	5	5	1975	2015	Zimbabwe	8	36	8	1965	2015

\*Denotes the year of entry into the dataset, not when armed forces control began.

## Chapter 4: In Business but out of politics: Coup-proofing effects of MCEs

### Theory Recap

As the previous chapter describes, MCEs should have a coup-proofing effect on the likelihood of elements of the military trying to seize power. There are many routes to a military coup, by one count close to 21 different variables have been hypothesized to have been important.<sup>206</sup> One important driver of military coups is the degree of military discontent with the status quo. This discontent can be driven by things like deep-seated political differences, external vs. internal threats, etc. and it can also be caused by the level of the military's endowment of resources. More resources are associated with a lower coup risk, while fewer resources are associated with a higher coup risk. Higher military spending is one way to funnel resources to the armed forces, but another way to do so is with military control over economic resources in the forms of institutional MCEs. These MCEs are one way for leaders to prevent one of the many possible routes to a military coup.

Institutional MCEs, those under the control of the military establishment, tend to be larger, have more capitalization, and provide both immediate and long-term benefits to members of the officer corps. Institutional MCEs provide immediate benefits to the officer corps in many forms: educational scholarships, housing allowances, orphanages for the children of fallen soldiers, healthcare, direct supplements to officer income along with peripheral benefits offered by the type of business owned. Institutional MCEs also

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<sup>206</sup> Belkin, Aaron and Schoer, Evan, "Toward a Structural Understanding of Coup Risk" *Journal of Conflict Resolution* 2003 47: 594



provide long-term benefits to the officer corps in the form of a guaranteed retirement package in the form of pensions. In addition to monetary benefits, the existence of institutional MCEs gives officers opportunities to find employment after retiring from service, along with access to other officers still within the armed forces that can lead to access to lucrative contracts. Whether by enhancing the loyalty of the officer corps, or by simply eliminating particular officer grievances, MCEs are theorized to reduce the likelihood of a coup. The following analysis will attempt to show whether these institutions have the coup-proofing effects theorized in the previous chapter.

Autocracies are more than twice as likely to have a coup attempt by their armed forces. Given the general lack of formal legal means of regime transition, or transitions between leaders, within autocracies it should come as no surprise that autocracies are almost three times as likely to suffer a coup attempt as a democracy. Autocratic leaders spend much time and energy eliminating possible rivals using a variety of means, either through coercion or cooptation, and changing the institutional rules to ensconce themselves in power. This leaves fewer legal means available for political change within a regime, and fewer actors capable of challenging the regime. Oftentimes autocratic leaders are so strong that the only means for regime change will often involve or be directly instigated by the armed forces.

Autocratic leaders are not unaware of this possibility, and will undertake means to keep the armed forces from being able to move against their leadership. One particular means is through the use of *Institutional MCEs*, which allow the leaders to distribute patronage,

and give the armed forces the means by which they can improve the material welfare of their officer corps.

**Hypothesis 1: *Institutional MCEs* will reduce the likelihood of a coup attempt within autocracies.**

Some institutional MCEs start off small, and only over time are the able to accrue the size and property to be viable on their own. Indeed, the long term effects of MCEs might not be felt by the officers for years to come as retirement for many officers is far away. Thus it may be that the effectiveness of MCEs in lowering coup risk is felt only over time, with its coup-proofing benefits only becoming apparent over the course of a decade or more.

**Hypothesis 2: The longer a state has *Institutional MCEs*, the lower the probability that it will suffer a coup attempt.**

The primary mechanism through which *Institutional MCEs* work to reduce coup risk is by benefitting the material welfare of the state's officers. In states with lower income, MCEs allow both political and military leaders to distribute more goods to the officer corps. This is especially important in states where states have smaller budgets and fewer resources to spend on the armed forces – *Institutional MCEs* are an alternative way for cash-strapped leaders to reduce their coup risk. As income increases though, the amount that a state is able to apportion towards the armed forces will increase. It is expected that

as a state is better able to provide financial benefits directly from the state budget instead of through MCEs, that the effects of *Institutional MCEs* in reducing coup likelihood will fall.

**Hypothesis 3: *Institutional MCEs* will reduce the likelihood of a coup attempt at lower levels of income, and have increasingly smaller effects as income increases.**

The claims of these two hypotheses, that officers are sensitive to material benefits provided by institutional MCEs and that the coup-proofing effects of MCEs might only be seen in the long-term, will be tested below.

### Scope

The timeframe of this analysis is from 1950 to 2010 including 173 countries, both developing and developed. Those excluded are those nations without formal armed forces or whose population has never reached 500,000. This analysis will include both developing and developed nations.<sup>207</sup> Analyses will be run on both as tensions in civil-military relations are not only the concern of developing nations, nor are ordinary issues of budgeting and officer salaries.

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<sup>207</sup> There will also be a model run on only those states in which at least one coup occurred. As military-civil relations are an issue in all states, there are some that have had none, and as the risk of a coup is important for the establishment of MCEs, a separate analysis will be run for those states in which the coup risk is more than negligible.

## Methods

In order to evaluate these hypotheses, a probit model will be used as the specification for the dichotomous outcome of attempted coups using cross-sectional time-series data. As the observations within the same country or the same year is expected to be non-independent, the model will account by clustering standard errors by both year and country. In addition, each model will include either clustering or fixed effects by state and time period. The primary models in this study will be 1) a dichotomous *Institutional MCE* variable and 2) a temporal *Institutional MCE* variable that counts upwards from the date of an MCE establishment. They will be run on a full dataset including both autocracies and democracies, then on samples of only autocracies and democracies. The full model is shown below, with a full explanation of each variable after:

$$P(\text{Coup Attempt}) = b_0 + b_1(\text{Institutional MCE}) + b_2(\text{Log of \# of personnel}) + b_3(\text{Log of GDP per capita}) + b_4(\% \text{ change of GDP per capita}) + b_5(\text{Effective number}) + b_6(\text{Years since coup}) + b_7(\text{Instability Index}) + b_8(\text{Military Regime}) + b_9(\text{Expenditure per soldier}) + C$$

## Data and Variables

**Table 1: Descriptive Statistics of variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
Coup Attempts	5323	0.043584	0.204188	0	1
Coup Attempts, Lagged	5323	0.042833	0.2025	0	1
Democracy	5323	0.398272	0.489588	0	1
Autocracy	5323	0.399211	0.489782	0	1
Institutional MCE, Dichotomous	5323	0.146158	0.353298	0	1

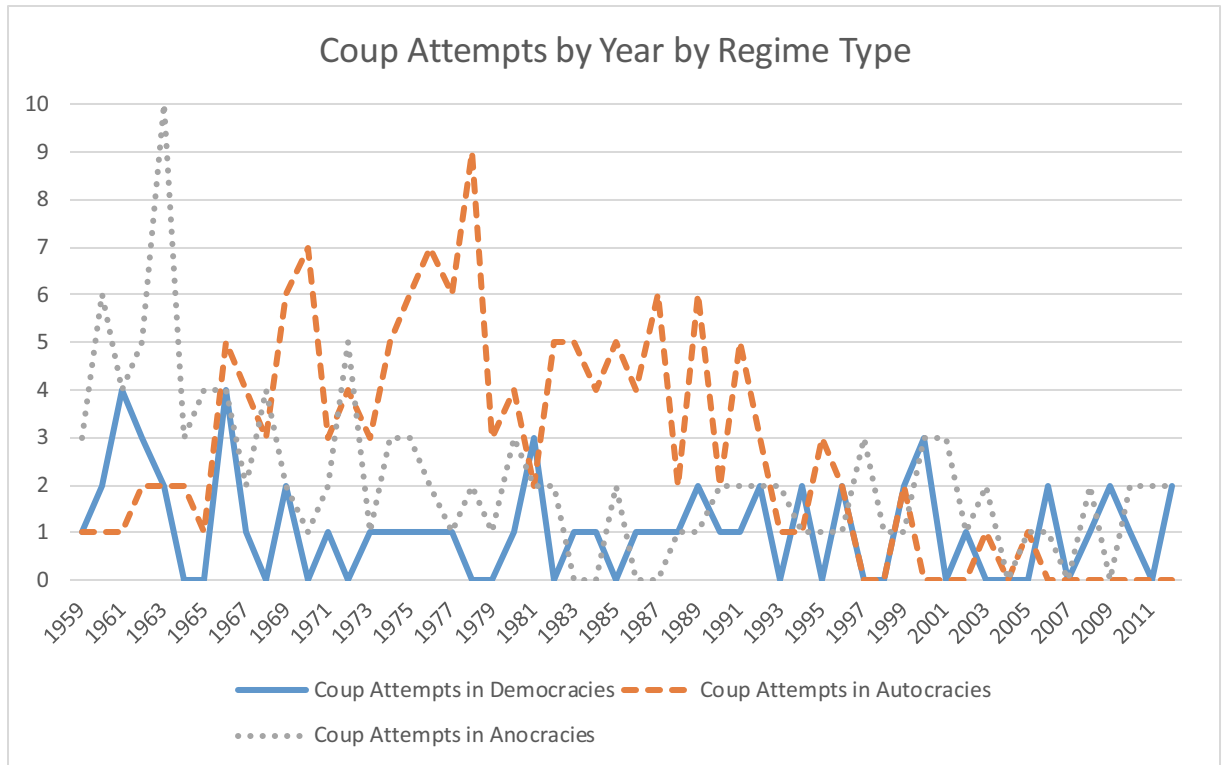
Institutional MCE, Continuous	5321	2.82221 4	8.52473	0	58
Effective Number of Organizations	5323	1.68549 2	0.58221 7	0.92037 8	5.55737 8
Expenditures per soldier	5323	2.19626 5	1.19322 7	0	7.79055 8
Banks Military Regime	5323	0.03776 1	0.19063 5	0	1
Banks Instability Index, Lagged	5323	3.38807 8	3.59220 1	0	10.2151 2
Banks Instability Index, Lagged, Logged	5323	970.064 2	1956.19 9	0	27312
Years Since Coup Attempts	5323	19.3375 9	15.3227 5	0	57
Number of Soliders, Logged	5323	10.7170 5	1.66682 3	6.90875 5	15.3736 6
GDP Per Capita, Logged	5323	8.32732 6	1.18742 9	5.56002 8	13.3570 3
Change in GDP Per Capita, Logged	5323	0.02548	0.31206 9	- 0.79692	20.7940 6

#### Dependent Variable

The dependent variable in this project is the coup attempt, following the definition set forward in Powell and Thyne (2011) data article: “attempts by the military or other elites within the state apparatus to unseat the sitting head of government using unconstitutional means”. In their dataset from 1950-2010, Powell and Thyne recorded 457 coup attempts total. In the full model, there are 401 years in which a coup attempt occurs, with the highest number of coups per country per year at 4, but the vast majority with only one occurring in a given year. For the purposes of this study the coup attempt variable has been recoded from a yearly count to a dichotomous variable, coded as “1” if there was an

attempt in a country year and “0” if there was none. In the full models on which the tests are run below, there are 252 country-years in which coup attempts occurred.<sup>208</sup>

**Figure 1: Coup Attempts over time by regime type, 1950-2010** <sup>209</sup>

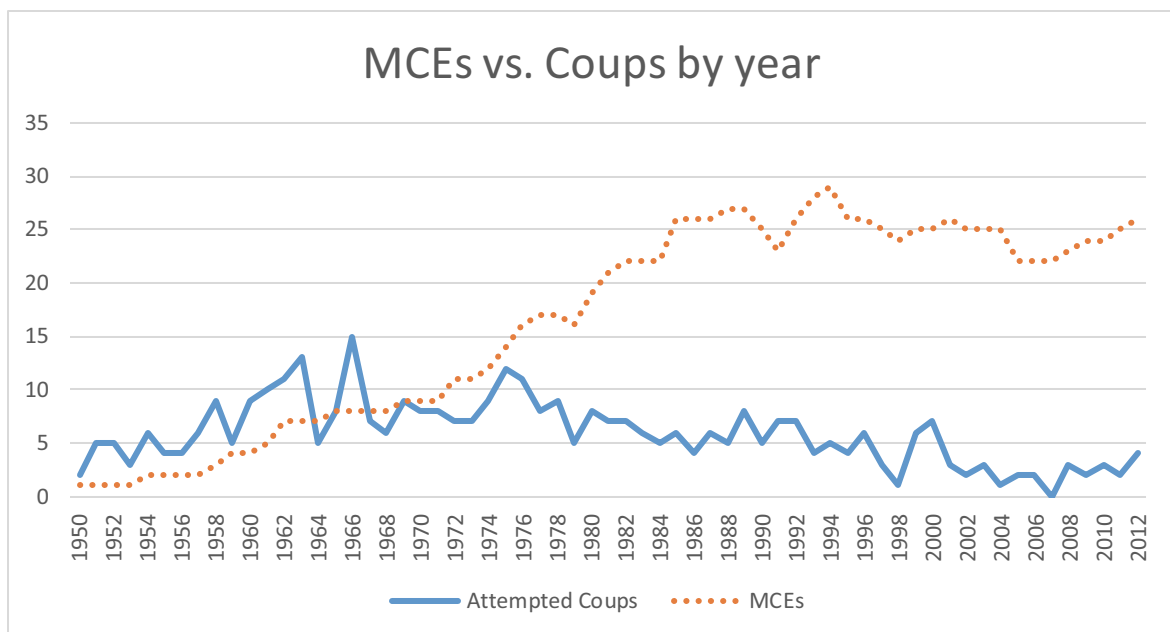


As Figure 1 shows, there are different trends with respect to coup attempts and regime type over time. The figure shows that, while over time the frequency of coups overall has gone down, the particular behavior of regime types with respect to risk of coup attempts is also quite different. Autocracies have seen a marked decrease in the occurrence of coup attempts over time, from a high in 1978 of 9 coup attempts to their first year without any in 1997. Democracies on the other hand have seen relative constant levels of lower coup

<sup>208</sup> The majority of missing coup attempts in the dataset are either 1) multiple coups in the same country-year so they are compressed to a “1”, or 2) they occurred in states that did not meet the requirements for inclusion.

risk from 1960 onwards. While the high for democracies was 4 in 1960 and 1967, democracies rarely broke even two coup attempts a year in the next 40 years. Anocracies, those states that are neither consolidated democracies or consolidated autocracies, have seen a trend roughly analogous to consolidated autocracies, with the early years of many states experiencing a high number of coups, and as time wears on the risks gradually lowers.<sup>210</sup>

**Figure 2: Plot of frequency of MCEs and Coup Attempts by year, 1950-2010**



In terms of the relationship between coup attempts and the presence of MCEs, Figure 2 shows some preliminary evidence that MCEs could serve a coup-proofing function.

There is a decline in the number of coups as the number of states with MCEs rises. As the

<sup>210</sup> The Polity IV Project identifies all those above 6 on the polity scale as “democracy”, below -6 as “autocracy” and those between -6 and 6 as “anocracy”. This study uses this same terminology so that when discussing democracy versus autocracy, both researchers and readers understand that there is a clear difference between the two. Anocracies can lead towards one or the other, but breaking down the polity into clear categories makes analysis much easier.

number of countries with MCEs controlled by the armed forces have increased, the number of coup attempts has decreased. In the period when MCEs were virtually non-existent, from 1950 to 1970, coup activity was at its highest, while coup activity began to peak and decline around the time that MCEs began their greatest growth. While this is certainly not definitive proof that MCEs provide coup-proofing benefits, it does suggest that one component of taming the military could involve ensuring that military financial needs are met.

**Figure 3: Frequency of Regime Types over Time**

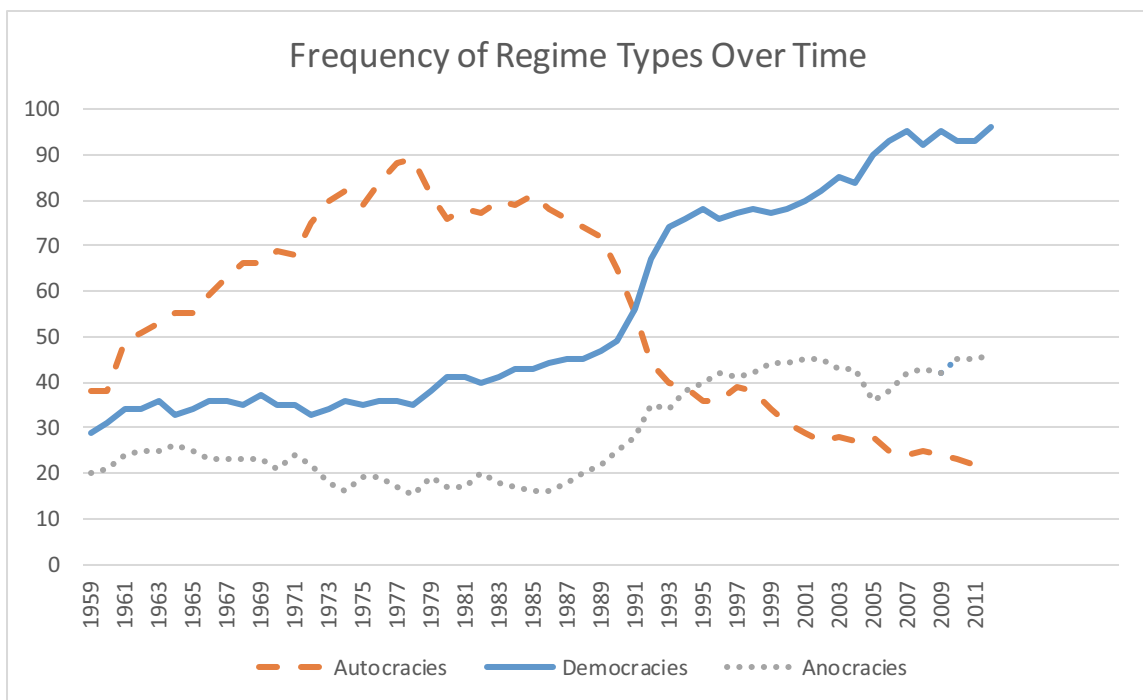
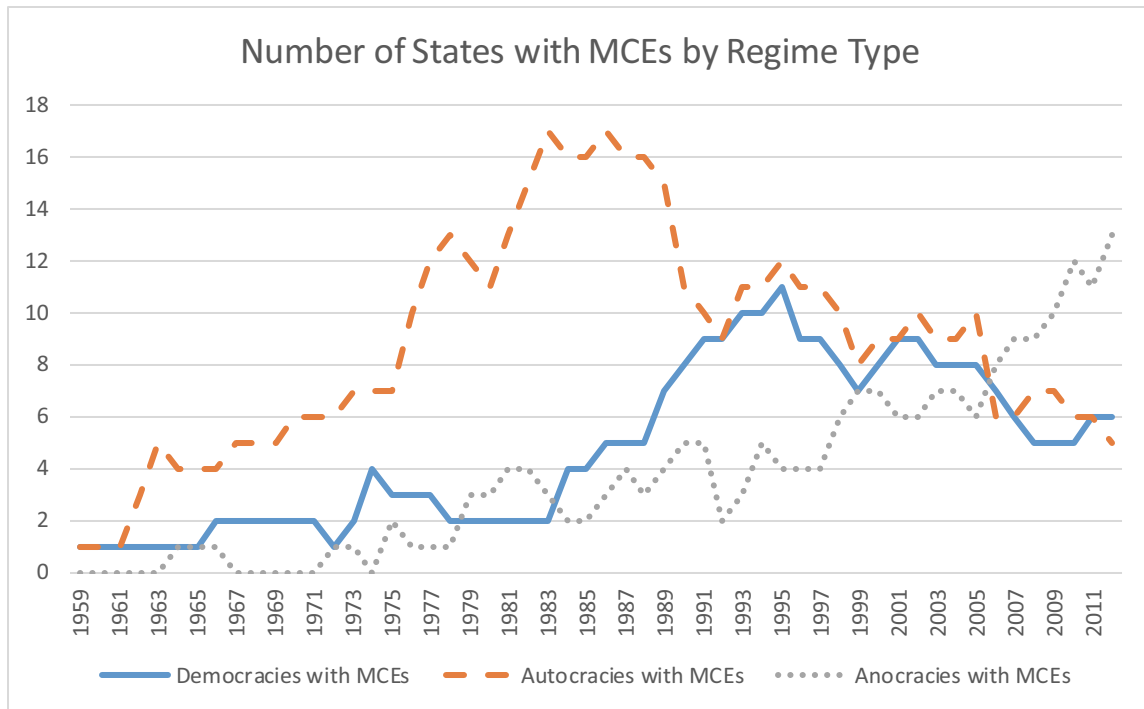


Figure 3 shows the frequency of regime types over time. One striking feature of this figure is the incredible reversal in the frequency of autocratic rule and democratic rule from the mid-1970s to the late 2000s. This wave of democratization began in the mid-80s and reached its peak in the early 90s. Many of the most consolidated autocratic regimes fell in much the same rate, either becoming unconsolidated autocracies, anocracies or



even democracies so that at the beginning of the 2000s, there were more anocracies than autocracies.

**Figure 4: Number of states with MCEs by Regime Type by Year**



Finally, figure 4 shows the trend in time over which regime types have MCEs.

Autocracies have by far the most MCEs until the mid-90s, when democracies and autocracies have roughly the same number until the end of the dataset. Interestingly, autocracies seemed to adopt MCEs early on during the 70s and 80s until there was a sharp decline in the early 90s, commensurate with a sharp increase in democracies and anocracies with Institutional MCEs. This suggests either that autocracies transitioned away from autocracy, bringing with them some Institutional MCEs during the transition, or that autocracies shed their Institutional MCEs from the 1990s on. Combined with the trends of regime type in figure 2, the decrease in autocratic MCEs in figure 3 suggests

more strongly that the increase in democracies and anocracies having Institutional MCEs is more a function of autocracies bringing their Institutional MCEs with them during transitions.

**Table 2: Coup Attempts by Regime Type and Institutional MCE Presence**

<b>Coup Attempts by Regime Type and Institutional MCE</b>			
	<b>Democracy</b>	<b>Autocracy</b>	<b>Anocracies</b>
<b>Without MCEs</b>	31	101	7
<b>With MCEs</b>	9	5	

In terms of how the issues of coup risk, Institutional MCEs and regime type are related, Table 2 makes the point quite clearly: the above tabulation is of coup attempts by regime type and presence of Institutional MCEs. As the table shows, in 106 cases of coup attempts in autocracies, only 5 occurred while MCEs were present while 101 occurred in autocracies without MCEs. This is preliminary evidence that MCEs have some relationship with coup risk in autocracies, weak evidence in anocracies, and none within democracies. In the case of democracies, there are 9 coup attempts out of 40 where MCEs are present. In anocracies, there are also 9 cases of coup attempts in the presence of MCEs out of 86 total, suggesting weak evidence that MCEs work to reduce coup likelihood in anocracies.

#### Independent Variables

The first hypotheses proposes that in autocracies, MCEs serve a coup-proofing function in that once an institutional MCE is established, the risk of a coup attempt decreases.

Prior research has shown that as spending per soldier increases, the likelihood that a coup

occurs decreases.<sup>211</sup> MCEs serve a similar function, distributing benefits to officers in multiple channels and over different time frames. If the military has more resources with which to spend on its officers, then officers will be more content with the status quo and thus less likely to attempt to seize control of the state. Armed forces that are better able to equip and train their officers and provide them with financial support to their normal salaries are less likely to have dangerous divisions develop within the officer corps between junior and senior officers, and lessen the likelihood of a violent rebellion in the form of a coup attempt.

The primary indicator for MCE is the *Institutional MCE* variable. *Institutional MCE* is a dichotomous variable on whether or not the armed forces are in control of both commercial and defense industries, with the primary ownership dynamic being that the MCEs are under the control of a highly institutionalized arrangement within the hierarchy of the armed forces.

In addition to a simple dichotomous measure of the presence of MCEs, the model also includes a measure for how long an MCE has continuously been in existence, *Institutional MCE Run*. The variable is a count of years since the MCE was first established, starting over from zero if the MCEs are disbanded or handed over to another agency to administer. The logic behind including this variable is that the kind of strong institutional control of MCEs will not have benefits readily available immediately. It may take some time for officers to see the benefits of such a system, especially junior officers

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<sup>211</sup> Powell J., "Determinants of the Attempting and Outcome of Coups d'etat". *Journal of Conflict Resolution* 56(6): 1017-1040

a long time away from retirement. So it is expected that, the longer MCEs exist, the more readily apparent the benefits to the officer class are, leading to a lower coup likelihood over time. It may take time for such institutions, once established, to have the desired effect of enhancing the loyalty of the officer corps through the distribution of benefits. Most MCEs began as modest enterprises that could not provide immediate large benefits to their officers, with many offering benefits only after retirement, or a small amount of extra income initially. Many MCEs need time to grow and for their beneficiaries to actually see any benefits, thus it is also likely that these MCEs will have a larger cumulative effect, and that the time since the establishment of MCEs should be negatively associated with coup risk. A simple variable, which is a count of every year since the establishment of an institutional MCE that resets if there are no MCEs in a given year, will serve the purpose of examining the time-varying dynamics of MCEs.

#### Control Variables

In terms of control variables, they are taken from some of the strongest claims in the most recent work on coup risk. One of the most important is military expenditures, as a larger budget usually means more and better equipped troops. Military spending has been consistently used in previous studies and has been found to decrease the likelihood of coup attempts.<sup>212</sup> More spending also means that military priorities are being given higher consideration by the state government, making the status quo more palatable to

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<sup>212</sup> Powell J., "Determinants of the Attempting and Outcome of Coups d'etat". Journal of Conflict Resolution 56(6): 1017-1040; Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'etats", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007; Gabriel, Leon "Loyalty for Sale? Military Spending and Coups d'Etat", Feb 1. 2012, Faculty Workshop; Barka Ben, Habiba & Ncube, Mthuli "Political Fragility in Africa: Are Military Coups d'etat a Never-Ending Phenomenon?", African Development Bankm Chief Economist Complex, September 2012;

military leaders. More important than just aggregate measures of spending though is the amount of funding per soldier as a general indicator of how well soldiers are treated. Unfortunately there are not easily found data on spending per officer, the most important groups of actors when it comes to coup activity, but *Expenditure Per Soldier (EPS)* should be a good enough indicator as officers are included in the category. There is not a high degree of correlation between EPS and MCEs.<sup>213</sup> The source of data on expenditures comes from Correlates of War, which rely upon public data on military spending, whereas MCEs are almost entirely off-book in their finances.<sup>214</sup>

Another feature of the armed forces included in the model is the composition of the security environment itself.<sup>215</sup> The variable *Effective Number of Armed Groups* is a measure of the number of armed groups that exist in a state in a given country year. As many state leaders have faced a variety of challenges to their rule, both within their regime and outside of it, leaders have had to adopt a variety of coup-proofing strategies to secure their political power. Some of these strategies try to ensure military loyalty through “carrots”, but failing that, leaders also use “sticks” such as purges, assignment of troublesome officers to harmless positions and forced retirements, among others.<sup>216</sup> An alternative strategy is for leaders to ensure that their potential enemies are divided, and

<sup>213</sup> In the full model, correlation between *Institutional MCE* and *Expenditure per Soldier* is 0.0347.

<sup>214</sup> Singer, J. David. 1987. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816-1985" *International Interactions*, 14: 115-32.

<sup>215</sup> Alternate models also included measures of the size of the military, as measured by the number of personnel, but it was not found to be significant in any model.

<sup>216</sup> <sup>216</sup> Bueno de Mesquita, Bruce, Smith, Alastair, "Political Succession: A model of coups, revolution, purges and everyday politics", *Journal of Conflict Resolution*, September 2015, 1-37; Koga, Jun, "Authoritarian Consolidation of Power: When can a dictator undermine the threat of coup replacement?", Presentation at Annual Meeting of Southern Political Science Association, Orlando, Florida, 2013

that their regime has enough strength to resist attempts by challengers to displace them.<sup>217</sup> Towards that end many states have fragmented their security agencies, often creating what are termed “mutually suspicious” groups within the armed forces to lower the likelihood that a system-wide coup plot could develop.<sup>218</sup> In addition to fragmenting the armed forces, many leaders set up competing armed groups such as paramilitary groups, secret police, local defense forces, etc., so that there may be additional obstacles to any attempted takeover to any one challenger. One such measure comes from Bohmelt and Pilster, who have collected information on the number of armed organizations that stand any chance of being able to resist an armed seizure of power.<sup>219</sup> Their variable, *Effective Number of Armed Groups*, will be included as it represents an important alternative coup-proofing strategy that could be used in tandem or in place of a coup-proofing strategy involves both “carrots or sticks” to secure a regime’s place. The relationship between the *Effective Number of Armed Groups* and coup attempts is expected to be negative.<sup>220</sup>

Controls for economic and political variables are also included, using measures of *GDP per capita* and *changes in GDP per capita*. It is often in times of economic distress that civilian regimes are likely to face challenges from both opposition parties and from the armed forces.<sup>221</sup> Economically difficult times will invite regime change, and give officers

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<sup>217</sup> Quinlivan, James, “Coup-Proofing: Its Practices and Consequences in the Middle East”, RAND Corporations, 2000

<sup>218</sup> Belkin and Schoefer, “Toward a Structural Understanding of Coup Risk, *Journal of Conflict Resolution*”, October 2003, vol. 47 No.5

<sup>219</sup> Pilster, Ulrich and Bohmelt, Tobias, “Coup-Proofing and Military Effectiveness in Interstate Wars, 1967-1999”, *Conflict Management and Peace Science*, 28 (4): 331-350

<sup>220</sup> Aaron Belkin and Evan Schofer, “Coup Risk, Counterbalancing, and International Conflict,” *Security Studies* 14, no. 1 (2005): 140–177;

<sup>221</sup> Johnson, John, “*Role of the Military in Underdeveloped Nations*”, Princeton, NJ, Princeton University Press, 1962

in the armed forces greater claim to remove civilian regimes.<sup>222</sup> Indeed, in other literature it has been found that higher income leads to a much diminished likelihood of coups.<sup>223</sup> The inclusion of an economic variable cannot be overlooked, as the state of the economy is often a barometer of support for a regime or any sort, as it deeply affects the ability of the government to offer sufficient benefits to the armed forces.<sup>224</sup> Both *GDP per capita* and *Changes in GDP per capita* are expected to have a strong negative relationship with the likelihood of a coup attempt.<sup>225</sup>

As for political variables, I have used several indicators of regime type along with a measure of political instability. The first will be a simple measure from the Polity IV project, using both the aggregate measure of democracy vs. autocracy, as well as cutoff points of 6 and -6 for a dichotomous measure of democracy and autocracy respectively.<sup>226</sup> The second comes from the Banks Cross National Time Series Dataset which has a variable of military regime.<sup>227</sup> In all models none of the regime types were found to be significant with respect to coup attempts except for the Banks variable *Banks Military Regime*, which is included in the model.<sup>228</sup> Political instability is also a concern

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<sup>222</sup> Nam Kyu Kim, "Revisiting Economic Shocks and Coups", *Journal of Conflict Resolution*, February 2016 vol. 60 no.1 3-31; This study also shows that the impact of economic shocks on coups are dependent upon the duration and severity of the economic shocks.

<sup>223</sup> Londregan, John B. and Poole, Keith, "Poverty, the Coup Trap and the Seizure of Executive Power" *World Politics* 42(2): 151-183, 1990

<sup>224</sup> Steffen Hertog, "Rentier Militaries in the Gulf States: The Price of CoupProofing," *International Journal of Middle East Studies* 43, no. 3 (2011):400-402

<sup>225</sup> Ibrahim, Amina, "Guarding the State or Protecting the Economy: The Economic factors of Pakistan's Military Coups", *Development Studies Institute LSE*, 2009

<sup>226</sup> Marshall, Monty G., Keith Jagers & Ted Robert Gurr. 2011. *Polity IV Project: Dataset Users' Manual*. Center for Systemic Peace: Polity IV Project.

<sup>227</sup> Banks, Arthur S., Wilson, Kenneth A. 2015. *Cross-National Time-Series Data Archive*. Databanks International. Jerusalem, Israel;

<sup>228</sup> Other regime variables came from the Geddes Autocratic Regime dataset, which had further differentiation between autocratic regimes. A significant relationship was not found.

when it comes to coup risk, as a greater degree of political instability could lead military leaders to act and seize control of government to bring order back to the state. The *Banks Instability Index* comes from the Banks Cross National Time Series dataset, which is one way of capturing such dynamics, which is an indexed number that increases in magnitude with different instances of political instability such as anti-government demonstrations, assassinations, strikes, government crises, guerilla warfare, revolutions, purges, and riots.<sup>229</sup> It is expected that political instability will be positively associated with coup risk.

Finally, one of the best indicators of coup activity is prior coup activity.<sup>230</sup> Thus, a temporal measure of time since a coup last occurred will be included to help measure prior coup activity. The simple count of years since a coup occurred, *Years since Coup*, will be used. Previous studies have shown that the most dangerous time for another coup is in the year right after a coup, with the risk tailoring off significantly after the first few years.<sup>231</sup> It is expected to have the same negative relationship with coup risk.

## Results

This section will evaluate the three hypotheses of the above sections: 1) that the presence of MCEs reduces the likelihood of coup risk in autocracies, and 2) that the longer an MCE exists, the greater its effect on reducing coup risk, and 3) that MCEs will have their highest effectiveness in lower income countries. Each subsection will evaluate the

<sup>229</sup> Banks, Arthur S., Wilson, Kenneth A. 2015. Cross-National Time-Series Data Archive. Databanks International. Jerusalem, Israel;

<sup>230</sup> Powell, Jonathan; Chacha, Mwita, "Investing in Stability: Economic Interdependence, Coups d'état and the Capitalist Peace", Forthcoming *Journal of Peace Research*, Available at: [http://www.jonathanmpowell.com/uploads/2/9/9/2/2992308/investing\\_in\\_stability\\_condition\\_full.pdf](http://www.jonathanmpowell.com/uploads/2/9/9/2/2992308/investing_in_stability_condition_full.pdf)

<sup>231</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'états", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007



statistical and substantive effects of the major variables of interest and their included control variables.

#### Institutional MCE – Dichotomous Model

This section will evaluate both the statistical, then substantive results of the models.

Table 1 presents the results of two different models with the primary variable of interest.

Both models utilized a random effects probit models clustered on country.<sup>232233</sup> The results in Table 2 are encouraging as they show support for the hypotheses that the presence of *Institutional MCEs* has a negative relationship with the likelihood of a coup attempt. *Institutional MCE* was lagged to account for the possibility of reverse causality, and all subsequent models shown are based upon the lagged *Institutional MCE*.<sup>234235</sup> The following analysis is based upon models run on data between 1960 and 2010.<sup>236</sup>

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<sup>232</sup> Additional models were run with random effects by year, as well as regular probit models with standard clustering functions by both country and year. All these tests are available in the appendix under Table 2A.

<sup>233</sup> Interestingly enough, Models 1 and 2 in Table 2 turned out to have coefficients roughly 20% larger than probit models without random effects and clustering.

<sup>234</sup> There are additional models run with the non-lagged version of both the dichotomous and continuous versions of *Institutional MCE* available in the appendix. The results are consistent with the models in Table 2.

<sup>235</sup> In some cases, sources would cite the start of a new economic program or institutional MCE as beginning the same year as the coup. In many cases the enterprise did not actually begin until the following year, or a program did not receive funding or support until the year after a coup occurred.

<sup>236</sup> The model was run from 1960 to 2010, but data on the full dataset of Powell and Thyne was presented so as to show the full range of information available.

**Table 3: Full Probit Models of Coup Attempt, Institutional MCEs with Random Effects (1960-2010) by Regime**

Type VARIABLES	(1)	(2)	(3)
	Model 1 - Primary Model	Model 2 - Democracy Sample	Model 3 - Autocracy Sample
<b>Institutional MCE</b>	<b>-0.270**</b> <b>(0.135)</b>	<b>0.0775</b> <b>(0.265)</b>	<b>-0.688***</b> <b>(0.204)</b>
Coup Attempts, Lagged	0.252** (0.122)	0.0480 (0.352)	0.320* (0.170)
Number of Soldier, Logged	-0.0320 (0.0316)	0.0234 (0.0715)	-0.0377 (0.0403)
GDP per capita, Logged	-0.102* (0.0542)	-0.241* (0.133)	-0.147** (0.0661)
Change in GDP per capita	-0.689* (0.381)	-0.738 (1.326)	-0.0186 (0.286)
Effective Number of Security Organizations	0.0305 (0.0732)	-0.0765 (0.157)	-0.0473 (0.105)
Years Since Coup	-0.0232*** (0.00536)	-0.0353*** (0.0108)	-0.0141** (0.00661)
Banks Instability Index, Lagged, Logged	3.72e-05** (1.82e-05)	8.42e-05** (3.57e-05)	3.27e-05 (2.63e-05)
Banks Instability Index, Lagged	0.0281** (0.0131)	0.0268 (0.0315)	0.0309* (0.0183)
Military Regime, Banks	0.203 (0.130)		0.349** (0.152)
Expenditure per soldier, Logged	-0.150*** (0.0521)	-0.171 (0.132)	0.0570 (0.0650)
Constant	-0.233 (0.423)	0.393 (0.986)	-0.126 (0.500)
Observations	5,323	2,119	2,125
Number of ccode	152	97	100

Table 3 displays a probit analysis of the effect of the dichotomous measure of *Institutional MCEs* on the full dataset, the sample of democracies and the sample of autocracies. In Model 1 *Institutional MCE* is statistically significant and in the expected direction of having a negative relationship with coup attempts. When broken down by democracy or autocracy, however, the effects of *Institutional MCEs* diverges significantly. In Model 2 for democracies, there is hardly any effect of *Institutional MCEs* on the likelihood of a coup attempt. In fact, in the sample of democracies hardly any of the control variables are significant aside from *Years Since Coup* and the *Banks*

*Instability Index*.<sup>237</sup> *Years Since Coup* has a negative impact on coup risk across all models, while *Banks Instability Index* is only significant for the primary and democracy models. This is evidence in favor of the hypothesis that *Institutional MCEs* do not function as a viable coup-proofing mechanism for democracies.

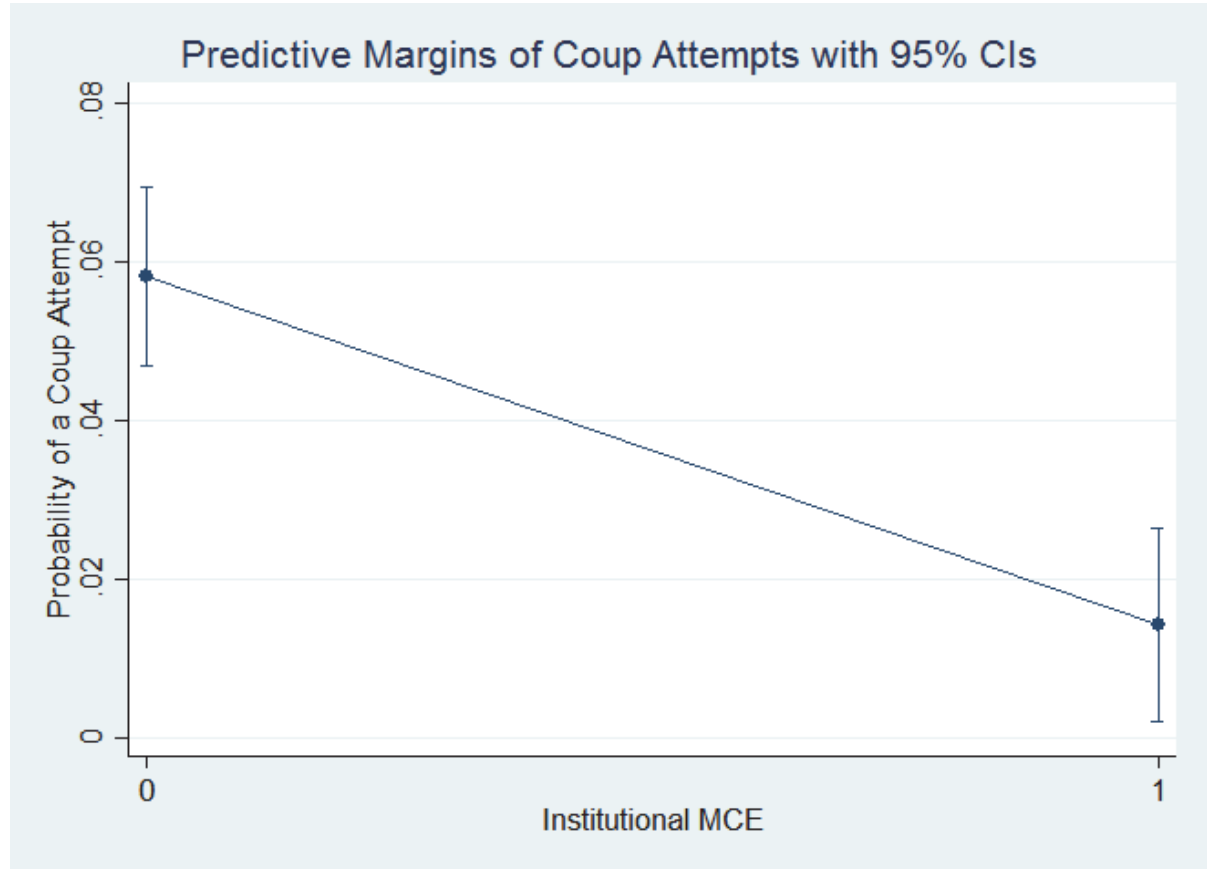
In Model 3, for autocracies the effect of *Institutional MCEs* on coup attempts is both statistically and substantively significant. The coefficient for *Institutional MCEs* in Model 3 is negative and significant, along with *GDP Per Capita* and *Years Since Coup*. With increases in the time since a coup attempt and with increases in GDP per capita, there is a decrease in the likelihood of a coup attempt. The variable *Banks Military Regime* is also significant, with the presence of a military regime increasing the chance of a coup attempt. Interestingly, expenditures per soldier is not significant in autocracies, suggesting that mere increases in expenditures on soldiers is not a viable strategy for autocracies.<sup>238</sup>

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<sup>237</sup> In Table 3B, available in the appendix, with alternative measures of democracy the same pattern is found. In Table 3b, with fixed effects by country and year, the coefficient of *Institutional MCEs* is significant and negative, but the number of observations left after accounting for fixed effects is 267, which does not exactly inspire confidence in the results.

<sup>238</sup> There is also the possibility that that most outlays from autocratic regimes in terms of spending is on equipment, technology and ammunition and outlays on personnel are much smaller as a percentage. Unfortunately, this is not a testable hypothesis with the current data.

**Figure 4: Predictive Margins of Institutional MCEs on Coup Attempts – Model3**



As Figure 4 shows, the presence of *Institutional MCEs* in autocracies has a strong effect. In autocracies without *Institutional MCEs* the predicted likelihood of a coup attempt is 5.8% in a given country year. In autocracies with *Institutional MCEs*, the predicted likelihood a coup attempt is 1.4%, a decrease of more than three-quarters from those autocracies without *Institutional MCEs*. This shows strong support for the hypothesis that autocracies will benefit strongly from the presence of *Institutional MCEs* where reducing the likelihood of coup attempts is concerned.

**Figure 5 & 6: Predictive Margins of Years Since Coup Attempt on Coup Risk – Model 3 & Predictive Margins of GDP Per Capita on Coup Risk - Model 3**

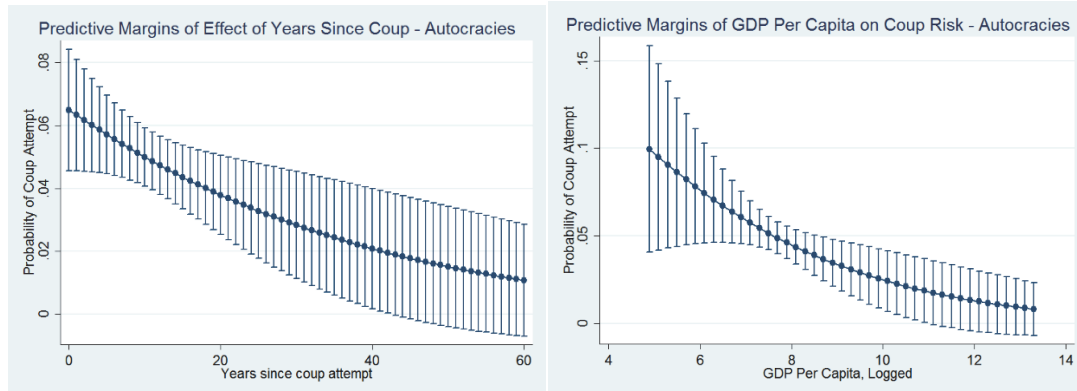


Figure 5

Figure 6

Figure 5 above shows the likelihood of a coup attempt given years since a previous coup attempt in autocracies. The effect is strong and negative, with a probability of a coup attempt in the first year after a coup at 6.3%. At 5, 10 and 15 years the predicted probability is 5.7%, 4.9% and 4.3% respectively. This decrease over time shows that, if the autocracy is able to survive the initial years after a coup attempt, it should face far lower coup risks as time goes on. Similarly, there is a huge effect with GDP Per Capita in Figure 6 on the likelihood of a coup attempt. At a GDP Per Capita of \$445, the risk of a coup is 6.9% in a given country-year for autocracies. An increase from \$500 to \$1000 leads to a coup risk of 5.6%. Finally, at \$7000 GDP per capita, the likelihood of a coup attempt is reduced to 3.7% in a country year. This shows that development is also an important indicator of the risk of a coup attempt. This also suggests another line of inquiry – which is how the effect of *Institutional MCEs* might change across different levels of development.

**Figure 7: Predictive Margins of Coup Attempts Given Institutional MCEs – Model 1**

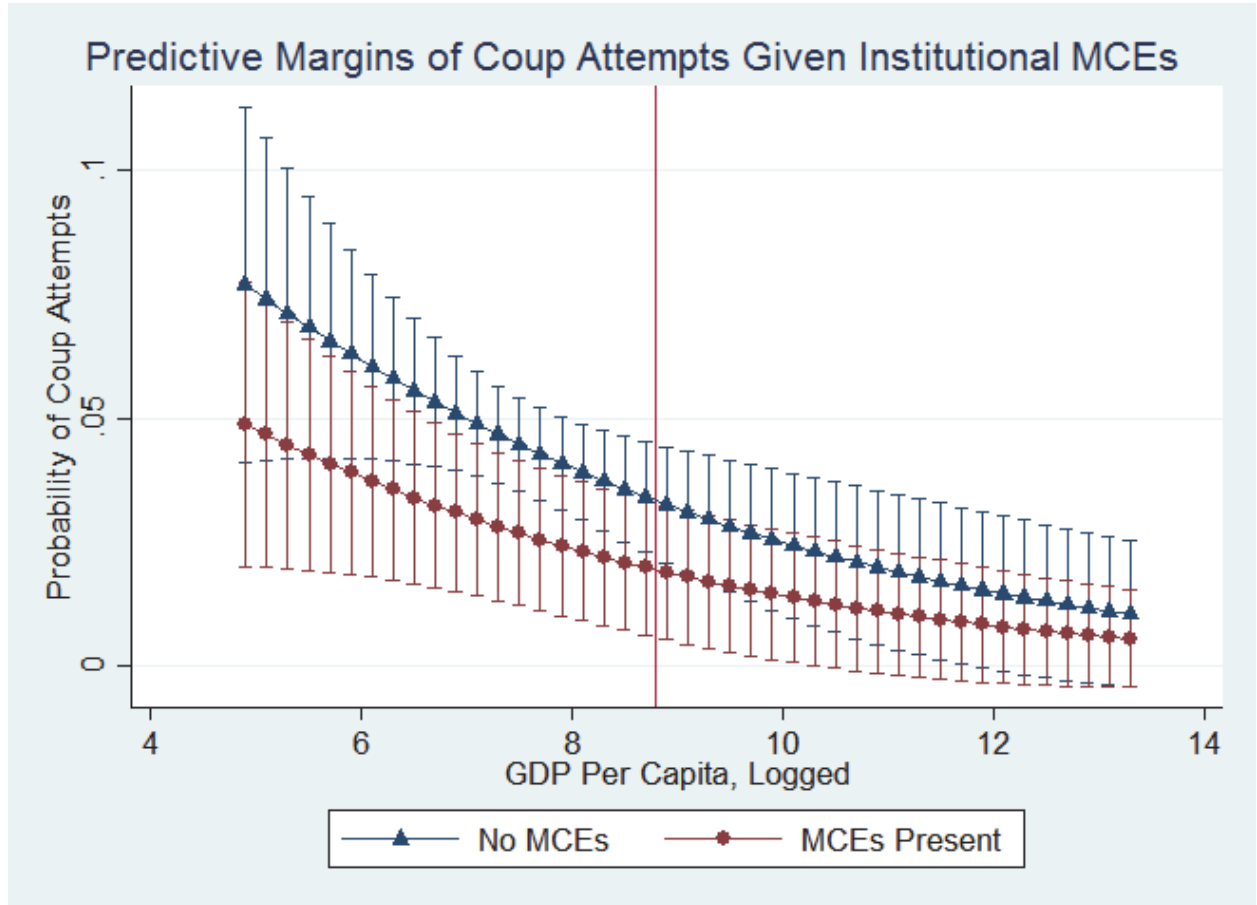


Figure 7 above shows the results from Model 1, on the full dataset including both democracies and autocracies. The vertical line in the graph signifies \$7000 GDP per capita, the development at which Przeworski et. al. found that democracies are extremely unlikely to revert to autocracy. The graph shows two lines, the top one is the predicted probability of a coup attempt in all states without *Institutional MCEs*, and the bottom are all those states with *Institutional MCEs* over different levels of development. Importantly, for sets of cases, higher development decreases the likelihood of a coup attempt. In the case of *Institutional MCEs*, the overall likelihood of a coup attempt is lower over all levels of development, though the difference is only statistically significant for values below 9.

The fact that around 8.8 – 9 (~\$7,000 GDP per capita) the effect of *Institutional MCEs* begins to have less of an effect is significant because it matches up very well with earlier conclusions from research on development and democratization. This suggests that, consistent with the conclusion of Przeworski et. al's theory of exogenous democratization, development overrides other variables affecting regime stability and transition past a certain level. In the model of exogenous democratization, development is not a driver of political transition, but rather development acts to prevent regime transitions away from democracy. Development then is not the cause of democratic transitions, but rather it affects the direction and frequency of transitions, mainly that once a certain level of development is achieved a regime that transitions to democracy tends to stay a democracy.

Consistent with this thesis, the models show that GDP per capita is associated with lower levels of coup attempts, one kind of regime transition. In Model 1 also shows that as development increases, the significance of the effect of *Institutional MCE* begins to decrease as development takes more of a role: at 8.8 (\$7,000) the effect of *Institutional MCEs* begins to decrease, and at 10.5 (\$30,000) the effect of *Institutional MCE* is entirely insignificant. Coup attempts (when they are successful at least) are one form of regime transition, either for autocratic or democratic failure. As development increases the likelihood of a coup attempt decreases to a negligible amount (2% by \$30,000). All models above show the same relationship between development and coup attempts – which confirms the primary finding of exogenous democratization literature.

**Figure 8: Predictive Margins of Coup Attempts Given Institutional MCEs – Model3 – Autocracies**

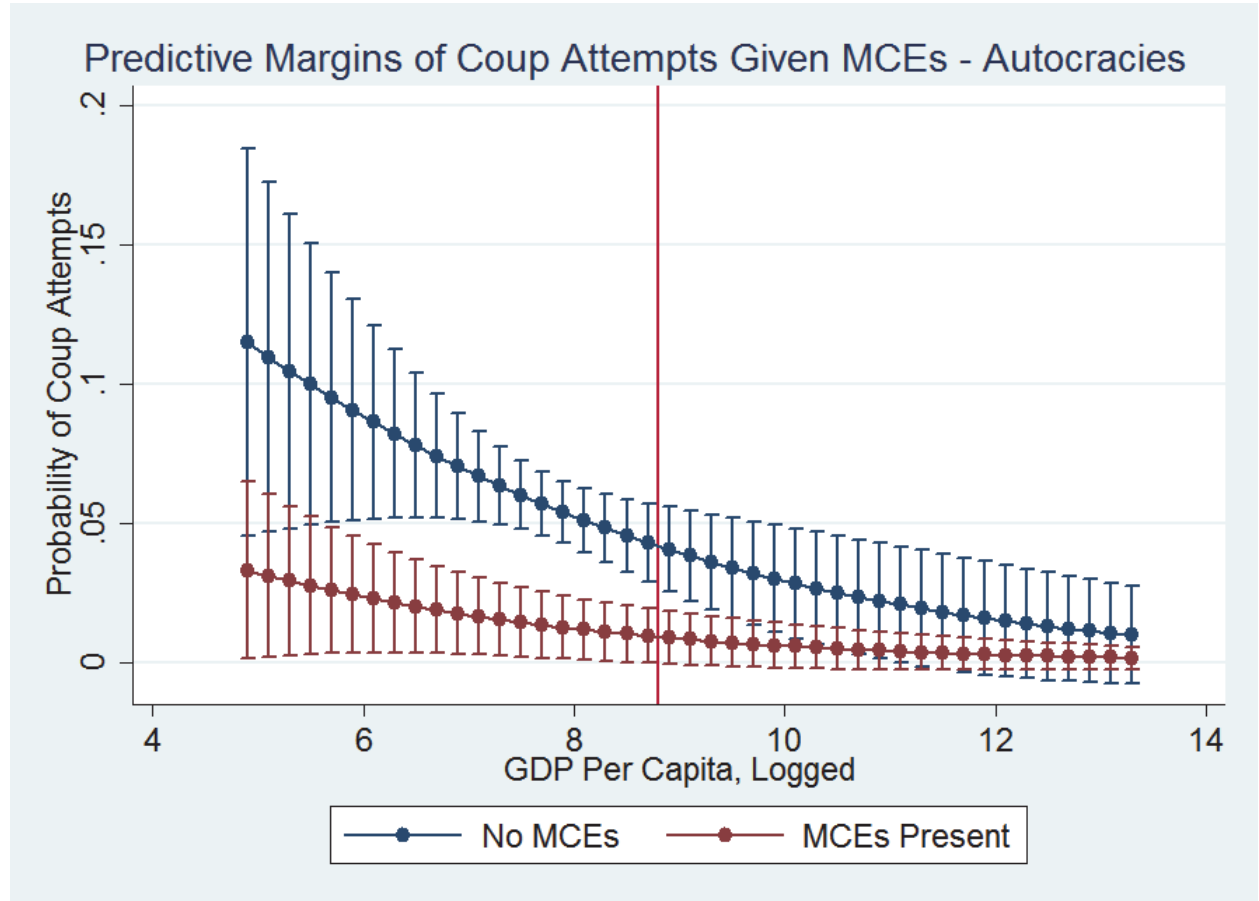


Figure 9 shows the same predicted probabilities of coup attempts, this time only on the sample of autocracies.<sup>239</sup> Figure 9 shows the same methods though applied to the sample of democracies. In both cases, the level of development does have a relationship to one kind of regime transition. Whereas Przeworski et. al. are agnostic about whether development creates opportunities for transitions, the above two figures do give some evidence that there is a relationship between development and the occurrence of coup attempts. While not all coup attempts lead to a transition, it is clear from the above that 1) at higher levels of development coup attempts are less common and that 2) this effect

<sup>239</sup> Figure 8a also shows the same predicted probabilities on a sample of democracies.



appears to be the case regardless of regime type. The difference in coup risk between an autocracy and a democracy at \$7,000 GDP per capita is 0.4 percentage points, which is almost negligible.<sup>240</sup> While this study does not look at all possible transition types, at least with respect to coup attempts both autocracies and democracies behave roughly the same way with regards to development – that as development increases the number of possible transition attempts decreases.

With respect to *Institutional MCEs*, autocracies and democracies have wildly different behaviors. While there are no effects of *Institutional MCEs* in democracies, there is a strong effect in autocracies before the \$7,000 mark. The difference between those autocratic states with *Institutional MCEs* and those without is stark: below the \$7,000 mark *Institutional MCEs* have a large impact on the likelihood of a coup attempt, decreasing the likelihood by nearly 50%. It is also important to note that there are only 18 country years of autocracies with *Institutional MCEs* past the \$7,000 mark, and none past \$15,000. There are also only 320 country years of autocracies past the \$7,000 mark.<sup>241</sup> The fact that there are virtually no states with *Institutional MCEs* past the \$7,000 mark suggests that MCEs are themselves primarily a mechanism to stay in power established by leaders in poorer states.

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<sup>240</sup> Autocracies have a coup risk of 1.2%, while democracies have an average of 0.8% at \$7,000 GDP per capita.

<sup>241</sup> Those autocratic states past the \$7,000 mark are a collection of Gulf Coast States, former Soviet Republics and satellite states, Mexico, Greece, Iran, Iraq, Portugal, Spain, Taiwan and Uruguay.

**Figure 9: Plot of Expenditures per soldier and GDP per capita by Regime Type**

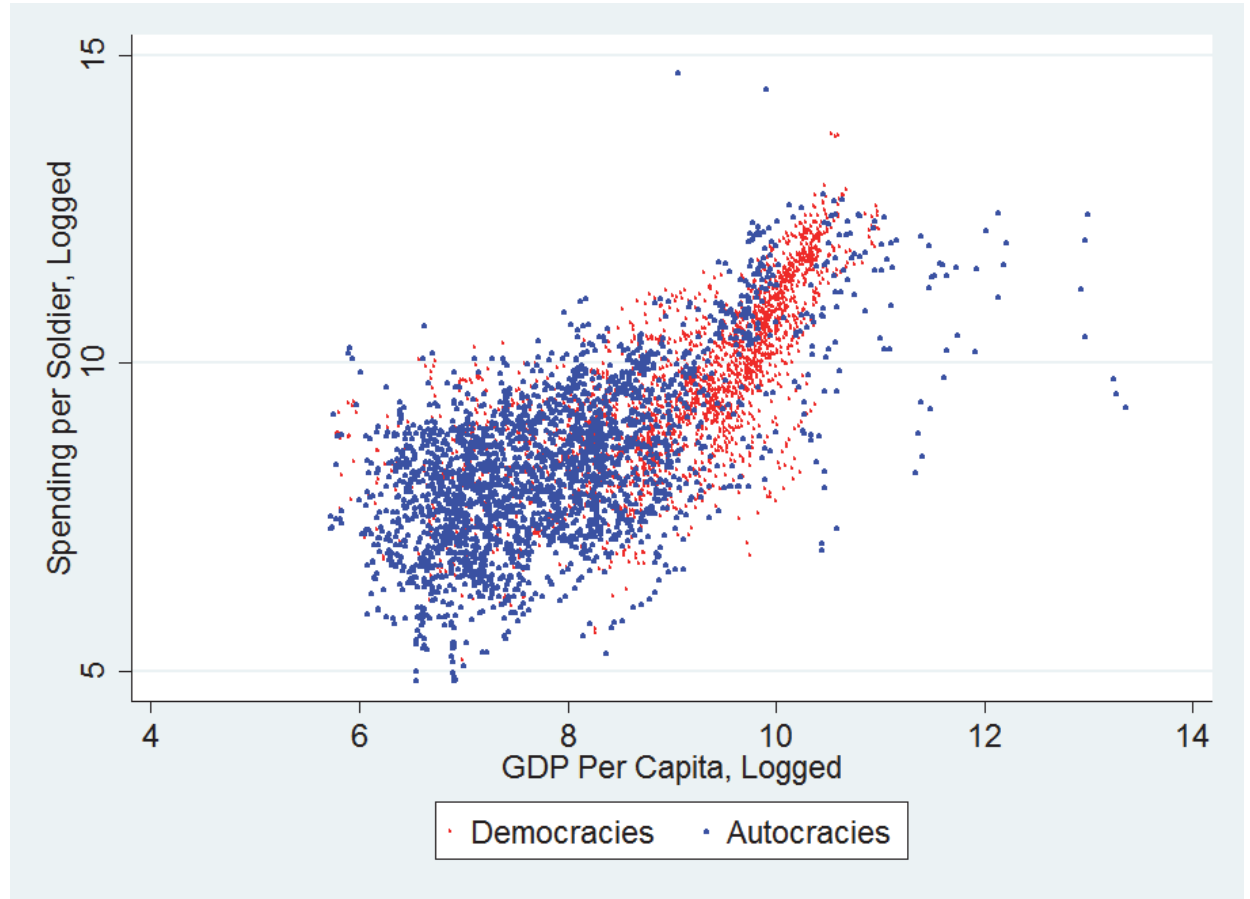


Figure 9 displays a scatterplot of expenditure per soldier and GDP per capita, displaying democracies in red and autocracies in blue. While the estimations for the effect of autocracies with MCEs past \$7,000 are not trustworthy, the effects at lower levels of income are substantively strong and suggest that leaders strategically respond to their environments by establishing MCEs to lower coup risk. As Figure 9 shows, autocracies tend to be poorer, and as a result the amount they are able to spend per soldier is quite low especially when compared to democracies. There are some outlier autocracies when it comes to high GDP per capita, but they are somewhat evenly distributed among expenditures per soldier, all of which are Gulf Coast States. The above figure shows the

concentration of most autocracies in the lower clusters of both GDP per capita as well as spending per soldier.

**Figure 10: Plot of expenditure per soldier and GDP per capita, by presence of MCEs**

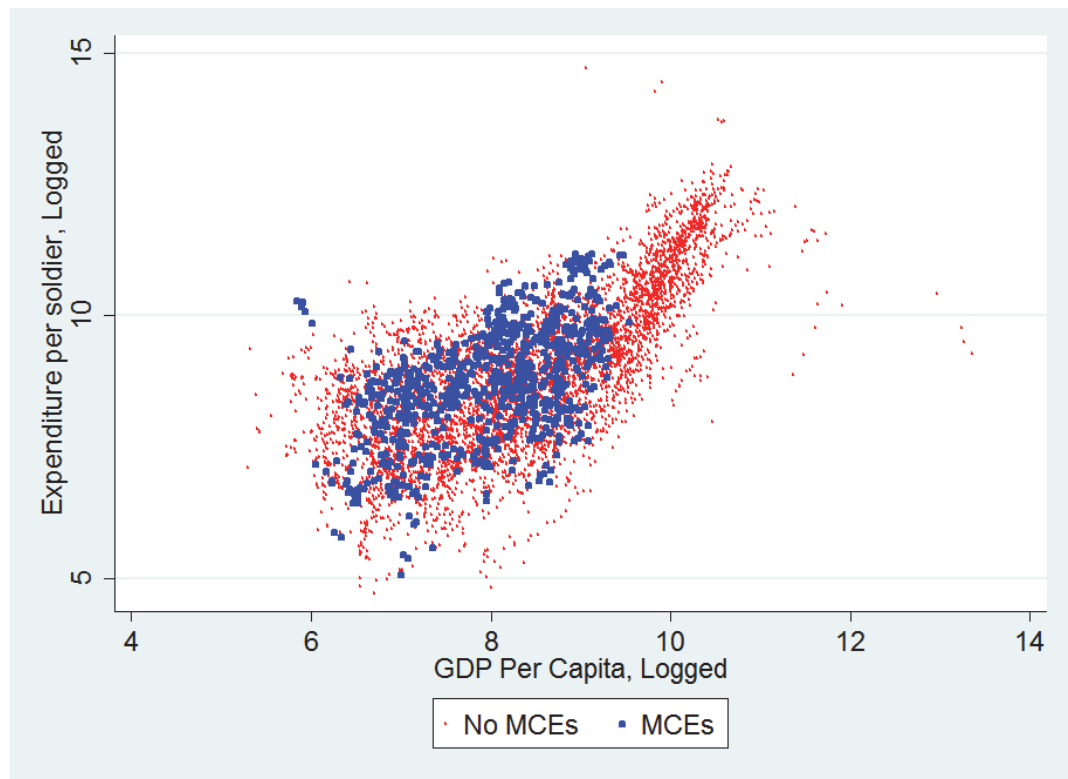


Figure 10 shows the same plot of expenditure per soldier and GDP per capita, but this time breaking the sample down by presence of MCEs. The pattern is that most MCEs tend to be clustered between the 8.8 (\$7,000) mark and 6.5 (\$700) mark, or 811 of 981 cases. As the data show, MCEs tend to be located not in the most impoverished of states, but rather in the cohorts of development above the least developed countries and below the level of when development begins to act in the way that Przeworski et. al. describe to reduce the likelihood of democratic failure.

**Table 4: Average Spending per soldier by regime type and MCE presence**

<b>Average Spending per Soldier</b>				
	<b>Autocracies</b>	<b>Poor Autocracies</b>	<b>Democracies</b>	<b>Poor Democracies</b>
<b>All</b>	13,596.40	4,786.00	34,077.30	7,161.00
<b>With MCEs</b>	8,492.70	7,948.00	15,027.30	8,420.00
<b>Without MCEs</b>	15,257.10	4,347.00	35,921.80	7,061.00

Table 4 shows the divergence in spending between autocracies and democracies, given the presence or absence of MCEs. Strikingly, across all observations democracies tend to spend more on their soldiers by a factor of double. Counter-intuitively, the average spending per soldier in both democracies and autocracies tend to also be much lower when MCEs are present. This seems a strange pattern, especially given that MCEs are supposed to help increase the incomes of soldiers theoretically.

Remember though that the majority of MCEs are located in states in the lower income brackets, below the \$7,000 mark. The 3<sup>rd</sup> and 5<sup>th</sup> column show the average expenditures of those same categories except only on the sample of states with GDP per capita below \$7,000. There is a very clear reversal once the sample is cut: within autocracies that have MCEs the average spending per soldier is almost double that of the other autocracies, and in democracies with MCEs there is a roughly \$1,000 increase in the average. Within this subset of income MCEs are clearly associated with a substantial increase in the welfare of that state's soldiers, not even counting the benefits that may be included from MCEs.

Democracies do see an increase as well, but the divergence is not nearly as stark as in autocracies. This suggests that those lower-income autocratic states with MCEs are spending well above the average within their cohort, either as a result of higher coup risk, their income, and their security environment.

The great divergence of coup risk in autocratic states between those states with MCEs and those without confirms the hypothesis that autocratic states will be more likely to enjoy the coup-proofing benefits of *Institutional MCEs* than democracies. Autocratic states have much to fear from the armed forces, and one avenue for armed forces to reduce their coup risk from the armed forces is to turn over enterprises to military control.

## Institutional MCE Run Model

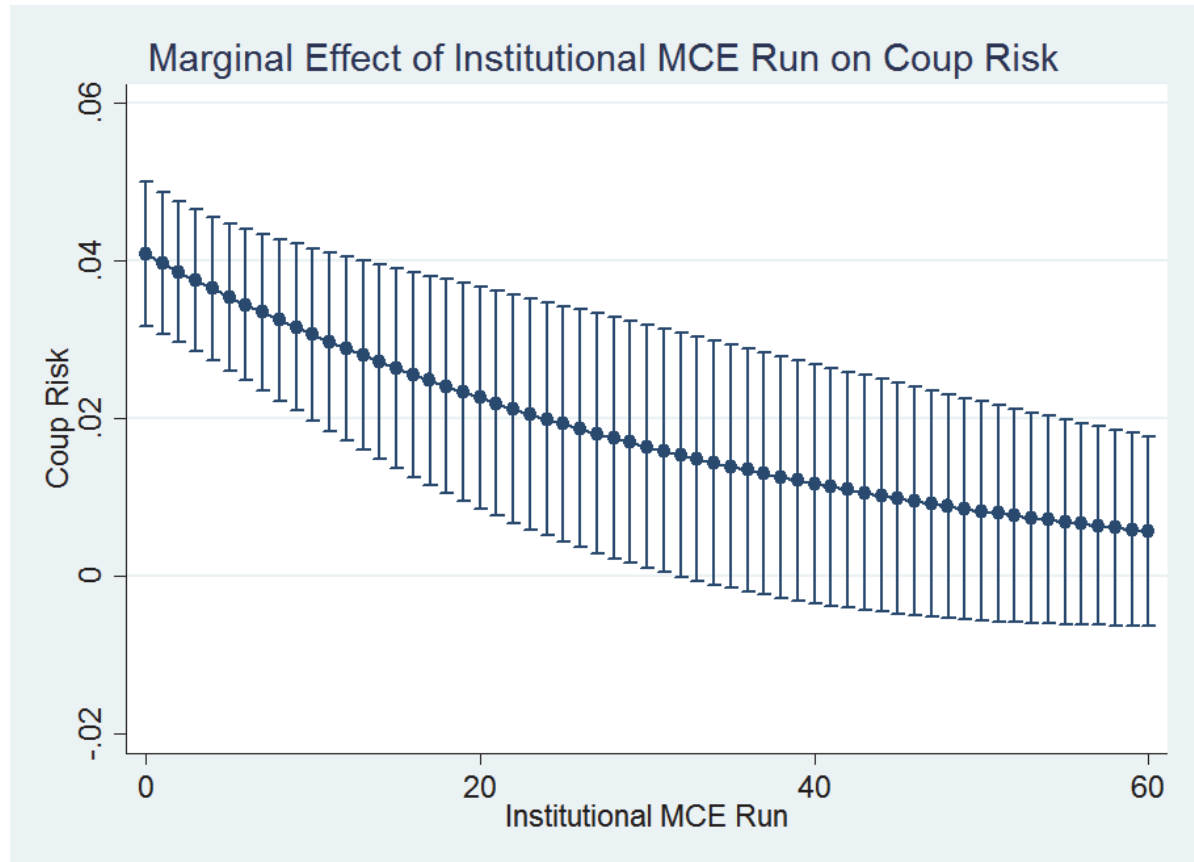
**Table 5: Full Probit Models of Coup Attempt, Consecutive MCE Runs (Dates 1960-2010)**

VARIABLES	(1) Model 1 - Primary Model	(2) Model 2 - Democracy Sample	(3) Model 3 - Autocracy Sample
<b>Institutional MCE, Run</b>	<b>-0.0102</b>	<b>0.00443</b>	<b>-0.0287**</b>
	<b>(0.00644)</b>	<b>(0.0107)</b>	<b>(0.0120)</b>
Coup Attempt, Lagged	0.313*** (0.115)	0.0416 (0.348)	0.337** (0.169)
Number of Soldiers, Logged	-0.0352 (0.0287)	0.0210 (0.0702)	-0.0598 (0.0394)
GDP Per Capita, Logged	-0.111** (0.0487)	-0.236* (0.133)	-0.131** (0.0652)
Change in GDP per Capita	-0.836** (0.357)	-0.723 (1.325)	-0.0181 (0.271)
Effective Number of Organizations	0.0174 (0.0674)	-0.0724 (0.157)	-0.0551 (0.105)
Years since Coup	-0.0216*** (0.00507)	-0.0360*** (0.0111)	-0.0125* (0.00658)
Banks Index, lagged	1.73e-05 (1.45e-05)	8.36e-05** (3.54e-05)	3.01e-05 (2.57e-05)
Banks Index, lagged, logged	0.0347*** (0.0120)	0.0273 (0.0315)	0.0324* (0.0181)
Banks Military Regime	0.262** (0.124)		0.350** (0.151)
Expenditures per soldier, logged	-0.179*** (0.0496)	-0.176 (0.133)	0.0405 (0.0640)
Constant	-0.117 (0.387)	0.385 (0.990)	-0.0263 (0.498)
Observations	5,517	2,119	2,125
Number of ccode	154	97	100

Table 5 displays the results of tests on the effect of the years since the establishment of an institutional MCE. Both models utilized a random effects probit models clustered

on country.<sup>242,243</sup> The *Institutional MCE Run* variable is significant and in the expected direction, just as the dichotomous *Institutional MCE* variable. The variable is negatively associated with the chance of a coup attempt, with the older the Institutional MCE, the less likelihood of there being a coup.

**Figure 11: Predictive Margins of Institutional MCE Run on Coup Risk, Model 1, Table 5**



The substantive effects of *Institutional MCEs* in Figure 11 shows how the longer an MCE is in operation, the greater the effect on lowering coup risk. The first year an MCE is established the coup risk is 0.039, the 5<sup>th</sup> year an MCE is in operation the coup risk drops

<sup>242</sup> Additional models were run with random effects by year, as well as regular probit models with standard clustering functions by both country and year. All these tests are available in the appendix under Table 3A.

<sup>243</sup> Interestingly enough, Models 1 and 2 in Table 2 turned out to have coefficients roughly 21% larger than probit models without random effects and clustering.

to 0.035, while ten years out the coup risk drops to 0.030. When a full generation of military officers has been cycled through the armed forces, at roughly 30 years, the risk falls to 0.016.<sup>244</sup>

**Figure 12: Comparison of Coup Risk by Institutional MCE Run and Years after Coup Variable, Model 1, Table 5**

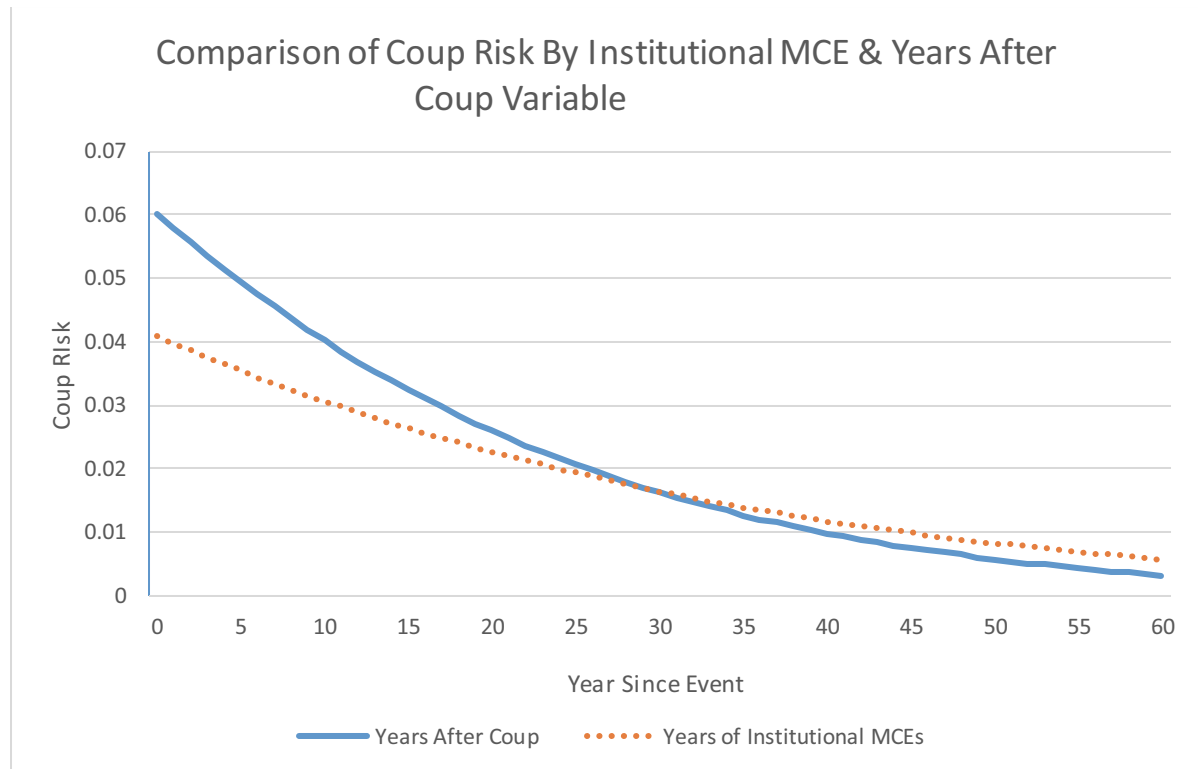


Figure 12 is a comparison of the coup risk of both *Institutional MCE Run* and the *Years Since Coup* variables.<sup>245</sup> It is more useful to put these two time-dependent variables in a head-to-head evaluation of their effects than to consider them on their own terms without context. Figure 6 shows that there is a significant difference in coup risk one year out for each variable, with there being a lower risk for institutional MCEs at the outset and for

<sup>244</sup> These were calculated using the *margins* command in STATA, using the observed value approach. In STATA 13.1 and above the default setting on the *margins* command is the observed value approach.

<sup>245</sup> Confidence Intervals are not included in this so as to not clutter up the plot, and to highlight the important relationship between the two variables.



nearly 30 years. Coup risk declines at a much faster pace with regards to the *Years Since Coup* variable, whereas the *Institutional MCE* coup risk declines at a slighter rate. At around the 28 year mark, the relative coup risk of each variable is roughly the same, and that around the time when most senior officers at the time of the establishment of MCEs or perpetrators of a coup (Time 0) the risk of a coup attempt has been reduced by between one-half for *Institutional MCEs* and two-thirds for *Years Since Coup*. In terms of substantive effect, year to year the marginal effect of *Institutional MCEs* will be small, perhaps not substantively so. However, *Institutional MCEs* have an initial reduction of the latent coup risk from 0.061 to 0.039 even in its first year of existence, and the first year after a coup is the most vulnerable time for a state that has just experienced a coup. By comparison, *Institutional MCE Run* tends to outperform *Years Since Coup* in terms of reducing coup likelihood due to the initial reduction in coup risk in the initial 28 years. Cumulatively, the reduction in coup risk for those first 28 years is 0.22, a not insubstantial amount.<sup>246</sup>

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<sup>246</sup> The cumulative coup risk from 1960-2010 (defined as the sum of the area beneath the curve of the years since coup variable) is 1.31, while the cumulative coup risk for Institutional MCEs is 1.14, with a difference of 0.16.

## Control Variables

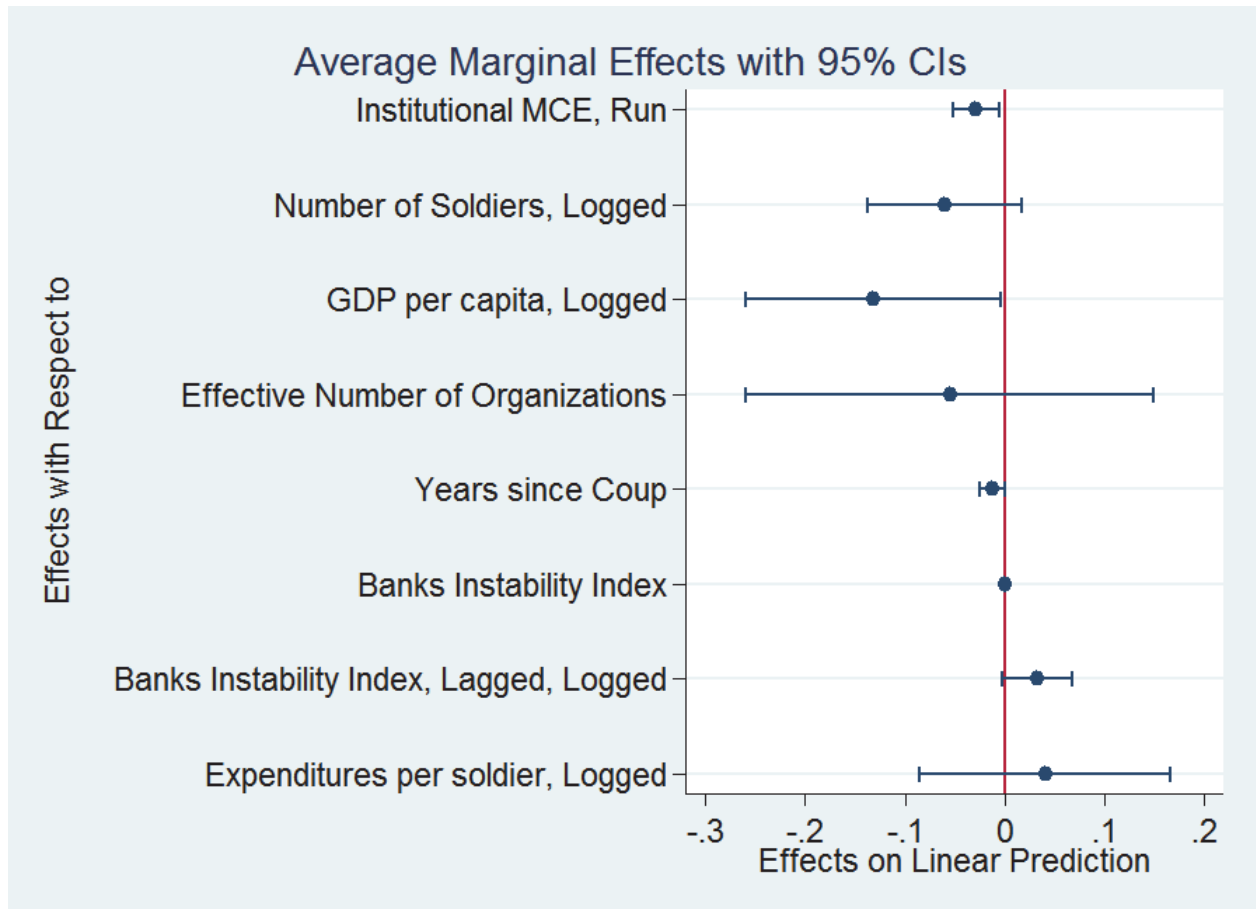
**Figure 13: Marginal Effects of Variables in Table 5, Model 3; Continuous *Institutional MCE***

Figure 13 shows the control variables.<sup>247</sup> The military characteristic variables also have mixed results. *Expenditure Per Soldier* is surprisingly not significant and has a positive relationship with coup risk. The *Number of Soldiers* is not significant in any model run below or in the appendix, though past studies had highlighted it as a possible causal link in coup risk. Interestingly enough, *Effective Number of Armed Groups* is not significant at all in any model, which is surprising since the earlier work of Bohmelt and Pilster had highlighted fragmenting of armed groups as a potential coup-proofing method. Their past

<sup>247</sup> This figure excludes two variables from the original model in order to display the results with more clarity.

work had shown that the *Effective Number of Armed Groups* had a negative correlation with coup risk.<sup>248</sup>

The economic variables also performed as expected, with of *GDP per capita* negatively associated with coup risk. This has been a consistent finding in the literature on coup risk for decades.<sup>249</sup> The poorest countries in the world are consistently ranked as having the highest coup risk, and experience coups at a much higher rate than rich countries. *Change in GDP per capita*, (not shown) has also been theorized in the past as being a catalyst for both coups and regime change, but in the model it is negatively associated with coup attempts, but not statistically significant. This is inconsistent with past literature on economic drivers of conflict.<sup>250</sup>

The political variables, such as *Banks' Instability Index* variables, show mixed results as instability in the past has been associated with coup attempts. The lagged and logged version of the *Banks Instability Index* does show significance. The coefficients are small, and the marginal effect of moving from 0 to 10 (the entire range of the variable) on the lagged and logged index results in a change in coup risk from 0.027 to 0.059, a doubling of coup risk. It is difficult to say how substantively important it is as a variable, given that one has to go from virtually no instability (0) to a very high degree of instability (8) on the logged Banks Index to even see a statistically different risk of a coup attempt.<sup>251</sup>

<sup>248</sup> Pilster, Ulrich and Bohmelt, Tobias, "Coup-Proofing and Military Effectiveness in Interstate Wars, 1967-1999", *Conflict Management and Peace Science*, 28 (4): 331-350

<sup>249</sup> <sup>249</sup> Collier P., Hoeffler A., "Military Spending and the Risks of Coups d'états", Centre for the Study of African Economies, Department of Economics, Oxford University, March 2007

<sup>250</sup> A full graph of the effects of change in GDP per capita is available in the appendix.

<sup>251</sup> A further exploration of this variable is provided in graph form in the appendix in Figure 4C.

The *years since coup attempt* variable is also highly significant in all models, and is negatively associated with coup risk. The year after a coup has a risk of 0.061, 5 years out the risk of a coup is 0.054, while ten years on the risk has been reduced to 0.040. The time right after a coup is the most dangerous time for another coup to occur, and each subsequent year without a coup reduces the likelihood a coup is going to occur, on average, by 0.03.<sup>252</sup> By the time a new generation of officers has been cycled into flag commands, and the older officers who took part in the coup have retired, roughly 30 years, the risk of a coup has dropped to 0.014.

#### Addressing Endogeneity

There is a valid concern that, within this theoretical story and within the models above that there is an endogenous relationship between *Coup Risk* and *Institutional MCEs*. In the literature summarized in earlier chapters, MCEs are established for a variety of reasons, but chief among them may be that MCEs are a way of leaders attempting to coup-proof their regimes against a military takeover by the officer corps. Leaders establish MCEs as a way to lower coup risk, which means that the establishment of MCEs then, is not a random phenomenon, but rather is a strategic response by leaders to coup risk. The choice to create MCEs is an endogenous choice, meaning that the relationship between MCEs and coup risk is not in one direction.

**Simple model of endogeneity:     $\text{Coup Risk}_{T0} \rightarrow \text{Institutional MCE}_{T1} \rightarrow \text{Coup Risk}_{T2}$**

<sup>252</sup> A further exploration of this variable is provided in graph form in the appendix in Figure 4D.

In order to control for endogeneity, most models will be put through a two-stage regression using a cluster of different independent variables as instruments. Selecting a proper instrument is a fraught process, given the interconnectedness of just about all political variables but as a baseline there must be two conditions met in order to be considered: 1) the instrument must be correlated with the primary explanatory variable and 2) it must not be correlated with the error in the original model with the primary dependent variable.<sup>253</sup> Instrument selection is a difficult process even in ideal conditions with a well-known and well-worn set of variables such as economic growth or GDP per capita.<sup>254</sup> Papers on the study of economic conditions on civil conflict often rely on exogenous factors such as rainfall data as an instrument, which one can plausibly claim is correlated with economic conditions but not with civil conflict.<sup>255</sup> In other studies on political behavior, the existence of proper instruments is much more fraught, and the acceptance of the use of instrumental variables relies upon argumentation and plausibility instead of verifiable exogeneity. Unfortunately, for a variable like *Institutional MCE*, no such exogenous factor exists or is even known, given how new the variable is.

Instead of attempting to model the endogenous relationship using a two-stage estimation procedure, and running into issues of improperly specified models and poor instruments,

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<sup>253</sup> Sovey, Allison; Green, Donald; "Instrumental Variables Estimation in Political Science: A Reader's Guide", *American Journal of Political Science*, Vol.00, No.0, xxx 2010, pp.1-13

<sup>254</sup> Heather Sarsons, "Rainfall and conflict: A cautionary tale" *Journal of Development Economics*, Volume 115, July 2015, Pages 62-72

<sup>255</sup> Thorsten Janus, Daniel Riera-Crichton, "Economic shocks, civil war and ethnicity", *Journal of Development Economics*, Volume 115, July 2015, Pages 32-44; Miguel, Edward, Shanker Satyanath, and Ernest Sergenti. 2004.

"Economic Shocks and Civil Conflict: An Instrumental Variables Approach." *Journal of Political Economy* 112(4): 725-53.

a much simpler solution to the issue of possible endogeneity can be applied. Consider the following models:

$$P(Y_1) = B_1 + B_2(X_1) + e$$

$$P(X_{t+1}) = b_1 + b_2(X_1) + u$$

In the first model  $Y_1$  is the establishment of an *Institutional MCE* in a given year and  $X_1$  is the *Coup Risk* of the same year. In the second model,  $X_{t+1}$  is a coup attempt in the next year, with  $X_1$  also being represented as *Coup Risk* of the year before  $X_{t+1}$ . There is a strong theoretical and statistical relationship between  $X_{t+1}$  and  $X_1$ , as well as a strong theoretical relationship between  $X_1$  and  $Y_1$ . The model below is a truncated version of the primary model in Table 2 above:

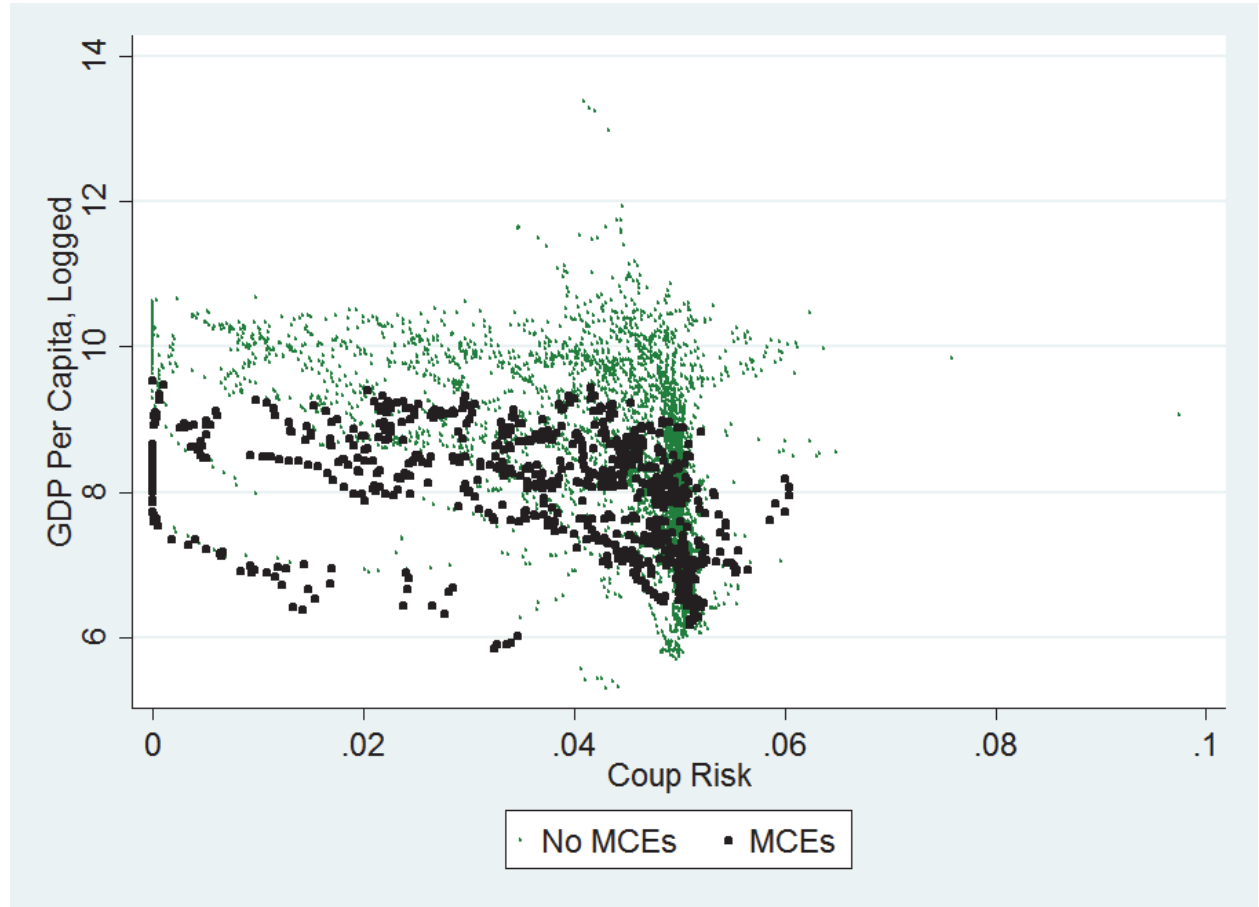
$$P(X_{t+1}) = \underline{B}1 + \underline{B}2(Y_1) + \underline{B}3(X_1) + \underline{e}$$

The first thing to point out from the above equation is that there is not a truly endogenous relationship. Strictly speaking, while  $X_{t+1}$  and  $X_t$  are going to be related, as previous coup risk is going to be highly correlated with current coup risk, it would be a stretch to say that there is a causal relationship between the two. While there is some correlation between past coup risk and current coup risk<sup>256</sup>, it is not especially convincing as an explanatory variable in and of itself. While there is a close correlation between the two, positing that coup risk predicts later coup risk is more an artifact of the stickiness of other underlying variables rather than a true causal relationship.

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<sup>256</sup> The correlation between *Lagged Coup Attempt* and *Coup Attempt* is 0.175, and in all the models above *Lagged Coup Attempt* is significant.

**Figure 14: MCEs by Coup Risk and Income**



As Figure 14 shows, *Institutional MCEs* are established as a combination of the interaction between coup risk and income, though income is a hard cut-off point. Those states with high coup risk and low income are more likely to have MCEs, while those with higher income are less likely to have any MCEs at all.<sup>257</sup> The table shows the predicted pattern of MCE establishment, along with the number of cases of *Institutional MCE* existing and the percent of country-years within each category having *Institutional MCEs*. Far and away the biggest predictor of *Institutional MCEs* is income, with lower

<sup>257</sup> Figure 8 was produced by using a predicted probabilities plot of the probability of a coup attempt in  $t-1$ . High income was denoted as being higher than 8.2. High risk was denoted as having more than the median coup risk, which was 0.048.

income country-years accounting for 71% of all *Institutional MCEs*. High coup risk accounts for 28% of all *Institutional MCEs* cases. This shows that there is evidence for the theory of the establishment of *Institutional MCEs* being both the interaction between coup risk and income.

**Table 5: Breakdown of Coup Risk and Institutional MCE country-years<sup>258</sup>**

	Initial Coup Risk					
	Low			High		
	Introduce MCEs			Introduce MCEs		
	No	Yes	Total	No	Yes	Total
<b>Coup</b>	58	12	70	167	12	179
	3.0%	2.1%		6.0%	5.4%	
<b>No Coup</b>	1897	557	2454	2602	212	2814
	97.0%	97.9%		94.0%	94.6%	
<b>Total</b>	1955	569	2524	2769	224	2993

All percentages are column percentages

Table 5 shows evidence that *Institutional MCEs* have some relationship with initial Coup Risk<sup>259</sup>, but that the relationship is actually reverse of the expected relationship. There are more than double the *Institutional MCEs* in lower coup risk country-years than in higher coup risk country-years, suggesting that there is a negative relationship between coup risk and *Institutional MCEs* if one looks just at the median of coup risk alone. Even in this broad tabulation, one can still see the effects of *Institutional MCEs*, as there is a lower percentage of country-years experiencing coup attempts between those groups with *MCEs* and those without, regardless of initial coup risk.

<sup>258</sup> Table 5 uses the same breakdowns of high vs. low coup risk as Figure 8.

<sup>259</sup> Coup Risk at t - 1



While the above shows that there is more to the endogenous theory than simple coup risk and *Institutional MCEs*, due to the highly correlated nature of coup risk and *Institutional MCEs*, the theory is still inherently endogenous. If coup risk and *Institutional MCEs* are endogenous, as the theory states, then there is a relationship between *Coup Risk<sub>t-1</sub>* and *Institutional MCEs* and *Coup Risk<sub>t</sub>*. If this is the case, then the estimators on *Institutional MCEs* will be biased. This resembles in many ways the omitted variable bias version of endogeneity where the true equation is given as:

$$(1) \quad P(Y_1) = B_1 + B_2(X_1) + B_3(X_2) + e$$

And the model tested above is:

$$(2) \quad P(Y_1) = B_1 + B_2(X_1) + e$$

Where  $X_1$  is *Institutional MCEs*, and  $X_2$  is *Coup Risk*. In the second equation,  $X_2$  would not be included, thus creating omitted variable bias.<sup>260</sup> In omitted variable bias, the relationship between  $X_1$  and  $X_2$  can be either positive or negative. Likewise,  $B_3$  can be either positive or negative. Depending on which quadrant of those four possibilities the bias lies, then the equation can have either positive or negative bias. If the relationship between  $X_1$  and  $X_2$  is negative and the coefficient on  $X_2$  is positive then the bias of  $B_2$  will be negative.<sup>261</sup> What this means in practice is that the coefficient on *Institutional MCE* in equation 2 is actually biased against finding a result showing *Institutional MCEs* is correlated with *Coup Risk*. The fact that there is still a statistical and substantive relationship between *Institutional MCEs* and *Coup Risk* despite endogeneity suggests that

<sup>260</sup> Wooldridge, Jeffrey, *Introductory Econometrics: A modern approach*, South-Western Publishing Company, Thompson Learning Company, 2000, pg. 89

<sup>261</sup> Ibid pg. 90

the actual relationship between *Coup Risk* and *Institutional MCEs* is actually stronger than what is found in the tables above.

Even further, since each model actually has included *Coup Attempt - Lagged*, one particular measure for the coup risk for the previous year is already included. The fact that *Institutional MCEs* is still significant even with the *Coup Attempt – Lagged* variable suggests that *Institutional MCEs* is both substantively and statistically significant.

### Conclusion

As the preceding analysis shows, there is evidence that institutional MCEs do have an effect of lowering the risks of a coup attempt. There is evidence that such MCEs could have a coup-proofing quality that satisfies the needs of armed forces and disparate elements of the armed forces that may otherwise have been unhappy with the status quo. By providing officers with both the immediate benefits of salary subsidization and longer term benefits of a secure retirement, Institutional MCEs can help stabilize some aspects of political life in the armed forces.

While the above may suggest that Institutional MCEs are a positive arrangement for civil-military relations, it should also be noted that simply having larger expenditures per soldier also has roughly the same effect. The presence of MCEs may lower coup risk but there may be other costs associated with such institutional arrangements such as longer authoritarian regimes or corruption. A well-paid officer with some financial security is one of the best security assets that a state can have, while a poorly-paid officer with an

uncertain financial future can be a large political liability. Further research should delve into how individual officer prospects affect political activity.

## Appendix

**Table 1: Coup Attempts by Region, 1950-2010 (Displaying coups included in model vs. full dataset)**

Region and Coup Attempts		
Region	In the analytical models	Full Powell and Thyne dataset
Africa	94	169
Asia	28	59
Europe	8	12
Middle East	44	72
South & North America	76	145
Total	252	457

As Table 1 shows, due to several gaps in many of the control variables the model will be run on slightly more than half of the full Powell and Thyne dataset on coup attempts.

This should not prove to be a large complication as the number of coups in the full dataset versus the number in the sample is roughly halved in each region, with a slight overrepresentation in Africa when compared to the original dataset. There should not be an issue with overrepresentation within the sample for any one region that is not also reflected in the original dataset. This variable is a high bar for military discontent, but there are few others that can be considered reliable barometers for such a measure.

Within the dataset for this project there are 252 country-years in which coups occurred.

Of all coup attempts, the majority occurred in Africa and the Americas, with the most attempted coups occurring in Africa, and the least in Europe. Unfortunately, the control

variables exclude multiple country-years from analysis, so the analysis could only be run on the 252 country-years with coup attempts.

**Table 3a: Full Probit Models of Coup Attempt, Institutional MCEs with Random Effects (1960-2010) using Alternative Measures of Regime Types<sup>262</sup>**

VARIABLES	(1) Model 1 - Primary Model	(2) Model 2 - Non- Autocracy Sample	(3) Model 3 - Non- democracy Sample	(4) Model 4 - Anocracies Sample	(5) Model 5 - Non- Anocracies Sample
Coup Attempts, Lagged	0.304*** (0.116)	0.204 (0.177)	0.303** (0.132)	0.254 (0.209)	0.257* (0.151)
Institutional MCE	-0.262** (0.130)	0.114 (0.163)	-0.398** (0.159)	0.128 (0.240)	-0.336** (0.150)
Number of Soldier, Logged	-0.0270 (0.0297)	-0.0109 (0.0418)	-0.0452 (0.0360)	-0.0355 (0.0595)	-0.0179 (0.0335)
GDP per capita, Logged	-0.119** (0.0501)	-0.107 (0.0699)	-0.0599 (0.0603)	-0.00120 (0.0990)	-0.173*** (0.0574)
Change in GDP per capita	-0.836** (0.359)	-1.546** (0.612)	-0.659* (0.398)	-1.801** (0.717)	-0.179 (0.476)
Effective Number of Security Organizations	0.0207 (0.0680)	0.0533 (0.101)	0.0485 (0.0845)	0.140 (0.148)	-0.0312 (0.0799)
Years Since Coup	-0.0218*** (0.00510)	-0.0349*** (0.00701)	-0.0207*** (0.00636)	-0.0329*** (0.00874)	-0.0240*** (0.00551)
Banks Instability Index, Lagged, Logged	1.69e-05 (1.46e-05)	6.09e-05** (2.54e-05)	2.17e-05 (2.13e-05)	3.16e-05 (3.68e-05)	4.50e-05** (2.03e-05)
Banks Instability Index, Lagged	0.0344*** (0.0121)	0.0208 (0.0189)	0.0294** (0.0146)	0.0228 (0.0246)	0.0273* (0.0152)
Military Regime, Banks	0.258** (0.124)	0.514** (0.252)	0.272** (0.132)	0.468* (0.266)	0.231 (0.148)
Expenditure per soldier, Logged	-0.178*** (0.0499)	-0.396*** (0.0822)	-0.133** (0.0575)	-0.516*** (0.106)	-0.0129 (0.0576)
Constant	-0.142 (0.395)	0.0590 (0.553)	-0.457 (0.457)	-0.376 (0.722)	-0.0154 (0.429)
Observations	5,517	3,198	3,203	1,078	4,245
Number of ccode	154	135	119	94	146

<sup>262</sup> Alternative measures are as follows: Non-Autocracies are all those with a polity score above -6. Non-democracies are all those with a polity score below 6. Anocracies are those between -6 and 6. Non-Anocracies are those less than -6 and greater than 6.

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3b: Full Probit Models of Coup Attempt, Institutional MCEs with Fixed Effects (1960-2010)**

VARIABLES	(1) Model 1 - Primary model - Country and Year	(2) Model 2 - Democracies - Country	(3) Model 3 - Democracies - Country and year	(4) Model 4 - Autocracies - Country	(5) Model 5 - Autocracies - Country and Year
Coup Attempts, Lagged	0.365*** (0.132)	-0.241 (0.450)	-1.843 (1.262)	0.675*** (0.221)	0.675*** (0.221)
Institutional MCE	-0.776*** (0.209)	-1.222*** (0.470)	-3.453** (1.463)	-2.061*** (0.559)	-2.061*** (0.559)
Number of Soldier, Logged	0.0435 (0.100)	-0.485* (0.283)	0.264 (0.798)	0.0508 (0.189)	0.0508 (0.189)
GDP per capita, Logged	-0.161 (0.142)	-2.532*** (0.609)	-8.109*** (2.306)	-0.474 (0.296)	-0.474 (0.296)
Change in GDP per capita	-0.739* (0.441)	1.554 (2.101)	21.22** (8.282)	-0.0681 (0.721)	-0.0681 (0.721)
Effective Number of Security Organizations	0.0508 (0.0975)	-0.578 (0.411)	-2.213** (1.066)	-0.000640 (0.165)	-0.000640 (0.165)
Years Since Coup	0.0256*** (0.00694)	0.0458** (0.0196)	0.252*** (0.0732)	0.0803*** (0.0160)	0.0803*** (0.0160)
Banks Instability Index, Lagged, Logged	2.02e-05 (1.76e-05)	0.000122** (5.13e-05)	0.000300** (0.000119)	2.33e-05 (3.94e-05)	2.33e-05 (3.94e-05)
Banks Instability Index, Lagged	0.0304** (0.0149)	-0.0171 (0.0440)	0.271** (0.122)	0.0296 (0.0269)	0.0296 (0.0269)
Military Regime, Banks	0.203 (0.143)			0.414 (0.253)	0.414 (0.253)
Expenditure per soldier, Logged	-0.0433 (0.0991)	-0.0626 (0.245)	0.432 (0.617)	0.177 (0.162)	0.177 (0.162)
Constant	-6.114 (123.5)	25.41 (251.0)	54.33 (450.2)	-1.460 (3.001)	-1.460 (3.001)
Observations	2,709	515	267	914	914

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Scope Conditions: States with difficult Civil-Military Relations

**Table 4: Both Dichotomous & Continuous Models run on states that have experienced at least one coup attempt in the 1950-2010 period<sup>263</sup>**

VARIABLES	(1) Model 1 - Dichotomous Model	(3) Model 2 - Continuous Model
Institutional MCE	-0.385*** (0.124)	
Institutional MCE Run		-0.0202*** (0.00647)
Number of Soldiers, Logged	-0.0283 (0.0307)	-0.0374 (0.0300)
GDP Per Capita, Logged	0.00467 (0.0472)	0.0146 (0.0467)
Change GDP Per Capita, Logged	-0.974*** (0.373)	-1.054*** (0.372)
Effective Number of Armed Organizations	-0.0157 (0.0665)	-0.0352 (0.0667)
Years Since Coup Attempt	-0.0143*** (0.00549)	-0.0107* (0.00561)
Banks Instability Index, Lagged	2.41e-05* (1.42e-05)	2.50e-05* (1.42e-05)
Banks, Military Regime, Lagged	0.318*** (0.118)	0.344*** (0.119)
Military Expenditures, Logged	-0.188*** (0.0509)	-0.192*** (0.0507)
Constant	-0.839** (0.362)	-0.831** (0.359)
Observations	3,075	3,075
Number of ccode	83	83

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

Table 4 runs two models on those countries that have had at least one coup in their history.<sup>264</sup> Both *Institutional MCE* and *Institutional MCE Run* are significant and in the expected direction. In terms of substantive effect, both variables have a larger effect. The difference in coup risk between those states without *Institutional MCEs* and those with is

<sup>263</sup> The sample is run on 1960-2010, but those states that experienced a coup in the 1950-1959 period were included as having had at least one coup. There is not a good reason to exclude those states that experienced a coup in the 1950s as having never had a coup in modern history.

<sup>264</sup> All models were probits run with random effects, clustered on country.

0.0449.<sup>265</sup> The *Institutional MCE Run* risk at year 0 is 0.086, at year 5 the risk is 0.072, at year 10 the risk is 0.06. Finally, at year 30 the coup risk is 0.028. This is a strong effect, even in a sample of high coup risk states.<sup>266</sup> <sup>267</sup> With the exception of *GDP Per Capita*, all control variables retain their significance and expected direction.<sup>268</sup>

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<sup>265</sup> The risk of a coup attempt in this sample is 0.0883 without an Institutional MCE, whereas the coup risk of those with is 0.0434.

<sup>266</sup> All values come from the margins command using the observe value approach. Figures 8a and 8b in the appendix have a visualization of the marginal effects.

<sup>267</sup> The average coup risk in this sample compared to the larger sample is about 30% higher than in the other models.

<sup>268</sup> This is true of *GDP Per Capita* in all iterations of the sample in which at least one coup attempt occurred in a state's history. This is likely due to the sample having a smaller GDP per capita than the full sample: The average is 7.785 in the sample of Table 4 vs. an average of 8.30 in the samples of Tables 2-4.

## Chapter 5: Egyptian Military-Commercial Complex: Leviathan or Economic Rearguard?

### Introduction

This chapter will be an in-depth exploration of the creation of the Egyptian Armed Forces' commercial holdings along with an exploration of the mechanisms of how MCEs work to reduce coup risk. The chapter will begin with a short introduction to the capabilities and size of the Egyptian Armed Forces, setting up the scale and creating a comparison to Egypt's near peers, as well as laying out the uncertainty surrounding the true size of the military's economic holdings. Then there will be a short discussion of the theoretical expectations that one would expect from the model hypothesized in the theory chapter. The rest of the chapter will highlight the relationship between coup risk and the development of MCEs within the Egyptian context, highlighting how during periods of heightened coup risk political leaders were willing to contribute to the development of MCEs in order to ensure political stability.

The chapter will be primarily chronological, but focus on how the three most important leaders of Egypt since the 1950s, Nasser, Sadat and Mubarak, tried to maintain political stability during their reigns and responded to challenges to their leadership by ensuring the armed forces were loyal to them through gifts of MCEs. The chapter will conclude with the military's counter-narrative on the purpose and scope of MCEs, based on interviews conducted with experts and an Egyptian admiral.

### Introduction to the Egyptian Military

The Egyptian military is the largest military in the Middle East by both active (470,000) and reserve personnel (800,000), and is ranked as the 11<sup>th</sup> largest in the world in terms of



size.<sup>269</sup> It has a huge stock of both old and modern military weapons, making it by sheer amount of weaponry one of the most powerful armed forces in the region. Its stocks of military equipment in 2014 consisted of roughly 4,600 tanks (5<sup>th</sup> most in the world), 13,000 AFVs, (3<sup>rd</sup> most in the world), 2,360 artillery guns (7<sup>th</sup> most in the world), 1,481 rocket projection systems (4<sup>th</sup> most in the world), 1,133 total aircraft (8<sup>th</sup> most in the world) and 319 naval vessels (6<sup>th</sup> most in the world).<sup>270</sup> In 2015 the Egyptian military's budget was \$5.4 billion, with an average budget of \$3 billion dollars since 1988. The US has also provided an additional \$1.3 billion in military aid to Egypt annually since 1987, bringing the average financial capability of the Egyptian military to roughly \$4.3 billion annually since 1988.<sup>271272</sup>

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<sup>269</sup> CIA World Factbook, Egypt Available at: [https://www.cia.gov/library/publications/the-world-factbook/geos/print/country/countrypdf\\_eg.pdf](https://www.cia.gov/library/publications/the-world-factbook/geos/print/country/countrypdf_eg.pdf) (Accessed May 19th, 2016)

<sup>270</sup> "The Military Balance 2014: The Annual Assessment of Global Military Capabilities", International Institute for Security Studies, London, UK

<sup>271</sup> Sharp, Jeremy, "Egypt: Background and US Relations", Congressional Research Service, February 25, 2016

<sup>272</sup> This figure also discounts sources from other donors, such as Saudi Arabia and Gulf Coast States, who, since the ouster of Mohammad Morsi has been financially supporting the whole Egyptian state with low interest loans and cash infusions to the tune of \$12.5 billion. Example available at: <http://english.alarabiya.net/en/business/economy/2015/03/13/Saudi-announces-4-billion-aid-package-to-Egypt.html>

**Figure 1: Egyptian Military spending by year 1988-2015**

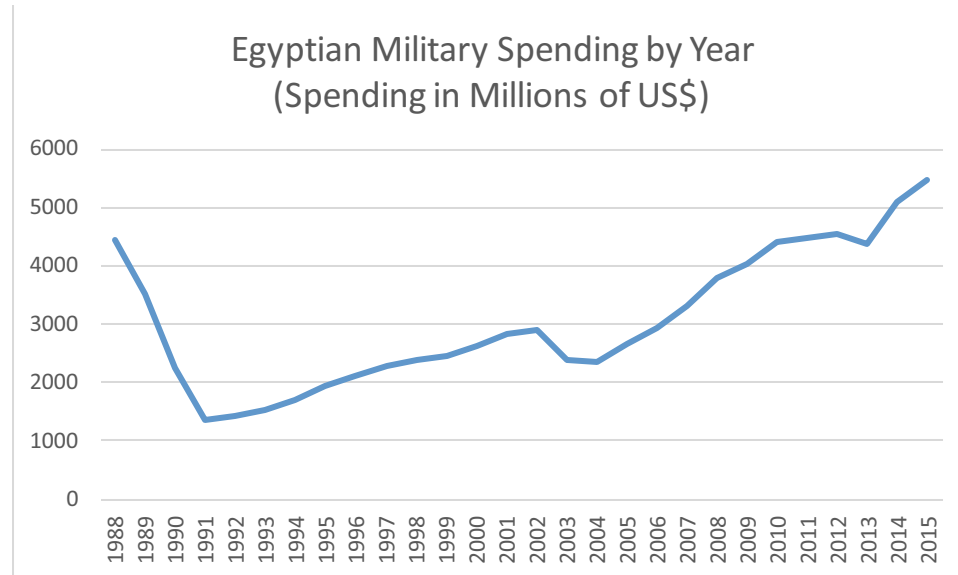


Figure 1 shows military spending over time, showing how military spending vacillates between \$2 and \$5 billion over 27 years. On its own, this might not be terribly surprising, but for a nation with the 11<sup>th</sup> largest military force on Earth, and highly ranked in terms of military stock, the Egyptian defense budget only puts it at 45<sup>th</sup> in the world for military spending.<sup>273</sup> This puts it into the same cohort as Denmark and Argentina, who in 2014 spent \$4.4 billion and \$4.3 billion respectively. Denmark's active personnel of 25,000 men rank 88<sup>th</sup> in the world, while Argentina's 75,000 personnel rank 57<sup>th</sup> in the world.<sup>274</sup>

Some of this variation might be understandable from the point of view that Western or Latin American could be more technologically dependent and rely more upon more expensive weapon systems than sheer manpower, and the lack of existential external threats each faces. But then there are nations such as Oman that spent \$6.7 billion in

<sup>273</sup> Ibid, "The Military Balance: 2014" Egypt

<sup>274</sup> Ibid, "The Military Balance: 2014" Denmark; Argentina

2014, with an armed forces numbering 72,000 active personnel. By way of comparison, Brazil, with a modern and well-equipped army of 300,000 personnel, spent roughly \$31 billion in 2015.<sup>275</sup> This suggests one of the following: that Egypt has found an incredible discount to military costs that no other nation has utilized, that Egyptian military is in imminent danger of financial collapse, or that the Egyptian military has substantial financial support that is off the books and not available for public viewing.

That the Egyptian military has commercial and defense production interests is not in question here.<sup>276</sup> There is ample evidence that the Egyptian armed forces have for decades been involved in commercial enterprises, and have a substantial economic footprint in its country.<sup>277</sup> What should be apparent from the above though, is that in order to maintain its high level of military personnel and equipment stocks, the Egyptian armed forces' economic footprint must be quite large to support such an organization. Egypt's nearest peer competitor in terms of size and technological sophistication is Saudi Arabia, which spent \$81 billion in 2014, leaving a difference of \$76 billion between the two. Yet Saudi Arabia is not considered to be militarily as strong as Egypt, and has less than half of its armament stocks in almost all categories.<sup>278</sup> While sheer equipment does not a strong military make, the above picture should give a sense of scale as to just how

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<sup>275</sup> This comparison is apt for several reasons: Egypt and Brazil have roughly the same size of total personnel. But more importantly, both Brazil and Egypt have conscript armies. Even within the same recruitment category, Egypt substantially underspends another power that holds roughly the same status in its own region.

<sup>276</sup> Shana Marshall, "The Egyptian Armed Forces and the Remaking of an Economic Empire", Carnegie Endowment for International Peace, April 2015

<sup>277</sup> Dr. Zenaib, Abul-Magd, "The Egyptian Military in Politics and the Economy: Recent History and Current Transition Status", CMI Insights, October 2013, No.2

<sup>278</sup> Ibid, "The Military Balance: 2014", Saudi Arabia

large the holdings of the Egyptian military might be in order to support such a military apparatus. At least on paper, Egypt is highly competitive with a country like Saudi Arabia yet with public spending on the military that is less than 14 times less.

The size of the military holdings are unclear and have been for many years. Estimates range from between 1% to 60% of the Egyptian economy is either owned or managed by the armed forces, meaning almost no aggregate estimates are truly reliable.<sup>279</sup> In speaking to Reuters, the then Presidential candidate and now current Egyptian President, Abdel Fattah al-Sisi, insisted that oft-cited estimates of 40% were way off base, and that instead the Egyptian military only held enterprises consisting of no more than 2% of Egyptian economy.<sup>280</sup> Still further estimates are that the military's economic enterprises' revenue is equal to roughly 1% of Egypt's GDP, but again, most estimates are highly unreliable.

By official military estimates, the commercial holdings in the past decade have earned roughly \$750 million total revenue, while unofficial estimates of just one of the three major enterprise groups was \$5 billion over the same time period.<sup>281</sup> While it is highly unlikely that the military holds \$185 billion (or 60% of the Egyptian economy's GDP in 2014) in enterprises, it is also unlikely that the lower end of the estimate are also true (\$6

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<sup>279</sup>The figures range quite dramatically based upon who is answering the question, but this article quote both sides of the range. Available at: [https://www.washingtonpost.com/world/middle\\_east/egyptian-military-expands-its-economic-control/2014/03/16/39508b52-a554-11e3-b865-38b254d92063\\_story.html](https://www.washingtonpost.com/world/middle_east/egyptian-military-expands-its-economic-control/2014/03/16/39508b52-a554-11e3-b865-38b254d92063_story.html) (Accessed May 19th, 2016)

<sup>280</sup> Reuters Interview Transcript, May 15 2014, Available at: <http://www.reuters.com/article/us-egypt-sisi-transcript-idUSBREA4E08120140515> (Accessed May 19 2016)

<sup>281</sup> Zenaib Abul-Magd, "The General's Secret: Egypt's Ambivalent Market", Carnegie Endowment for International Peace, February 9<sup>th</sup>, 2012 Available at: <http://carnegieendowment.org/sada/?fa=47137> (Accessed May 30<sup>th</sup>, 2016)

billion at 2%) if the Egyptian military is as powerful as the earlier numbers in military stock make it out to be. Neither the 1% or 2% figure are enough to make up for the differences in military spending between Egypt's near-peer competitors, Brazil and Saudi Arabia, if these are indeed appropriate comparisons.<sup>282</sup>

Regardless of the true size of the economic holdings of the Egyptian armed forces, this chapter will examine the Egyptian military's involvement in domestic production, with a focus on the origins and the effects of the military's involvement in non-defense related products and industries over time.

#### Theoretical Expectations from the Model

This section will lay out the expectations from the model in the theory chapter as it applies to the Egyptian case. Recalling the previous theory chapter, there are two major factors that are important for the creation of MCEs: coup risk and resource endowments. Leaders facing a high coup risk will be hard-pressed to limit their exposure to a coup risk by the armed forces by spending their resources on them. Leaders without much in the way of resource endowments are in a theoretical trap: they can lavish goods upon the armed forces but could lose political power other ways. Given that removal by the armed forces is particularly terrible for leaders, they must find additional ways to reduce coup risk. It is expected that those nations with relatively little in the way of resource endowments will have a higher likelihood of adopting MCEs as a coup-proofing

<sup>282</sup> Assuming that Egypt and Saudi Arabia are comparable, to make up the 2016 gap between Saudi Arabia and Egypt, the Egyptian military would have to own roughly \$79.35 billion or 29.1% of the Egyptian economy. There is a significant fudge factor here though, as Saudi defense spending has increased substantially in the wake of insurgencies in Yemen and Syria, and in light of Iranian-Saudi geo-political competition, and Saudi Arabia is one of the richest nations on earth, so it might not be a fair comparison.

mechanism, given that they are unable to offer immediate benefits to the officer corps. Offering military control of businesses in the form of MCEs is a politically cheap way for political leaders to assuage military needs.

The expected behavior from Egyptian political leaders is to offer benefits to the officer corps as much as possible without breaking the limited funds available in state coffers. As a supplement to the Egyptian treasury, Egypt's political leaders are expected to hand over businesses or properties to the Armed Forces with the expectation that the Armed Forces will be willing to support them politically. It is expected that during times of political instability and heightened coup risk political leaders will either offer whole businesses, turn over management of others, offer funding for starting up MCEs or make financial exemptions for MCEs. During times when there is little coup risk, Egyptian political leaders are not expected to meaningfully contribute to the expansion of MCEs.

Egypt had historically been a poor nation even after independence, with a GDP per capita of roughly \$165 in 1965. Even within its regional cohort, Egypt is on the lower end of GDP per capita, with less than half of its neighbor Jordan's \$536 GDP per capita in the same year of 1965.<sup>283</sup> Only the Gaza Strip, Morocco, Djibouti and Yemen have consistently been ranked below Egypt in terms of GDP per capita since 1965. Even today, Egypt remains poorer than many other states in the region when it comes to GDP per capita. In addition, Egypt is a relatively resource poor nation with its greatest economic assets coming from its agricultural exports and the rents from ships transiting

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<sup>283</sup> World Bank Indicators, DataBank, Accessed (August 8<sup>th</sup>, 2016)

the Suez Canal. For all these reasons Egypt can be considered to be on the lower end of the spectrum when it comes to resource endowments, with leaders not having many resources available to them as the chief executives.

As a relatively resource poor nation, Egyptian leaders are in the unenviable position of having multiple threats and not many resources to deal with them. Four broad groups pose threats to the leaders of Egypt: 1) removal via the armed forces in a coup attempt, 2) removal via assassination by radical Islamists, 3) popular uprisings by the people or lower-level security forces, and 4) removal by their large external threats from Israel in particular, but also at a certain point France and the UK.<sup>284</sup> Egyptian leaders have had to balance between these four broad groups throughout their political tenures, allocating resources as threats arise. It is only when the threat of a coup attempt is high, or when political leaders need the support of the armed forces for a political change that we will see the establishment of MCEs.

The following sections will be divided up by the leaders of Egypt, and show how they handled the threats to their rule. Nasser's reign is characterized by his struggle to consolidate power both within the armed forces and outside of it. Nasser faced stiff political resistance by a fellow officer, Naguib, and in order to consolidate his power used establishing MCEs as a way to bring other Egyptian military officers to his side. Sadat faced similar issues in that he did not have many close political allies during his first

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<sup>284</sup> Removal by intra-party rivals mostly comes from the Armed Forces, and removal via election results or rival political parties, while nominally a possibility, has not been a real threat to any Egyptian leader given the tight control on political contestation by regime elites.

years as President, and faced heightened threats from Israel until his final years when he was assassinated by radical Islamists. Sadat deftly outmaneuvered his political opponents by providing the armed forces with support to establish additional MCEs, thus bringing on board key officers as his political supporters even under great stress. Mubarak's reign is marked by relatively pacific civil-military relations as they faced a common threat from Islamists and an uprising from the national police. Mubarak supported the expansion of MCEs as a way to bring the armed forces on board with the eventual succession of his son, Gamal, by selling the armed forces state-owned enterprises at below market prices before he eventually stepped down in the wake of unrest during the Arab Spring. Morsi, in a stark departure from his earlier predecessors, attempted to establish a political coalition outside the military and even took steps to curtail military control of key enterprises like the Suez Canal. After Morsi was removed by the armed forces, Sisi has sought to consolidate his control by expanding the role of the military in Egyptian society, enshrining the military's role in the Constitution as well as reestablishing it as the primary managers of the Suez Canal.

Thus there should be two major trends that are clear throughout the case study: political leaders using the establishment or expansion of MCEs as a way to lower coup risk when military discontent is high, and political leaders establishing MCEs as a way to bring the military on as political allies during times of political instability and as allies in political consolidation. Both strategies have been undertaken by leaders as the level of threat by the armed forces has changed.



### Early History and Nasser's Egypt

The Egyptian military was not at its outset a commercial actor, nor was it always politically powerful. Until the 1950s Egypt had no native modern arms industries, and was considered only a minor power for many years until its subjugation by the British in 1882. A period of Egyptian resurgence during the early decades of the 1800s led to a foray into arms production that ended with the 1840s. A short-lived attempt at industrialization by the Pasha of Egypt, Muhammad Ali, had resulted in a small but robust arms industry that was eventually dismantled under pressure from the Western powers as the Egyptian government struggled to pay off war debts incurred by its leader.<sup>285</sup> From 1882, with the British occupation of Egypt, until the end of World War II the Egyptian military was effectively politically sidelined, with British officers acting as leaders of a small constabulary force numbering between 6,000 and 16,000 over the ensuing five decades.<sup>286</sup> The strict control of the British over the affairs of the Egyptian state created an underlying resentment of both the foreigners and of the political regime that was seen as subservient to the interests of non-Egyptians. This was especially true of newer entrants into the Egyptian military, which began allowing recruits from the middle and lower classes into the officer corps in 1937.<sup>287</sup> The Egyptians regained nominal control of their armed forces with the 1936 Anglo-Egypt Treaty, allowing the armed forces to grow to a force of over 20,000 by 1937.<sup>288</sup>

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<sup>285</sup> Sayyid-Marsot, Afaf Lutfi, "Egypt in the Reign of Muhammad Ali", Cambridge, New York, 1984, Chapter 8

<sup>286</sup> Hashim, "The Egyptian Military, Part One: From the Ottomans through Sadat", Middle East Policy Council, Available at: [www.mepc.org/journal/middle-east-policy-archives/egyptian-military-part-one-ottomans-through-sadat](http://www.mepc.org/journal/middle-east-policy-archives/egyptian-military-part-one-ottomans-through-sadat)

<sup>287</sup> Anthony McDermott, *Egypt from Nasser to Mubarak: A Flawed Revolution* (Croom Helm, 1988), 150-151;

<sup>288</sup> Hashim, *ibid*, pg. 2

It was not until the British ended their occupation of the state that the force was truly independent, and got its first real test in battle with the Arab-Israeli War of 1948. The poor performance of the Arab armies against Israel galvanized resentment against the ruling political class of Egypt, especially among the younger officers who saw their poor performance as indicative of how poorly they were supported in the war. At the time, the Egyptian military's leadership was composed of mostly wealthy Egyptians from good families who owed their positions in Egyptian society more to their relationship with King Farouk's dynasty than their own skill at managing fighting men.<sup>289</sup> The resentment and shock the younger officers felt at their military defeat at the hands of Israel contributed to the growth of a variety of revolutionary agendas and revolutionary groups forming within the officer corps, with their ire primarily aimed at their superiors and political leaders. The sentiment can best be summed up with the following statement about the political climate and the junior officers' feelings about their superiors from a young officer with the "Free Officers" movement, Gamal Abdel Nasser himself:

They were overfed, lazy and selfish, and they spent their time eating, drinking, carousing, smoking hashish and engaging in many different forms of tyranny and corruption. They were fawning and subservient to the British Military Mission and a disgrace to the uniform they wore. They spent money that belonged to the Egyptian army on food and drink for themselves.<sup>290</sup>

The anger and desire for a change in leadership culminated with a coup in 1952 by the Free Officer's movement. King Farouk had primarily relied upon the support of the older generals from elite families for support, and had taken very little action to suppress or co-opt the younger officers into supporting his reign. Subsequently, the narrative that the

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<sup>289</sup> Hashim, *ibid*, pg. 3

<sup>290</sup> Raymond Baker, *Egypt's Uncertain Revolution under Nasser and Sadat* (Harvard University Press, 1978), 54.

King and the political elites had neglected the armed forces and the younger officers had no counter and continued to turn the younger officers against the reigning political powerholders. The king was deposed in July of that year by a cabal of military officers led by Nasser and the first President of Egypt Muhammad Naguib, and Nasser spent the next five years consolidating the Free Officer's rule under the Revolutionary Command Council.<sup>291</sup>

During his reign Nasser was faced with a variety of both external and internal threats. A joint French-British-Israeli occupation of the Suez Canal in 1956 led to a military defeat but a partial political victory, leading to the withdrawal of foreign troops shortly thereafter due to heavy international pressure. Once the Western powers had departed, Israel became Egypt's single greatest strategic rival, with clashes between the Egyptian military and Israel in the Gaza Strip in 1955, and a humiliating defeat for Egypt in the 1967 Six-Day War. Starting a trend of antagonism that would continue into the present day, Nasser also faced internal threats to his rule from the well-organized Islamists in the Muslim Brotherhood, who were blamed for an attempted assassination of Nasser in 1954. Nasser was able to prevail against them with the jailing of thousands of alleged Islamists, effectively ending their threat to his regime.<sup>292</sup>

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<sup>291</sup> Richard Dekmejian, "Egypt and Turkey: The Military in the Background," in *Soldiers, Peasants, and Bureaucrats: Civil-Military Relations in Communist and Modernizing Societies*, ed. Roman Kolkowicz and Andrzej Korbonski (George Allen and Unwin, 1982), 30.

<sup>292</sup> Nasser was also able to parlay the aftermath of the Islamist round-up into success against Naguib, who was loosely implicated in the assassination plot.

During the time of Nasser, the military was both the source of Nasser's power and one of his greatest rivals. His focus on keeping control of the armed forces was developed not out of paranoia but out of well-founded fear that if the armed forces were not loyal to him, another coup may be in the making. One of the key grievances from the officers during his reign was that the civilian regime of King Farouk had completely neglected the readiness of its military, which had led to Egypt's disastrous defeat in the 1948 Arab-Israeli war. One of the demands of officers was the removal of corrupt leadership, but also that military needs actually take a much higher priority in government affairs. After all, it would not be the senior leadership that would be sent into battle with inadequate weaponry and equipment, it would be the junior officers paying with their lives for the lackadaisical attitude of their superiors. As such, one of the first initiatives of the new Nasser regime was to begin arms production to properly equip the troops in their fight against strategic rival Israel.

In the years following the 1952 coup, the Egyptian military was quite fractured. There were many ideologies competing among the officer corps, as well as many senior officers from the previous regime that had to be purged. The Egyptian military inherited by Nasser and his successors was not monolithic. Rather there were major and deep cleavages between and among different factions of the officer corps. Former regime loyalists, younger revolutionary officers, communist sympathizers, senior officers that had been used as political legitimacy, Islamists: this divided military is what Nasser had to somehow placate and secure the loyalty of, else the very same tactic could be used

against him. In addition, there were major disagreements between key officers even in the Revolutionary Command Council about the proper management of the country.

Nasser's survival can be attributed to him leveraging the armed forces' newfound economic holdings and parlaying them into the loyalty of the officers. Nasser put officers in charge of state-owned enterprises, increased the military's budget and turned over large tracts of land into military hands. The amiable Amer, one of Nasser's closest associates and head of the army, was a pivotal actor in transforming the Egyptian military as well as utilizing economic resources for patronage purposes.

Nasser faced significant challenges from the military itself, as evidenced by his purging of the top echelons of the senior officer corps upon his rise to power.<sup>293</sup> Nasser officially left the military to run for the presidency in 1956, but constantly worried about the threat that elements within the armed forces posed to his reign.<sup>294</sup> The political drama that played out in the early years showed the challenges that the Nasser faced as political leader. Early on during the Free Officer's regime, the coup orchestrators had put a respected senior officer in charge as their figurehead, a General Mohammad Naguib, with the hope of giving their coup greater legitimacy. Deep divides began to grow between Nasser and Naguib, and while Naguib's was eventually ousted and forced retirement, Nasser had to recruit other officers as political allies in his struggle for dominance. The rivalry became so intense at one point that Nasser tried to order troops loyal to himself to move against those loyal to Naguib in an attempt to disarm his opponent. Only the refusal

<sup>293</sup> Brooks, Risa, "Political-Military Relations and the Stability of Arab Regimes", pg. 35

<sup>294</sup> Brooks, Ibid, pg. 35

by the commander of the army at the time, Abdel Hakim Amer, prevented the power struggle from devolving into bloodshed. Amer, as commander of the Army, had no wish to see the Egyptian armed forces divided and killing one another, especially with Israel as a constant threat. From then on Nasser worked to bring Amer, who was a long-serving and very popular figure among the officer corps, on board as a political supporter. Nasser turned over to the officer corps, through Amer, state-owned enterprises, seized properties and other businesses that Nasser had been able to acquire through the army's seizure of power in 1952.

Through this political relationship, Nasser was able to use Amer to parlay the benefits and privileges that the armed forces were now accruing through its expansion into economic holdings into what some have termed a military "state within a state", giving the military substantial autonomy within Egyptian society, and from Nasser's government.<sup>295</sup> Amer was able to guarantee the loyalty of the officer corps to Nasser, but in so doing also made himself very politically powerful as the voice of the officer corps.<sup>296</sup> Despite Amer's political clout, his lack of management acumen and battlefield leadership contributed to the disastrous performance of the Egyptian army in the Six-Day War. He was removed from his office quickly after hostilities ceased, but by then Nasser was firmly in control of the Egyptian state and faced a much reduced threat of removal by the army.<sup>297</sup>

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<sup>295</sup> Hasim, Part Two, Ibid, pg. 3

<sup>296</sup> Despite his influence, Amer was careful not to be outwardly critical of President Nasser, and the two of them had a close relationship for many years. Their relationship was not without difficulties, as Amer had refused to declare his loyalty and his troops for Nasser in a dispute between Nasser and Naguib, citing his refusal to start a "civil war".

<sup>297</sup> "Amer, Abdel Hakim" *The Encyclopedia of the Arab-Israeli Conflict: A Political, Social, and Military History* [4 volumes]: *A Political, Social, and Military History*, Edited by Spencer C. Tucker, Priscilla Roberts, pg. 99

As stated above, the Egyptian military was not at the outset a commercial actor. The early attempts in the 1800s to create a robust arms industry failed due to domestic and international pressure. After independence, domestic arms industries returned at the government's initiative in the 1950s with the establishment of several low-technology firms, with substantial help from European experts.<sup>298</sup> Many of these industries were founded to circumvent the myriad difficulties in acquiring foreign weapons for Egypt's fight against Israel, the major suppliers of which were supporters of Israel. It was not until the 1952 coup under Nasser and his Free Officers that the Egyptian military first began to be a major player in the economic life in Egyptian society.<sup>299</sup>

There were several concurrent streams within Egypt at the time of the 1952 coup and after which led to the development of the "military political economy" in Egypt today. The first was Nasser's devotion to the creation of Arab Socialism in which his military government created or nationalized large state-owned enterprises, appointing military officers to manage them.<sup>300</sup> These enterprises were still nominally state-owned, not officially owned by the military, even though the Egyptian government was itself military-run for a time. These enterprises were run by officers, and were developed under the vision of creating an Egypt that was economically and militarily independent.

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<sup>298</sup> Stork, Joe, "Arms Industries of the Middle East", Middle East Research and Information Project, MER 144, Available at: <http://www.merip.org/mer/mer144/arms-industries-middle-east> (Accessed May 20th, 2016)

<sup>299</sup> Springborg, Robert, "Globalization and the Politics of Development in the Middle East", Cambridge University Press 2010

<sup>300</sup> Abdul-Magd, Zeinab, "The Army and the Economy in Egypt", *Jadaliyya*, December 23, 2011

Towards that end, nationalizations of a great number of industries producing critical industrial products and foodstuffs were seized by the military government and put under the management of the Egyptian military.

The second stream that led to the development of an armed forces with commercial capacity was the fleeing of the previous Egyptian capitalist class, known as the *mutamassirum*, during the period between the coup and up through the 1960s.<sup>301</sup> These capitalists had been the previous dominant class in Egyptian society, and their power was broken up by the new Nasser government, who proceeded to nationalize key industries in which the *mutamassirum* were heavily invested. The *mutamassirum* had been the owners of the largest industries in Egypt, and owners of some of the most lucrative real estate in the nation, including much of what would later become large resort towns along the Mediterranean and Red Seas.

At the time of the coup, ownership of land in Egypt was highly concentrated in the hands of a few, with less than 0.1% of all landowners owning one-fifth of all the land in Egypt, with another 0.4% owning approximately one-third of all land in Egypt.<sup>302</sup> The military regime enacted policies to redistribute the land in a more equitable fashion, but in reality mostly led to their seizure by the military government. These policies were in-step with Nasser's new vision for Arab socialism, which saw these capitalists, who were a mix of

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<sup>301</sup> Springborg 2010

<sup>302</sup> Helen Chapin Metz, ed. *Egypt: A Country Study*. Washington: GPO for the Library of Congress, 1990., "Landownership and Reform", Available at: <http://countrystudies.us/egypt/85.htm>



very wealthy Egyptian and non-Egyptians that owned the majority of all capital in the state, as a threat to the regime's political survival. As industries began to be nationalized, many of the *mutamassirum* decided to flee instead of waiting for their own assets to be seized. Thus many industries lost out both on capital and management expertise as their owners fled, which the government was only too eager to scoop up as part of its nationalization program.

The *mutamassirum*'s loss was Nasser's gain, who utilized these newfound resources as bargaining chips to consolidate his rule. The network of state-run enterprises under military management was integrated into a larger Egyptian military patronage network. Officers, enlisted personnel and their families were the direct beneficiaries of the military's state-ownership: benefits took the form of jobs for family members, well-paid jobs in industry after retirement from military life or larger paychecks that buttressed middling military salaries.<sup>303304</sup> While it is difficult to say whether every state-owned, military-run enterprise was integrated into the patronage network to the same degree, nationalizations most certainly added to the Nasser regime's stability and power- both over possible opponents outside the regime such as the *mutamassirum*, or possible opponents within the officer corps. Nasser was able to outmaneuver his rivals in part because he was able to empower Amer with the resources of the *mutamurassim* and use Amer as a channel through which to distribute benefits to the officer corps. Without access to these same resources, Nasser's rivals were unable to command the loyalty of a critical number of troops.

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<sup>303</sup> Awad, Marwa, "Special Report: In Egypt's Military, a march for change", April 10, 2012, Reuters

<sup>304</sup> Springborg, 2010

It should be noted that within this patronage network, while wonderful for individual military officers and their material well-being, did not create many opportunities for economic growth during this period in Egypt. Corruption was wide-spread within these industries, as they were primarily vehicles for patronage within the military regime. The above mentioned General Amer was famous for spreading far and wide within the officer corps the economic possessions of the military establishment to enhance the loyalty of the officers. In addition to corruption, the public sector was wildly inefficient and poorly-run during these years, as they were being run by officers with no experience in managing large companies, but who could rely upon state support in the event of shortfalls or mismanagement.<sup>305</sup> By keeping Amer happy, and with Amer distributing positions to the officer corps at state-owned enterprises and businesses, Nasser was able to retain his position of leadership even through his transition from military to civilian clothes.

Nasser concentrated control of the resources from the army's seizure of power into his own control and deftly used them to shore up support for his reign. By providing Amer, an influential general and popular with the officer corps, with additional resources, Nasser was able to outmaneuver his opponents against whom he always feared removal via coup. It was during this heightened time of coup risk and political consolidation when the armed forces would definitely be the political king maker that Nasser chose to lavish them with properties and businesses, just as the model would expect. Once his primary

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<sup>305</sup> Zeinab, 2011

rival, Naguib, was removed from power the possibility of a power struggle faded and Nasser found himself able to also take the opportunity of the disastrous defeat at the hands of Israel to remove Amer himself, who had become a political rival in his own right. Nasser used the establishment of MCEs to shore up political support and undermine rivals until his death.

#### Sadat, Israel, the quest for security and MCE expansion

The role of Israel in Egyptian foreign and defense policy during this time cannot be understated. Israel, Egypt's primary foreign security threat, provided the military with both a reason and an excuse to continue its control over the public sector. On the one hand, Nasser was able to parlay the Israeli security threat into public support for the regime, playing on anti-Israel sentiment in order to solidify his regime's control. This justified larger military budgets with the central government, budgets that were used primarily for buying arms and equipment for the military and its eventual wars with Israel. The role of the public sector enterprises was to supplement the finances of its individual soldiers and officers in order to not overly tax the central government. Since these public enterprises were military-run, there was little in the way of transparency to monitor how funds were spent.

On the other hand, the threat Israel posed to Egypt allowed Nasser to justify military control of the public sector, allowing his government to continue his reforms and nationalizations. Since the military regime had for the past two decades largely oriented its foreign policy towards defeating Israel militarily, it was able to justify its intense involvement in non-military affairs by pointing out that in order for Egypt to succeed, it

would need to be under a command economy, totally focused on eliminating Israel and ensuring Egyptian security.

From 1955 onwards, Egyptian leaders looked for security in a variety of sources. In a major speech on the 3<sup>rd</sup> anniversary of the 1952 coup, the head of the army laid out the groundwork for the next generation of the Egyptian military: the armed forces would continue to develop a new corps of scientists and engineers, create their own indigenous arms production, and focus on building fire-power heavy mobile and mechanized divisions to meet their external security threats.<sup>306</sup> The first domestic arms industries in Egypt began in the 1950s, but these joint-ventures between European firms and the Egyptian military were low-tech and fraught with the complex regulations that accompanied such transnational business ventures. Egyptian equipment was woefully inadequate against an Israel that was rapidly developing much more sophisticated weaponry, and had its own robust and technically superior defense industry.

Egypt was not a very rich country at the time, and thus could not make the large-scale capital investments necessary to fulfill its visions of arms independence. In order to make up the gap, Nasser pursued good relations with the Soviet Union. From 1955 to 1975, the USSR provided Egypt with grants and loans to pay for equipment, training and services of Soviet military advisers.<sup>307</sup> The Soviet aid was massive, and at a certain point there

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<sup>306</sup> Hasim, Part One, Ibid, pg. 6

<sup>307</sup> Country Studies, "Egypt: Foreign Military Assistance", Available at: <http://www.country-data.com/cgi-bin/query/r-4179.html>

were upwards of 20,000 Soviet military personnel in Egypt, some even serving at the battalion level in the Egyptian military.

When Anwar Sadat came to power after Nasser's death, similar worries plagued his regime as plagued Nasser's early years. Egypt was in a tenuous position – despite the armed forces' relatively good performance in the 1973 war against Israel, the Egyptian armed forces continued to decline rapidly relative to Israel. Several high ranking officers posed political challenges to Sadat and the domestic economic situation continued to deteriorate leading to widespread unrest at several points during Sadat's rule. The underpaid and conscripted internal security and police forces proved unreliable in putting down the unrest, many even joining the rioters.<sup>308</sup> During one particularly bad spate of rioting, Sadat had to call upon the armed forces to put down the unrest. So tenuous was his perceived hold on power that when senior officers approached him to report that the situation was under control, Sadat initially thought they were seizing control of the state and placing him under arrest!<sup>309</sup> In this climate of increasing strategic disadvantage and domestic instability, Sadat pushed for a peace accord with Israel that would reorient Egyptian security priorities, and eventually lead to his assassination by an extremist Islamist officer cell within the armed forces.

Sadat was not initially considered a strong candidate for the Presidency, and was not expected to last long in his position by both regime insiders and outsiders. Sadat had no

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<sup>308</sup> This particular case of unrest has been started when the government lowered the subsidies on foodstuffs like bread.

<sup>309</sup> Hashim, "Part One", pg. 9

power base, and despite his long history with both the Egyptian military and the Nasser regime he was considered a character easily manipulated. Nasser made several very astute political moves which endeared him to the military. The first was the cutting off Soviet support to Egypt. Despite the much needed financial and material support, the heavy Soviet presence was seen as both overbearing and ineffective. There were also tensions between the Egyptians and the Soviet trainers, who treated with more than a little contempt their Egyptian counterparts. Relations soured between Egypt and the USSR, leading to the expulsion of Soviet advisers in 1972, and leaving Egypt to resort to the international market for arms, and leading to a very quick degradation of Egyptian military capabilities.<sup>310</sup> Eliminating this fraught relationship came at the expense of security, but dramatically improved Sadat's position politically.

The second astute move that Sadat made was establishing the Arab Organization for Industrialization. After the breaking of relations with the USSR, Egypt, Saudi Arabia, Qatar and the UAE came together to form the Arab Organization for Industrialization (AOI) in 1975. The organization was primarily created to create an indigenous Arab arms production that could serve the needs of Arab countries. This arrangement was particularly good for the Egyptians, on whose soil most of the facilities were created. This arrangement also helped jumpstart a much more technically-focused arms industry, one that could produce complex weaponry such as tracked vehicles, tanks and missiles.<sup>311</sup> The capital investment from the Gulf Coast states helped reinvigorate the Egyptian arms

<sup>310</sup> Mohrez, Mahmoud El Hussini, *Soviet-Egyptian Relations 1945-85*, Palgrave Macmillan, October 1987

<sup>311</sup> Federation of American Scientists, "Arab Organization for Industrialization", Available at: <http://fas.org/nuke/guide/egypt/agency/aoi.htm> (Accessed May 30th)

industry, and provided confidence to international donors that Egypt could be a viable partner for defense production. However, this indigenous arms production was still not a peer competitor with the Israeli defense industry, and Egypt still fell further behind as it tried to establish its own more complex and capital-intensive arms industries. While the Egyptian army that had fought Israel competently in the 1973 Yom Kippur War had had ample Soviet supplies, the Egyptian army in the mid-1970s found itself increasingly at a disadvantage. The next war, if there was to be one, would entail massive Israeli air superiority against an Egyptian air force and air defenses that had not yet returned to full strength.

Despite leaving Egypt worse off security-wise, Nasser's moves helped secure his political position within the armed forces. The AOI allowed him to collect capital investment from the Gulf Coast states and turn it into much needed arms development. It also allowed him to show the armed forces that his administration was focused on military needs, putting military officers in charge of the enterprises and thus helping to placate junior and senior officers. By creating the AOI, Sadat was able to attract capital that would be poured into Egyptian modernization, even if it did very little initially to provide high quality goods in defense against Israel. By creating the AOI and turning over its operations to military officers, Nasser was able to silence his military critics.

It was into this deteriorating security situation that Sadat made his third, and probably most astute move by pursuing peace with Israel, ending their long rivalry in the form of the Camp David Accords. With a permanent peace treaty now having removed a pillar of

Egyptian foreign policy, the large Egyptian military was now without its main reason for existence. While both Israel and Egypt both still posed threats to one another, the immediacy of the threat was greatly diminished.

The peace treaty had two profound effects, both of which solidified Sadat's position politically. Egypt was first and foremost able to secure funding and support from another donor in the United States- assuaging Egyptian fears of falling further behind the technology curve with Israel. The flow of money and equipment meant that Egypt would be able to upgrade its materiel to a competitive level at regular intervals with the blessing of the most technologically advanced international patron. This allowed Sadat to outmaneuver and stifle his opponents by pointing out that he had been able to acquire over \$1 billion annually in US aid, softening the blow that many die-hard officers felt at having to make peace with their most hated rival Israel. The peace dividend and the influx of US dollars also meant that Sadat could release pressure on the strapped Egyptian budget, allowing him to loosen the tight grip the armed forces had on the budget and begin to spend money on non-military ventures. Egyptian domestic turmoil in the 1970s had reached a boiling point, and being able to redirect some of the Egyptian budget towards food subsidies and development helped ease domestic tensions.

The peace treaty also left Egypt with a glut of soldiers, a reduced military budget and a lack of enemies. This led to the fourth important move on Sadat's part: allowing and even encouraging the establishment of wholly-owned and operated MCEs outside the control of the state. Before, under Nasser, the majority of MCEs had been officer-managed state-



owned enterprises. Nominally, these enterprises were state-owned and therefore there was at least a *de jure* reason for them to have civilian oversight and staffing. Sadat was able parlay this peace dividend and led the military to invest heavily in its industries. Instead of manning foxholes, the conscripts were being used for labor in numerous construction, agricultural and industrial processes.

With the establishment of large conglomerates such as the National Services Production Organization (NSPO), the armed forces were able to consolidate their holdings into gigantic institutionally-controlled enterprises. Allowing the armed forces to essentially run their own business empire allowed the officer corps substantial autonomy, allowing officers to accrue benefits without government oversight or control. This kind of relationship meant that the armed forces could take care of its own, and spread patronage and benefits as they saw fit. While it raised the profile of certain military characters who were in charge of these enterprises, it also meant that the military was less reliant upon the state. This relationship also led to a precipitous decline in the military budget that lasted well into the 1980s, as military assets could be taken off-book, allowing the state to spend more money elsewhere, such as on food subsidies.

A new phase of Egyptian military-commercial relationships began with Camp David. With a large labor force of conscripted men under its control and a large residual budget, the military began to retool a good portion of its military industry towards civilian products. Beginning with agricultural production in order to provide the military with self-sufficiency, the military began to expand its holdings into other industries. This took

place under the umbrella of “state-building” and “national development” projects, with the military slowly butting into industries that had been under the purview of the private and public sectors. Egypt did not escape peace with Israel without consequence, however, as their Arab backers in the AOI pulled their support for the AOI and other projects. The Egyptian military assumed control of the AOI, but the loss of its primary financial backers left it at a distinct operational disadvantage since these industries required intense capitalization to grow.<sup>312</sup> Egypt was able to make up part of this shortfall with aid from the US, which reached \$1.8 billion annually in 1989, and allowed Egypt to maintain force readiness.<sup>313</sup>

This new phase of military-commercial involvement departed from the initial relationship in a fundamental way: instead of the military running state-owned enterprises through its officers, the military now began to directly own new industries through the Ministry of Defense and Military Production. While some of the investments made were still in the original manner- public sector enterprises controlled by the military, a new crop of directly-owned military enterprises were created. Direct military ownership of commercial assets had previously been prohibited under Nasser, likely to prevent alternative military-commercial competitors to his regime from forming. Having been beneficiaries of public sector management for decades, the possibilities of growth into the

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<sup>312</sup> Yezid Sayigh, “Egypt: The Veteran Arms Producer”, *Arab Military Industry, Centre for Arab Unity Studies*, 1992, pg. 45-103

<sup>313</sup> Sharp, Jeremy, “Egypt: Background and US Relations”, Congressional Research Service, February 25, 2016

private sector probably proved too lucrative to continue to limit, and the civilian leadership too reticent to curtail.<sup>314</sup>

These enterprises were not the result of nationalizations, as Sadat had begun to move away from command economies and socialism with his *Infitah* policies of free markets and capitalism. Rather, these enterprises were created from the military's own budget and its substantial contacts both abroad and within already extant public sector enterprises. Thus the biggest characteristic of this new phase was the creation of directly-controlled military businesses that were under both institutional control of the military hierarchy and individual officers. The NSPO is emblematic of this trend, which was an umbrella organization that joined together new and old enterprises into a massive economic unit.<sup>315</sup> Established in 1978, the NSPO is one of a number of other organizations that produce civilian goods such as agricultural goods, construction equipment, pharmaceuticals, stationery, doors, clothing, microscopes etc. In 1985 alone, the NSPO was responsible for over 488 million Egyptian pounds worth of agricultural products, manufactured goods 347 million Egyptian pounds, construction 174 million Egyptian pounds and other goods and services about 144 million Egyptian pounds. Military facilities were responsible for producing close to 18% of all food production in Egypt in 1985. The NSPO has only grown larger since with at least ten major subsidiaries in current operation.<sup>316</sup>

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<sup>314</sup> Ibid, Springborg 2010

<sup>315</sup> Zenaib Abul-Magd, "The General's Secret: Egypt's Ambivalent Market", Carnegie Endowment for International Peace, February 9<sup>th</sup>, 2012 Available at: <http://carnegieendowment.org/sada/?fa=47137> (Accessed May 30<sup>th</sup>, 2016)

<sup>316</sup> Available on the National Services Products Organization website: <http://carnegieendowment.org/sada/?fa=47137> (Accessed May 30<sup>th</sup>, 2016)

In addition to the creation of this new military-owned economy, under and after Sadat, various public sector and military-owned businesses began to conduct strategic partnerships between other Egyptian private sector companies. This was new to the Egyptian economy, as previously the public sectors had mostly kept to itself. This process of strategic partnerships between military-owned businesses and other private sector companies took off in earnest under Mubarak, and continues today.<sup>317</sup>

Sadat was clever in that during the time when he was most vulnerable he was able to utilize MCEs to his advantage. Before the peace with Israel, Sadat was under an incredible amount of pressure, lurching from one political crisis to the next, typically facing the most pressure from the armed forces. He was an unpopular and relatively unknown political operator within the elite structure with the expectation that he would be removed soon or be a pliant vessel for other influential leaders. He faced constant political crises most of which originated directly due to his security environment, and he was very responsive to the needs of the armed forces: The presence of Soviet troops created resentment among the officers, so he removed them to increase his popularity. The establishment of the AOI brought in millions of dollars to Egypt, of which Egyptian officers were the primary managers and direct beneficiaries, increasing Sadat's claims to have the military's best interests at heart.

Making peace with Israel was the riskiest move Sadat made, but it was in the long-term interest of both Egypt and his own political life. Peace would mean alienating large

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<sup>317</sup> Shana Marshall, "The Egyptian Armed Forces and the Remaking of an Economic Empire", Carnegie Endowment for International Peace, April 2015

portions of the Egyptian military, possibly violently so, who had spent their entire careers fighting or preparing to fight Israel, putting Sadat in a precarious position. The threat to Sadat cannot be overstated, as many generals were vehemently against peace, but Sadat was able to use both the US aid and his encouragement in the establishment of MCEs like the NSPO, AOI and the Ministry of Military Production to dodge a coup attempt. By funneling state funds and resources into greater commercial production by the military, Sadat was able to consolidate his regime until his assassination by Islamists, also angered by the peace treaty with Israel.

#### [Mubarak, détente and the Arab Spring](#)

This section will examine civil-military relations during the Mubarak era, focusing on how generally speaking, Mubarak pursued the same policies of turning over more enterprises to the armed forces as a way to curry favor with the officer corps. Despite the overarching narrative that Mubarak's relationship with the armed forces was absent any controversies, this section will highlight several important elements of tension between Mubarak and the military. It will also examine the greatest challenge to the theory that MCEs reduces coup risk by taking on the issue of Mubarak's resignation in 2011 under heavy pressure by regime elites by suggesting that it does not pose a serious challenge to the overall theory.

Mubarak's long tenure as Egypt's president began soon after Sadat's death. He was the former head of the Air Force, and like Sadat was not considered at the outset particularly capable. He would prove to have the longest continuous rule by a single leader in modern Egypt at 30 years. Like his predecessors, Mubarak struggled with both internal strife and

with the autonomous power of the armed forces. Rooting out extremism in the armed forces and in Egyptian society were the regime's top priorities, as their strategic reorientation away from challenging Israel freed both the regime and the armed forces to do so. Mubarak's reign lacked a great deal of the overt civil-military turmoil which marked his predecessors' reign, for reasons of which Mubarak was both the beneficiary of good luck as well as his deft political handling of crises that emerged until his resignation in 2011.

This reorientation was also facilitated by the fact that Mubarak largely left the military to itself, and allowed it to manage its own affairs. During this time, the armed forces turned inwards and continued to develop its own business capabilities, utilizing conscripts as labor or servants etc.. The military, though never absent from the political scene, was always in the orbit, of varying distances, from the most powerful Egyptian statesmen.<sup>318</sup> The military's influence in political was never far away, and they cast a deep shadow on Egyptian politics. While there were challenges from the armed forces, Mubarak was able to weather nearly all. Mubarak's policy towards these MCEs was to be completely hands-off. There was no attempt by Mubarak to reign in MCEs or bring them under civilian control, quite the opposite. Mubarak made every effort to appear on the side of the armed forces and worked to expand their business enterprises when expedient, or when undertaking policies or actions for which he would need their support.<sup>319</sup>

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<sup>318</sup> Interview with former US ambassador to Egypt, TIME

<sup>319</sup> Interview with former US ambassador

During the mid-1980s and throughout the 1990s, Egypt was faced with significant internal dissent from Islamists and a revolt of its Central Security Forces (CSF). The unrest was fueled in part by the terrible economic conditions of its poorest citizens, some of whom turned to radical Islamism and sought the overthrow of the state. The CSF was a conscript force of 300,000 men that was used as the muscle of the regime. The personnel in this force were hardly trained, had little to no education and were generally poor peasants. They were used to try and quell some of the Islamist violence that would flare up in various parts of the country. The CSF had a brutal job on the frontlines against violent extremism, but were poorly treated, and ended up revolting over poor pay, horrible living standards and a rumor that their compulsory service was going to be increased by an additional three years without an increase in benefits or pay. The revolts lasted for three days in some of Egypt's most populous cities, requiring the intervention of the army to put down. Instead of the armed forces considering the removal of Mubarak for the mismanagement of the CSF and causing a huge revolt requiring military intervention, Mubarak remained in power. Mubarak weathered the revolt and the aftermath, and remained in power another 25 years.

This is likely due in part to the fact that during this time Mubarak and the armed forces worked very closely together, and was also during a time of rapid growth for the MCEs. Within a few years of the CSF revolt there were spates of privatizations of state-owned enterprises, of which the military was often a beneficiary. During these privatizations, while many ill-run or inefficient public sector companies were sold off, though the military's public sector holdings were kept intact and not subject to the wave of

privatizations. In fact, due to the close association of many public sector managers also being military officers, the military was able to pick up many of these privatized state-owned enterprises.<sup>320</sup> During the privatization, the military was able to snatch up some companies for itself, at what some experts considered way below market value.<sup>321</sup>

Military businesses had been largely untouched by these privatizations, and those public sector companies that had been privatized more often than not had retired army officers placed in prestigious positions on boards and in administrative positions.<sup>322</sup>

Until the last years of Mubarak's reign, while the military was most certainly an important military player, there does not seem to have been any substantial fears from Mubarak that the military intended to move against him. Indeed, the most contentious political issue seemed to be the eventual successor of Mubarak. There were grumblings from some officers about Mubarak's son Gamal being groomed for the position of President after his father retired. Soon after this there was another round of privatizations of state-owned entities, again in which the military acquired several more poorly operating state-owned firms at low cost.

It should come as no surprise that civil-military relations during the Mubarak era were quite pacific. Mubarak used the sell-off of MCEs and creating exemptions that would enhance competitiveness for military firms as ways to ensure that the military remained

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<sup>320</sup> Springborg, Robert, "The vast and complex military machine will decide its nations future", The Independent, Feb 12, 2011

<sup>321</sup> Marshall, Shana, "Egypt's Generals and Transnational Capital", Middle East Research and Information Project, MER262

<sup>322</sup> Dr. Zenaib Abul-Magd, "The Egyptian Military in Politics and the Economy: Recent History and Current Transition Status", CMI Insight, Oct. 2013, No.2



loyal to him. But this does create a puzzle: if relations between Mubarak and the military were so smooth, what explains his resignation and their lukewarm support for him during the revolution? One would expect that, if MCEs are a way for reducing coup risk, what one should expect to see is the military coming to Mubarak's aid during times of trouble. Mubarak's resignation from power then is a powerful counter-example to the idea that MCEs can prevent leader removal by the armed forces.

There are several points to address in showing why this is not a serious challenge to the theory. The first is that it is worth pointing out that the theory predicts that MCEs reduce the likelihood of a *coup d'etat attempt*, which was in fact not how Mubarak was removed from power. Mubarak resigned from his office, turning over power to his Vice President, who turned over control of the state to the Supreme Council of the Armed Forces with the intention to hold elections. Only later were Mubarak and his family arrested on charges of corruption.

While the above is true, this is likely not a singularly satisfying explanation for most. The idea that the formal process of Mubarak's removal from power was through resignation, and therefore does not meet the technical definition of a coup attempt as defined by Powell and Thyne, might satisfy academic coding requirements but not the skeptical mind. Not reaching the technical definition does nothing to allay concerns that Mubarak was in fact under intense pressure by the armed forces to resign, thus betraying the spirit of the argument. If one expands the definition of a coup attempt to include other forms of compulsion by the armed forces to step down, then this certainly does provide a

challenge to the argument. With this in mind it is a useful reminder to point out that the argument is probabilistic in nature, and even outcomes that are usually unlikely can still occur in extraordinary circumstances such as the incredible upswing of popular discontent as occurred during the Arab Spring, the likes of which had not been seen by these leaders.

Even if giving ground on the issue of definitions and admitting that Mubarak was removed by the armed forces in a coup attempt, it should not take away from the fact that his reign did last 30 years – double that of either of his two predecessors. His resignation from power came at a very trying time in Egyptian politics. Mubarak's reign was the longest in modern Egyptian history, and it also coincided with the time period in which the armed forces had their largest growth in economic power. The expansion of the armed forces' MCEs likely led to Mubarak having very few crises in civil-military relations during his reign. Well into the 2000s Mubarak had largely been able to keep the armed forces complacent, and was positioning his son as his eventual successor. Indeed, Mubarak himself apparently thought the political climate stable enough to begin grooming his own son, Gamal, for his position in the first place. For most of Mubarak's reign, the most vexing threat to the regime was not from the armed forces but internal unrest. The threat posed to internal security by Islamist infiltration of the armed forces was of a much higher concern, and much energy was directed towards eradicating it.

To explain why Mubarak was ousted, it should be used to contrast the CSF revolt and the Rosetta Revolution. One of the biggest differences between the CSF incident and the

Rosetta Revolution, and there are admittedly many, is that by the time of Mubarak's resignation during the Revolution, most of the benefits and patronage flowing from the MCEs would have been out of Mubarak's hands anyway. During the 1980s MCEs were still growing, and Mubarak was providing the armed forces with assistance in its business pursuits. Support by the state was still critical to MCE operations. Many of the state-owned enterprises that are now under the control of the Armed Forces were still under the control of the state, and under Mubarak's control. By the time of the revolution, these MCEs were large and providing significant amount of benefits to the officer corps, likely more than the Egyptian state budget if this chapter's earlier projections are to be taken seriously. The marginal effect of additional MCEs in engendering the loyalty of the officer corps to Mubarak was likely reduced by this time, and most officers at the time of the revolution would see their benefits coming directly from the military leadership, not the civilian one. An entire generation of military leaders had rotated in and out of power during his presidency, so for the junior officers Mubarak was an anachronism, while for the senior officers Mubarak was no longer a benefactor of the same magnitude as in the 1980s. While the MCEs were still active and supplying the military with its needed goods, and fulfilling basic military needs, Mubarak was not the source.

One must also consider the position of the armed forces. During the CSF revolt, large numbers of armed troops were engaging in violence that clearly disrupted the state and posed a direct challenge to political stability within Egypt, including the position of the armed forces within Egyptian politics. The CSF revolt was undertaken by unpopular police forces in the employ of Mubarak, and were not largely missed once they were

disbanded. During the Rosetta Revolution the protests were largely peaceful and the protestors largely demanded the removal of Mubarak, not the armed forces, from power. In addition, the protestors were drawn from all sectors of Egyptian society, not merely an underclass of poor peasants.

It is not clear that the political support from the armed forces would have guaranteed Mubarak's political survival, in defiance of the protestors. It is fairly clear that for the military to remain loyal to Mubarak would have entailed a significant crackdown on the protests, which would have entailed much bloodshed and the sullyng of the armed forces' reputation among Egyptians. For the armed forces it was simply more expedient for them to remove an unpopular leader than fight to keep him in power, and it is not clear what Mubarak could have offered the armed forces that would be worth them engaging in a large scale crackdown on political dissent that seemed to extend across all strata of Egyptian society. Indeed, Mubarak made no attempt during the revolution to transfer control of more MCEs or enrich MCEs in the crucial months leading up to his resignation. Had Mubarak announced additional sales of MCEs, or transferred other critical businesses to military control, he might have been able to convince the armed forces to move to retain him as leader.

Finally there is the issue of Mubarak's moves pre-revolution. Despite the armed forces benefitting from the various rounds of privatizations, many military officers saw the privatization program as a threat, even though their own holdings had largely been spared the privatization: in a Wikileaks cable, US officials had interviewed Egyptian military

officers as saying that they had severe reservations about privatization.<sup>323</sup> Egyptian officers saw the selling-off of public enterprises as eroding the power of the state, and likely were suspicious of Mubarak's possible heir, Gamal, enriching his own political friends with cheaply sold state-owned enterprises at the expense of the state.<sup>324</sup>

These public enterprises up for sale, many of which came under the control of the state during Nasser's time, had been set up primarily as vehicles to provide services state control to enhance state control. Privatizing these enterprises left them open to sale to both Egyptian citizens and foreign entities, undermining the system of state control that has been around since Nasser. In 2011, with the fall of Mubarak, the privatization policy was quietly ended with the introduction of military rule. Going further, some of the public agencies' sales were nullified by the court system, who found their selling price far below their market value, thus rolling back part of the privatization efforts of Mubarak.<sup>325</sup>

Mubarak's attempt to privatize the state was seen as a threat by the military establishment. Had the military been the only beneficiaries of such a privatization scheme, or the enterprises not been siphoned off to Gamal and his circle of friends, it is possible the military might have been stronger supporters of Mubarak. Before Mubarak's ouster, there was a growing business class of wealthy entrepreneurs centered around

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<sup>323</sup> Dr. Zenaib Abdul-Magd, "The General's Secret: Egypt's Ambivalent Market", Carnegie Endowment for International Peace, Feb 9, 2012

<sup>324</sup> Stephan Roll, "Gamal Mubarak and the Discord in Egypt's Ruling Elite", Carnegie Endowment for International Peace, September 2010

<sup>325</sup> Sabry, Bassem, "A Guide to Egypt's Challenges: The Public Sector and Privatization", August 16, 2012, *Ahram Online*

Gamal Mubarak and his circle of associates. Gamal, who never completed his military service, was not well-liked within the armed forces. While it is not known for certain whether this group of businessmen were considered by the armed forces to be a political threat to military political influence, Gamal and his brother were both imprisoned and accused of corruption and insider trading almost immediately upon the replacement of Hosni Mubarak in 2011.<sup>326</sup> Regardless of whether the trial was politically motivated or a sincere corruption case, the result was the removal of a politically powerful individual from the previous regime. Jealousies and suspicions within the military at Mubarak's attempt to establish his son as his successor cost him his support within the military when the political environment turned against Mubarak.

Mubarak's ouster by the military in 2011 then, can be seen not as a huge challenge to the theory, but actually perfectly explicable: by the time of the Rosetta Revolution Mubarak had already turned over significant state resources to the armed forces, he neglected to turn over more during the lead up to the Revolution, and he actively lavished state resources to his son to enhance his political power which engendered jealousy and suspicion among the armed forces. When faced with the option of either a bloody and almost certainly wildly unpopular crackdown to keep an autocrat in power who was grooming a potential group of non-military political rivals for leadership, or removing the unpopular autocrat with minimal bloodshed, the armed forces chose the latter.

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<sup>326</sup> "Egypt Court order release of Hosni Mubarak's sons, October 12, 2015, Al Jazeera, Available at: <http://www.aljazeera.com/news/2015/10/egypt-court-orders-release-hosni-mubarak-sons-151012134842899.html> (Accessed May 26<sup>th</sup>, 2016)

### Morsi and his ouster

The July 2012 election of Mohamed Morsi, an Islamist candidate who was a member of the Muslim Brotherhood, was in some cases the worst nightmare of the Egyptian military establishment. Morsi, already in a tough political position vis-à-vis the ruling body politic due to his ideology, did not navigate the political waters of Egypt well enough to survive. Mubarak had been a civilian, but at least a senior former military officer who had some ties to the armed forces. Morsi had never been a part of the Egyptian military-political elite or had ever served as an officer, and so was a total outsider to the political establishment. There was a great deal of tension between the military and Morsi's administration to the point that some prominent analysts believe that the military was deliberately sabotaging Morsi's government well before his removal.<sup>327</sup> It was barely a year before another series of major protests, this time against Morsi's rule, led to his ouster through military coup in June of 2013. The transitional government led to the promotion of the Egyptian defense minister, Abdel Fattah el-Sisi, to the office of the President in March of 2014, who still serves to this day. Within months of Morsi's removal, the military began a bloody crackdown on counter-protests from Morsi supporters, removing the only serious remaining political opposition to military rule.<sup>328</sup>

In attempting to walk the fine line of civil-military relations within Egypt, Morsi made several missteps in a system that was already heavily weighed against him. Indeed, it is

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<sup>327</sup> Hubbard, Ben, Kirkpatrick, David D., "Sudden Improvements in Egypt Suggest a Campaign to Undermine Morsi", International New York Times, Available at: [http://www.nytimes.com/2013/07/11/world/middleeast/improvements-in-egypt-suggest-a-campaign-that-undermined-morsi.html?\\_r=0](http://www.nytimes.com/2013/07/11/world/middleeast/improvements-in-egypt-suggest-a-campaign-that-undermined-morsi.html?_r=0) (Accessed May 30<sup>th</sup>)

<sup>328</sup> The Rabaa massacre led to the deaths of over 1,400 protestors and dissidents. Over 16,000 are believed to have been arrested and detained, and trials of political opponents are ongoing.

not clear that there was anything Morsi could have done to stay in power for long, but his political missteps ran him afoul of the military perhaps even more quickly than if he had done nothing at all. The Muslim Brotherhood and its associated parties and allies engaged in a number of initiatives that sought to unite disparate business interests in Egypt – excluding the major MCEs associated with the armed forces. Several business associations were founded, bringing together foreign and domestic capital into tight networks, including the Egyptian Business Development Association (EBDA), which sought to strengthen small-to-medium size enterprises.<sup>329</sup> In addition, the Brotherhood tried to shift investment away from areas where military enterprises were concentrated, a clear affront to the military’s economic investments.

These associations announced, with Morsi’s blessing, plans such as the Suez Canal Corridor project to develop areas of the canal that the military had little investment in, but would benefit those businesses outside of the military’s economic footprint.<sup>330</sup> There was also an initiative to strengthen business ties with Western companies as well, outside of the military’s influence, perhaps to leverage international support. To the officer corps, this could most certainly be interpreted as an economic offensive against military interests. With the toppling of Morsi and the Brotherhood, these projects were halted, along with any efforts to supervise and monitor military production.

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<sup>329</sup> Jaraba, Mahmoud, “The Egyptian Military’s Economic Channels of Influence”, Middle East Institute, May 2014, Available at: <http://www.mei.edu/content/map/egyptian-military%E2%80%99s-informal-channels-influence> (Accessed May 26<sup>th</sup>, 2016)

<sup>330</sup> Shana Marshall, “The Egyptian Armed Forces and the Remaking of an Economic Empire”, Carnegie Endowment for International Peace, April 2015



To illustrate the point more clearly: during his brief presidency, Morsi attempted an upgrade of the Suez Canal in a massive project that would have involved billions of dollars and thousands of workers.<sup>331</sup> Perhaps fatally, Morsi did not include the armed forces in his initial planning for the mega-project. Morsi's proposal entailed offering competitive bidding on the Suez Canal project internationally, and among the early promising bidders were a variety of European and Western construction companies. The Egyptian military balked at such a suggestion, and demanded to be let into the process, especially since, as they argued, the Egyptian military had much of the construction capability in-house themselves. The Morsi proposal never reached fruition, and the new President Sisi launched his own government's Suez Canal Development Project in November of 2014. Among the winning bidders for Sisi's Suez development projects were several Egyptian Army-owned or managed firms.<sup>332</sup>

Morsi's removal is understandable: he had no military experience, no relationship with military officers, had strong ties to Islamist organizations and did nothing to assuage fear from the armed forces that he sought to undermine them. Instead of trying to work with the military or trying to turn over any more business or other opportunities to them, he actively worked against their long-established interests in one of Egypt's most key strategic assets: the Suez Canal. It is unlikely that, even if he had not attempted to lock the military out of the process he would have made any allies within the military anyways, but actively undermining military control of the Suez Canal was a clear affront to military priorities.

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<sup>331</sup> Ibid.

<sup>332</sup> Available at: <http://uk.reuters.com/article/uk-egypt-suezcanal-idUKKBN0GJ1KO20140819>

The attempt to create a political network of businesses, Islamist groups and political opposition groups under one banner was clearly a threat to military economic supremacy, and thus Morsi's political activities were deemed a severe threat to the military's core interests. Since his ouster, the Suez Canal Project has been completely managed by the Armed Forces, the Muslim Brotherhood has been denounced as a terrorist organization and thousands of Morsi supporters have been tried as terrorists with capital sentences. The Armed Forces later held elections, leading to the former chief officer of the Supreme Council of the Armed Forces, Sisi, to become the next President of Egypt.

#### [The Role of MCEs in Egyptian Civil-military relations](#)

Mubarak's removal and Sisi's ascension reflect the influence of the armed forces, and the reinvigoration of the armed forces' role in Egyptian politics. With onset of the Arab Spring, and the 2011 "Rosetta Revolution", the military once again became the most important political player in Egyptian society. Mubarak's police and internal security services were unable to contain the mass protests and the Egyptian domestic situation was deteriorating rapidly – subsidies on foodstuffs had once again been cut and unemployment was high. Without the support of the armed forces, Mubarak was finished, and the military was not willing to shoot on the crowds to support him. With his ouster the Egyptian political system was still in the hands of the military, but they were faced with incredible pressure to hold democratic elections both from without and from within.

From this short history of the armed forces' involvement into Egyptian politics it should be clear that the military has played an important, and often decisive role in the politics of

Egyptian life. The number of years the Egyptian military outright ruled the government is fairly low, but the number of years a military-friendly, or former military member, was in power encompasses most of modern Egyptian history since its independence from the UK. Indeed, outside the national office of the President, military influence has been quite pervasive: out of 25 provincial governors appointed after Sisi took power, 17 were military generals.

The military's role in Egyptian society has been called that of a "state within a state" or "deep state" in which there is a public government that administers the affairs of state, and another strata of political elites that administers itself and the public affairs of the country that is largely out of control or oversight of the public government.<sup>333</sup> The relationship between the two is both contentious and transactional – the public government seems to be tasked with maintaining domestic order and stability, while the military complex largely pursues its own economic development and arms production capabilities. During the Mubarak era this relationship worked remarkably well, with Mubarak steering any and all policies away from interference with military matters and the military only occasionally actively influencing policy. Given the military origins of Mubarak, the interests of these two groups largely aligned for decades, and even into the Arab Spring the military supported his reign only until it was clear that largescale bloodshed would be required to keep him in power. In order to maintain the special relationship between the state and the military, it was much more expedient for the military to depose and exchange one unpopular ruler for a different fresh face, and

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<sup>333</sup> Bessama Momani, "In Egypt, 'Deep State vs. 'Brotherhoodization'", Brookings Institute, August 21<sup>st</sup>, 2013

present themselves as the guardians of the people than it would have been to turn popular sentiment against the armed forces by killing large numbers of protestors. While the immediate candidate of Morsi was not to the military's liking, his removal allowed the military to have its cake and eat it too: the civilian government was largely inept, faced with mass protests, and making what some interpreted as dictatorial moves in government.<sup>334</sup> The military was able to sweep Morsi out of office with a justifiable *causus belli*, eliminate their most feared opponents, radical Islamists and the Muslim Brotherhood, and install a pro-military regime in Morsi's stead.

Conspiracy theories aside, the above should show the considerable influence that the military had in the minds of Egyptian leaders. From actively working to assuage military concerns and rewarding military officers with lucrative economic benefits, to tacitly recognizing military supremacy in its own internal affairs, the activities of the Egyptian leaders have been shaped by this powerful organization.

There are three concurrent strata of military control in Egyptian political economy: military ownership of public sector companies, military ownership of private sector companies and strategic partnerships between military-owned businesses and private sector businesses. The first, military ownership of public sector companies, seems to benefit officers and enlisted personnel as a supplement to their salaries (along with other benefits). The second, military-ownership of private sector companies, appears to benefit

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<sup>334</sup> Spencer, Richard, "Mohammad Morsi grants himself sweeping new powers in Wake of Gaza", The Telegraph, Available at: <http://www.telegraph.co.uk/news/worldnews/africaandindianocean/egypt/9697347/Mohammed-Morsi-grants-himself-sweeping-new-powers-in-wake-of-Gaza.html> (Accessed May 30th)

a smaller cadre of officers, which has been noted as a source of tension between officers within the circle of owners and those outside of it. This smaller cadre is extremely powerful and seems to command the respect of the officers by setting up a regularized system of patronage for all officers. The third kind of relationship is based on past relationships between different officer circles, where officers who leave the military are able to leverage their contacts within the military establishment for business opportunities unavailable to those who did not serve in the armed forces. This kind of relationship means that current military officers are able to see the tangible benefits from their service, while former officers are able to reap the benefits of their service. These groups empower one another, as former military officers are much more likely to want to do business with military enterprises, and current MCE managers are more likely to support their friends and former comrades.

While there are dozens of companies, and thousands of actors involved in Egypt's military economy, there are three major actors that comprise a large portion of the Egyptian military's holdings. These are the National Service Production Organization, the Ministry of Military Production and the Arab Organization for Industrialization. The following will detail the three biggest MCEs, but it should be noted that there are multiple other organizations that fall under the Egyptian military's control that are not mentioned below. A more complete examination of each is available in the Appendix.

In 2012, official statements about military owned businesses have asserted that combined all the industries bring in about \$750 million a year, whereas other sources have claimed

that one company alone has brought in \$5 billion in one year. Estimates about the exact size of the military's economic footprint in the civilian sector have a great deal of uncertainty.<sup>335</sup> <sup>336</sup> Again, estimates of the size of the Egyptian military's economic footprint range from between five percent of the economy to over forty percent.<sup>337</sup> In an interview with Reuters in 2014, Sisi dismissed such figures, saying instead that the military's investment in the economy is less than two percent<sup>338</sup>, but did affirm the military's continued economic role in Egypt.

One thing to note is that there are a multitude of different forms of military-commercial interaction, and it is difficult to document them all: wholly-owned companies/factories, joint ventures, holding companies, state-owned but military-managed public enterprises, and a variety of strategic partnerships, but informal and formal, between military and private enterprises.

Regulating military businesses are a myriad of laws, mostly laws exempting military businesses from common obligations. In terms of the legality of military-controlled enterprises, there is a wealth of laws permitting its existence, much of which was formalized during the Mubarak era. Profits from military-owned businesses are exempt from taxation and business licensing requirements according to Article 47 of Egypt's 2005 income tax law. Article 1 of a 1986 customs law on all imports of the Ministry of

<sup>335</sup> Hillel Frisch, "The Egyptian Army and Egypt's Spring" *Journal of Strategic Studies* 36, 2 (2013): 180-204

<sup>336</sup> Zenaib Abul-Magd, "The Army and the Economy in Egypt, *Jadaliyya*, 23 December 2011"

<sup>337</sup> Alex Blumberg, "Why Egypt's Military Cares About Home Appliances", Feb. 4, 2011

<sup>338</sup> "Text of Sisi interview with Reuters", May 15, 2014, Reuters, Cairo

Defense and Ministry of State for Military Production are exempt from any taxation.<sup>339</sup> In addition to tax breaks, military businesses are the beneficiaries of subsidies, government contracts and are above the rules and regulations applicable to privately-owned companies.<sup>340</sup> Military businesses, usually their construction and farming enterprises, draw upon cheap conscripted labor from the ranks of the enlisted, giving military businesses further advantages in terms of labor costs when compared to private sector companies.<sup>341</sup> Some conscripts have even been known to work as domestic help for high-ranking officers instead of in the businesses themselves. Workers in these companies are routinely denied unionization rights, and past attempts to organize labor have been violently suppressed.<sup>342</sup> These laws allow MCEs to have a competitive advantage over their peers, giving government departments a justifiable reason to award contracts to MCEs instead of privately-owned Egyptian or foreign companies. These benefits, such as the ability to import goods without dealing with customs, allows MCEs to substantially undercut the rates of other companies, allowing the leadership plenty of opportunities to pass the inflated profits on towards other MCEs or officers.

Reporting and civilian access to information about the extent of the Egyptian military's economic footprint is extremely limited. Egypt has regularly been at the bottom of Global Integrity's rankings of civilian access to government information in both law and

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<sup>339</sup> Morsy, Ahmed, "The Military Crowds out Civilian Business in Egypt", Carnegie Endowment for International Peace, June 24, 2014

<sup>340</sup> Frisch, "The Egyptian Army and Egypt's 'Spring'"

<sup>341</sup> Jaraba, Mahmoud, Ibid

<sup>342</sup> Dr. Nimrod Raphaeli, ibid

practice<sup>343</sup>. The most recent constitution also formalizes what had been a long-standing informal practice: that the civilian government is unable to monitor the military's budget<sup>344</sup>. The new constitution ensures that the military's budget cannot be scrutinized by any civilian government, and that the Supreme Council of the Armed Forces will have the final say in choosing or dismissing the defense minister for two presidential terms.<sup>345</sup> In addition to a much strengthened judiciary, a body that has been closely aligned with the military in past decades, the military has significantly strengthened its hand *de jure* in economic matters.

### Conclusion

While there are competing claims as to the roles of military enterprises, several things are clear: the military has created itself as by far and away the largest economic actor in Egypt, and have positioned themselves as indispensable actors within the economic life of their country. The way this was accomplished was through successive Egyptian political leaders empowering the military's economic prowess through the turning over of enterprises to military control as a way to leverage their resources for political support.

Political leaders seeking to secure their positions in power had for years lavished the armed forces with businesses in the hopes of winning the political support of the military.

As the only actor truly capable of displacing leaders and installing their own governments, the armed forces were empowered by successive leaders with expansions

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<sup>343</sup> Springborg, Robert, "The vast and complex military machine will decide its nations future", The Independent, Feb 12, 2011

<sup>344</sup> Jaraba, Mahmoud, Ibid

<sup>345</sup> Brown, Nathan, "Egypt's Draft Constitution Rewards the Military and Judiciary", Dec. 4, 2013, Carnegie Endowment for International Peace



of their business holdings. Nasser, Sadat and Mubarak all used MCEs to win over key political supporters within the officers corps either to placate dissidents or to outmaneuver rivals. All the while these leaders contributed to the economic holdings of the Egyptian military, creating a large military with a large economic footprint. As a result of their resource endowments, as well as their strategic environments, leaders had little choice but to reduce their risks of removal by giving up control of important enterprises or face a possible coup attempt.

## Appendix

### Official Public Information

Despite the general prohibition of reporting on the military's economic activities, the National Information Agency did publish a document detailing some of the military's economic holdings, though the list was incomplete and did not give much detail as to the size or scope of the enterprises. The following are information posted to government websites that are publicly disclosed companies owned or managed by the military:

### **National Information Agency: The Armed Forces and Comprehensive Growth**

1. National Service Projects in the Armed Forces
2. Plastic material for packaging and agriculture (established in 1992 and began production in 1994)
3. Victory (al-nasr) company for intermediary chemicals (primarily insecticide)
4. Arab World Company for Optics (including laser and precision electronic systems. Established in 1982)
5. National Company for Agricultural development in arid areas (established in 1999)
6. Supreme Egyptian Company for Agricultural Industrialization and Land Reclamation (including two plants for dairy products, two plants for salsa, two plants for livestock fodder. Established in 1998).
7. National Production for Nutritional Industry (comprises three inter-connected plants for the production of jams, juices and tomato paste; olive oil factory; and a pickle factory)
8. Egg Production Factory (completed between 1979 and 1986)
9. Food Security Sector (including production of agricultural products, food industry and honey)
10. Nasr Company for Services and Maintenance (including transportation, container leasing, tourism and hotels, garages, security and guard word, cleaning and beautification, sea services and training.)
11. National Company for Public Contracting and Imports (established 1993. Civil engineering and tourism)
12. National Company for Road Construction and Maintenance (the company may enter into partnership with similar companies both in Egypt and abroad)

13. Mining Sector (May 1987. Mines across the country, development of Sinai in collaboration with the Second Army, building of a stadium, sports facilities and farms). Reference: sis.gov.eg, July 10, 2013.

**Table 1: List of Ministers of Military Production 1981-2015**

<b>Ministers of Military Production*</b>	
<b>Minister</b>	<b>Years</b>
Abd al-Halim Abu Ghazala	1981-1989
Youssef Sabri Abu Taleb	1989-1991
Mohamed Hussein Tantawi	1991-2012
Abdel Fattah el	2012-2014
Sedki Sobhi	2014- Present
*All ministers have been serving military officers	

#### Profiles of Major Entities

##### **National Service Production Organization**

*History:* Established in 1978 with the express commercial purpose of expanding the military's economic footprint.

*(Current) Holdings:*

Its website lists ten companies under its control:

Nasr Company for Intermediate Chemicals

Al Arish Cement Company

National Petroleum Company

National Company for the Production and Packaging of Water

Quinn Pasta Company

National Reclamation and Cultivation of Desert Lands (East Owaynat)

Victory for Services and Maintenance (Queen Service)

Upper Egypt for the Manufacture of Agricultural and Land Reclamation

Food Security Sector

Factory Production of Plastic Sheeting

Estimated to be at least 16 factories, with multiple non-manufacturing industries also under its control.

The NSPO is also involved to a great degree in agriculture, producing 18% of the nation's foodstuffs, and 60% of the Arm's required consumables in 1985.<sup>346</sup>

The NSPO is also involved in national infrastructure and construction, in addition to some marginal involvement in military production.

### **Ministry of Military Production**

*History:* This is still the largest wing of the Egyptian military's production of war materials, though it also has significant holdings in the commercial world.

*Estimated (current) workforce:* 40,000

*Current holdings:*

8-16 manufacturing plants, with 40% of their production geared towards civilian markets.

Some affiliated military factories:

- Hulwan Iron Foundries
- Abu-Kir Company for Engineering Industries
- Abu Zaabal Company for Specialized Chemicals
- Shobra Company for Engineering Industries
- El Maasara Company for Engineering Industries
- Maadi Company for Engineering Industries
- Hulwan Company for Non-ferrous Industries
- Heliopolis Company for Chemical Industries
- Hulwan Company for Engineering Industries
- Abuzaabal Company for Engineering Industries
- Banha Company for Electronic Industries
- Tanks Production and Repair Company
- Kaha Company for Chemical Industries
- Hulwan Company for Metallic Appliances
- Hulwan Company for Diesel Engines
- Hulwan Company for Workshop Tools

### **Arab Organization for Industrialization**

*History:* Established in 1975 as a joint venture between Egypt, Qatar, Saudi Arabia and the UAE to develop domestic military production. It was capitalized with over \$1 billion from all countries, and in 1993 Saudi Arabia and the Emirates gave their portion, valued at \$1.8 billion, back to the Egyptian military, which is now the sole owner of the AOI.

The AOI consists of a combination of wholly-owned and joint venture companies.

*Estimated (current) workforce:* 16,000 – 19,000

<sup>346</sup> LTC Stephen H. Gotowicki, US Army, "The Role of the Egyptian Military in Domestic Society", 1997, National Defense University

*Estimated (current) holdings:*

Eleven manufacturing plants, with 70% of their production going to civilian markets.

Including:

- AOI Aircraft Factory
- AOI Engine Factory
- AOI Electronics Factory
- Sakr Factory for Development Industries
- Kader Factory for Development Industries
- Arab British Helicopters
- Arab British Engine Co.
- Arab British Dynamics Co.
- Arab American Vehicles

#### Other Major MCE Investments

As stated above, the Egyptian military has a host of other commercial holdings outside of these three major holdings companies/entities. While the names of individual companies are difficult to track down, the Egyptian military is known to be involved in the following sectors from a variety of sources. Just a smattering of the diverse investments are:

“...vehicles, chemicals, mineral water, cement, consumer goods, and various types of foodstuffs including pasta, bread and olive oil.”<sup>347</sup>

“...car assembly... clothing, ... construction of roads, highways, bridges. We’re talking pots and pans... of kitchen appliances. ...the gas bottle will have been manufactured by the military. Some of the foodstuffs you will be eating will have been grown and/or processed by the military.”<sup>348</sup>

”They range from consumer goods such as laptops, flat-screen TVs, sewing machines, refrigerators, pots and pans, plastic table covers, butane gas bottles, olive oil and bottled water to medical equipment, tourism, real estate and gas and energy. The

<sup>347</sup> Jaraba, Mahmoud, “The Egyptian Military’s Economic Channels of Influence”, Middle East Institute, May 12, 2014

<sup>348</sup> NPR Planet Money interview with Robert Springborg, May 6, 2014 “Why Egypt’s Military Cares About Home Appliances”

military also operates Wataniyyah gas station, maritime transport, heavy equipment leasing, and Queen cleaning services. In the agriculture sector, where young conscripts are often employed, the military grows what are known as ‘strategic crops’, such as barley, corn, wheat and clover, as well as mango trees, oranges and lemons and runs dairy and livestock farms and even a modern slaughterhouse.”<sup>349</sup>

Alongside these wholly owned businesses, the military is also engaged in a series of joint ventures, typically with foreign firms dealing in high-technology products, in which the military usually owns 51 percent of the venture. These firms manufacture both military and civilian goods, both of which are sold domestically and abroad.<sup>350</sup> An example of this kind of venture is the Arab International Optronics, a joint-venture between the military and France’s Thales, and the International Pipe Industry Company- the largest manufacturer of oil and gas piping in the Middle East- a joint venture between the military, a Kuwaiti businessman and a Taiwanese company. <sup>351</sup>

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<sup>349</sup> Dr. Nimrod Raphaeli, “Egyptian Army’s Pervasive Role in the National Economy”, July 29, 2013, The Middle East Media Research Institute

<sup>350</sup> Marwa Awad, “Special Report: In Egypt’s military, a march for change”, April 10, 2012

<sup>351</sup> Dr. Nimrod Raphaeli, *Ibid*

## Chapter 7: Conclusion: Coup-proofed but waiting in the wings?

Sometimes the business of the military is security, and sometimes the business of the military is business. In the preceding analysis, the product of military business is stability. MCEs are a route through which patronage and material benefits flow to the officer corps, enriching them and lowering the probability that officers will want to change the status quo through a violent regime change in a coup d'état. These MCEs provide the military with the means to create their own income, equipment and material in-house, usually far from civilian or governmental oversight. From a political standpoint, this arrangement allows the officer corps and top-tier military leadership to provide for the welfare of their troops directly by shifting goods from state coffers into MCEs, and from MCEs to the officer corps.

The preceding chapters show that MCEs are used as a coup-proofing mechanism by both civilian and military leaders to reduce their coup risk. MCEs come about as a direct result of high coup risk and smaller state resources. Leaders with high risks and few direct resources to placate the armed forces must come up with alternative ways to limit the risks that they face from the military. One alternative is for leaders to turn over control of state enterprises, resources or property to the armed forces for their use and control. For civilian leaders, the turning over of state assets or helping establish MCEs is a bargaining chip offered to reduce the likelihood of grievances developing within the officer corps. For military leaders, the development of MCEs is a way for leaders to show the rest of their military constituency that they are going to take care of the officer corps and

represent the interests of the officer corps. In either case, the establishment of MCEs is borne out of political considerations of leaders.

MCEs contribute to regime stability, especially in autocratic states. As the analysis above shows, MCEs help reduce the likelihood of coup attempts, which reduces the likelihood of a successful coup as well. MCEs function as they were intended, which is to keep the military from seizing power in a brash demonstration of their capability and opposition to the government in power. MCEs are a tool of regime survival, for better or for worse.

MCEs have differential effects, and seem to function much more effectively in autocratic regimes than in democratic regimes. There are several factors that could contribute to this difference, 1) democratic states face constraints that limit the establishment and size of MCEs, 2) democratic states have oversight and governance mechanisms that limit MCEs, 3) democratic states tend to provide better benefits to their soldiers, which limits the impact of MCEs on placating the grievances of the officer corps.

On the first point, in order to establish MCEs state resources have to be reallocated away from existing programs or groups, which can cause political turmoil, limiting the size of the transfer. In democratic states, opposition to large transfers of state resources, even under-utilized resources, can potentially be huge, limiting the ability of leaders to create very strong MCEs that are capable of having an appreciable effect. In autocracies, leaders face fewer limitations in transferring state resources to MCEs, or even of transferring civilian resources to state control. A clear example of this was in Egypt with Nasser's

appropriation of the property of the *mutamassirum*, the wealthy landed class that dominated Egypt's business sector. Through a series of land reforms that transferred a majority of the this wealthy class's land to state control and outright seizures of their firms, Nasser's government both quashed potential opposition and managed to redirect much of those resources to military control. With greater means, willingness and credibility to use force, autocrats face fewer barriers to these kinds of transfers of economic resources to armed forces control.

On the second point, in democracies transparency and oversight means that one function of MCEs, to transfer resources to the officer corps, has to take place under more public scrutiny. This means that opportunities for corruption are much more difficult, and large movements of capital within MCEs have to be justified with an eye towards national security, potentially limiting the scope and impact of MCE activity. In autocracies, the explicitly political nature of MCEs is often kept secret, and it is easier to simply keep the details of MCE operations outside of the public eye. The lack of independent news organizations means that it is easier to move capital and resources without public knowledge, allowing a high ceiling for activity before anything is noticed by the public at all.

On the third point, democracies tend to spend more per soldier than their autocratic counterparts. While democracies do tend to be wealthier overall and therefore their spending tends to be higher, even when controlling for wealth democracies do a much greater job of taking care of their soldiers. Poor democracies tend to spend roughly



double what a poor autocracy does per soldier, while the spending differential between wealthy democracies and wealthy autocracies is much lower. Democracies just tend to spend more on their soldiers, which translates to better pay, benefits and post-service care. This means that, where there are MCEs in democracies, the marginal impact of MCEs is much smaller, since the majority of their benefits will already be coming from the state. Within autocracies this trend is the reverse: because autocracies spend so little on their soldiers, the marginal impact of MCEs is much greater. The difference between a poor autocracy with an MCE versus one without was roughly \$4,000, or almost double the poor autocracy lacking an MCE. This increase will have a huge impact on the material welfare of soldiers, meaning that MCEs will have a much greater impact.

MCEs also have disparate effects with respect to development. At higher levels of development, especially past \$7,000 GDP per capita, the impact of MCEs is negligible. This is likely for two reasons: 1) wealthy states tend to be more democratic, and 2) richer states are able to provide more for their soldiers. On the first point, as states become wealthier the mechanisms that lead to democratization become stronger, leading to more democratic states. As per the discussion above, democracies tend to have mechanisms that limit the effectiveness of MCEs. On the second point, states that are wealthier tend to be able to provide more benefits to their soldiers overall. This means that the marginal impact of MCEs will be smaller as the benefits provided by the MCEs account for a smaller percentage of soldiers' compensation.

Interestingly enough though, the same goes for those states with extreme poverty: in those states with GDP per capita below \$200, there is almost no effect of MCEs. The range where MCEs are most effective is between \$200 and \$7,000 GDP per capita. This poses a challenge to the theory, because at the extreme end of poverty the marginal impact of MCEs should be highest. Practically speaking though, most MCEs were established out of already extant industry or productive commercial enterprises. In states with extreme poverty, there are likely very few viable commercial properties to turnover to the armed forces without creating incredible political turmoil. In addition, the kinds of enterprises to be turned over to the armed forces in an impoverished country are likely not to be the most lucrative. Thus, an MCE from a medium-income state might provide a decent marginal impact in a medium-income state, but an MCE in a least-developed state might not be able to provide much benefit at all. In addition, there are very few MCEs in these extreme poverty states, which makes confidence in the impact of MCEs in the analysis portion difficult.

#### Short-term benefit, long-term bedfellows

Thus far the analysis has highlighted the stabilizing role that MCEs have on their respective regimes, but is there perhaps a political trade-off in the establishment of MCEs? Leaders establish MCEs in order to control coup risk by turning over economic resources to the armed forces. While this provides political relief for the leader, it also means that the armed forces now have an additional economic stake in their state's politics in addition to security concerns. With this economic stake, the armed forces suddenly have additional concerns and interests that must be protected. If the armed

forces suddenly came into control of a certain mining operation, they suddenly have a stake in all national-level mining legislation and policies, and must also be included as an actor in any negotiations on future changes in policy which might affect them.

The potential impact is that the officer corps, once included in economic considerations, will expand its political role in governance beyond strictly security matters. So a short-term coup-proofing tool to keep the armed forces out of politics in the present in fact becomes a stepping stone for the armed forces to become more involved in politics in the long-term. Instead of being called up for matters of national security, the armed forces will need to be consulted as a political actor in their areas of economic influence. The economic life of a state is a series of interconnected networks, and no business is conducted in strict isolation. In the previous example of mining, the sector is interconnected with transportation, heavy machinery, refining, and a host of secondary and tertiary industries. This means that industries that are not directly related to the armed forces' holdings could potentially be affected by the armed forces' political influence as the armed forces seeks more favorable business arrangements or greater control of the other economic forces affecting its business.

This recipe for the expansion of the economic and political role of the armed forces is compounded by the fact that, especially in autocratic states, the leadership of a state will occasionally face crises that require the support of the armed forces. With each successive crisis, if the leader so wishes MCEs can be turned over to the armed forces for support, increasing the influence and economic reach of the armed forces. The officer

corps can leverage their political influence for more economic resources, and in states where the armed forces have already intervened, the credibility of their ability to act as “kingmaker” will likely ring true for leaders in political crisis. This process can be incredibly damaging to what most Western analysts would call “healthy” civil-military relations, where the civilian government is supreme with respect to the armed forces.

This is not to say that, once MCEs are established, there is only one inevitable process leading to the expansion of economic and political influence by the armed forces. Indeed, there have been several spectacular reversals of MCEs in the past thirty years. China and Argentina have notably rolled back the military’s influence in economic spheres, though the processes through which each occurred were quite different.

In China, the Communist Party leadership was worried about the economic influence of the PLA, which they worried could potentially translate into political power capable of challenging the party. Through a series of reforms, the Party struck a deal with the PLA: the PLA would divest itself from all business holdings and in return the central government would increase military spending. This arrangement was mostly followed through, with tens of thousands of businesses of the PLA turned over to state control, and the armed forces gaining substantial spending.

In Argentina the process was quite different, as the armed forces were in a much weaker position. Having been forced from power after the disastrous Falkland Islands War, the armed forces found themselves politically isolated, out of power and in control of several

enterprises that were an incredible drain on the state budget without much to show for it. Through multiple political deals over the course of ten years, the civilian government sold off economic holdings of the Argentinian armed forces, over their objections. Successive civilian government were able to leverage the political weakness of the armed forces to remove their economic influence.

There is no inevitability to either process, as clever political actors can shape their environment according to their opportunities and strengths. What is clear from the above is that MCEs are an effective tool of autocrats to limit their exposure to the threats faced by the armed forces. MCEs are a tool of regime stability and survival, and function that way well for autocrats, though for democratic states MCEs have no impact. MCEs have disparate impacts in that there is clearly a short-term benefit to their establishment, but that a bargain struck in the present to prevent an armed takeover can also have the long-term impact of ensuring that the armed forces have a much greater role to play in politics for years after.

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