

Interstate Patronage and Client State Repression: Evidence from 1946-2010

by

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## ABSTRACT

How does the presence of interstate patronage impact the use of physical repression by client regimes? Previous studies have failed to comprehensively conceptualize and measure these important relationships between states. Moreover, previous studies have devoted limited attention to investigating the substantive implications of these relationships on domestic and international politics. This dissertation presents an original conceptualization and measurement of interstate patronage from the United States to every country in the 1946-2010 period. The dissertation then turns to an analysis of how patterns of US patronage impact state repression in client regimes. The findings indicate that US patronage improves human rights in autocratic client states - however, the receipt of US patronage leads to worsening human rights in democratic client settings. The findings have implications for scholars, policymakers, and observers of international politics.

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## CHAPTER 1

### INTRODUCTION AND CONCEPTUALIZATION

#### **I. Conceptualizing Interstate Patronage**

##### **a. Introduction**

In the decades since the conclusion of the Second World War, autocratic and democratic superpowers alike have undertaken considerable efforts to incentivize and coerce other states to behave in alignment with their own foreign policy goals. For instance, during the Cold War a central form of competition between the world's superpowers involved the provision of economic, security, and political resources to strategically important states across regions such as Africa, Latin America, and the Middle East in exchange for geopolitical alignment (Westad 2005; Schmidt 2013). More recently, one can look to the attention that the West has devoted to promoting political and economic development in the name of liberalism and global security over the past thirty years for examples of how dominant states aim to use their resources to affect change in world affairs (Alesina and Dollar 2000; Carothers 2009; Bearce and Tirone 2010; Hook and Rumsey 2016). Autocrats have also been active in using their economic and security advantages to ingratiate themselves with underdeveloped countries – China has been increasingly aggressive in its foreign policy and export of the “Chinese” model of political and economic development over the past ten years in exchange for influence in international settings (Cooley 2015); Russia has also remained a powerful sponsor of autocratic regimes in Eastern/Central Europe and Central Asia over the last three decades in an attempt to thwart democratization in strategically vital areas (Tolstrup 2015; Shevtsova 2016).

In each of these scenarios, the dominant actor's behavior is characterized by the cultivation of special relationships between the dominant and subordinate state in which mutual benefits are exchanged between each side over a period of time. Yet, despite the presence of such relationships, scholars have not focused much theoretical or empirical attention on them. Instead, scholars have largely focused on generalized analyses of how individual aspects of a powerful actor's foreign policy toolkit such as economic aid, arms transfers, or coverage in the UN security council impact various economic and political outcomes (Kono and Montinola 2013; Blanton 2000; Tolstrup et al. 2019). These analyses fail to capture the unique relationships that involve the confluence of economic, security, and political support in exchange for access to some strategic asset. In other words, they are both too specific and too general at the same time – their focus on only one aspect of an interstate relationship ignores the multidimensional nature of foreign support while the lack of substantive delineation between recipient states coupled with numerous outcome variables makes it difficult to draw meaningful conclusions from the analysis.

One reason that scholars have eschewed analyses of multidimensional, power-based interstate relationships is because they have remained largely under-conceptualized and have not been the subject of systematic theoretical or empirical attention. This is surprising, especially considering the prevalence of these relationships and their potential impact on political and economic development. Moreover, the nondemocratic nature of many of the world's recipients of foreign sponsorship calls into question the intent and effectiveness of democratic superpowers' foreign policies. As such, this chapter provides a systematic conceptualization of the multidimensional, mutually beneficial, and variable

relationships that occur between democratic patron states and their subordinate client regimes – that is, instances of *interstate patronage*. The aim of this conceptualization is to clarify the nature of these relationships in order to allow for theoretical exploration and empirical application.

**b. What is Interstate Patronage?**

As noted in the introduction, few scholars have systematically conceptualized the strategically motivated and multidimensional relationships that exist between dominant and subordinate members of the international community. In the field of comparative politics, domestic patron-client relationships, or the notion of power-based, contingent, and mutually beneficial relationships between two political actors, are a well-known phenomenon and provide a useful starting point when thinking about interstate patronage. In fact, domestic patron-client relations have long been a feature of both autocratic and democratic regimes. By most accounts, five conditions characterize the presence of patron-client relations between political actors (Hicken 2011):

First, patron-client relationships are dyadic in nature. That is, they exist between, and should be evaluated within, two political actors, such as an autocratic politician and a key business leader that the politician relies upon for support. Second, patron-client relationships are hierarchical in nature. In other words, a power imbalance exists between the two political actors. For instance, an autocratic politician may hold a power advantage over a business leader by having the ability to manipulate state resources in ways that favor or disadvantage the business leader's interests. Third, patron-client relations are characterized by the contingent exchange of benefits between each political party. That is, a form of a *quid pro quo* exists between each side of the relationship: For the

relationship to exist, both sides must be willing to accept organizational and/or material resources from each other. Otherwise, the relationship may cease to exist due to a lack of participation by one or both sides. For example, an autocratic politician engaging in patronage may be prepared to divert state resources to the business leader's interests but only if the business leader supports the politician's preferred economic and political policies. Fourth, patron-client relationships are iterated, or repeated over time. The temporal element of the relationship is important because it rules out one-off exchanges of benefits (such as bribes) and gets at the heart of the substantive nature of the relationship – namely, the fact that both sides enter into the relationship with the intention of maintaining the relationship for more than a short period of time. Indeed, a central motivation for either side to engage in patronage is that the resources exchanged are often valuable enough to motivate each side to engage in repeated interactions over time. Otherwise, the costs of organizational and material forms of support from either side may begin to outweigh the benefits of maintaining the relationship.

This leads to a final condition that characterizes patron-client relations, though it is more prevalent in the international rather than domestic arena: volition. This condition refers to the fact that patron-client relationships are voluntary by nature and can be created, suspended, or terminated altogether if the conditions for the relationship to exist are not being met by either side (typically the contingent aspect of the relationship). The voluntary nature of the relationship is critical because it forces each side to consider the costs/benefits of maintaining the relationship and can lead each side to behave strategically depending on how much they value the relationship and whether they are willing to take the necessary steps to maintain it. As this chapter will argue, this condition



is perhaps more critical in the international rather than domestic setting because in many cases, domestic patronage is institutionalized within the political regime and may be difficult for political actors to independently decide whether to engage in patron-client relations. However, in the international arena, it may be easier for weaker parties to enter and exit relationships voluntarily due to conditions of anarchy in the international system.

Thus, a patron-client relationship can be generalized as a (voluntary) relationship between a dominant and subordinate political actor in which the mutual, targeted, and contingent exchanges of benefits takes place over an extended period of time. Although this is a generalized depiction of domestic instances of patron-client relations, it provides a useful starting point when thinking about interstate patronage. In fact, this chapter will argue that the five elements outlined by Hicken (2011) apply to the interstate setting quite seamlessly. But before turning to a more detailed discussion of interstate patronage, it is worth mentioning efforts of previous scholars to conceptualize patron-client ties in the international arena that incorporate similar considerations.

Carney's (1989) work on international patron-client relationships is perhaps the most direct and theoretically oriented piece of scholarship on interstate patronage. According to this author's conceptualization, interstate patronage is characterized by "voluntary...asymmetrical dyads which are marked by [strong elements of] affectivity...compliance...[and] reciprocity" (44-46). In this definition, asymmetry refers to a power imbalance between the two sides of the dyad in regard to overall resource capacity of the two states. In other words, patron-client relations exist between a dominant and subordinate member of the international system. In more practical terms, this means that the title of "patron" is restricted to the most powerful countries in the

world – specifically, members of the UN Security Council. The title of “client” is thus reserved for members of the international community who suffer from relatively large power disparities between themselves and the world’s most dominant actors. In reality, this means that client regimes are largely the less-developed countries (LDCs) of the world. The author argues that the presence of a large power disparity between the states is critical to the patron-client link because the dominant actor has a clear advantage in offering resources in exchange for client acquiescence on some localized and/or strategic issue.

Following asymmetry, interstate patron-client relations are defined by affectivity between the two parties – that is, a degree of contextual loyalty between both sides of the dyad. This loyalty is a product of some qualitative connection between the dominant and subordinate members of the dyad. In many cases, these connections are personal and/or ideological in nature. For instance, patron states have regularly engaged in the installation of regime leaders in client states in exchange for international and domestic alignment on economic, political, and social policies. The qualitative connection between the patron and client is critical because it provides additional motivation for each side to continue the relationship while also emphasizing the unique and context-specific nature of each instance of patron-client relations in the interstate setting.

Reciprocity refers to the exchange of assets between each side of the dyad – for example, a patron state may provide below-market arms to a client regime in exchange for assurance that the client will support the patron’s foreign policy goals (such as the containment of communism during the Cold War). In a similar manner to domestic patronage, a mutual exchange of benefits is critical to the existence of the patron-client

relationship because each side must derive some value from the relationship for their participation to be worthwhile (and voluntary). The author's final element of international patron-client relations is "compliance", or the degree to which each side upholds their end of the bargain. For instance, compliance may refer to the degree to which a client of the United States votes in alignment with the US during the United National General Assembly. Compliance is a critical aspect of patron-client relations because it ensures that each side is receiving a return on their investment of time and resources into the relationship. Critically, given the voluntary nature of each side has to be compliant to a certain

Overall, these elements combine to characterize interstate patron-client relations as hierarchical relationships between dominant and subordinate members of the international system that are based on some shared identity (such as regime survival or a common adversary) and the repeated exchange of economic, security, and political resources. The author continues by discussing various "linkages" that may act as signals of patronage between a dominant and subordinate state, such as military aid, alliance memberships, arms transfers, economic aid, and foreign direct investment (Carney 1989, 52). Despite the lack of conceptual clarity between the elements and linkages, or indicators, this conceptualization is quite strong and makes a convincing case for evaluating these relationships more closely.

In recent years, scholars have begun to readdress the role of dominant actors in affecting domestic political regimes, in terms of both theoretical conceptualization and empirical application. In one of the few recent papers on interstate patrons, Tolstrup et al. (2019) focus on the impact of great power support on the use of repression by autocratic

regimes in response to popular mobilization. The authors argue that signals of support from great powers (UN Security Council members) towards autocratic regimes lead them to be more repressive against popular mobilization efforts because they signal support for the regime (broadly speaking), deter opposition, and provide reassurance to the regime leader(s) that their actions will not be met with punishment. In finding empirical support for their predictions, the authors contribute to this literature by emphasizing the importance of international forces in affecting domestic regime dynamics, particularly when it comes to autocratic regimes and their management of potential and actual regime challengers.

Despite the strengths of this analysis, however, it is burdened by a few shortcomings. First, the authors pay little attention to developing the concept of a “patron” state – the authors assume that all members of the UN Security Council have the potential to be a patron of any state and do not spend much time elaborating on what interstate patronage is and the various degrees to which dominant states may engage in patronage. In other words, the authors assume a very loose conceptualization of interstate patronage – in this conceptualization, patronage is assumed to occur when powerful states act in support of smaller (perhaps autocratic) states. In assuming this loose notion of interstate patronage, the authors fail to address the unique characteristics and dynamics of these relationships that may be more easily discernable in a more nuanced conceptualization and analysis. This point highlights the second shortcoming of this analysis – the authors only focus on one avenue of foreign support to qualify interstate patronage and evaluate its impact on state repression. Signals of support are undoubtedly an indicator of a dominant state’s interest in shielding a less powerful state but patterns of support by of dominant actors

should include considerations from the economic, security, and political realms.

Moreover, the authors' theoretical and empirical analysis is qualitatively oriented, which leaves the quantitative side of interstate patronage lacking theoretical and empirical attention.

More recently, Casey (2020) engages in a more systematic conceptualization and empirical analysis of interstate patronage and its impact on autocratic client durability. Briefly, the author finds that interstate patronage bolsters client regimes and can improve client durability if the right environment exists – specifically, if foreign support is aimed at coup-proofing the regime from the military/security apparatus. In this analysis, interstate patronage is conceptualized as hierarchical, proximate, and transactional relations between a dominant (patron) and subordinate (client) state in which the patron provides organization and material support to the client with the goal of bolstering the client regime in exchange for behavioral alignment and/or access to some resource that the client possesses. This author's conceptualization is an improvement over previous efforts in that it outlines specific types of support that patron states must provide in order for their generosity to be counted as “patronage” – namely, organizational and material support to the regime. The author does a good job of arguing for the importance of considering how patron support impacts the organizational and material capacities, particularly when the outcome under consideration impacts regime dynamics that depend on organizational and material considerations (such as coup-proofing). The author's empirical analysis is also more substantial than the previously mentioned analysis in that it develops a quantitative analysis of patron support on autocratic regime durability in addition to a few qualitative case studies.

Yet, this analysis suffers from several flaws as well. First, the author's analysis has an outsized focus on how interstate patronage impacts the military apparatus, both theoretically and empirically. Given that the author is interested in coup-proofing and military loyalty, it is understandable to focus on how foreign support is tailored toward and affects the organizational and material capabilities of the military apparatus. However, as the discussion of the previous analysis noted, interstate patronage should encompass economic, security, and political considerations when it comes to evaluating the extent of patron support. Thus, while Casey's conceptualization is more well-rounded than previous efforts, it is worth mentioning that work remains to be done to incorporate economic and political considerations into conceptualizations of interstate patronage.

Another shortcoming of the author's analysis is the absence of a detailed discussion surrounding the strategic component of patronage, an element that is clearly part of interstate patronage considering the author's focus on US and USSR patterns of foreign support during the Cold War. Moreover, strategic value is a central consideration in evaluating the mutual benefits that are exchanged between each side of the patron-client relationship. In fairness, a central component of the author's theoretical discussion focuses on differences between patron states regarding their strategies of managing the military apparatus of client states through organizational and material assistance. However, no detailed discussion is given regarding the strategic value that patron states may (or may not) impart on their client states. It is quite easy to imagine that different client states may possess different strategic values depending on what they are able to offer their patrons. Thus, in addition to missing economic and political considerations,

the author's conceptualization and measurement of patronage is lacking a convincing discussion surrounding the strategic dimension of interstate patronage.

A final shortcoming of Casey's work on interstate patronage is the author's decision to measure patronage in a binary manner while conceding that "...conceptually foreign support is continuous rather than binary..." (429). Conceptually, it seems quite clear that patronage should take a continuous form. Indeed, there is no theoretical reason as to why patron states would not be able and willing to modify the amounts and forms of support that they provide to their clients. For instance, strategic value may necessitate the allocation of higher levels of support (patronage) to certain clients than others in order to maintain their loyalty. However, the author chooses to rely on qualitative accounts to code the presence/absence of patron support in a binary manner. The author's reasoning is that it is difficult to quantitatively identify the intensity of military aid between each patron and client, thus a qualitative coding process is required to identify instances of patronage. The validity of this statement is certainly debatable, and while this is perhaps true for the author's particular analysis, measuring interstate patronage in a binary manner misses potentially significant variation in levels of patronage and how such variation influences the dynamics of client regime behavior.

Thus, taken together, previous efforts to address interstate patronage on both a conceptual and empirical level reveal some common insights and shortcomings that should be considered before moving forward. In terms of common insights, it seems that each of the aforementioned authors agree on the basic structure of interstate patronage. Each conceptualization centered around dyadic, hierarchical, and mutually beneficial relations between states in which a dominant state provides various forms of support to a

subordinate state in exchange for domestic and/or international policy alignment. That is, interstate patronage is generally conceptualized as bilateral in nature and quite context-specific in terms of benefits being derived from each side's end of the deal. The foundations of interstate patronage are therefore closely connected to the structural foundations of domestic patronage in which a political figure cultivates a unique benefits-based relationship with a less powerful political (or economic or social) actor in order to maintain power.

A few common shortcomings can also be identified in previous efforts to conceptualize interstate patronage. To begin with, previous efforts to address interstate patronage have lacked a comprehensive approach to conceptualizing and measuring patron-client relations between states. Authors have chosen to restrict their focus to particular avenues of interstate support – such as military support or institutional coverage – when, in reality, a more thorough approach should incorporate economic, military, and political forms of support. By focusing on only one avenue of foreign support, the authors run the risk of missing the entire picture of patronage, especially since dominant powers should be able to manipulate their economic, security, and political resources in pursuit of client regime alignment. Put differently, by only analyzing one avenue of support, previous conceptualization and measurement efforts might be under- or over-estimating the extent to which certain regimes are clients.

This criticism leads naturally into the next shortcoming: a lack of consideration of contextual variation between patron-client pairs, particularly as it relates to their strategic value and client regime characteristics. Previous efforts to address conceptualize and empirically measure/apply interstate patronage have tended to treat patron-client pairs as



relatively homogenous in the extent to which patrons value their client partners and the way in which client regimes may behave in response to patron support. These considerations are important because they are the foundation for critical variation between patron-client pairs that may have important theoretical and empirical implications. Strategic value can dictate the degree to which a patron is willing to invest its economic, security, and/or political resources into supporting a client regime. Similarly, variation in regime characteristics across client states can plausibly dictate different forms of patron support and different behavioral implications in response to patron support. Thus, existing conceptualization and measurement efforts miss important variation in patron-client pairs that may have important theoretical and empirical implications.

These shortcomings give rise to a final criticism of previous efforts to conceptualize and measure interstate patronage: the binary nature of previous analyses. As noted in the preceding discussion, interstate patronage should be conceptualized and measured in a continuous manner - yet previous efforts have treated interstate patronage as a binary concept in which a client state either has a patron supporter or does not. Despite any theoretical or empirical benefits to approaching patron-client relations in this way, interstate patronage should be a sort of continuum in which client regimes receive high- or low-level patronage based on various factors, such as their strategic importance or number of economic/security ties with their patrons. Conceptualizing and measuring interstate patronage in this manner is not only intuitively appealing, but it also allows for a more nuanced analysis of how variation in patronage affects client regime dynamics.

In summary, then, previous efforts to address interstate patronage have produced both valuable insights and shortcomings that suggest room for improvement in future analyses. The remainder of this chapter presents a detailed conceptualization of interstate patronage that builds on previous efforts' insights while remedying existing shortcomings within the literature before turning to an empirical application of democratic patronage and its impact on human rights violations by client regimes.

### **c. Conceptualizing Interstate Patronage**

Based on the insights of previous scholars, there are a few elements of interstate patronage that form the foundations of the concept. The first two fundamental elements are that patron-client relations are assumed in this analysis to be both dyadic and voluntary. Restricting the concept to two parties eliminates third-party and multilateral actors from consideration and makes theorizing about and measuring interstate patronage much easier for both the researcher and the reader. Moreover, bilateral cooperation is by far the most prevalent form of interaction in the interstate setting and focusing on dyadic pairs of states allows for the incorporation of context-specific factors into the analysis. The other assumption underlying the concept of interstate patronage is that the relationship between the patron and client is voluntary – that is, neither side is forced to be in the relationship and can enter/exit whenever the conditions are right for entry/exit. This is an important element of the concept because it distinguishes interstate patronage from other types of power-based relationships that may not be the result of willing participation by both sides, such as imperial territories or situations of high economic dependency (Wallerstein 1974). Moreover, sovereignty in international relations is the status quo, regardless of individual instances of sovereignty being challenged by external

actors – thus, even though some countries are more powerful than others, each country is technically independent and able to act freely in theory. The element of free will adds a unique dimension to the analysis – namely, free will forces the analysis to consider situations that may lead to the onset or end of patron-client relations between states.

The next two fundamental elements of interstate patronage concern the hierarchical and reciprocal nature of patron-client relations between states. Hierarchy refers to the fact that interstate patronage is fundamentally a power-based relationship in which the dominant state uses its resources to cultivate client acquiescence on key policy issues. The notion of power imbalances in international relations is nothing new. Scholars of international relations have long recognized the fact that some states have the capacity and willingness to use their power advantage to manipulate foreign affairs, whether through establishing regional hegemonies, intervening in other states' affairs, or cultivating strategic partnerships throughout the world (Krasner 1976; Mearsheimer 2001; Fearon and Laitin 2004; Mattern and Zarakol 2016; Krieg and Rickli 2019). The element of a power imbalance between states is critical to the concept of interstate patronage primarily for two reasons. First, the existence of a power inequality between the patron and client state invites the potential for a benefits-based relationship between the actors since the patron has resources that the weaker state may (potentially) need. In other words, a power imbalance sets the stage for the relationship to exist in the first place. Moreover, only the most powerful actors are likely to be able to cultivate client partnerships due to their relative resource advantage over other states.

The second reason for emphasizing the hierarchical aspect of interstate patronage is that interstate hierarchies are, by nature, variable and context specific such that they

should be conceptualized and measured on a scale or continuum. This element is critical to interstate patronage because it implies that each patron-client dyad is unique in the extent to which the dominant actor possesses a resource advantage over the client, a fact that may have implications for the patron-client pair. In other words, the hierarchical element of interstate patronage invites considerations of varying degrees of patronage and how this variation may influence the course of a patron-client dyad's relationship.

Scholarship surrounding interstate hierarchies has consistently emphasized the continuous nature of hierarchical relations in the interstate setting. For instance, Lake (1996; 2007; 2009) has worked extensively on the economic and security dimensions of interstate hierarchies. A consistent theme across the author's analyses is that economic and security relations between states exist on a continuum and that each interstate interaction should be evaluated contextually based on economic and security considerations. These contributions are important for the current analysis because they not only justify a continuous conceptualization and measurement of interstate patronage, but they also make a point to incorporate multidimensional considerations into their theoretical and empirical analyses whereas previous efforts to address interstate patronage have been quite one-dimensional.

Given these points, it is worth considering the extent to which interstate patronage exists at the global and/or regional level. While many previous analyses surrounding hierarchies and power-imbalances between states focus on the global level, it is also possible for hierarchies to exist in a more geographically limited context. Indeed, while many countries cannot exercise influence in distant geographic regions, there are many "smaller" powers that have the capacity to influence other states' behavior in a more

focused geographic context. For instance, it is not surprising that countries such as the United States, China, the United Kingdom, and Russia can exercise influence over a larger territory than the “average” state given their advantages in military, economic, and political power. However, scholars have previously highlighted the existence of regional hierarchies that may be just as important as global hierarchies when it comes to external influences on state behavior. Buzan and Wæver (2003) develop a regional security complex theory (RSCT) that aims to account for differences in the degree to which local powers determine the hierarchical structure of various geographic regions across the world. The authors identify a number of regional security hierarchies across the world, some of which overlap with other hierarchies. In doing so, the authors find that regional hierarchical structures vary dramatically across the world and can sometimes be more informative than a more general global hierarchy that likely overlooks regional dynamics.

Similarly, Lemke (2002) finds that different regions across the world have clearly defined hierarchies that are dominated by one or a few states over a limited geographic territory. For example, the author identifies the Arab-Israeli hierarchy in the Middle East/North Africa as being dominated by Egypt and Israel, who influence the behavior of the states of Iraq, Jordan, Lebanon, and Syria. Another example is the East Asian hierarchy, with China as the dominant power over Japan, Mongolia, North Korea, South Korea, and Taiwan.

Thus, in a general, global sense the hierarchical element of interstate patronage restricts the pool of potential patrons to only the most powerful countries in the world (such as the UNSC members) while restricting the client pool to essentially all other countries. However, it is possible for patrons to exist at the regional level with a more

bounded area of influence across a defined geographic region. At the regional level, a regionally defined group of states occupy hierarchical structures and often have their own dynamics that can be explained by geographic and historical considerations. Overall, this discussion highlights the fact that the conceptualization of interstate patronage can be applied to either global- or regional-level analyses of hierarchies in international relations and can be used to explain a wide range of outcomes.

The next fundamental element of interstate patronage is the mutual exchange of benefits between each side of the patron-client dyad. Reciprocity is a critical aspect of interstate patronage because the mutual exchange of benefits motivates the relationship to exist (and persist) while also providing some avenues through which patronage can be analyzed in more detail. It is important to note that the set of benefits that each side derives from the relationship often serves some strategic purpose for each party. For instance, interstate patronage frequently involves the allocation of economic and security assistance to client states in exchange for some asset/territory/behavior that the patron desires (such as natural resources, military stationing, or cracking down on opposition forces). The provision of economic and security assistance motivates client regimes to hold up the terms of the relationship because the patron's assistance serves a critical purpose – at the very least, economic and security assistance helps the client regime maintain power domestically by increasing the organizational and material capacities of the regime.

Economic aid from a patron, as an example, may allow the regime to funnel more resources to key interests (or their “selectorate”) that help the leaders stay in power (Bueno de Mesquita et al. 2003). Security assistance – such as joint training exercises –

can help a regime maintain domestic and external stability when it comes to managing violent conflict. On the other side of the relationship, the client's acquiescence to the patron's demands motivates the patron to continue reaping the benefits of supporting the weaker state. These benefits are typically strategically oriented and depend on the broader foreign policy goals of the patron state. For example, during the Cold War, patron states supported autocratic clients in exchange for ideological support. However, when ideology became obsolete in the years following the end of the Cold War, patrons began to look elsewhere for strategic partnerships. In other words, the patron's willingness to continue supporting a client in exchange for some benefit is dependent on the scenario in which the patron-client dyad exists, particularly as it pertains to the patron's foreign policy goals and perceived value of the client. Thus, the mutual exchange of benefits is variable across different instances of interstate patronage.

Finally, the last fundamental element of interstate patronage is the temporal consideration of repeated interactions between the patron and client over time. This is a key consideration when evaluating interstate patronage for two primary reasons. First, on a theoretical level, repeated interactions between the patron and client create a sense of trust and cooperation between the two parties. In a manner similar to the dynamics of interaction in international institutions, repeated interactions help to strengthen the patron-client relationship by creating mutual interests and reducing uncertainty that each side will break their end of the bargain (Axelrod and Keohane 1985). Second, the iterated nature of patronage suggests some empirical implications for measuring the degree of patronage in a particular dyad. Differences in lengths of patron-client relationships, in other words, can assist in understanding how instances of interstate patronage vary across

time and space. For instance, it seems plausible to believe that a long-lasting relationship between a patron and client has a higher degree of patronage than a shorter patron-client dyad because the passage of time has created a sense of certainty and loyalty between the two parties. Moreover, this might carry implications for investigating other aspects of the relationship, such as the volume and/or type of support the client receives, the behavioral consequences of patron support, or how and why a patron-client relationship survives or ceases to exist.

Overall, these fundamental elements combine to characterize interstate patronage as a dyadic, voluntary relationship between a dominant and subordinate state in which strategically valuable benefits (broadly defined) are exchanged by both sides over a period of time. The inclusion of these elements into this analysis's conceptualization of interstate patronage is in line with previous efforts to address the concept on a theoretical and empirical level. However, this conceptualization improves on existing work by addressing three specific weaknesses. First, this conceptualization recognizes and accounts for the multidimensional nature of interstate patronage. That is, it directly accounts for a number of theoretically relevant economic and security considerations whereas other scholarly efforts have been quite one-dimensional in their assessment of interstate patronage. Second, and relatedly, this conceptualization recognizes and accounts for variation in a number of factors that might have implications in the context of a patron-client relationship. These include temporal, strategic, and (client) regime considerations. Addressing and analyzing this variation may uncover additional nuances to the patron-client dynamic in the interstate setting. Finally, this analysis is focused on creating a concept that can be thought of as a continuous phenomenon, both theoretically



and empirically. Put differently, this conceptualization posits that interstate patronage is varying rather than dichotomous concept and should be theorized and measured as such. The incorporation of multidimensional considerations that specifically allow for variation in the various factors underlying interstate patronage allows for a close link between theory and empirics when analyzing the dynamics of patron-client relations between states. The next chapter develops an original multidimensional measurement of interstate patronage between the United States and every other country in the 1946-2010 period.

## CHAPTER 2

### MEASURING INTERSTATE PATRONAGE

#### **I. Introduction**

As discussed before, the development of a quantitative measure of interstate patronage is important for at least two reasons. Namely, previous efforts to conceptualize and measure interstate patronage have been too limited in both their scope and applicability to substantive issues in international relations. The primary reason for this limitation has been a focus on developing binary measures of patronage that focus almost exclusively on security-oriented considerations such as arms transfers or military assistance. By restricting the conceptualization and measurement of interstate patronage to a binary, security-oriented phenomenon, scholars and observers of international politics run the risk of missing important variation in the level and type of patronage from case-to-case. Second, by focusing on the development of binary, security-oriented conceptualizations and measurements of interstate patronage, previous efforts have been limited in their applicability to substantive issues in international relations. By exploiting variation in the level and type of patronage across cases, a continuous measure of interstate patronage is better suited to be applied to issues in international relations such as deterrence, international cooperation, and the connection between international- and domestic-level phenomena.

As a result, this chapter develops a multidimensional and continuous measure of interstate patronage between the United States and potential client regimes. The development of this measure aims to reduce the shortcomings associated with previous efforts while providing a foundation for future measurements of interstate patronage that

extend beyond the United States to other major powers that engage in extensive degrees of foreign assistance such as China, Russia, the United Kingdom, and others.

The remainder of this chapter unfolds as follows. In the next section, the key variables that contribute to the measurement of interstate patronage are presented and discussed, with a particular focus on their definitions, sources, and connection to the theoretical concept of interstate patronage as presented in the previous chapter. The subsequent section delves into more detail on these variables, with an eye towards presenting descriptive statistics in order to provide a more comprehensive picture of the variables that are included in the measure of interstate patronage. Finally, the last section of this chapter formally introduces and describes the item-response model that creates the composite measure of interstate patronage.

## **II. Variables, Sources, and Theoretical Connections**

It is useful to begin the conversation surrounding the measurement of interstate patronage by introducing the variables that contribute to the measure, their sources, and their connection to the conceptual dimensions of interstate patronage that are presented in the previous chapter. While there are many factors that may contribute to interstate patronage, the measure put forth in this chapter focuses on eight variables that span the economic, security, and diplomatic realms of international relations. These variables have been chosen due to their availability, prevalence in international relations scholarship, and their connection to the theoretical underpinnings of interstate patronage.

It is also worth mentioning the case universe for these variables and their values. The case universe of political regimes comes from the Geddes, Wright, and Frantz (2014) Political Regime Dataset. The authors' dataset consists of all autocratic, democratic, and

ambiguous regimes between 1946-2010 that are (or have been) (1) formally independent, and (2) contain a population of more than one-million inhabitants as of 2009. The authors base their set of regimes on an institutional conceptualization of authoritarianism. In brief, the authors define an autocratic regime as one in which the executive(s) gain and maintain power via undemocratic means, such as insider-driven leadership selection or rigged/uncompetitive elections. For all other cases, the regimes are either democratic or ambiguous in the sense that they have some form of condition affecting the central regime of the state (such as foreign occupation or provisional/temporary governments). In these ambiguous cases, the regimes are coded for autocracy/democracy based on the type of regime that followed the ambiguous regime. If an autocracy followed the period of uncertainty, then the regime is coded as autocratic for that observation. Otherwise, the ambiguous regime is coded as democratic.

With this in mind, the variables included in the measure of interstate patronage are as follows:

**a. Security: Defense Cooperation**

The first indicator that contributes to the measurement of interstate patronage is a measure of the extent to which a country engages in low- to mid-level security and defense cooperation with a patron state. Data for this variable come from the Defense Cooperation Agreement Dataset (Kinne 2020). This dataset covers dyad-year observations of defense cooperation agreements for all countries between 1980-2010. Defense cooperation agreements (DCAs) are formal bilateral agreements that establish long-term institutional frameworks on various aspects of defense and military cooperation. Examples of activities that fall under defense cooperation include joint

military exercises, industry cooperation, training exchanges, and defense policy coordination. Importantly, defense cooperation does not include alliance and/or treaty obligations between countries. This is because alliance and treaty obligations are more formal and binding in the sense that they outline contingencies in the event of armed conflict. DCAs, on the other hand, are generalized agreements that aim to promote long-term cooperation across an array of areas.

DCAs promote cooperation across defense-related organizations and industries and serves to integrate the defense forces of two partner countries. Through this integration, the two states develop a cooperative relationship that serves to pacify their forces and, in many cases, expand the relative influence and strength of both parties. Security cooperation has long been a tool of states to create spheres of influence and cultivate international partners through mutual interests in regional and global security. For instance, Kinne (2018) argues that defense cooperation agreements create a global network of like-minded security partners that dominant states – such as the US – can leverage against security threats as they arise. Alternatively, consider the actions taken by other major powers in the international system, such as China and Russia, to advance their geopolitical ambitions. Both countries engage in extensive defense and security cooperation in surrounding regions in order to further their economic and security interests in the region (Allison 2004; Kerr 2010). In each of these cases, a dominant state utilizes its defense resources to cultivate a positive relationship with a subordinate state.

In the context of interstate patronage, defense cooperation has several benefits for both the patron and client state. For the patron, the cultivation of cooperative relationships between itself and subordinate states serves to increase the general level of

security for the patron while also creating a network of aligned states that have an interest in supporting the patron state's general foreign policy goals. For the client, cooperating with a dominant state's defense forces lends a degree of strength and credibility to the regime that can increase the cohesion and stability of key insiders. Moreover, defense cooperation serves to deter potential external and internal threats, leaving the regime more insulated and in a better position to handle other types of challenges (Kuo and Blankenship 2022). Thus, taken together, extensive degrees of defense cooperation should contribute to a stronger patron-client relationship.

**b. Security: Alliance/Treaty Obligations**

The next indicator of interstate patronage is a measure of the alliance obligations between a dominant and partner state. More specifically, this indicator seeks to capture the extent to which a partner state has a formal arrangement with a dominant state in which one side provides offensive and/or defensive support to the other side in the event of armed interstate conflict (and vis-versa). Data for this variable come from the Alliance Treaty Obligations and Provisions (ATOP) Dataset (Leeds et al. 2002). This dataset identifies alliances and treaties between pairs of states between the years of 1815-2018 and codes them based on varying degrees of obligations and provisions for each agreement. Alliance and treaty obligations can range from commitments of neutrality in the event of armed conflict (such as Switzerland's traditional stance towards interstate conflict) to full offensive support in the event of armed conflict (such as NATO members' commitments to each other in the event of an attack on one member). Notably, this indicator does not include more informal and less obligating forms of security cooperation, such as DCAs.

Bilateral alliances and treaties fit the five fundamental characteristics of interstate patronage. First, they are agreements that occur between pairs of states and, as such, meet the dyadic component of interstate patronage. Second, alliance and treaty agreements are hierarchical in the sense that there is typically a dominant and subordinate state involved in the agreement. This is because it typically takes a particularly strong state, both militarily and economically, to commit to providing offensive and/or defensive support for its alliance partner in the event of an armed conflict. This condition is even more pronounced when alliance partners are not located in the same geographic region. Interests ranging from trade expansion to global security provide motivation for dominant states to expand their influence and security umbrella through alliance partnerships (Mansfield and Bronson 1997; Weitsman 2013). Third, alliances are inherently reciprocal and based on the exchange of commitments between both sides involved in the agreement. Indeed, an alliance is an agreement to exchange mutual support (or neutrality) in the event of an interstate conflict. Moreover, alliances often bring auxiliary benefits for both parties involved such as an extended deterrence network for the dominant state and increased regime security for the subordinate state (Johnson et al. 2015; Wolford and Ritter 2016). Finally, although alliances and treaties often come to an end at some point, they are relatively long agreements that are voluntary in nature. Thus, the components of bilateral alliance/treaty obligations fit the fundamental characteristics of interstate patronage.

Regarding the more precise details of interstate patronage, alliance obligations increase the extent of ties and cooperation between a patron and client state through several mechanisms. Generally, a formalized agreement to provide offensive and/or

defensive support in the event of an armed interstate conflict signals an intent by the patron to protect and maintain the client's security externally which increases the patron's security network and the client regime's security. For the patron, forming an alliance with a client state provides the opportunity to project its power to regions that are typically of geopolitical importance while also building its security community. For the client, forming an alliance with a patron state can provide a way of externalizing security (thus freeing up resources for other purposes) while also working against mutual "enemies" by balancing against other threats (Walt 1990; Kimball 2010). In all, these considerations suggest that alliance and/or treaty obligations should be included in a measure of interstate patronage.

### **c. Security: Troop Deployments**

The next indicator that contributes to the measurement of interstate patronage is the extent to which a patron state deploys its troops to a partner state. More specifically, this indicator measures the number of troops from the patron state's military forces that are actively deployed on another state's territory. Data for this variable come from the US Global Military Deployment Dataset (Allen et al. 2022). This dataset identifies and reports the number of US troop deployments abroad by country for years between 1950-2020. Unsurprisingly, the value of this indicator is count-continuous and has a minimum of zero and no maximum (in theory). Importantly, this indicator only focuses on soldier deployments to foreign territories – it does not include other types of military support such as arms transfers, logistical support, etc., although these forms of support often accompany troop deployments.



Troop deployments are a form of international security cooperation that fit the five fundamental characteristics of interstate patronage. First, troop deployments from a patron to a partner state are bilateral and voluntary in nature – they involve a deploying state and a host state while often part of a mutual agreement between the states. Furthermore, troop deployments are often hierarchical in nature because it takes significant military strength to deploy forces abroad, particularly when the host state is outside of the deploying state’s home region. This is why global troop deployments are almost exclusively limited to countries that have a significant military advantage in relation to most countries in the international system (Nieman et al. 2021). Finally, troop deployments are typically part of years-long agreements to promote security cooperation between a dominant and subordinate state with the aim of delivering mutual benefits to both countries. This repetition in military cooperation serves to bolster the cohesiveness of both the dominant and partner state’s military apparatus.

It is worth discussing these mutual benefits in more detail when considering why troop deployments are a strong indicator of interstate patronage. Troop deployments deliver benefits for both the patron and client in ways that advance the foreign policy goals of the patron and increase regime security for the client. For the patron, deploying troops onto another country’s territory creates several advantages, particularly when it comes to expanding a patron’s security community and geopolitical leverage. For instance, Allen et al. (2017) find that troop deployments often align with a dominant country’s security considerations and strategic interests. Moreover, Nieman et al. (2022) find that major powers’ troop deployments are clustered temporally and spatially by geopolitical threats. For the client regime, hosting a patron’s troops provides a visual

signal of strength and backing by the patron, leading to increased regime stability (Braithwaite and Kucik 2018). Troop hosting also promotes economic and security interdependence between the patron and client, which can provide credibility and resources to bolster elite cohesion (Biglaiser and DeRouen 2007, 2009). Lastly, troop hosting provides the opportunity for the client state's defense and security forces to gain training and expertise that can be utilized to deter and quell dissent (Bell et al. 2017; Efrat 2022).

#### **d. Security: IMET Funding**

The next two indicators that are included in the model of interstate patronage measure the value of two forms of military assistance from the United States to foreign partners. The first form of assistance is the training of another country's security personnel. In this analysis, this indicator measures the value of International Military Education and Training (IMET) funding from the US to another state. Data for this variable come from the US Overseas Loans and Grants Greenbook (US Agency for International Development). The Greenbook compiles and presents the annual value of economic and military assistance provided by the United States to foreign governments. IMET is a major US grant program in which military/security personnel from friendly countries are provided with high-quality military education and training in the United States. Put differently, IMET is a type of student exchange program in which security personnel from other countries are educated/trained in topics such as defense policy coordination, international law, and human rights protections. Importantly, while the US defense apparatus engages with nearly every country in the world, the IMET program is typically targeted toward personnel from LDCs that need specialized training at minimal

cost. Ultimately, the aim of IMET is to provide the United States with another avenue through which it can promote security cooperation and integration with members of friendly countries (Omelicheva et al. 2017).

In general, personnel exchange programs are a tool that dominant states leverage to increase their sphere of influence and security cooperation with potential partners. More specifically, training other countries' security personnel provides a unique opportunity to educate and promote values that align with the dominant state's ideological orientation on security-related issues. This integration promotes cooperation and extends the dominant state's influence by cultivating security partners and building "soft power" relative to other countries (Martinez Machain 2021). For the client, receiving training from a dominant state at minimal cost provides an opportunity to increase the cohesion and effectiveness of the security/defense sector. In turn, the recipient regime's security forces are more capable of carrying out security-related functions both domestically and internationally. Moreover, integration and cooperation with the dominant state brings the client regime into the security community of the dominant state.

In this sense, security exchange programs contribute to instances of interstate patronage. After all, they are interactions between two states in which a dominant patron provides education and training to members of a subordinate client regime with the purpose of increasing integration, cooperation, and ideological affinity between the patron and client. Furthermore, these programs typically last for multiple years and can be freely entered/exited by each party. As such, security exchange programs should be included in a model of interstate patronage.

#### **e. Security: Foreign Military Financing**

The second form of military assistance that is included in the measure of interstate patronage is an indicator of the value of foreign military grants and loans provided by a dominant state to a subordinate partner country. Data for this variable also come from the US Overseas Loans and Grants Greenbook (see previous variable for information). This indicator measures the value of defense-oriented resources that are procured and supplied by the United States to a foreign partner country on a direct loan or non-repayable grant basis. Foreign military financing (FMF) is designed to promote the professionalism and effectiveness of foreign defense forces through the provision of defense-oriented resources for no charge or with favorable repayment terms. This form of military assistance has a focus on the domestic context and an aim of promoting the cohesion and stability of defense forces. To achieve this, the bulk of FMF takes the form of military equipment and hardware that is utilized to promote domestic stability and regime strength (Omelicheva et al. 2017).

Foreign military financing is a form of international interaction that also meets the components of interstate patronage. Instances of FMF occur between a dominant and subordinate state in which an exchange of resources takes place at minimal cost to the recipient with the purpose of strengthening the recipient regime's security forces. The provision and receipt of FMF is voluntarily agreed upon and is typically repeated over a specified period of time. Overall, FMF is a form of support from a dominant patron to a subordinate client that seeks to strengthen the cohesion and capacity of the recipient regime's security forces through the provision of military arms and equipment in exchange for friendly relations between the patron and client.

For the patron, the provision of military assistance to subordinate countries brings the recipient countries closer to the patron's sphere of influence and may lead to other benefits such as defense policy coordination or UN voting alignment (Callaway and Matthews 2008; Martinez Machain 2021). In a similar manner to the other form of military assistance, FMF extends the patron's sphere of influence and increases the level of interdependence between itself and subordinate countries around the world. For the client, receiving defense resources at minimal or no cost provides a way in which the regime can strengthen its security-oriented forces without requiring a drastic change in resource distribution between the various, and often competing, parts of the government. As a result, the individuals/organizations tasked with maintaining internal and external security have increased capacity to maintain stability and cohesion in the presence of FMF. Consequently, due to its structure and impact on relations between and within each state involved, FMF is included in the measure of interstate patronage.

**f. Economic: Currency Association**

The next variable that contributes to the measure of interstate patronage is a measure of the extent to which a potential client country's currency is tied to the patron's currency. Data for this variable come from the Harms and Knaze (2021) Bilateral Exchange Rate Regimes dataset. The degree of currency association between a patron and client can range from freely floating to directly pegged (or fixed) to the patron's currency. If a country (State A) decides to float its currency, then the country's currency value is subject to the international forces of supply and demand. On the other hand, if State A decides to fix its currency to a stronger, more stable currency from a different country (State B), then State A adopts the currency value and monetary policy of State B

in exchange for stability and ease of foreign transactions. As just noted, despite an increase in stability and ease of foreign transactions, State A's decision to fix its currency to State B's currency has direct implications on the extent to which State B has leverage over State A. Fixed exchange rate regimes are fundamentally hierarchical in the sense that they require one state to subordinate itself and adopt the currency policy of a more stable, and more economically powerful, country. For instance, under a fixed exchange rate regime, if the value of State B's currency increases, then so does the value of State A's currency (and vis-versa). This takes some of the pressure off of State A regarding the management of international currency policy – however, this decision also creates a situation in which the currency-issuing state has leverage over the other country and can more easily dictate economic terms and interactions between the two states (Lake 2011). In other words, it creates a situation in which the subordinate state faces enormous costs to break economic relations with the dominant country. Due to this, countries that fix their currency to more dominant states essentially subordinate themselves to the dominant state in the international economic arena.

Currency association is an aspect of international economic relations that has important implications for patron-client relations between states. Regarding the fundamental components of interstate patronage, currency associations are bilateral, hierarchical, reciprocal, voluntary, and repeated over time. Indeed, currency associations: exist between pairs of countries; feature situations in which one state has demonstrable influence over the other; exist for a period of time; come about due to mutual interests in expanding influence; and can be broken at any time (in theory). Scholars of international currency and exchange rate politics have long identified the importance of currency in

dictating the balance of power among the world's countries. At a general level, Gilpin (2001) points out that subordinate and dominant countries alike set their exchange rate in accordance with domestic and international goals and ambitions. For dominant countries, this means creating internationalized currencies that can form the foundation of the international economy. More specifically, Lake argues that international currency associations are a direct indicator of the extent to which a country enjoys economic superiority over other countries in the international system, comparing the adoption of a dominant currency to "...adopting another country's flag" (2011, 73). This is due to the hierarchy that is inherent when one country's currency is prioritized and made to be stronger and more stable than another country's currency. Cohen (2018) argues that currency internationalization – or, the process of a dominant currency expanding across the globe – is a central aspect of dominant states' geopolitical ambition due to its ability to increase a dominant state's economic power through direct and indirect means.

Thus, the degree of currency association between a patron and a client is a strong indicator of interstate patronage. By fixing itself to a patron's currency, a client gains currency stability and ease of foreign transactions while foregoing the ability to make autonomous decisions regarding its monetary policy. On the other hand, by cultivating clients that utilize the patron's currency, the patron increases its leverage over the international economic system and gains influence over the economic activities of subordinate countries.

#### **g. Economic: Imports to US**

The next indicator that contributes to the measurement of interstate patronage is an annual measure of trade between the United States and a given autocratic regime.

More specifically, the variable corresponds to the value of imports to the United States from a given trading partner. Data for this variable come from the International Monetary Fund's (IMF) Direction of Trade Statistics database. This database compiles and presents the annual value of imports and exports by a country's primary trading partners. This database contains information on all IMF member states and some non-member states from 1947 to the present day.

In the context of interstate patronage this variable is particularly useful in capturing economic relations between states that are dyadic, hierarchical, reciprocal, repeated, and voluntary. At a minimum, this variable fulfills the fundamental conditions that must be present for instances of patronage to be present. The variable is a bilateral (or dyadic) measure of trade between the United States and potential client states in which money, goods, and/or services are voluntarily exchanged between both parties over a period of time. Moreover, observers of international relations have long noted the importance of economic power in advancing the interests of the world's most prominent states. For instance, previous scholarship finds that the world's dominant powers have consistently manipulated trade with the intention of fostering interstate cooperation and promoting certain foreign policy goals, such as democratization, regional security, or geopolitical superiority (Hirschman 1945; Feinberg 2003; Berger et al. 2013). Finally, previous efforts to measure hierarchical relations between states has identified economic trade and interdependence as indicators of strong – and often hierarchical – relations between countries (Lake 2007, 2011).

At a more specific level, imports to the United States from its trading partners is an indicator of patronage that has a strong theoretical connection to the conceptualization



of interstate patronage. A key conceptual point about interstate patronage is that by engaging in mutually beneficial activities – such as interstate trade – the client regime gains some sort of strength advantage that allows it to rule more efficiently. In other words, a key component of interstate patronage is that the client regime is made better off by engaging in relations with a patron state. In this case, the main mechanism through which imports contribute to interstate patronage is their impact on elite cohesion in autocratic countries that engage in trade with the United States. By purchasing goods and services from subordinate autocratic countries, the United States eases the burden that faces autocratic regimes when it comes to distributing resources to key economic elites in society. This is because in most autocratic societies, leading individuals and organizations in the private sector are closely tied to the regime and perform a symbiotic function with the autocratic regime in which the regime gains/maintains power by distributing resources to key individuals and organizations within society (Buena de Mesquita et al. 2004; Svobik 2012). When income for economic elites comes from an external source, the regime faces less stress internally to provide resources for key regime supporters and is incentivized to strengthen bilateral trade with its patron (all else equal). Furthermore, economic elites are assuaged from criticizing or challenging the government due to their access to external capital, leaving the regime more secure as it carries out the patron's desired plan of action. Therefore, patron-client trade – and in particular, the value of goods and services being purchased by the patron – is a reasonable indicator of interstate patronage and should be included in a multidimensional model of patronage.

#### **h. Diplomatic: Foreign Policy Alignment**

The final indicator of interstate patronage in the measurement model is a measure of the extent to which a country's foreign policy is aligned with a dominant state's foreign policy interests. In the case of this project, this indicator measures the extent to which a country's foreign policy is aligned with the foreign policies of the United States. Data for this variable come from Bailey et al.'s (2017) ideal point estimates of state preferences based on United Nations General Assembly (UNGA) voting data. These data are designed to proxy state preferences and the degree of foreign policy affinity between two countries by analyzing similarities between countries' voting patterns in the UNGA. As this is a proxy measure itself, this indicator's inclusion in the measurement model of interstate patronage is a proxy of the degree of similarity between the foreign policy goals of the patron and client while also aiming to capture a general attitude or "affinity" between the United States and a potential client.

While this indicator represents a more indirect relationship between patron and client, it is still worth considering the ways in which the degree of foreign policy alignment between a dominant and subordinate state can contribute to interstate patronage. Importantly, foreign policy alignment fits the five fundamental characteristics of interstate patronage. As constructed in this analysis, this indicator is bilateral in that it measures the degree of affinity between the United States and a potential client country. Foreign policy alignment is also hierarchical to an extent since it is capturing the degree of similarity between a dominant patron (the US) and a subordinate state. Patterns of foreign policy alignment typically unfold over a span of years and can change considerably based on the goals, interests, and affinity between two states (Strüver 2016). In other words, foreign policy alignment is a repeated phenomenon that each country has

the freedom to change without interference from an external actor. Finally, foreign policy alignment is, in many cases, a form of exchange in which alignment on foreign policy issues is followed by the provision of benefits to the client state, such as increased economic activity with the dominant state that can be utilized to promote regime stability (Dixon and Moon 1993; Flores-Macías and Kreps 2013).

In sum, foreign policy alignment signals a commitment from both parties to pursue international policies and behaviors that are friendly and cooperative in nature. Thus, the inclusion of foreign policy alignment into the measure of interstate patronage is warranted. This chapter now turns to presenting descriptive statistics for these variables with the goal of providing a comprehensive summary of the variables and data involved in creating the measure of interstate patronage.

### **III. Descriptive Statistics**

Before moving forward, it is useful to briefly discuss the statistics and information that follow for each variable in the measurement model of interstate patronage. The aim of presenting descriptive statistics for each variable is to provide a comprehensive summary of what the data look like before the measurement model is developed. To achieve this, descriptive statistics measure the central tendency, variance, and distribution of a given variable. This section also provides bivariate/multivariate statistics that detail the relationship between two or more of the variables. These measures include the following:

- Central Tendency –
  - Mean
  - Median
- Variance –
  - Standard Deviation

- Range (Minimum and Maximum)
- Distribution –
  - Frequency Distribution
- Multivariate Statistics –
  - Crosstabulation
  - Correlation Matrix

These statistics are presented and discussed in the following pages. First, the variables and their source/coverage are presented and descriptive statistics for each variable are introduced. Then, statistics for each variable are put forth upon being merged into the regime-year dataset. Finally, multivariate statistics are discussed before moving to the next section.

Table 1 presents information regarding each variable's source and temporal/spatial coverage without any modifications. A few points about the data are worth considering before focusing on each variable in more detail. First, there is a wide temporal and spatial range for all variables included in this analysis. The variable with the least amount of temporal coverage – *Defense Cooperation* – still has three decades of global coverage while the other variables have at least forty-five years of coverage. Moreover, the spatial coverage of each variable is global and cross-national in nature. These two elements combine to allow for robust statistical analyses with high numbers of observations.

Another element of the data worth considering is that each component indicator of interstate patronage is measured in a dyadic fashion. In part, this is due to the fact that the data focus on the US as a constant partner of alternating states – for instance, the *IMET*

**TABLE 1: VARIABLE SOURCES AND COVERAGE**

<b>Variable</b>	<b>Source</b>	<b>Structure of Data</b>	<b>Type of Variable</b>	<b>Country Coverage</b>	<b>Year Coverage</b>
Political Regime Case List	All Political Regimes Dataset Geddes et al. (2014)	Regime-Year	Observation	All Political Regimes	1946-2010
Defense Cooperation Agreements	Defense Cooperation Agreement Dataset Kinne (2020)	Dyad-Year	Ordinal (Extent of DCA with another Country)	All Countries with a DCA with the US	1980-2010
Alliance/Treaty Obligations	Alliance Treaty Obligations and Provisions (ATOP) Dataset Leeds et al. (2002)	Dyad-Year	Ordinal (Degree of Alliance Obligations)	All Countries with an Alliance with the US	1815-2018
Troop Deployments	US Global Military Deployment Database Allen et al. (2022)	Dyad-Year	Count (Number of Troops in Country)	All Countries and Territories that Hosted/Host US Troops	1950-2020
IMET Funding	US Overseas Loans and Grants (Greenbook) US Agency for International Development	Dyad-Year	Continuous (Value of IMET Funding)	All Countries that Received IMET Funding from the US	1946-2019
Foreign Military Financing	US Overseas Loans and Grants (Greenbook) US Agency for International Development	Dyad-Year	Continuous (Value of Foreign Military Financing)	All Countries that Received FMF from US	1946-2019
Currency Association	Effective Exchange Rate Regime Dataset Harms and Knaze (2021)	Dyad-Year	Ordinal (Degree of Association with USD)	All Countries	1973-2019
Imports to US	Direction of Trade Statistics International Monetary Fund	Dyad-Year	Continuous (Value of US Imports)	All Countries and Regions that Exported to US	1947-2022
FP Alignment	UNGA Voting Data Bailey et al. (2017)	Dyad-Year	Continuous (Point Estimate)	All UN Member States	1946-2020

gains more credence and has more affinity with the theoretical discussion in the previous chapter.

Finally, each variable is coded in a way such that there is at least a moderate level of variation in the measurement of the phenomenon under consideration. For example, the *Currency Association* variable is coded to allow for different degrees to which a country's currency is tied to the US Dollar. Variation across each of these indicators allows the analysis to account for a wide range of interstate activities that may signal varying degrees of interstate patronage.

Table 2 presents a few descriptive statistics for each variable and Table 3 provides a correlation matrix for the proposed indicators of interstate patronage. There are a few considerations worth noting in the table of descriptive statistics. First, building on the discussion in previous paragraphs, there is generally a large amount of coverage and data for each variable. For instance, data are available for the entire set of observations for four of the eight indicators while *Troop Deployments* and *FP Alignment* are only missing 336 and 619 observations (respectively). *Defense Cooperation* and *Currency Association* are a bit problematic considering their restricted temporal period – indeed, *Defense Cooperation* is missing data for over forty percent of the total number of observations while *Currency Association* is missing data for over thirty percent of the total number of observations. Fortunately, there are methods to mathematically handle missing observations when the amount of missing data is relatively low. observations when the amount of missing data is relatively low.

TABLE 2: DESCRIPTIVE STATISTICS OF VARIABLES (MERGED INTO REGIME DATASET)

Variable (Unit)	Number of Observations	Minimum	Maximum	Mean	Standard Deviation
<b>Political Regimes</b> (Observation)	7,888	N/A	N/A	N/A	N/A
<b>Defense Cooperation</b> (Ordinal)	4,324	0	3	.420	.871
<b>Alliances</b> (Ordinal)	7,888	0	4	1.131	1.381
<b>Troop Deployments</b> (Log # of Troops)	7,552	0	13.194	3.169	2.816
<b>IMET Funding</b> (Log \$USD)	7,888	0	19.136	6.601	6.881
<b>Foreign Military Financing</b> (Log \$USD)	7,888	0	22.209	2.544	5.923
<b>Currency Association</b> (Ordinal)	4,803	0	2	.571	.639
<b>Imports to US</b> (Log \$USD)	7,888	0	26.148	16.092	7.269
<b>FP Alignment</b> (Point Estimate)	7,269	-4.986	0	-2.420	1.161

A second point worth considering is the fact that each indicator seems to contain a good deal of variation in its data. Most of the variables have a wide spread of values that seem to vary from case to case given their means and standard deviations. For instance, *IMET Funding* and *Foreign Military Financing* have wide ranges of values across high numbers of observations. It should be noted, however, that there is a restriction on the amount of variation in the ordinally-measured variables – *Defense Cooperation*, *Alliance*

*Obligations*, and *Currency Association*. As such, these indicators are subject to less degrees of variation which can complicate the analysis.

TABLE 3: CORRELATION MATRIX (N = 3,869)

	DCAs	Alliances	Troops	IMET	Financing	Currency	Imports	FP
DCAs	1.000							
Alliances	.2565	1.000						
Troops	.2988	.5399	1.000					
IMET	-.0518	-.0060	-.1085	1.000				
Financing	.0626	.0657	.0668	.4866	1.000			
Currency	-.1187	-.0298	-.0235	.1553	.1352	1.000		
Imports	.2756	.3902	.4305	-.0154	.0427	.1099	1.000	
FP	.4350	.5525	.4200	-.1050	-.0115	-.2940	.2192	1.000

The correlation matrix in Table 3 reveals several interesting insights about how the different indicators relate to each other. The most important thing to note is that there do not appear to be any problematic correlations between the variables – the strongest correlation is .4886 (*Funding* and *Finance*) and most values are either low- or mid-level. Moreover, the correlation between *IMET Funding* and *FMF* makes sense given that the data come from the same source and that conceptually, there should be a link between the two forms of military assistance. Overall, this is a good sign for the analysis because there is no reason to remove any of the indicators before the analysis has fully begun. The lack of any strong correlation also provides more evidence that an analysis of the factors underlying the theorized connections between the variables is necessary.



### **a. Defense Cooperation**

In addition to these general considerations, a few more details about the specific measurement and distribution of each variable are provided below. Beginning with Defense Cooperation, the variable is measured on an ordinal scale ranging from 0-3. The variable is coded such that higher values correspond to more extensive degrees of defense cooperation between the United States and a given partner country. For any given year, observations that have a full, formalized defense cooperation agreement (DCA) with the United States receive a “3” because they engage in the highest degree of defense cooperation with the US. Similarly, for any given year, countries that sign defense industry cooperation (DIC) agreements receive a “2” because DICs are less formalized and focused on increasing the degree of commercial engagement between the signatories rather than full-scale military coordination that DCAs aim to work towards. Countries that only sign sectoral agreements – agreements aimed at integrating specific parts of the defense community of each party, such as research or policy coordination – receive a “1” on the *Cooperation* variable since this is the least extensive form of defense cooperation between two countries. Finally, countries that do not have any type of DCA with the United States receive a “0” for that year in the dataset.

Table 4 presents information on the distribution of the *Defense Cooperation* variable. As noted in the preceding discussion, the *Cooperation* variable suffers a bit from limited variation given its temporal restriction – it also seems that the variable suffers from the fact that there are not many autocratic countries in the world that have a formalized type of DCA (full or otherwise) with the United States. The frequency distribution in the table below demonstrates these facts. First, out of 4,324 observations

of all countries in the world (autocratic and democratic) between 1980-2010, there are 936 dyad-year observations that have some type of DCA with the United States. Of these, 237 observations are coded “3” for the *Cooperation* variable, 404 are coded “2” for the variable, and 295 are coded “1” for the variable. 3,388 observations (between the years of 1980-2010) are coded “0” for the variable. Since the *Cooperation* variable only covers 1980-2010 while the set of political regimes spans from 1946-2010, there are many missing values for the *Cooperation* variable – in fact, there are 3,564 missing values for this variable, a fact that may cause complications for the eventual creation of the measure of interstate patronage.

**TABLE 4: DEFENSE COOPERATION FREQUENCY DISTRIBUTION**

<b>Cooperation</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative</b>
0	3,388	78.35%	78.35%
1	295	6.82%	85.18%
2	404	9.34%	94.52%
3	237	5.48%	100.00%
Total	4,324	100%	

Before moving forward, it is interesting to consider whether autocratic regimes have more or less DCAs with the United States than democratic regimes. Table 5 presents a crosstabulation of Defense Cooperation and a binary indicator of whether a regime is autocratic or not. The results indicate that DCAs are not evenly distributed between autocracies and democracies. It is not implausible to believe that democracies may be more likely to receive cooperative agreements with the United States – indeed, it

is well-documented in scholarship that democracies are much more amenable partners when it comes to arranging international agreements and cooperating with other countries, particularly in security-related matters (Maoz and Russett 1993; Mousseau 2000). Moreover, the data are centered primarily on the post-Cold War era when the United States has been more focused on fostering interaction with other democracies. DCAs may also be an important consideration for future analyses that focus on patronage to both autocratic and democratic clients since some clients may be more likely to receive DCAs than others depending on their regime type.

**Table 5: Crosstabulation of Defense Cooperation and Binary Indicator of Autocracy**

Cooperation	Autocracy		Total
	0	1	
0	1,249	2,139	3,388
1	232	63	295
2	340	64	404
3	199	38	237
<b>Total</b>	<b>2,020</b>	<b>2,304</b>	<b>4,325</b>

**b. Alliance Obligations**

The *Alliance Obligations* variable has several considerations worth noting. From a measurement standpoint, the variable is measured in a similar manner to the preceding indicator. Regime observations receive a value ranging from 0-3 depending on the extent to which they share alliance obligations with the United States in the event of armed interstate conflict. Countries that do not share any type of alliance obligation with the United States receive a “0” for that year’s observation. Countries that only have nonaggression pacts with the United States receive a “1” for the Alliance variable.

Countries that have only consultation agreements with the United States receive a “2” for the Alliance variable. Countries that have only defensive OR offensive alliance obligations to the United States receive a “3” for the Alliance variable. Finally, countries that have both defensive AND offensive obligations to the United States receive a “4”. Clearly, the Alliance variable is coded to exploit variation in the intensity of obligation between the United States and a partner country.

Table 6 displays the frequency distribution for the Alliance variable. Out of 7,888 total observations in the dataset, there are 3,487 instances of alliance obligations between the United States and a partner country. The vast majority of these – over three-fourths – are obligations in which the countries have either offensive or defensive obligations to each other in the case of armed interstate conflict (2,669/3,487). Interestingly, there are very few instances of full offensive and defensive obligations (1 observation) and consultation agreements (93 observations). The single observation of a full offensive and defensive obligation corresponds to the 1946 US-Portugal dyad. An investigation into the Alliance Obligations data indicates that all observations of full offensive and defensive obligations occur during the World War Two era – thus, the single observation of a “4” in this dataset is a remnant of World War Two alliance agreements. Consultation agreements are also quite rare in the dataset and occur more frequently in autocratic regimes than democratic regimes (~85 percent of observations are autocratic). In fact, consultation agreements are the only form of alliance obligation in which autocratic observations outnumber democratic observations, leading to interesting questions regarding the relationship between alliance networks and regime type.

**Table 6: Frequency Distribution of Alliance Obligations**

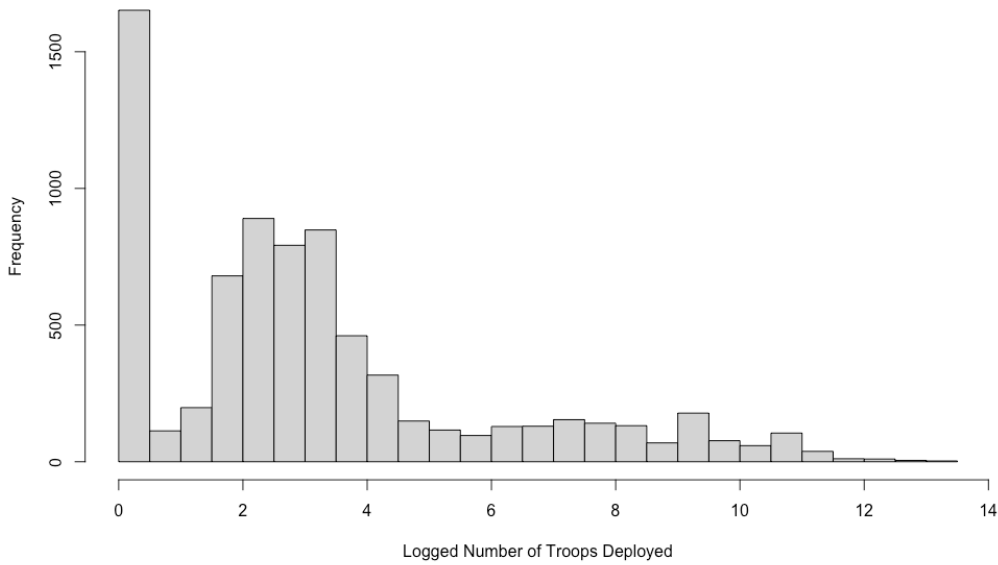
<b>Alliance</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative</b>
0	4,401	55.79%	55.79%
1	724	9.18%	64.97%
2	93	1.18%	66.15%
3	2,669	33.84%	99.99%
4	1	.01%	100%
<b>Total</b>	<b>7,888</b>	<b>100%</b>	

### **c. Troop Deployments**

The next indicator measures the number of troops that the United States has deployed in a given country each year. The raw data for this variable are measured as a count of the number of United States troops deployed to a given country in a given year. The data are heavily skewed to the right due to high-value outliers in relation to the bulk of the data – for instance, troop deployments to the Middle East and North Africa in the years following 9/11 are substantially higher than the bulk of the data points for this variable. To account for this distribution, this analysis utilizes a logged measurement that reduces the relative impact of high-value outliers.

Figure 1 presents a histogram of the logged troop deployment variable. As expected, the right skew is evident in the histogram, though the skew is less pronounced than when dealing with the raw count data. Ignoring the zeroes, the data are distributed normally with a right skew due to outliers. Most of the non-zero observations occur in logged troop deployment values between two and four while there is a steady distribution of high-value observations extending beyond the “bell” part of the distribution. Thus,

**Figure 1: Histogram of Logged Troop Deployments**



although some outliers are present, the logged version of the variable has a distribution that is much more amenable to statistical analysis than the raw count version of the variable. It is also interesting to consider how other variables in the analysis are related to the distribution of troop deployments by the United States. For instance, the correlation matrix indicates that troop deployments are correlated with alliance obligations to a substantial degree (.5399), particularly in comparison to the other correlations in the analysis. Table 7 presents descriptive statistics for the troop deployment variable across each level of the alliance obligations variable.

**Table 7: Mean Comparison, Alliance Obligations and Troop Deployments**

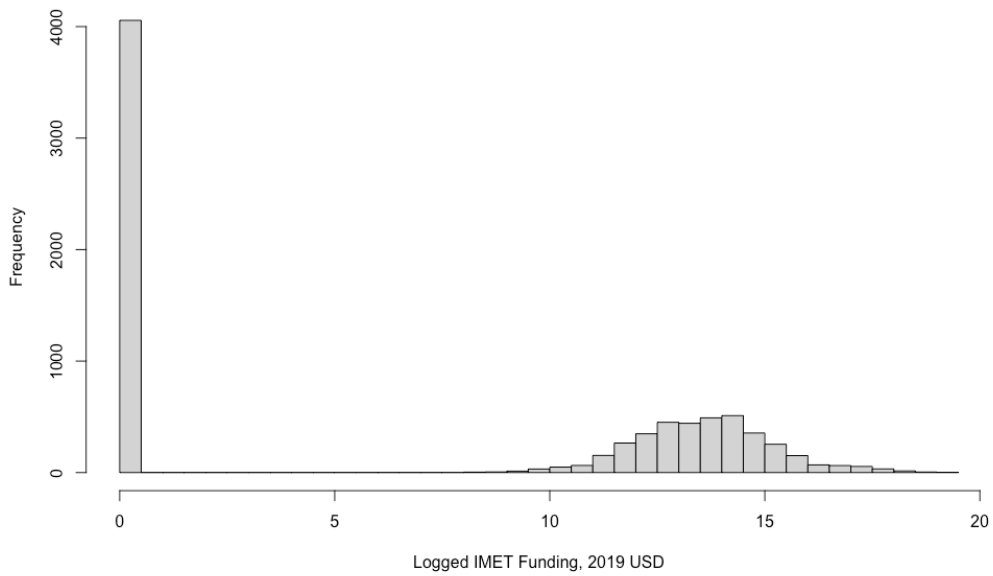
<b>Alliance Obligations</b>	<b>Logged Troop Deployments (Mean)</b>
0	1.979
1	2.285
2	3.463
3	5.325

The mean comparison table shows the average number of troops deployed to a given country across the different levels of the alliance obligations variable (the single observation of “4” is excluded because it does not have a troop deployment value). The information in the table makes it quite clear that there is positive relationship between alliance obligations and the number of troops deployed by the United States to some degree. On average, as alliance obligations between the United States and another country become more “serious”, the number of troops deployed to that country by the United States increases. This is perhaps unsurprising – it makes sense for a dominant country such as the United States to deploy its forces to alliance partners in order to coordinate security policies, strengthen allied forces, and extend its security influence geographically.

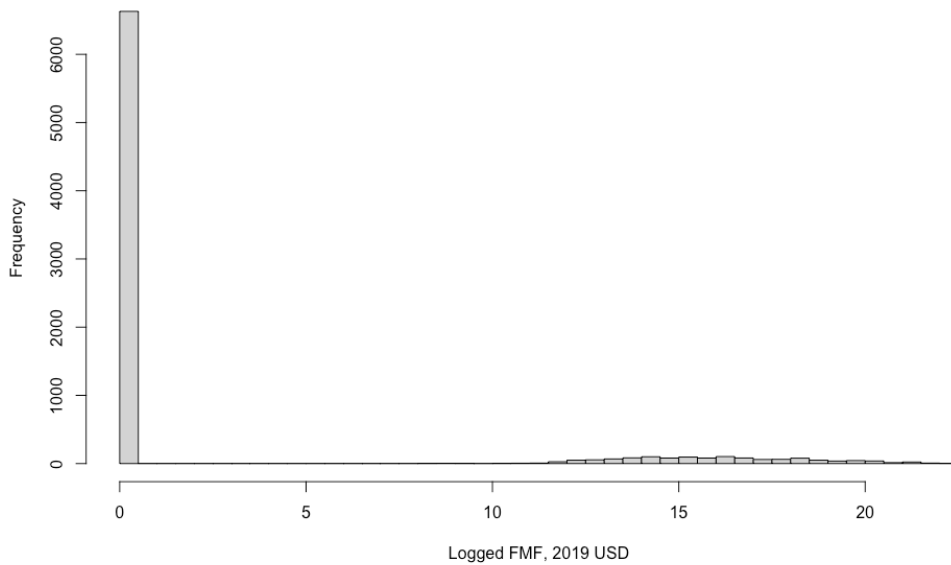
#### **d. IMET Funding and Foreign Military Financing**

It is easier to discuss the next two variables in conjunction with each other, particularly considering that they are both forms of military assistance, come from the same source, and are quite highly correlated in relation to the full set of variables in the analysis. The first variable – *IMET Funding* – measures the dollar value of IMET funding sent from the United States to a partner country in a given year. The raw data for this variable are measured in constant 2019 US dollars. The version of this variable that is utilized in this analysis is a logged version to account for non-normality and right skew in the distribution of funding to partner countries. Figure 2 presents a histogram of the logged *IMET Funding* variable. The histogram indicates that among countries receiving some amount of IMET funding, the value of such funding is normally distributed with a peak around 13.

**Figure 2: Histogram of Logged IMET Funding**



**Figure 3: Histogram of Logged Foreign Military Financing**



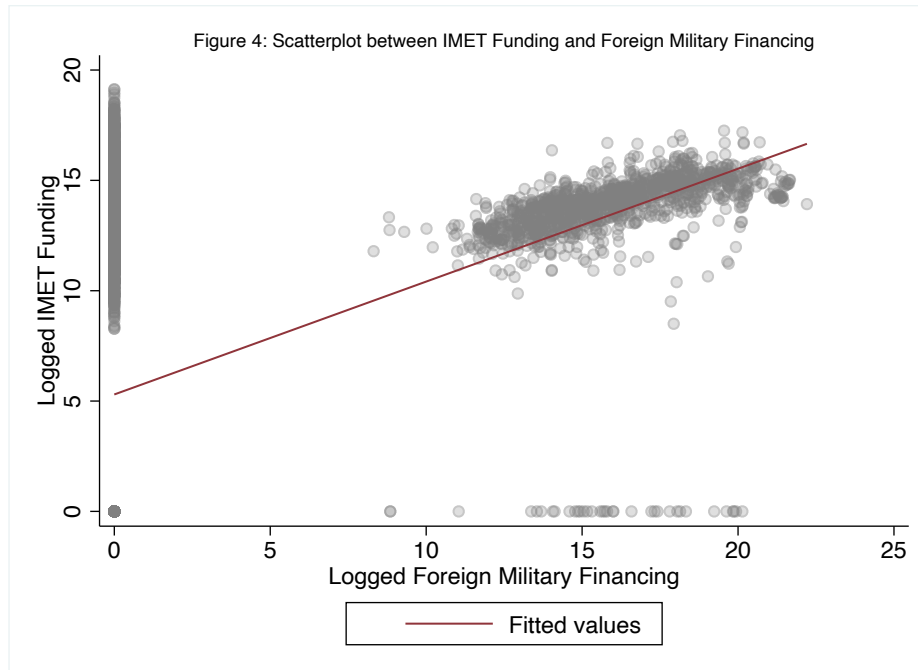
The second variable measures the amount of foreign military financing that is allocated from the United States to a partner country in a particular year. This variable is also measured in constant 2019 US dollars. Like the previous two variables, this variable is also logged to account for non-normality and high outliers in the raw data. Figure 3



presents a histogram of the logged *Foreign Military Financing* variable. Again, the non-zero observations of variable are normally distributed, though to a less precise degree than the previous variable. The peak of the non-zero distribution is around 16 or 17.

It is important to note a potentially problematic aspect of these variables. The histograms demonstrate quite clearly that there is an overdispersion of zeros in the distribution of both variables. In fact, the *IMET Funding* variable has 4,055 observations of zero and the *Foreign Military Financing* variable has 6,629 observations of zero. This overdispersion in the data significantly biases any statistics to be closer toward zero, a process that may alter the perception of how the variables are distributed. For instance, when zeroes are included, the mean of the *Funding* variable is 6.601. When zeroes are excluded, the mean increases to 13.585. This is a significant increase, especially considering the fact that the variables are measured in logarithms. It will be critical to account for the distribution of these variables in order to avoid underestimating the impact of IMET funding or foreign military financing.

Finally, Figure 4 presents a scatterplot of the *Foreign Military Financing* and *IMET Funding* variables. Despite a few outliers, the relationship between these two variables is quite clear – there is a positive and somewhat linear relationship between the allocation of military financing and the allocation of IMET funding by the United States. This is perhaps unsurprising given that the two variables share the highest correlation coefficient of any pair in the analysis. However, it is useful to visually illustrate this point in order to bolster the idea that these two tools of interstate patronage go hand-in-hand.



#### e. Currency Association

The next variable measures the extent to which a country’s currency is tied to the US dollar. This is an ordinal measurement with three levels that correspond to higher degrees of association with the United States’ currency. A country is assigned a “0” if its currency is not tied to the US dollar in a given year – these observations consist mostly of currencies that are floating, either freely depending on market forces or somewhat managed by the central authority of the state. An observation receives a “1” for a given year if the country’s currency has a moderate degree of association with the US dollar – more specifically, these observations are those in which the country’s currency is fixed (or “pegged”) to the US dollar. In these cases, countries fix the value of their currency to the value of the US dollar in order to introduce stability and increase the ease of foreign capital flows in to and out of the country. Lastly, an observation receives a “2” for a given year if the country’s currency has a high degree of association with the US dollar –

that is, cases in which a country adopts the US dollar as its official currency (also known as “dollarization”). Table 8 presents the frequency distribution for this variable across each level of currency association.

**Table 8: Frequency Distribution of Currency Association**

<b>Currency Association</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative</b>
0	2,452	51.05%	51.05%
1	1,961	40.83%	91.88%
2	390	8.12%	100%
<b>Total</b>	<b>4,803</b>	<b>100%</b>	

The frequency distribution table provides some interesting insights regarding the currency association variable. First, a slight majority of the observations have no currency association with the United States dollar – that is, over the entirety of the 1973-2010 period, more than half of the observations receive a “0” for having a floating currency, either freely or managed. Meanwhile, a sizable portion of the cases share a moderate degree of currency association with the United States (40.83%). Finally, relatively few observations have a currency that has been dollarized (8.12%). Overall, the frequency distribution suggests that there is a relatively low amount of variation across the cases in the dataset – however, it is important to note that many of the observations are developed democracies that have no reason to tie their currency to the United States.

Table 9 cross-tabulates the currency association variable with the binary indicator of autocracy outlined in the preceding pages. Though the distribution is not terribly different across democracies versus autocracies, there does appear to be a higher degree of association with the United States dollar among autocracies when compared to

**Table 9: Crosstabulation of Currency Association and Binary Indicator of Autocracy**

Currency Association	Autocracy	Total	
	0	1	
0	1,220	1,232	2,452
1	760	1,201	1,961
2	122	268	390
<b>Total</b>	<b>2,102</b>	<b>2,701</b>	<b>4,803</b>

democracies. For instance, 44.47% of autocracies have a moderate degree of association with the USD compared to only 36.16% of democracies. Moreover, 9.92% of autocracies are “dollarized” while only 5.8% of democracies adopt the US dollar between 1973-2010. Thus, while variation across this variable may be generally low, there are still interesting and important patterns to uncover, particularly when combined with the other measures in the analysis.

**f. Imports to US**

The next variable measures the annual value of imports to the United States from a partner country. The raw data for this variable are measured in constant 2019 US dollars. To account for non-normality in the data, this variable is log transformed. Figure 5 presents a histogram of the *Imports* variable.

A familiar concern arises upon investigation of the histogram for imports to the US. The histogram clearly illustrates the overdispersion of zeroes in the distribution of imports to the United States – however, the distribution is not as problematic as the IMET Funding or Foreign Military Financing variables. Ignoring the zeroes, the variable is relatively normally distributed with a peak around 18. Thus, if the zeroes can be accounted for, the data are amenable to statistical analysis.

Figure 5: Histogram of Logged Imports to US

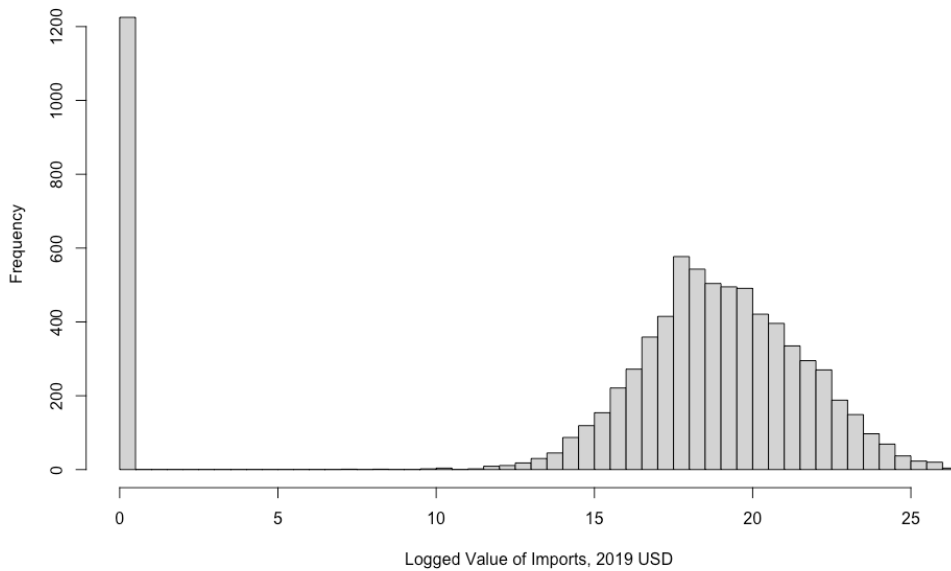
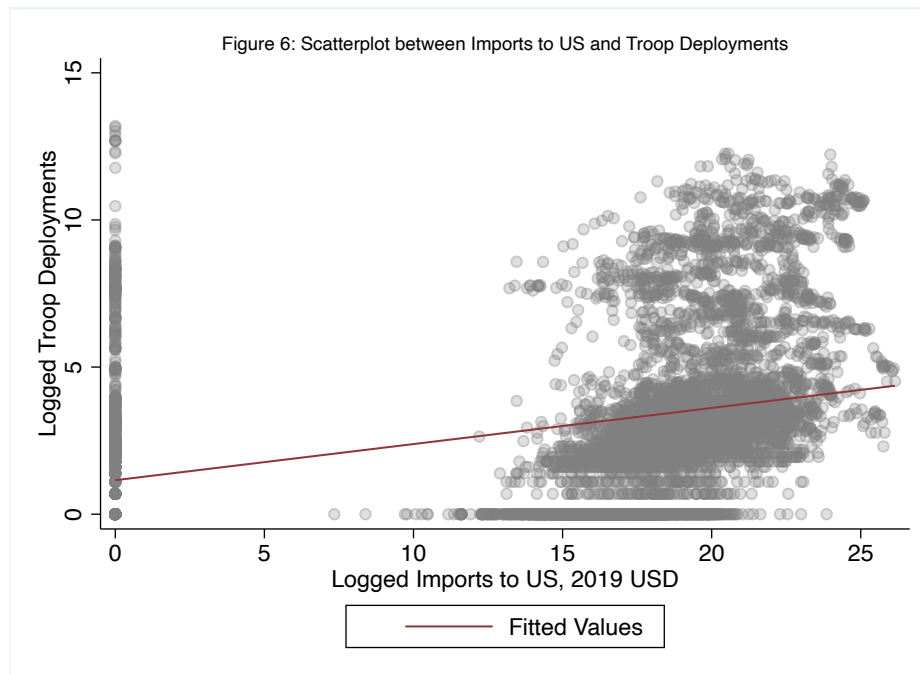


Figure 6: Scatterplot between Imports to US and Troop Deployments



The correlation matrix indicates that the imports variable is most correlated with the troop deployment variable. Figure 6 presents a scatterplot between these two variables along with a line of best fit. First, the number of zeroes in the distribution of both variables is evident. However, among countries from which the United States

imported goods, there seems to be a weak positive association between the two variables – though it should be noted that the plots do have some heteroskedasticity to them.

#### **g. Foreign Policy Alignment**

The final variable in the analysis measures the extent to which a given country shares similar foreign policy preferences and policies with the United States. Operationally, this variable is measured by recording the difference between the United States' and a given partner country's foreign policy ideal point estimate as calculated by Bailey et al. (2017). Values closer to zero indicate a higher foreign policy affinity between the United States and a given country in a particular year. Conversely, values extending beyond zero indicate more difference in foreign policy affinity between the United States and another country. Put differently, the greater the absolute value of the difference between ideal point estimates, the less similar the two countries' foreign policies are. To allow for better interpretation, this variable is then multiplied by -1 such that “higher” values equal a higher degree of foreign policy affinity between the two countries. Figure 7 presents a histogram of the *FP Alignment* variable.

The histogram illustrates the distribution of the foreign policy alignment variable. It appears that the FP Alignment variable has a bimodal distribution. Though they may be somewhat difficult to spot, there are two distinct peaks around -2 and -3.5. This distribution is interesting in that it may correspond to some characteristic of the data such as the regime type of the observations, the temporal period under consideration, etc. Figure 8 presents another histogram of the FP Alignment variable – however, this time, the histogram is shaded based on autocratic versus democratic observations and their foreign policy affinity with the United States. The histogram clearly illustrates that

Figure 7: Histogram of FP Alignment

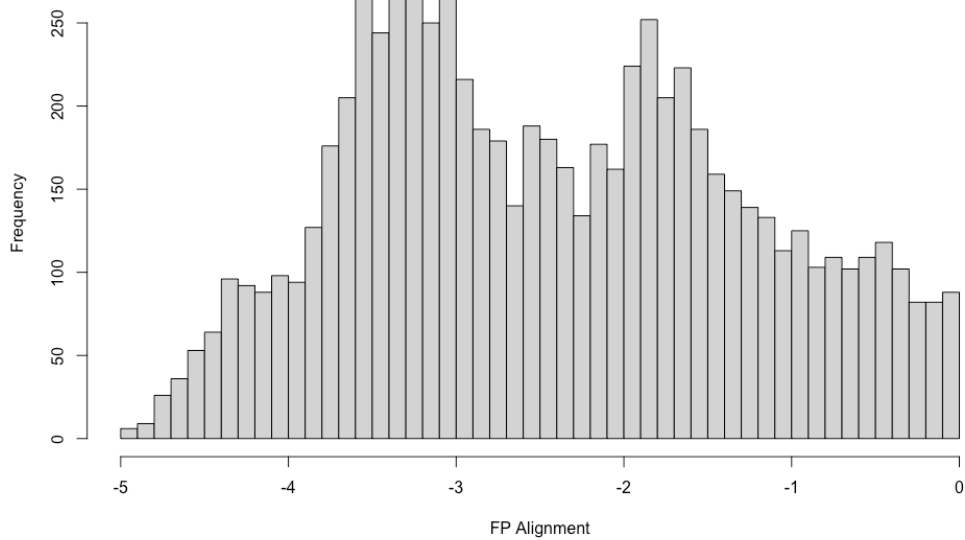
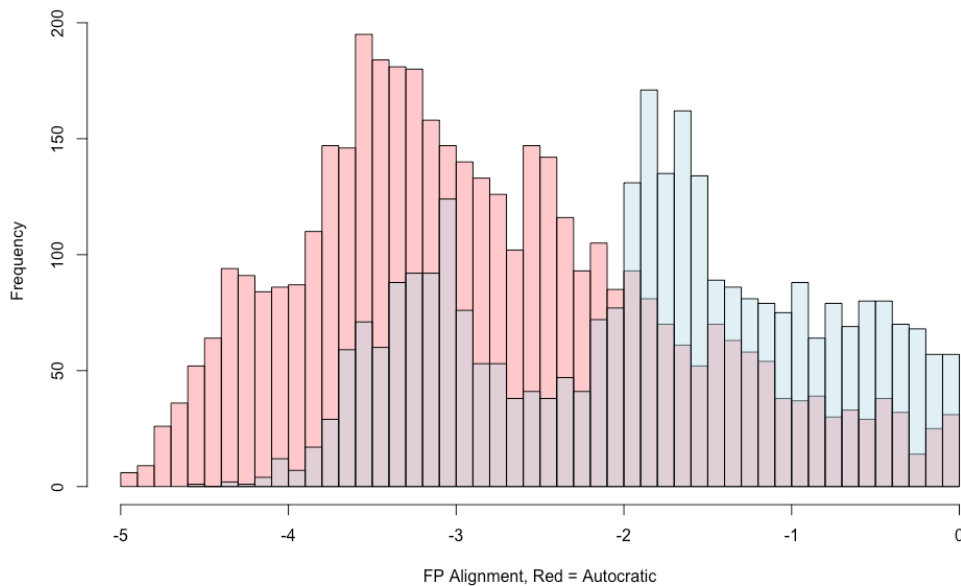


Figure 8: Histogram of FP Alignment, Color Coded by Regime Type



regime type plays a role in the degree of affinity between the United States and a given country – autocratic regimes are clustered much more heavily toward the “lower” values that correspond to less foreign policy affinity with the United States. On the other hand, democratic countries are clustered much closer higher values, indicating more foreign

policy affinity between the United States and democratic countries. This is not a revelation by any means, particularly given that democratic countries tend to share foreign policy interests of security, economic interdependence, and institutional cooperation.

The last point worth noting for the *FP Alignment* variable is its correlation with the *Alliance Obligations* variable. The two variables have the highest correlation coefficient according to the correlation matrix in the preceding pages (.5525). As such, it is worth investigating the relationship between these variables a bit further. Table 10 presents a mean comparison of the foreign policy alignment variable across each level of the alliance obligations variable. An interesting note about the FP alignment variable is that there is not much difference in means between the first three level of the alliance obligations variable, at which point the mean increases substantially to reflect foreign policy preferences that are aligned with the United States. It is interesting that there is not much difference in terms of foreign policy affinity across the first three levels of alliance obligations – however, this may also be due to characteristics of the data that are not evident in a simple mean comparison table.

**Table 10: Mean Comparison, Alliance Obligations and FP Alignment**

Alliance Obligations	FP Alignment
0	-2.930
1	-2.501
2	-2.487
3	-1.631



#### **IV. Estimating Interstate Patronage: Item-Response Model**

Given these indicators, the analysis now turns to the creation of a continuous measure of interstate patronage based on the various elements discussed in the previous section. It is important to recall the overarching theoretical argument about the concept of interstate patronage. This project argues that interstate patronage is a unidimensional phenomenon arising from the intersection (or combination) of various military, economic, and diplomatic elements. In other words, interstate patronage is comprised of a blend of military, economic, and diplomatic considerations, and as such, the combination of these indicators should jointly influence the “estimate” of interstate patronage. Empirically, this means that a measure of interstate patronage should incorporate information from each of the various indicators discussed in the previous sections. Another consideration worth mentioning is the panel nature of the data – that is, the fact that each unit in the analysis (US-partner dyads) has repeated observations over the period of 1946-2010. Panel data is particularly problematic for statistical analyses because most forms of analysis assume independence among observations while, in many cases, it is highly plausible for the observations to be correlated across temporal units. For example, in this analysis, a particular observation’s value for the FP Alignment variable in a given year may be largely correlated with the same observation’s value in the previous year – this is actually not implausible given that state preferences should, in most cases, stay relatively similar from one year to the next.

Thus, the primary challenge in estimating interstate patronage is developing a model that can simultaneously capture the theoretical spirit of the concept while also accounting for the dynamic nature of international relations and dyadic interactions.

Fortunately, recent scholarship in the subfields of comparative politics and international relations has led to the development of a means of addressing and successfully handling these concerns. Unobserved variables, such as the quality of a country's human rights protections, a state's foreign policy preferences, or the degree of interstate hostility between two states, have been the subject of considerable scholarly attention, both on a theoretical and empirical level (Schnakenberg and Fariss 2014; Fariss 2014; Bailey et al. 2017; Terechshenko 2020). In each of these analyses, the authors employ a model that leverages panel data to measure the latent construct under consideration while also accounting for temporal variation across the set of observations. In other words, these analyses manage to develop estimates of the latent construct while explicitly modeling the fact that each observation's value for a particular indicator has some degree of dependence on the observation's value in the previous temporal period.

Each of these analyses employs Item-Response Theory (IRT) modeling in order to estimate the probability that each observation is receiving the latent construct under consideration given each observation's "responses" (or values) on given "items" (or indicators). The overall idea behind IRT is that the latent construct under consideration is a continuous underlying phenomenon that raises or lowers the probability of observations taking on certain values for the indicators in the analysis (Linzer and Staton 2015). Thus, one way to interpret the goal of IRT is the development of a measurement that, at higher values, corresponds to higher probabilities that an observation will take on "higher" values for each indicator (assuming that each variable has been coded to account for this). In this sense, IRT models fundamentally assume that an underlying latent construct influences the likelihood of observing certain responses (or behaviors, values, etc.).

IRT has been shown to be a robust way of measuring latent constructs while also allowing the researcher to manage a number of challenges that may arise during the analysis. While each particular analysis is unique to some degree, there are a few conceptual and practical challenges that IRT models are uniquely suited to handle. Linzer and Staton (2015) discuss these challenges and how IRT models can solve them. Conceptually, given that there are a number of indicators that are affected by the underlying latent construct, it is useful for a model to be able to shed light on how each indicator is affected by the latent variable. In other words, a latent variable model should be able to uncover interesting patterns of covariance between the latent variable and the observed indicators in the analysis. IRT models allow the researcher to investigate the relationship between each latent construct and an observed indicator. This is done through discrimination parameters that represent a particular indicator's relative influence on the latent construct. As a result, IRT provides the opportunity to explore important variation between indicators and can assist in developing a theoretical understanding of how the construct influences observable phenomena.

Another conceptual consideration that is particularly relevant for the current analysis is that most latent constructs in social science are designed to be measured within some sort of boundary or put differently, along some sort of continuum. For instance, consider the latent construct of interstate patronage as a continuum – on the right end of the spectrum, there might be countries that receive every type of assistance and protection from a dominant state; on the left end of the spectrum, there might be countries that receive no type of assistance or protection from a dominant state. At each end, a sort of boundary is established at which point it becomes very hard for

observations to move further left or right. Indeed, an observation that already receives no type of assistance from a dominant state cannot move much further left on the continuum of interstate patronage if the latent construct is conceptualized as the allocation of different types of assistance and, by proxy, protection by a dominant state. IRT allows the researcher to explicitly model the latent construct on a sort of continuum, thus establishing boundaries for the measurement of the concept. In turn, boundaries allow for increased interpretability of each observation's value for the latent measurement.

Practically, IRT models can handle three data-related challenges that face the current analysis. The first is the unavoidable fact that there is a large number of observations of which data for at least one (or more) indicators is missing. For instance, recall that for the *Defense Cooperation* and *Currency Association* variables are both missing values for over 3,000 observations. Missing values create problems for statistical analyses, particularly when the analysis is attempting to establish a measurement that spans a large number of observations, incorporates information from a set of indicators, and accounts for temporal correlation between units. While there are many methods of handling missing data (mean imputation, multiple imputation, etc.), IRT is not affected by missing data as long as each observation has some information for the missing variable in observations before and/or after the missing cell in the dataset.

Relatedly, IRT models solve the challenge of accounting for uncertainty in each observation's value for the latent construct. Statistical uncertainty (or statistical error) is an inherent challenge facing any researcher engaging in a quantitative analysis – however, the challenge of statistical uncertainty is particularly relevant in latent variable analyses whereby the estimate under consideration is unobservable, and thus, subject to

forces that may not be accounted for by the researcher. In other words, it is nearly impossible to be completely certain about the accuracy of the estimate that is produced. This is because the estimate of the latent variable is an imperfect measure related to the indicators included in the model – any excess variation in the indicators that cannot be explained by the latent estimate is the cause of some degree of uncertainty in the estimate. For this reason, scholars focusing on the estimation of latent variables often want to examine the relative degree of uncertainty surrounding a particular observation's value for the latent estimate. Fortunately, IRT models can be combined with complex sampling techniques in order to create robust and accurate estimates of the latent construct under consideration.

Finally, IRT models are well-suited to handle the problem of indicators being measured in different units and scales. In many cases, indicators may be measured in different units and/or scales. For instance, consider the *Alliance Obligations* and *Troop Deployments* variables in the current analysis. The alliance variable is measured on an ordinal scale according to the “strength” of obligation between the United States and a potential partner country in a given year. On the other hand, in its raw form, the troop deployments variable is measured as a count of the number of US troops deployed to a partner state in a given year. Clearly, these two variables are measured in different units (“strength” versus number) and scales (0-4 versus 0-∞). Traditional regression models can create estimates that may be difficult to interpret and statistically inaccurate if data of this sort are not explicitly handled. Fortunately, IRT provides a way to sidestep this concern by encouraging each indicator to be coded in either a binary or ordinal manner. The recoding of each variable into binary or ordinal indicators serves two purposes. First,

it transforms each observed variable to a similar unit such that comparisons can more easily be made between each indicator. Second, it allows the analysis to undertake a probabilistic analysis in which the latent factor is said to increase the probability of higher values occurring on the observed indicators. As such, even though the transformation of continuous/interval variables into ordinal categories sacrifices some important information for each variable, it allows for the model to estimate the underlying continuous latent factor that is of primary interest in the analysis.

With these considerations in mind, the next section presents a minimally technical overview of the IRT model that estimates latent interstate patronage.

#### **b. IRT: Estimation of Interstate Patronage**

This section develops and estimates an Ordinal (Graded Response) Item-Response Theory (IRT) model that estimates the latent level of interstate patronage between the United States and a given partner country. The model developed in the following pages follows a structure/process that is very similar to previous efforts to measure latent variables in the subfields of comparative politics and international relations (Pemstein et al. 2010; Linzer and Staton 2015; Reuning et al. 2019; Terechshenko 2020; Fariss et al. 2022). A few themes unite the analyses developed by each of these authors. The first theme is that each analysis is primarily targeted towards measuring a latent construct. The second theme is that each analysis faces the challenge of handling observations that are correlated temporally to a certain extent. The third theme is that each analysis aims to estimate the latent construct with some degree of uncertainty given missing data and “unique” variation that may not be explained by the observed indicators. Ultimately, previous analyses leverage IRT models to address these

challenges while creating robust and valid measures of the latent construct under consideration.

It is worth briefly noting the importance of Bayesian statistics in the construction of the forthcoming IRT model (for a more detailed discussion of these points, see Lynch 2007). Bayesian statistics are an approach to statistical analysis in which the researcher models the probability of a given event occurring as the *posterior* product of an *a priori* probability distribution of the event occurring and a piece (or pieces) of observed evidence that indicates the occurrence of the event. To provide more context regarding the current analysis, Bayesian statistics model the probability of a given country receiving interstate patronage as the posterior product of the prior probability of the country receiving patronage (often calculated from the observation's previous value for the latent construct) and the set of observed indicators of patronage presented earlier in the chapter (coded such that "higher" values correspond to higher degrees of patronage). In this sense, Bayesian analysis is uniquely suited to create latent measures that are not only directly related to the observed indicators but also account for temporal interdependence and the importance of history (past observations) in the measurement of the latent construct.

Bayesian statistics are also particularly powerful tools for estimate latent constructs because they allow the researcher to leverage complex sampling methods, such as Markov-Chain Monte Carlo (MCMC) techniques, when running latent variable models. MCMC is a simulation method that takes a specified number of random samples (5,000 for example) from an observed set of data when running a specified Bayesian model. The logic behind running the latent variable model on many different random

samples is that, in doing so, the posterior value of the latent variable for each observation (and the latent variable's posterior distribution) will be a more accurate and robust estimate. The increase in accuracy of the estimate comes from the simple procedure of running repeated analyses of the specified model on a large number of "random" samples from the data. Over the course of the sampling simulation, the latent variable's posterior distribution from each iterated analysis is then averaged over the entire pool of analyses to create the (estimated) "true" posterior distribution of the latent variable. From this estimation, then, each observation receives a value for the latent variable with a corresponding confidence interval corresponding to the accuracy of the latent estimate.

In light of these advantages to using Bayesian models, nearly all of the recent latent variable scholarship in the subfields of international relations and comparative politics leverages the power of Bayesian statistics through the development of IRT models. This analysis follows the lead of previous scholars and develops a model that is very similar to other models that estimate latent political constructs. Key terms, equations, and parameters for the model are presented in the following paragraphs. The bulk of the terms, equations, and parameters – and thus, the overall approach – comes from previous work by Reuning et al. (2019), Terechshenko (2020), and Fariss et al. (2022).

As a starting point, each observed indicator is indexed  $x = 1, \dots, X$ , each unit (country-year observation) is indexed  $c = 1, \dots, C$ , and each time period (year) is indexed  $t = 1, \dots, T$ . The latent variable – *theta* ( $\theta$ ) – exists for each unit across each time period.  $\theta_{ct}$  is not directly observed but is assumed to determine the value of each observed indicator  $X$  in the analysis. These values are denoted as follows –  $y_{ctx}$  – and each indicator



has  $k = 1, \dots, K$  number of potential values that it can take on. Given that this analysis is developing an ordinal IRT model, each indicator is recoded such that  $k = 6$  for each observed indicator  $X$  in the analysis. Thus, modifications are undertaken to transform the following variables into six-level ordinal indicators: *Troop Deployments*, *IMET Funding*, *Foreign Military Financing*, *Imports to US*, and *FP Alignment*. In the case of each indicator, any observations with a value of “0” receives a “1” on the ordinal measurement. For the remaining non-zero values for each indicator, the values are divided into five quantiles with each representing the 20<sup>th</sup>, 40<sup>th</sup>, 60<sup>th</sup>, 80<sup>th</sup>, and top quantile of values for that indicator. The observations are then assigned a value ranging from 2-6 depending on which quantile the value of the indicator under consideration falls within. Thus, each of the aforementioned indicators in the rescaled ordinal measurement ranges from 1-6 ( $k = 6$ ). This process is employed in order to unify each indicator while maintaining important variation that occurs within each indicator’s distribution of values. The *Defense Cooperation*, *Alliance Obligations*, and *Currency Association* variables remain largely unchanged due to their ordinal nature – the only modification for these variables is that each value is increased by one in order to bring the lowest value for each of these indicators to “1” just like the other indicators.

For each indicator, the IRT model estimates two parameters – *alpha* ( $\alpha$ ) and *beta* ( $\beta$ ). These parameters are analogous to the intercept and slope (respectively) in standard regression analyses. An interpretation of *alpha* is that it represents the probability of an observation receiving interstate patronage at the average value of the indicator under consideration. *Beta* provides an estimate of how effective a particular indicator is at “discriminating” between observations with varying probabilities of receiving interstate

patronage. In other words, higher values for an indicator's slope parameter ( $\beta$ ) corresponds to a variable that is more influential in affecting the probability of the observation receiving interstate patronage. As such, *alpha* is typically of less interest but still serves an important purpose in the identification of the latent estimate.

Given the details of the data and coding structure discussed earlier, the overall probability distribution for the observed indicators can be produced, where F is the cumulative probability distribution (Schnakenberg and Fariss 2014):

$$P[y_{cxt} = k | \theta ] = F(\alpha_{xk} - \beta_x \theta_{ct}) - F(\alpha_{xk-1} - \beta_x \theta_{ct})$$

In turn, the likelihood function for the IRT model is as follows, where the products at the beginning of the equation represent the assumption of local independence between countries, indicators, and time periods:

$$\mathcal{L} = \prod_{c=1}^C \prod_{x=1}^X \prod_{t=1}^T [F(\alpha_{xk} - \beta_x \theta_{ct}) - F(\alpha_{xk-1} - \beta_x \theta_{ct})]$$

A critical aspect of Bayesian statistics is the assignment and/or estimation of prior probability distributions for each of the parameters being estimated: *alpha*, *beta*, and *theta*. The current IRT model leverages the empirical Bayes method to estimate the prior distributions for each of these parameters. The empirical Bayes method of estimation is a sampling technique that consists of two steps at its most basic level. First, the model is run over a specified number of iterations, or samples (1000, for instance). From this, the distribution of each parameter is estimated in each iteration. These distributions are then averaged to estimate the overall prior distribution for each parameter. Then, the model is run again over the same number of iterations with the estimated prior distributions to predict the value of the latent estimate for each observation in the dataset.

Theta, or  $\theta$ , represents the estimated value of interstate patronage for a given country in a given year. In the IRT model, a prior distribution of theta is assumed such that the estimate is normally distributed with a mean of zero and a standard deviation of one. As such, the following prior is assumed for the latent estimate:

$$\theta_{c,t} \sim N(0, 1)$$

In order to account for the dynamic nature of interstate patronage and the panel nature of the current analysis's data, two specifications are included in the IRT model: time-fixed effects at the year level, and clustered standard errors around each country in the dataset. Time-fixed effects are included in the model by adding a dummy variable for every year in the 1946-2010 period. This strategy accounts for unobserved temporal effects that might impact the allocation of patronage from the United States to countries throughout time. For instance, an economic slowdown might lead to fewer resources being allocated by the United States – however, this might not necessarily indicate a lessening degree of patronage from the United States toward the recipient country. Thus, it is important to control for unobserved temporal dynamics that might bias the results of the analysis. In essence, time-fixed effects eliminate the yearly average from the equation when calculating the key coefficients in the analysis and allow the coefficients to analyze variation around yearly means as the method of quantifying the relationship between the indicators and the latent trait. Clustering the standard errors by country affects the certainty of the estimates by calculating the overall standard error of the regression coefficient within each cluster of countries in the analysis. This represents an attempt to account for the fact that the relationship between the indicator variables and the latent trait of interstate patronage might vary across different countries. For instance, some

countries might have higher baseline levels of assistance due to their size, geopolitical position, etc. Clustering the standard error by country allows for the residuals surrounding the estimate of patronage to vary depending on which country is under consideration, leading to a (potentially) more accurate picture of interstate patronage between countries that is not prone to influential outliers.

Given these assumptions, equations, and parameters, the IRT model is run using the Graded Response IRT command in Stata 18. The optimization method for the maximum likelihood estimation of interstate patronage is the Newton-Raphson method and is set to run up to 500 iterations in order to achieve convergence in the model. Following this, latent estimates are predicted using the empirical Bayes method of postestimation with an iteration number of 1,000 samples. The next chapter displays the results and discusses some of the key findings from the IRT model.

## CHAPTER 3

### INTERSTATE PATRONAGE ESTIMATES

#### **I. Introduction**

The previous two chapters explored the conceptualization and measurement of interstate patronage. In this project, interstate patronage is conceptualized as a dyadic, voluntary, hierarchical, reciprocal, and repeated relationship between a dominant patron state and subordinate client state. In other words, instances of interstate patronage are characterized by the exchange of benefits/resources between a powerful and subordinate state that lasts over a period of time. Importantly, this project's conceptualization of interstate patronage also involves an assumption in which the dominant state allocates resources with the intent of bolstering the recipient regime's grip on power within its territory. Thus, it is necessary to understand the relative amount of assistance and association between a dominant and subordinate state. To achieve this understanding, the previous chapter put forth a measurement model of interstate patronage consisting of eight indicators of assistance/association that can occur between a dominant and subordinate state. Upon measuring and elaborating on the relative amount of support that a subordinate state receives from a potential patron, this chapter presents the statistical results of the IRT model and presents the interstate patronage measurement with the goal of identifying those relationships in which a mutual exchange of benefits takes place over an extended period of time and how they change under different contexts.

This chapter proceeds as follows. In the next section, the results from the previous chapter's measurement model are introduced and elaborated upon. There are two sets of results to consider. The first set of results details the impact of each of the eight indicator

variables to the interstate patronage measurement. These eight indicators make up the *de jure* patronage estimates since they include codified ties between countries such as alliances and currency associations. The other set of results illustrate the relative amount of assistance that a particular country receives from the United States for each year between 1946-2010. This section is important for understanding the general structure of patron-client relationships between the United States and potential client countries. The next section then turns to analyzing the results from a revised IRT model that excludes the institutional variables outlined in the previous chapter while keeping the tangible and strategically flexible indicators. Since this set of variables excludes codified ties between countries, these estimates are referred to as *de facto* patronage. The chapter concludes by considering some empirical implications of both models' results that will be explored in the next chapter.

## II. IRT Model Results – *De Jure* Model

In analyzing the results of the IRT Model, there are two key statistics of importance – the discrimination parameter and the difficulty parameter. The discrimination parameter in an IRT model represents the ability of the variable under consideration to meaningfully differentiate each observation based on the value the observation receives on the variable. Put differently, the discrimination parameter reveals the explanatory power, and subsequently the usefulness, of a particular variable's inclusion into the IRT model. The discrimination parameter is a slope coefficient that illustrates the relationship between the latent trait and variable values for each observation. A larger discrimination coefficient corresponds to a variable that is able to

discriminate between lower- and higher-level observations quite well – a large discrimination coefficient for a particular variable means that the variable does a good job of assisting in the discrimination between observations with varying levels of the latent trait under consideration. Conversely, a small discrimination coefficient represents a variable that lacks a strong ability to differentiate between observations with varying levels of the latent trait. Ultimately, in the case of this analysis, the larger the discrimination parameter for a given variable, the more information the variable provides in terms of identifying observations with high(er) degrees of patronage from the United States.

**Table 1: Discrimination Parameters, IRT Model (N = 7,888)**

<b>Variable</b>	<b>Coefficient</b>	<b>Robust SE</b>	<b>Pr &gt;  Z </b>	<b>95% CI</b>	
Defense Cooperation	1.395	.247	.000	.912	1.878
Alliance Obligations	3.377	.918	.000	1.577	5.177
Troop Deployments	2.317	.326	.000	1.678	2.955
IMET Funding	.827	.194	.000	.447	1.207
Military Financing	.563	.193	.003	.186	.941
Currency Association	.065	.169	.700	-.266	.396
Imports to US	1.375	.202	.000	.978	1.771
FP Alignment	.983	.181	.000	.629	1.337

With these considerations in mind, Table 1 presents the discrimination parameters and their related statistics for all eight variables in the IRT model. Based on the results in the table, it is clear that there is quite a bit of variation in terms of how well each variable performs at differentiating between observations with varying levels of interstate patronage. The strongest performing variable – in terms of its discrimination coefficient – appears to be the *Alliance Obligations* variable. The coefficient is 3.377 and is statistically significant at the 99 percent confidence level. Given the steepness of the slope coefficient, the *Alliance Obligations* variable is very good at differentiating observations with varying degrees of interstate patronage, in comparison to the other variables in the model. In layman’s terms, the coefficient also indicates that an observation that scores high on the *Alliance Obligations* variable has a relatively high likelihood of being a recipient of patronage from the United States.

The other variables that perform relatively well in the model are the *Troop Deployments* and *Defense Cooperation* variables. Both variables’ discrimination coefficients are relatively high compared to the other variables in the model and are both statistically significant at the 99 percent confidence level. In a similar manner as the *Alliance Obligations* variable, the discrimination coefficients for these variables indicate that as a particular country hosts more troops from the United States or signs an extensive defense cooperation agreement with the United States, the country is more likely to be a recipient of patronage from the United States. The corollary of this insight is that a country that is a recipient of patronage from the United States has a high probability of hosting troops from the United States or having an extensive defense cooperation agreement with the United States. Two other variables – *Imports to US* and *Foreign*



*Policy Alignment* – also have discrimination coefficients that are solidly positive and statistically significant at the 99-percent level, indicating that countries that benefit from exporting goods/services to the United States or align themselves with the United States’ foreign policies have relatively high likelihoods of being recipients of patronage from the United States.

On the other hand, there are a few variables that are clear underperformers in relation to other variables in the model. These variables are *Currency Association*, *IMET Funding*, and *Foreign Military Financing*. The discrimination coefficients for each of these variables is quite small and, in the case of the *Currency Association* variable, not statistically significant at an acceptable level. For the *Currency Association* variable, the coefficient is essentially zero, indicating that based on the data in the model, variation in a country’s currency association with the United States’ dollar does not correspond to a higher probability that the country is a recipient of patronage from the United States. That is, the model is unable to determine whether countries with varying levels of currency association to the US dollar receive varying levels of patronage from the United States. The large p-value and corresponding confidence interval adds supporting evidence to this finding – indeed, there is roughly a twenty-five percent chance that there is no relationship at all between currency association and patronage from the United States. The other problematic variables are statistically significant at the 99-percent level, but the slope (discrimination) coefficients for the *IMET Funding* and *Foreign Military Financing* variables are quite small, indicating that while a relationship between these variables and patronage can be identified, that relationship is quite weak in comparison to the other successful variables in the model.

While these variables are statistically problematic, there are a few plausible explanations for why they do not perform well in the IRT model of interstate patronage. For the *Currency Association* variable, one plausible reason that the model is not able to differentiate between recipients of interstate patronage is because there is a limited amount of variation among countries in terms of their association with the United States dollar. The raw data for the variable are measured in three levels, so there is not a lot of room for variation to begin with. Looking back at the descriptive statistics for the variable presented in the previous chapter, nearly 92-percent of observations in the entire dataset have a “0” or “1” for the currency variable and only 390 of the 4,803 observations have a “2” for the currency variable (8.12%). Given this information, it is not difficult to see why the IRT model is unable to effectively utilize this data when distinguishing between countries with varying levels of patronage from the United States. When there is limited variation, it is not surprising that a model based on analyzing covariance would be unable to differentiate between observations and their corresponding latent trait levels. Thus, in future analyses, perhaps a rework of this variable’s measurement scheme is warranted to exploit more variation between levels of currency association among the world’s countries.

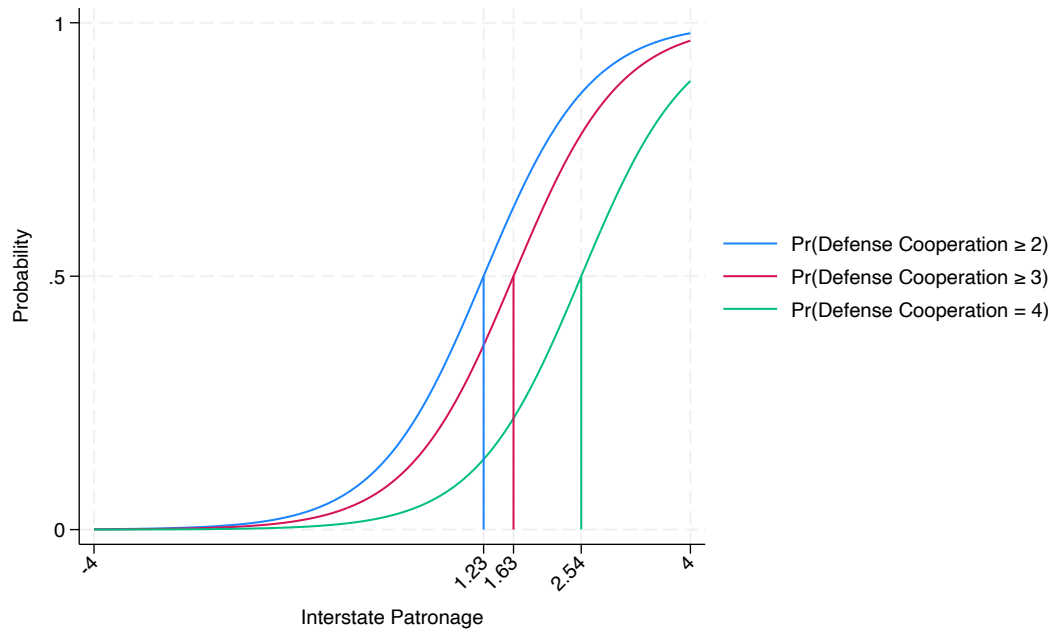
The other two problematic variables have a different limitation that could possibly impact their performance in the model. While the currency association variable suffers from limited variation, the *IMET Funding* and *Foreign Military Financing* variables are potentially too broad to identify meaningful relationships between these variables and levels of interstate patronage. The reason for this is that the *IMET Funding* and *Foreign Military Financing* variables contain data from very broad and wide-ranging assistance

programs between the United States and a large number of countries around the world. Because these programs are so far-reaching, it is possible that the model suffers a bit when it comes to identifying relationships between levels of resource allocation in the form of IMET funding and foreign military financing. For example, if the United States allocates similar levels of IMET funding to say, sixty percent of countries, then it will be difficult to determine which of countries receive the funding as a result of patronage and which countries receive the funding for some other reason. As a result, perhaps the model's discrimination coefficients for these variables are a bit attenuated. It is important to note, however, that there is still a small but positive relationship between levels of *IMET Funding/Foreign Military Financing* and the latent estimate of interstate patronage, so it is not worth completely disregarding the results for these variables.

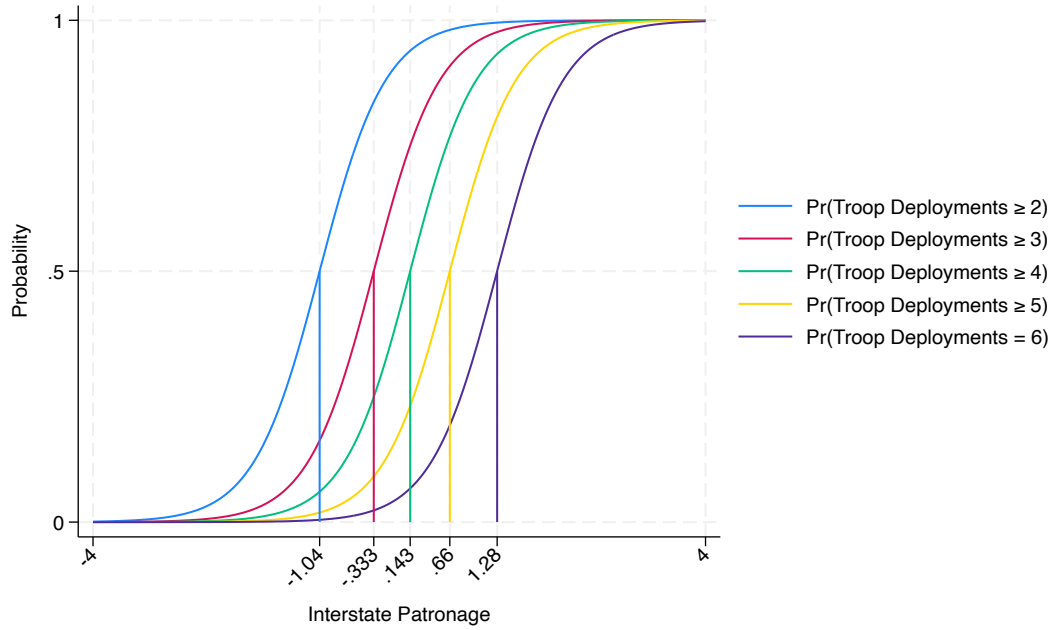
Another component of IRT model results is a set of values called the “difficulty” parameters for each variable. Given that the current IRT model is an ordinal model – and as such, each variable is measured on an ordinal scale – it is possible to derive specific thresholds at which the likelihood of a particular observation falling into a particular “level” of each variable is greater than fifty-percent. These thresholds are the difficulty parameters and represent the value of the latent trait that must be surpassed in order for a particular observation to have a greater-than-fifty chance of falling into each category of an ordinal measurement. The graphs on the following pages display the item characteristic curves for a given variable. In these ICC graphs, two important characteristics of each variable are visually evident. First, the discrimination (or slope) coefficients for each variable are represented visually by the steepness of each line in the graph under consideration. By displaying the discrimination coefficient visually, the ICC

graphs allow for an easy comparison between each variable in terms of its ability to differentiate between observations' values on a given variable. Second, the ICC graphs display the difficulty parameters for each variable under consideration. The values on the horizontal axis of the graphs represent the value of theta – the estimate of interstate patronage – that is required for a particular observation to have a greater-than-fifty chance of having a particular value for a given variable in the model. The graphs below display these components.

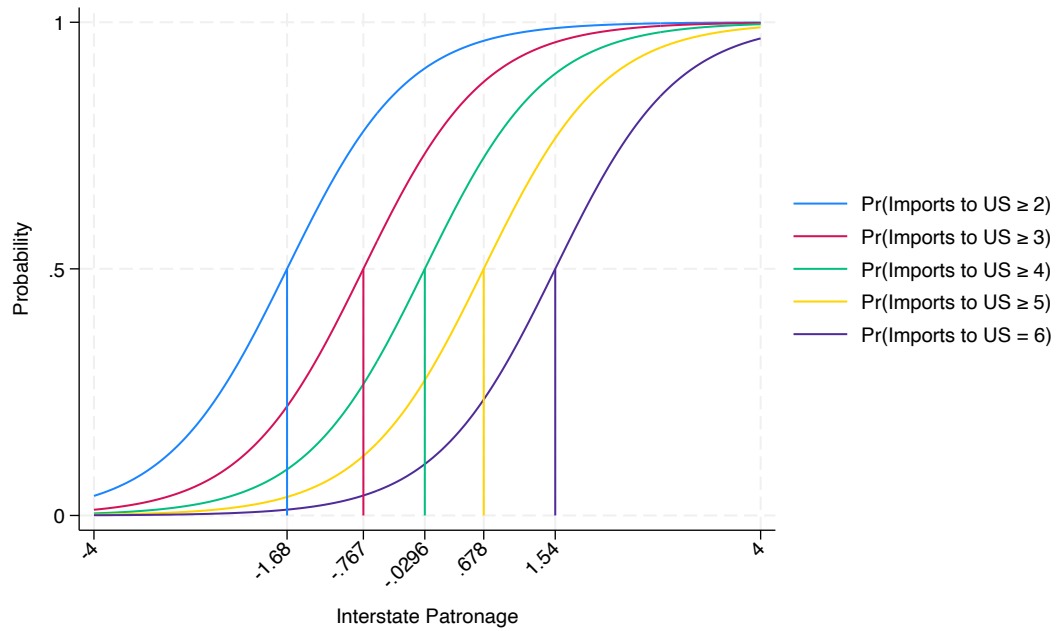
**Figure 1A: Item Characteristic Curve, Defense Cooperation Agreements (*De Jure*)**



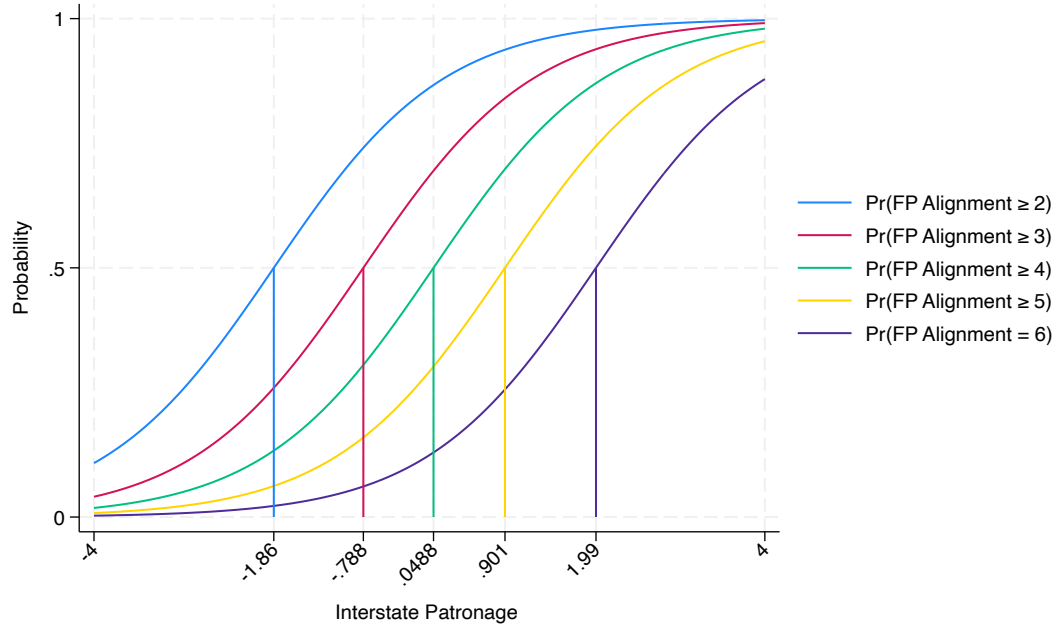
**Figure 1B: Item Characteristic Curve, Troop Deployments (*De Jure*)**



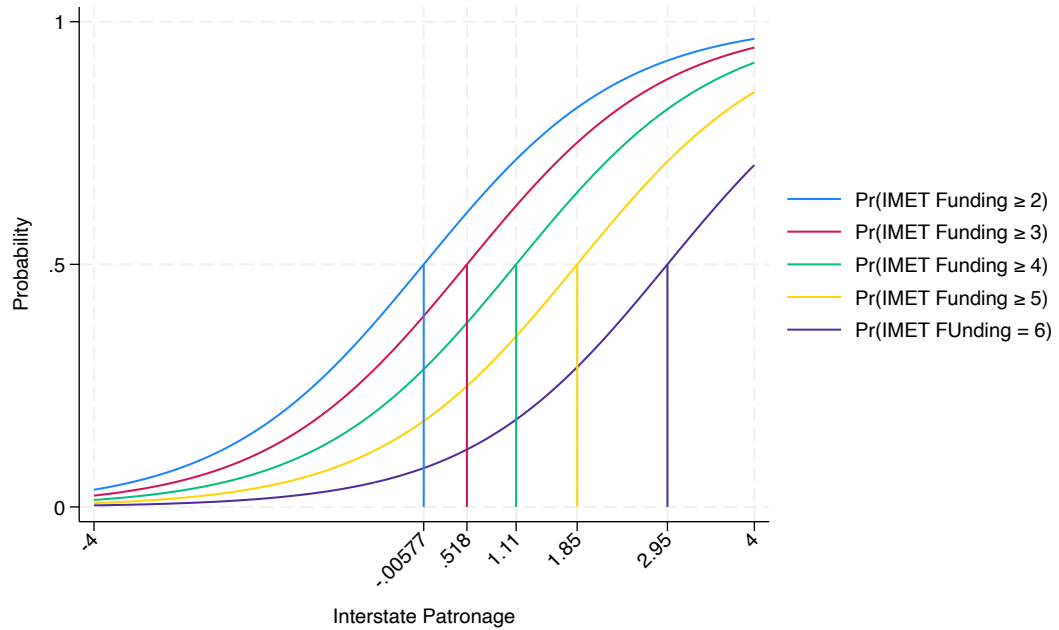
**Figure 1C: Item Characteristic Curve, Imports to US (*De Jure*)**



**Figure 1D: Item Characteristic Curve, Foreign Policy Alignment (*De Jure*)**



**Figure 1E: Item Characteristic Curve, IMET Funding (*De Jure*)**



The graphs above (Figures 1A-1E) display the discrimination (slope) coefficients and difficulty parameters for the *Defense Cooperation*, *Troop Deployments*, *Imports to US*, *Foreign Policy Alignment*, and *IMET Funding* variables. The vertical axis plots the probability of a particular observation falling into one of the variable levels represented by each line in the graph. The horizontal axis plots the value of the latent trait – theta, or in the case of this analysis, the estimate of interstate patronage – that a particular observation receives from the IRT model results. The legend on the right side of each graph provides information regarding what each line in the graph represents – in each graph, the lines are a probabilistic representation of a particular observation falling into a given category of the variable based on its latent trait value. A quick visual comparison of the lines in each graph provides some information about the differences between each variable’s discrimination coefficient. For instance, it is clear that the slope for the lines in the *Defense Cooperation* and *Troop Deployments* ICC graphs are steeper than the lines in the *IMET Funding* and *Foreign Policy Alignment* variables. This difference in slope steepness corresponds to the differences between each variable’s discrimination coefficient found in Table 1.

The values labeled on the horizontal axis represent each variable’s difficulty parameters for each level of the variable under consideration. These values correspond to the latent trait value that a particular value would need to possess in order to have a fifty percent (or greater) chance of falling into a particular category of the variable under consideration. For example, for the *Defense Cooperation* variable, the model predicts that an observation would need to have at least a latent trait value of 1.23 in order to have a greater-than-fifty percent chance of containing a “2” for the Defense Cooperation

variable. The same logic applies to the other values on the Defense Cooperation ICC graph – an observation would need to have at least a latent trait value of 1.63 to fall into the third category of the variable and a latent trait value of 2.54 to fall into the uppermost category of the variable.

Another way of interpreting the difficulty parameters is to view the relationship from a sort of opposite lens. For the Defense Cooperation variable, a potential interpretation of the graph is that observations with a “2” for the variable are likely to have a latent trait value between 1.23 and 1.63; observations with a “3” for the variable are likely to have a latent trait value between 1.63 and 2.54; and observations with a “4” for the variable are likely to have a latent trait value greater than 2.54. Similarly, observations with a “1” for the variable are likely to have a latent trait value less than 1.23. This same reasoning applies to the other variable graphs as well. As an example, for the *Troop Deployments* variable, observations with a “1” for the variable are likely to have a latent trait value less than -1.04; observations with a “2” for the variable are likely to have a latent trait value between -1.04 and -.333; observations with a “3” for the variable are likely to have a latent trait value between -.333 and .143; observations with a “4” for the variable are likely to have a latent trait value between .143 and .660; observations with a “5” for the variable are likely to have a latent trait value between .660 and 1.28; and observations with a “6” for the variable are likely to have a latent trait value greater than 1.28. This interpretation can be repeated for the other variables as well.

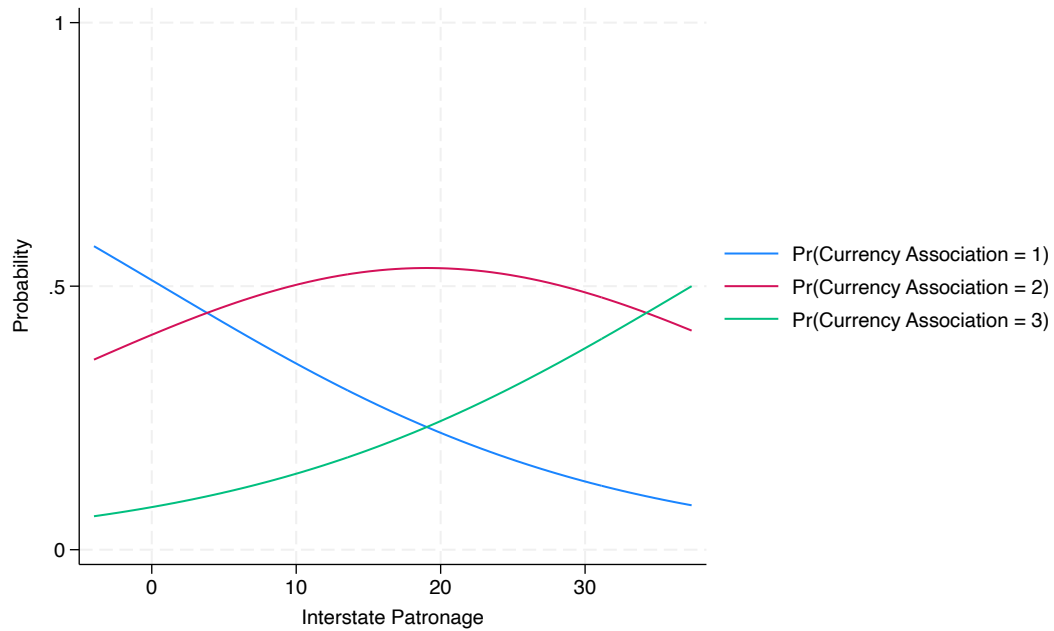
The four variable graphs presented on the previous page are quite easy to interpret. The following ICC graphs are trickier when it comes to interpretation and highlight some of the problems with the remaining variables that have not been



discussed. The next ICC graph displays information for the *Currency Association* variable. Looking at the lines on the graph, it is clear that the variable is quite problematic. First, there is no consistent relationship between the latent trait and the probability of an observation falling into a particular category of currency association with the United States. The probability that an observation receives a “2” on the currency association variable is essentially flat as the value of the latent trait increases. The probability that an observation receives either a “1” or a “3” on the currency association variable follow a more logical pattern – the probability of scoring higher on the currency association increases as the latent trait value increases. However, the values of theta on the horizontal axis are so large that these relationships are obsolete – that is, the required value of theta for an observation to have a greater-than-fifty percent chance of falling into the uppermost category is so large that it is basically uninterpretable. Table 2A (on page 118) displays the descriptive statistics for the latent estimate of interstate patronage – the largest value for the estimate of interstate patronage is 2.248. Taken together, the inconsistent slopes and inflated theta values indicates that this the model is unable to determine whether this variable has an impact on the latent trait value for a given observation. Crucially, this insight is backed up by the results presented in Table 1. Thus, the currency association variable is problematic and its inclusion in the model of interstate patronage should probably be reevaluated in future analyses.

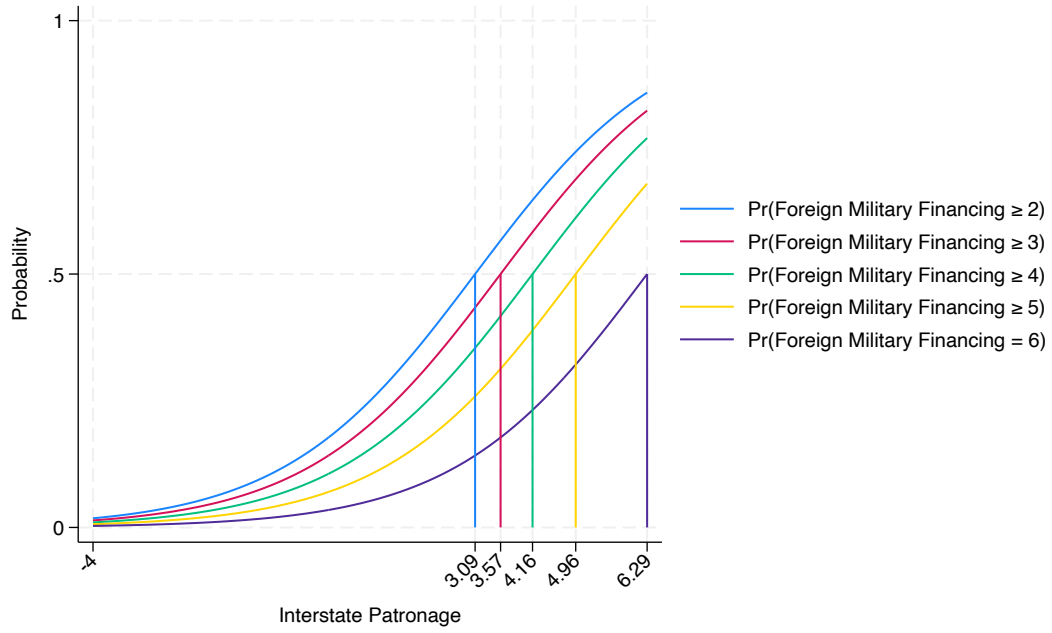
The next set of graphs display information for the *Foreign Military Financing* and *Alliance Obligations* variables. The interpretation of these graphs is the same as the other ICC graphs. However, several insights from these graphs are worth noting and highlight

**Figure 1F: Item Characteristic Curve, Currency Association (*De Jure*)**

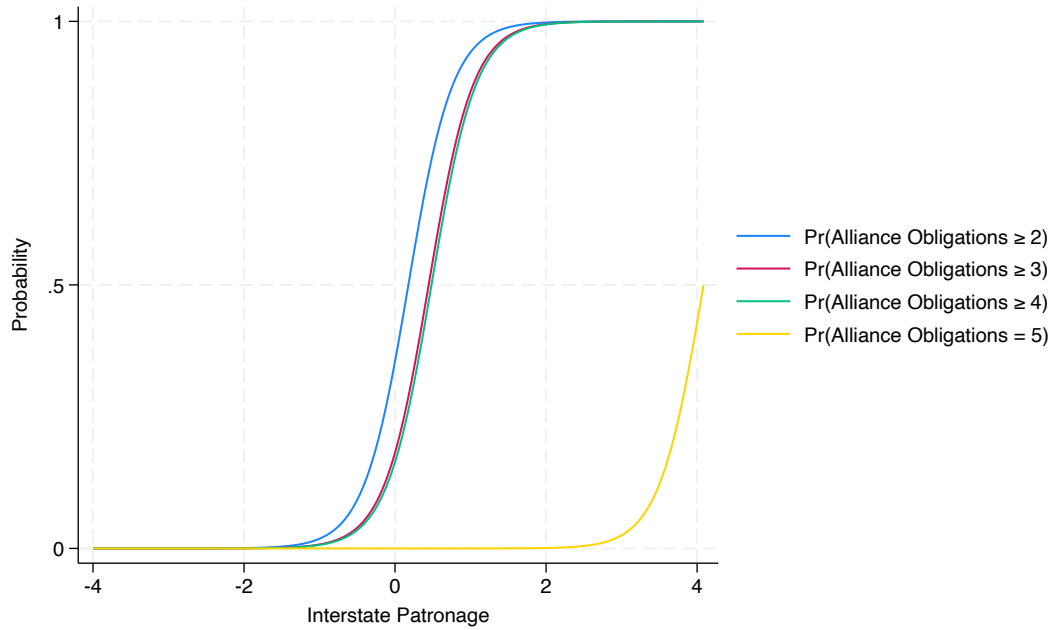


the problematic nature of both variables. First, for the *Foreign Military Financing* variable, while the slopes for each category of the variable are essentially the same, the latent trait values that are required to move between the different categories of the variable are very large. Again, the largest latent trait value in the entire dataset is 2.248, and the first threshold to move from a “1” to a “2” requires a latent trait value of 3.090. Thus, this variable could be problematic when thinking through how the military financing variable impacts the measurement of latent interstate patronage. If no observation has a greater-than-fifty percent chance of falling into any particular category, then it is quite difficult to understand the relationship between military financing and patronage.

**Figure 1G: Item Characteristic Curve, Foreign Military Financing (*De Jure*)**



**Figure 1H: Item Characteristic Curve, Alliance Obligations (*De Jure*)**



The final variable presented in the set of ICC graphs is the *Alliance Obligations* variable. The graph for the *Alliance Obligations* variable reveals some interesting insights about the variable that are not identifiable in the table of discrimination coefficients presented previously. The table indicates that this variable has the steepest discrimination coefficient, and that fact is visually evident in the graph – the slope of the lines is indeed steeper than the slope of the lines in any of the other graphs. However, an interesting component of this variable is the fact that the difficulty parameters for each category of the variable are very closely spread for the second, third, and fourth levels of the variable and very large for the uppermost category of the variable. The values of these thresholds are left off the graph presented above because they are very difficult to differentiate given the close location of the second, third, and fourth categories of the variable. However, the IRT results predict that the threshold for an observation to have a greater-than-fifty percent chance of having a “2” for the Alliance Obligations variable is a latent trait value of .177; the threshold for an observation to have a greater-than-fifty percent chance of having a “3” for the Alliance Obligations is .445; the threshold for an observation to have a greater-than-fifty percent chance of having a “4” for the Alliance Obligations variable is .483; and the threshold for an observation to have a greater-than-fifty percent chance of having a “5” for the Alliance Obligations variable is 4.086. This means that small changes to an observation’s latent trait value in the middle range of values for the patronage estimate can move an observation quite quickly between three different predicted levels of the alliance variable. Put differently, observations that possess an alliance variable value of either “2”, “3”, or “4”, are predicted to have relatively similar levels of interstate patronage. Moreover, observations with a “5” for the alliance variable

are predicted to have values of interstate patronage that exceed the range of values in the results of the IRT model. Put together, these insights indicate that the Alliance Obligations variable is a bit difficult to interpret when considering its relationship to the estimate of interstate patronage. Thus, perhaps a reconsideration of the inclusion of this variable is merited in future analyses. With these considerations in mind, this chapter now turns to examining the nature of the patronage estimates that are provided by the IRT model.

### **III. Interstate Patronage Estimates – *De Jure* Model**

The model developed in the previous chapter included eight indicators of interstate patronage that, when combined, create an overall picture of the relative amount of assistance that the United States provides to various countries around the world. In this section, the results of the model are presented in order to provide an overview of the top recipients of interstate patronage from the United States throughout the period of 1946-2010. The table below displays some descriptive statistics of the results of the model. On the next two pages, the figures display each country and its average of patronage for the period under consideration. A few points are worth mentioning. First, Table 2A displays some of the basic descriptive statistics of the patronage measurement. The patronage measurement has a mean of essentially zero, a minimum of -1.859, a maximum of 2.248, and a standard deviation of .885. Given that the range of the measurement is roughly 3.5, the standard deviation is quite high in relation to the distribution of the variable, meaning that the measure varies quite widely from case to case (on average). This imparts some face validity on the measurement, given that the measurement is constructed in a way such that variation in the indicators leads to variation in the measurement. In other

words, the standard deviation is such that there is a decent amount of variation between observations which should allow for the measurement to be applied quite easily to other statistical analyses.

**Table 2A: Descriptive Statistics, *De Jure* Interstate Patronage Estimate (N = 7,888)**

<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
.00002	.885	-1.859	2.248

**Table 2B: Descriptive Statistics, Average Patronage (*De Jure*) by Country**

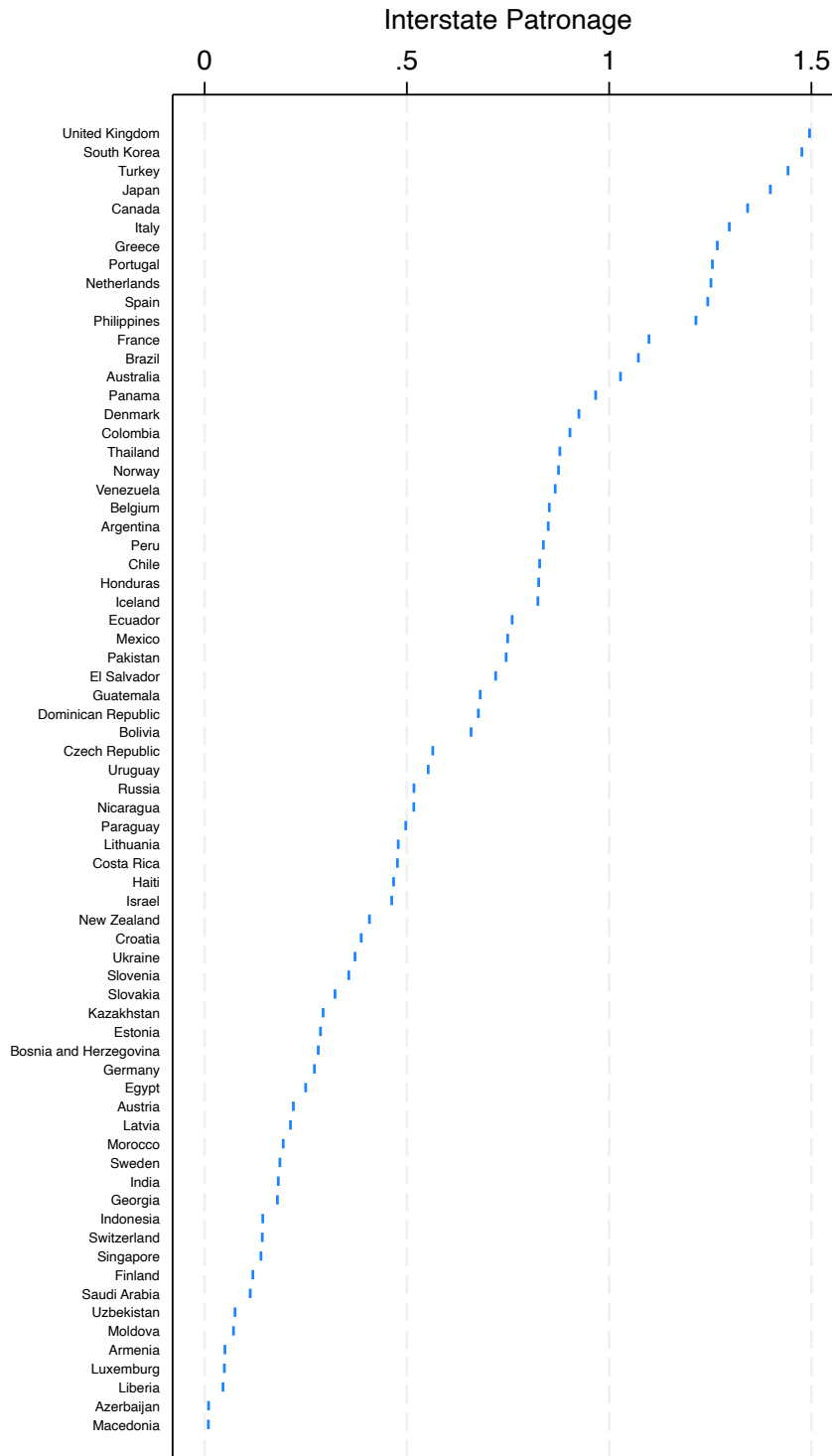
<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
.00002	.768	-1.512	1.495

Table 2B and both figures on the next pages display information regarding the patronage measurement after it has been averaged for each country across the 1946-2010 period. The table displays descriptive statistics for the country-level average of the patronage measurement. Unsurprisingly, the distribution of the averaged measurement is tightened a bit compared to the raw distribution of the measurement (unaveraged). The mean for the averaged measurement is unchanged – however, the averaged measurement now ranges between roughly -1.5 and +1.5. The standard deviation is also smaller for the averaged measurement, indicating that on average, countries share a closer degree of patronage from the United States than when considering the measurement on a yearly basis.

Figures 1A and 1B display the average value of patronage for each country in the dataset in descending order. Based on the figures, it is clear that patronage from the United States is allocated to several different groups of countries. At the top of the recipient list is the United Kingdom – historically the closest ally of the United States – and a number of other “legacy” countries that have shared close economic and political relations to the United States for a long time. These include South Korea, Turkey, Japan, Canada, and Italy. It makes sense for these countries to occupy the top of the list of countries receiving assistance from the United States – they are historical allies that share extensive economic, military, and political ties with the United States. For instance, South Korea and Japan are the central hubs of American security presence in the East Asia region; Turkey has been strategically important to the United States since the beginning of the Cold War due to each country’s opposition to Communism and the geographically strategic location of Turkey to various waterways and countries of interest to the United States; and Canada is the closest country to the United States geographically and a country that receives much of its economic and political power due to its proximity to the United States.

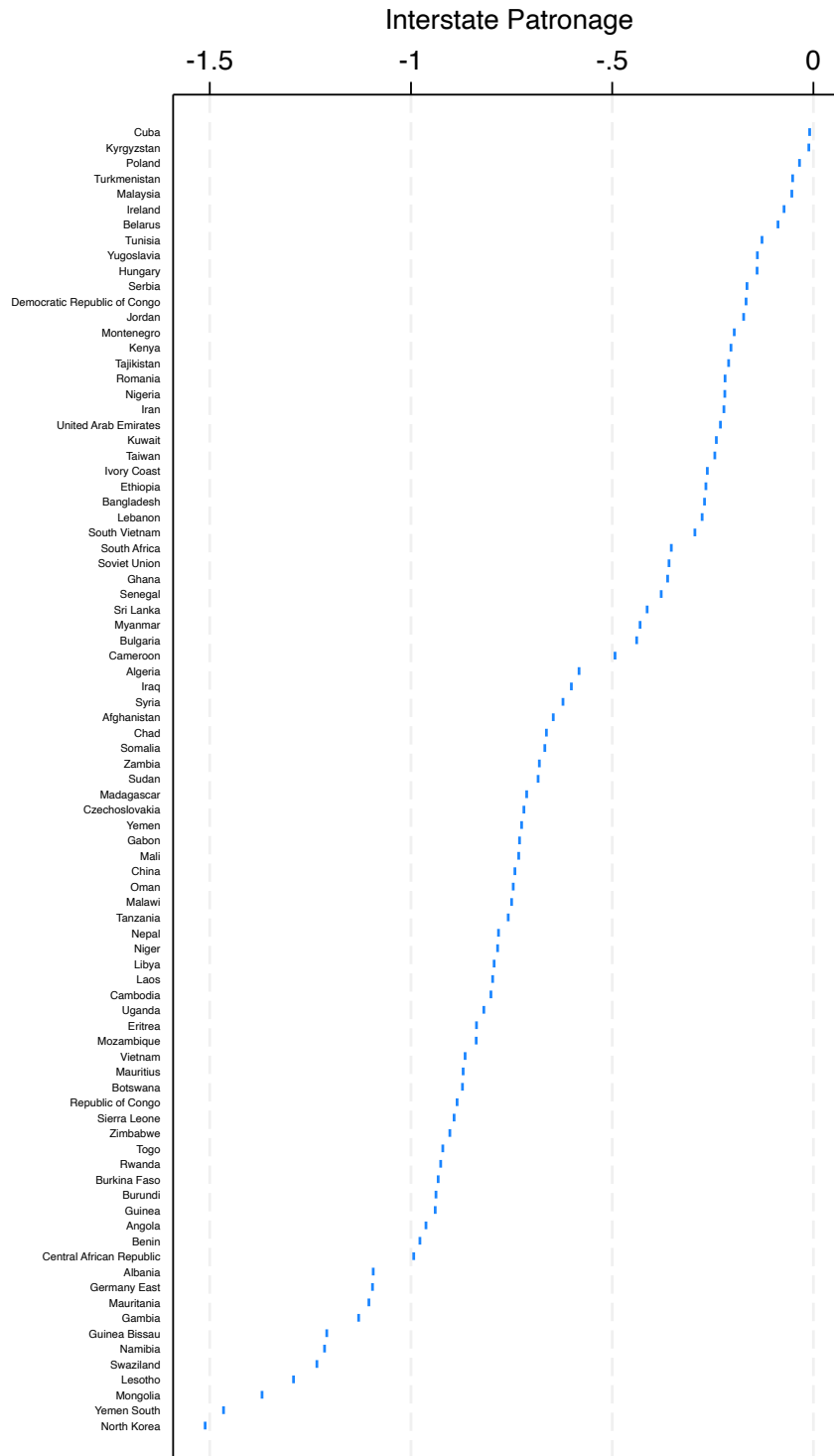
The bottom of the list is occupied by several countries that have had historically “cold” relations with the United States. The country receiving the least amount of patronage from the United States is North Korea, a finding that makes perfect sense given the fact that the North Korean regime has been diametrically opposed to the United States

**Figure 1A: Recipients of Patronage (*De Jure*), Top 50% (1946-2010)**





**Figure 1B: Recipients of Patronage (*De Jure*), Bottom 50% (1946-2010)**



and its allies since the regime was established in the late 1940s. Other countries near the bottom of the list include South Yemen and East Germany – two Soviet-aligned countries – and a number of Central African countries that the United States has not been strategically interested in for most of the period under consideration. Importantly, it is worth considering that the averaged measurement is biased towards long-term relationships – that is, shorter relationships will be represented by lower levels of patronage even though they may be recipients of (relatively) high levels of patronage during some years. For instance, Iraq is located near the bottom quarter of countries, yet the country has received high levels of assistance and protection from the United States in the wake of 9/11. Similarly, many Latin American countries are located in the top quarter of patronage recipients due to the United States' focus on supporting these regimes during the height of the Cold War. Thus, it is imperative to analyze how this list changes over time – from decade to decade, for example – in order to understand how patronage and the allocation of assistance from the United States changes over time.

Before moving to a more refined exploration of the temporal dynamics of interstate patronage, it is worth considering that, when looking at the average levels of patronage over the 1946-2010 period, there are clear groups of countries that have received more or less assistance from the United States. At the top, there are the historical allies of the United States from Western Europe and East Asia. The next group of countries is the Latin American bloc that, due to its geographic proximity to the United States, has received high levels of assistance and protection from the United States. For example, Chile is located relatively high on the list, a remnant of the United States' heavy involvement in supporting the regime during the Cold War. The middle of the list is

occupied by a mix of Central/Southern European countries, Middle Eastern countries, and North African countries. It makes sense for these countries to have, on average, middling levels of patronage from the United States – most are relatively “new” countries that gained independence after the fall of the Soviet Union, or countries that gained strategic significance to the United States during the rise of the global war on terror. Finally, the bottom of the list is occupied primarily by African countries. Again, this makes sense given that the United States has not placed much strategic value in supporting most African countries throughout the period under consideration. However, the United States’ focus in the post-Cold War era in promoting security and democratization in the African continent may be reflected in more refined temporal analyses of the patronage measurement.

The next tables and graphs explore the temporal variation in the patronage measurement at a decade level from 1960-2010. Given that assistance and protection from the United States is not a constant for many countries, it is worth diving into the temporal dynamics of the measurement in order to understand how these patron-client relationships change over time. The information in the coming tables and graphs comes from averaging patronage scores for each decade between 1960-2010 by country. That is, each country’s decade-level measurement is simply an average of their patronage estimate across the ten years under consideration. The general descriptive statistics for each decade are presented in the table below.

**Table 3: Descriptive Statistics, Decade-Level Patronage Averages (*De Jure*)**

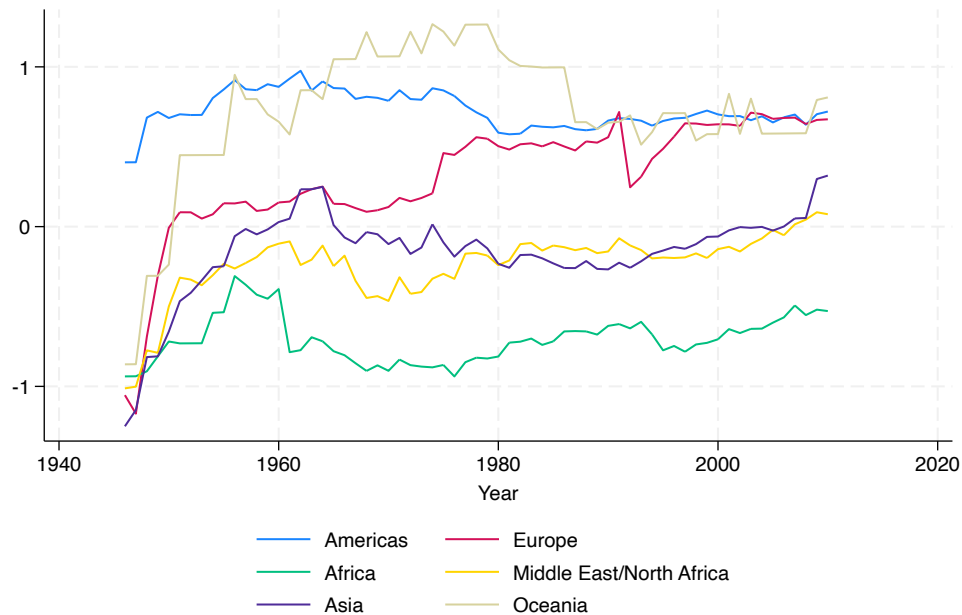
<b>Decade</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
1960	-.004	.959	-1.850	1.809
1970	-.096	.947	-1.839	1.891
1980	-.053	.856	-1.689	2.080
1990	-.005	.796	-1.628	1.792
2000	.127	.731	-1.435	1.813

Table 3 presents descriptive statistics for the decade-level averaged patronage measurement. A few considerations are worth noting when analyzing the information in the table above. First, based on the standard deviation of each decade's measurements, it appears that over time, countries become closer to each other in terms of how much relative patronage they receive from the United States. Indeed, the standard deviation is .959 among country averages for the 1960s – just two decades later the standard deviation is .856 and four decades after the 1960s, the standard deviation is .731. Given this, it is clear that the field of countries becomes closer in terms of the amount of patronage they receive as time advances through the 1960-2010 period. Another point worth noting is that, on average, maximum levels of interstate patronage appear to be located in the 1980s – the maximum of 2.080 is the highest of any decade under consideration. This makes sense historically, given that the 1980s represented the height of the Cold War. Another interesting point is that the following decade has, on average, the lowest maximum level of patronage, an indication perhaps of the United States' retraction of assistance following the end of the Cold War. Finally, it is worth noting that

the 2000-2010 estimates are, on average, the highest (mean = .127). This is also perhaps unsurprising, given that by the turn of the century, the United States had fully assumed the role of a unipolar superpower with assistance programs across the globe.

It is also worth exploring the temporal dynamics of the patronage estimate, particularly in relation to how different countries fare over time in their receipt of assistance from the US. Figure 2A is a time-series graph displaying region-level patronage averages over the 1946-2010 period for the Americas, Europe, Africa, Middle East/North Africa (MENA), Asia, and Oceania regions. Each line in the graph corresponds to a yearly average of patronage by geographic region. It is useful to explore the geographical dynamics of patronage in order to understand how patronage from the United States has varied over time.

**Figure 2A: Patronage (*De Jure*), Regional Averages (1946-2010)**



There are a few interesting takeaways from the region-level graph of patronage averages. First, it is clear that while there are minor fluctuations over the 1946-2010

period, there is a distinct pecking order when it comes to which regions receive the most assistance from the United States. Countries in regions that have historically been friendly to the United States – namely, the Americas, Europe, and Oceania (Australia/New Zealand) – rank the highest on a region-level average throughout the 1946-2010 period. This is relatively unsurprising, given that most countries in this region have been political, economic, and social partners with the United States for the better part of the postwar era. Moreover, some of the largest recipients of patronage from the United States occupy these geographic regions, which likely inflates their overall ranking a bit. It is also worth noting that the Oceania estimates are likely inflated as well, given that there are only two countries in the dataset that occupy that geographic region: Australia and New Zealand.

The remaining three regions – Africa, MENA, and Asia – also have a distinct order with Africa consistently receiving the lowest amount of patronage from the United States at the region level. MENA and Asia receive relatively similar levels of patronage at the region level throughout the 1946-2010 period. However, for most of this period, Asian countries have received slightly more patronage than countries in the MENA region. This holds true even after the Cold War when terrorism, energy cooperation, and democratization have been key tenets of the United States' foreign policy toward the MENA region. It is also interesting to consider the fact that levels of patronage going to Asia at the end of the analytical period (2010) are the highest they have been since the beginning of the Vietnam War (1960-1965), indicating the region's growing importance to the United States.

**Figures 2B-2D** in the **Appendix** display the ranking of *de jure* patronage recipients for the decades of 1960-1969, 1980-1989, and 2000-2010. A logical starting point when considering the similarities and differences between the three decades is the top of the list of patronage recipients. While many of the countries are located in same region of the list across each decade, there are a few insights worth considering. First, looking at the consistencies across each decade reveals that patterns of interstate patronage are quite “sticky” over time – that is, there is not much movement across decades in terms of which countries receive varying levels of patronage. For instance, the top quarter of patronage recipients in each graph contains essentially the same countries across each decade. Similarly, regardless of the decade under consideration, a similar group of countries occupy the lowest positions of patronage recipients. Consider, for example, the fact that Japan, Turkey, and the UK are consistently near the top of the rankings, a fact that makes sense given the United States’ long history of cooperation with these countries. On the other hand, countries such as North Korea and a number of sub-Saharan African nations routinely find themselves on the lower end of patronage estimates across each decade, another fact that makes sense given that North Korea has never had a positive relationship with the United States while many African nations did not begin to receive support/assistance until recent years (and even then, a relatively small amount of assistance compared to other countries).

However, despite these consistencies, there are several countries that move a lot across decades in relation to many countries. These countries’ movements can be plausibly explained by their changing relationships over time between themselves and the United States. For example, a number of notable countries begin the 1946-2010 period

with relatively little amounts of patronage from the United States but end up with relatively high levels of patronage by the end of the period under consideration. One of these countries is Egypt, which is found near the bottom of the list in the 1960-1969 period but finds itself near the top quarter of countries in both the 1980-1989 and 2000-2010 periods.

The movement of Egypt across decades makes sense in terms of its historical relationship with the United States. Diplomatic relations between the two countries were established in 1922 after Egypt gained independence from the United Kingdom. In the 1950s, as the Cold War ramped up, the United States attempted to cultivate a relationship with the Egyptian regime – however, the Egyptian regime instead expanded its relationship with the Soviet Union, leading the United States to eschew close cooperation with the country until the 1970s (Mark 2005). Following the 1978 Camp David Accords in which the United States negotiated a set of peace agreements between Egypt and Israel, Egypt began to receive vast amounts of military, economic, and political assistance from the United States. In fact, in the post-1978 period, the United States has established a strong bilateral relationship with the country in which Egypt is consistently one of the top recipients of military assistance and has considerable influence over the United States' foreign policy in the Middle East. Thus, it is not terribly surprising to find that Egypt has moved from a relatively low spot on the ranking of patronage recipients to being a country that receives a relatively high amount of patronage in more recent years.

Conversely, an example of a country that moves down in the rankings of patronage recipients as time progresses is Iran. Again, the reduction in patronage from the United States over time makes sense given the political history of Iran. In the pre-



1979 period, Iran and the United States enjoyed a very close relationship in which the United States provided large amounts of support and coverage to the Iranian regime. In 1953, with the assistance of the United Kingdom's MI6, the United States helped overthrow the established regime led by Mohammed Mossadegh after the democratically elected leader nationalized the country's oil industry and removed foreign expatriates from the country (Bayandor 2010). Upon establishing the new pro-Western regime led by the Shah – Reza Pahlavi – Iran and the United States became close political allies in the region, with military, economic, and political assistance being allocated to Iran from the United States. However, in 1979, growing anti-American sentiment in the country led to the Iranian Revolution and the ascendance of the current theocratic regime that occupies power in Iran to this day. After the 1979 revolution, Iran officially ended diplomatic relations with the United States and initiated a very contentious relationship with the West that still guides its foreign policy. As a result, it makes sense to see amounts of patronage from the United States to Iran drop off considerably in the post-1979 period.

There are also a few countries that have had a unique relationship with the United States in the post-war period. Three countries in particular stand out as meriting some attention: Israel, Saudi Arabia, and Taiwan. These countries are unique in that their relationship with the United States is characterized by more tangible, or flexible, patterns of assistance that are more easily utilized to address immediate strategic concerns. Moreover, these countries have enjoyed relatively long periods of closeness with the United States – indeed, Israel and Saudi Arabia have been crucial allies for the United States during its endeavors in the Middle East while Taiwan has long been a foothold for

the United States' presence in Asia (especially as it concerns combating Chinese expansion in the region).

Analyzing these countries' positions on the ranking of patronage recipients reveals some interesting temporal dynamics as time progresses from the end of World War Two. In the 1960s, the model places Taiwan highest of the three countries, with Saudi Arabia and Israel placing lower on the list in that order. The placing of Taiwan in relation to the other two countries is perhaps unsurprising, given that the country allowed the United States to host nuclear weapons in its territory during the early years of the Cold War. Moreover, the United States recognized Taiwan as the official "China" until 1979 and provided extensive military, economic, and political assistance to Taiwan during this period, especially in relation to other non-Western countries. Saudi Arabia and Israel are also located relatively high on the rankings during the 1960s – this also makes sense given both countries' extensive ties with the United States that emerged after the end of the Second World War. Saudi Arabia attracted the United States in the initial years of the Cold War due to its stance against Soviet expansion in the Middle East and global communism more broadly and has consistently been one of the top recipients of foreign aid from the United States throughout the postwar period. Israel has a similar history with the United States, though its relationship is undoubtedly closer with Israel than Saudi Arabia. The United States was the first country to formally recognize the State of Israel in 1948 and steadily increased its allocation of foreign aid to Israel over the next decades in response to security threats in the Middle East region (most notably, communism and anti-American sentiment among Arab countries). During the 1960s, the Kennedy, Johnson, and Nixon administrations provided cutting-edge military technology

to Israel in exchange for foreign policy support in the region. Thus, it is unsurprising to see Israel near the top of patronage recipients in the 1960s.

Over the next few decades, Saudi Arabia and Israel remain near the top of patronage recipients, particularly in relation to other Middle Eastern and North African countries. However, in these decades their relative positions are reversed – that is, Israel is a larger recipient of patronage than Saudi Arabia in the 1980s and 2000s. Another interesting insight from the rankings in the 1980s and 2000s is the fact that Taiwan finds itself near the bottom of the list of countries receiving patronage from the United States. In the 1980s, the model estimates that Taiwan received the seventh-least amount of patronage and in the 2000s, the model estimates that Taiwan received the least amount of patronage from the United States. This is very surprising because Taiwan and the United States have enjoyed a very close relationship throughout the postwar period – immense amounts of assistance and coverage have been provided by the United States with the goal of strengthening Taiwan’s position vis-à-vis China in the East Asian region.

It is a mystery, then, as to why the model underestimates Taiwan’s position in relation to other recipients of assistance and coverage by the United States. There are perhaps a couple of reasons for the model underestimation of Taiwan-United States relations. The first reason stems from the fact that in the post-1979 era, Taiwan and the United States have maintained less formalized relations due to the United States’ official recognition of the People’s Republic of China as the sole legitimate government of China. The recognition of the PRC as the legitimate government of China has precluded Taiwan from engaging in more formalized types of relations with the United States – such as alliance obligations, preferential trade agreements, or UN voting records. As

such, other countries that do enjoy more formalized relations with the United States may rank higher on the list of patronage recipients (as the model is formulated). A second reason why Taiwan's relationship with the United States is perhaps underestimated is the fact that many data sources omit Taiwan from their cross-national reporting of the variable under consideration. This makes sense considering that nearly every country in the world recognizes the PRC as the legitimate government of China and reports statistics for trade, military aid, and other forms of bilateral resource transfer accordingly. As a result, many of the variables in the current model of interstate patronage are missing data for Taiwan, a fact that perhaps leads the model to underestimate the relationship between the United States or miss it completely.

In turn, it is perhaps useful to ignore Taiwan's position in the current model's estimates of interstate patronage given that the substantive nature of the relationship is not showing up statistically. However, some of the nuances surrounding Taiwan – particularly the idea that the United States' relationship with Taiwan may be characterized by more informal and strategically flexible considerations – are worth considering in the wider context of the global measure of interstate patronage. Indeed, it could be that there are other countries in which a more tangible and strategically flexible characterization of interstate patronage reveals important nuances about their reception of patronage from the United States. In this vein, the next few pages present the results of an IRT model of interstate patronage that excludes the variables in the analysis in which there are codified or legal ties between states – namely, alliance obligations, currency association, and foreign policy alignment. The resulting model thus focuses on the more tangible and/or strategically flexible aspects of United States patronage: defense

cooperation agreements, troop deployments, IMET funding, foreign military financing, and imports to the United States. These estimates are referred to as the *de facto* patronage estimates and are displayed below.

#### **IV. Interstate Patronage Estimates – *De Facto* Model**

This section explores the dynamics of the *de facto* model of interstate patronage. Table 4 displays the discrimination and difficulty parameters for the variables included in the revised, *de facto* model of interstate patronage. A few considerations are worth noting, particularly when these coefficients are compared with the coefficients in Table 1. First, the discrimination coefficients in the *de facto* model of patronage are all positive and statistically significant to at least the 98-percent level. The coefficients for the *Troop Deployments* and *IMET Funding* variables are smaller in the *de facto* model, indicating that they are slightly less efficient in identifying varying levels of interstate patronage in this model. However, the discrimination coefficients for the *Defense Cooperation*, *Military Financing*, and *Imports* variables are larger here, indicating better overall performance in the *de facto* model. Another consideration worth noting is the fact that on average, the standard errors are larger in the *de facto* model than the standard errors in the *de jure* model. This finding indicates that the coefficients are, at least in theory, less certain than the coefficients in the *de jure* model – however, it is worth noting that the z-scores and p-values for each variable is large enough to warrant at least a 98-percent confidence level surrounding the coefficient estimate. Thus, even though the standard errors are larger in the *de facto* model, the certainty surrounding the estimates is practically unchanged.

**Table 4: Discrimination Parameters, IRT Model (*De Facto*)**

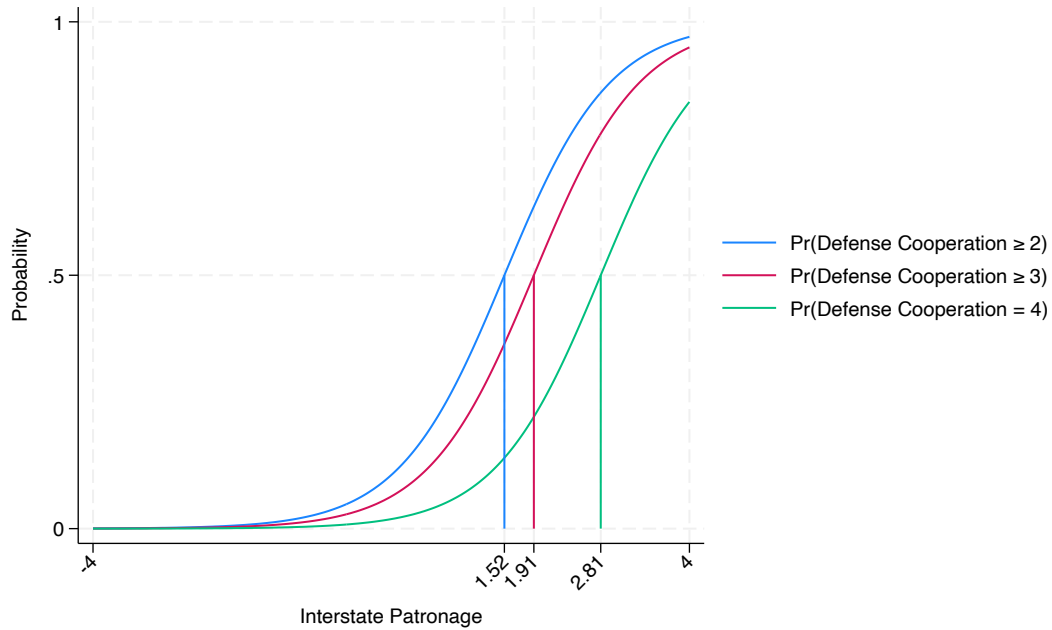
Variable	Coefficient	Robust SE	Z-Score	Pr >  Z	95% CI	
Defense Cooperation	1.407	.269	5.23	.000	.879	1.935
Troop Deployments	1.221	.158	7.72	.000	.911	1.531
IMET Funding	.584	.198	2.97	.003	.198	.970
Military Financing	.680	.237	2.87	.004	.215	1.144
Imports to US	5.115	2.200	2.32	.020	.802	9.427

In addition to the *de facto* model's discrimination parameters, it is worth considering the difficulty parameters for each of the variables included in the revised model. While the overall picture of the difficulty parameters is similar for the variables included in both models, there are some differences that illustrate how the *de facto* model produces slightly different results than the original *de jure* model. The ICC graphs for the five variables included in the *de facto* model are presented below. Beginning with the *Defense Cooperation* variable, the difficulty parameters for the variable in the *de facto* model are essentially unchanged from the original model. The threshold points are shifted to the right slightly while the distances between each threshold are virtually the same. The next two variables, *Troop Deployments* and *IMET Funding*, are similar such that the threshold cutoff points and distance between cutoff points are virtually unchanged across both models for these variables.

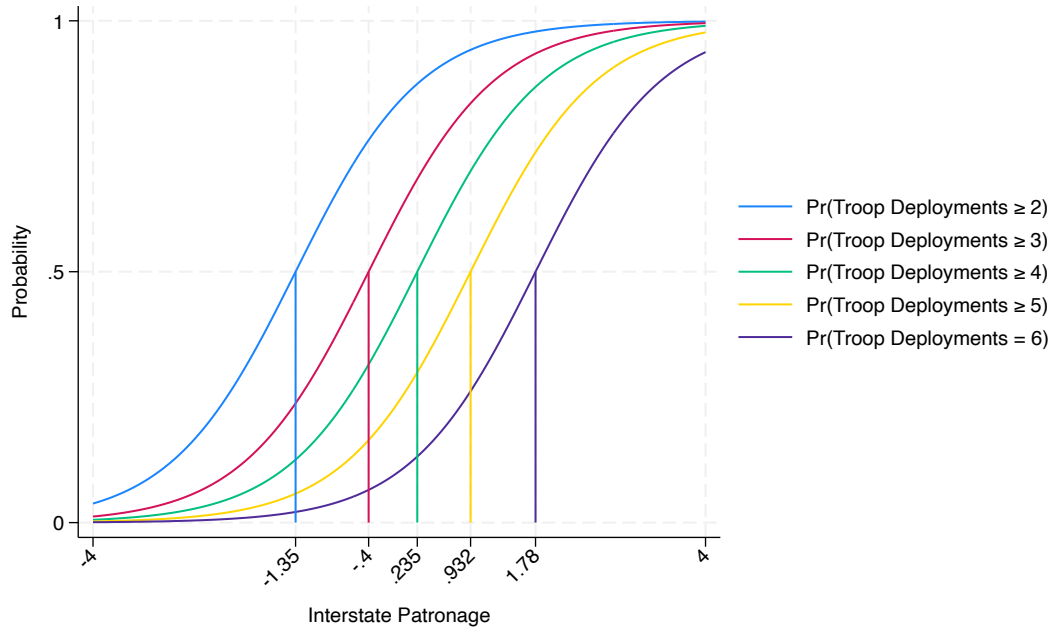
While the difficulty parameters of the *Defense Cooperation*, *Troop Deployments*, and *IMET Funding* variables are quite similar in both models, the other three variables

differ in relatively substantial ways when comparing the results of the original and revised models. First, the difficulty parameters of the *Foreign Military Financing*

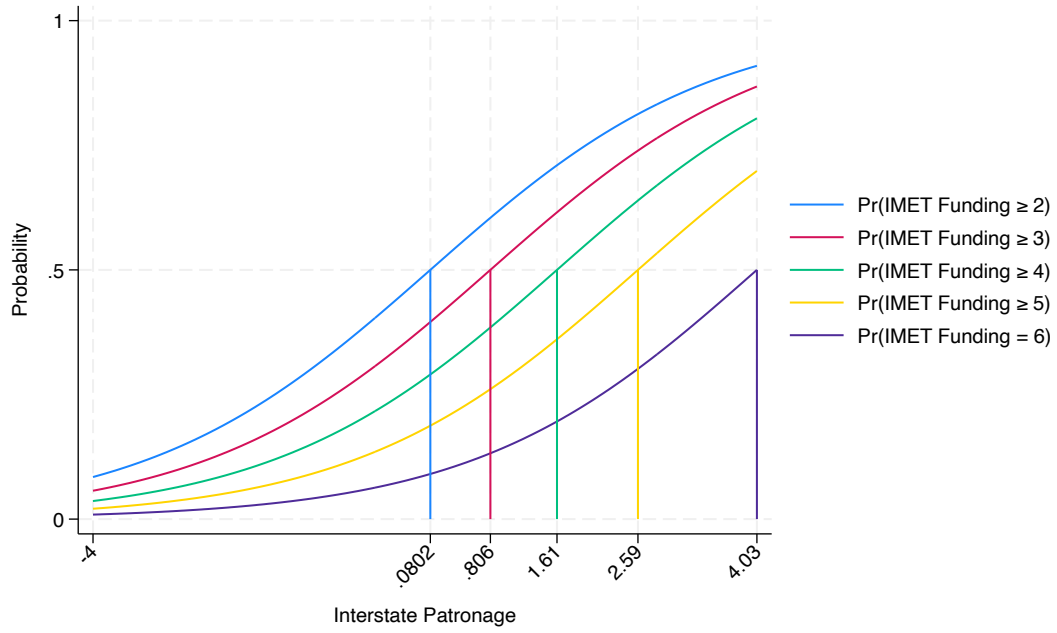
**Table 3A: Item Characteristic Curve, Defense Cooperation Agreements (*De Facto*)**



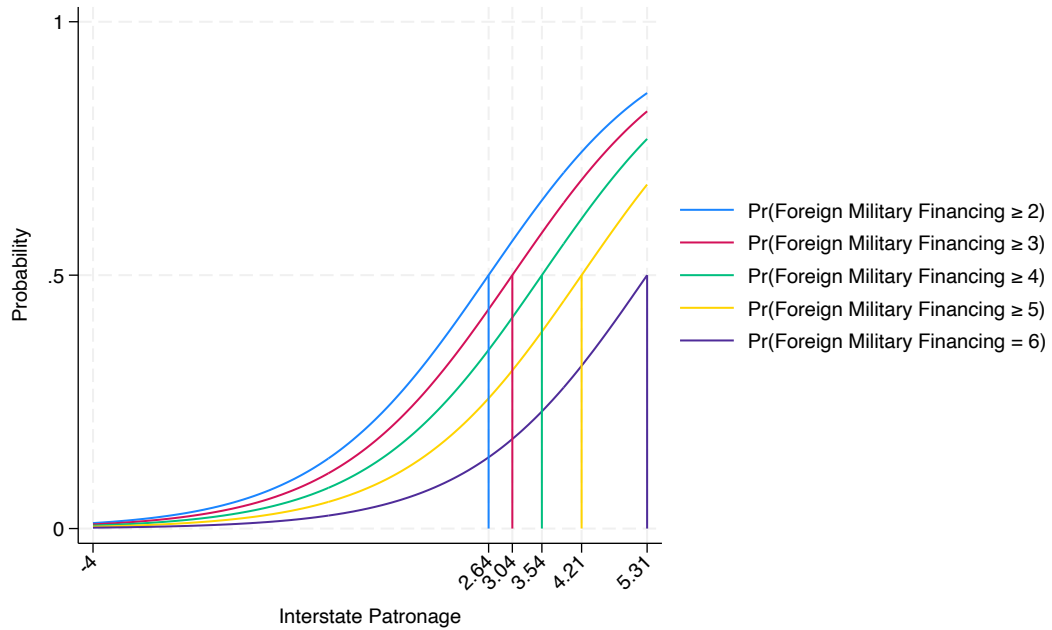
**Table 3B: Item Characteristic Curve, Troop Deployments (*De Facto*)**



**Table 3C: Item Characteristic Curve, IMET Funding (*De Facto*)**

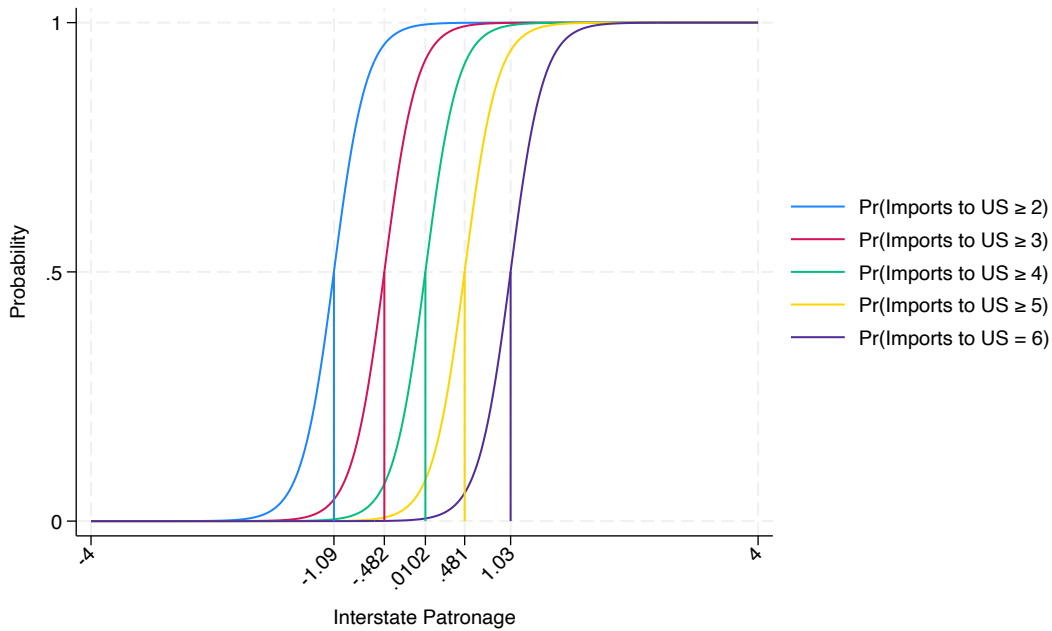


**Table 3D: Item Characteristic Curve, Foreign Military Financing (*De Facto*)**





**Table 3E: Item Characteristic Curve, Imports to US (*De Facto*)**



variable are smaller and more closely spread in the *de facto* model. Recall that, in the *de jure* model, the *Foreign Military Financing* variable’s difficulty parameters began at 3.09 and extended up to 6.29, with the intermediate cutoff points being 3.57, 4.16, and 4.96. In the *de facto* model, the cutoff points begin at 2.64 and extend to 5.31, with the intermediate points at 3.04, 5.43, and 4.21. Thus, in the *de facto* model, not only are the cutoff points lower (and in theory, more realistic), they are also slightly closer together, meaning that the model is perhaps better at identifying and classifying varying levels of the latent trait.

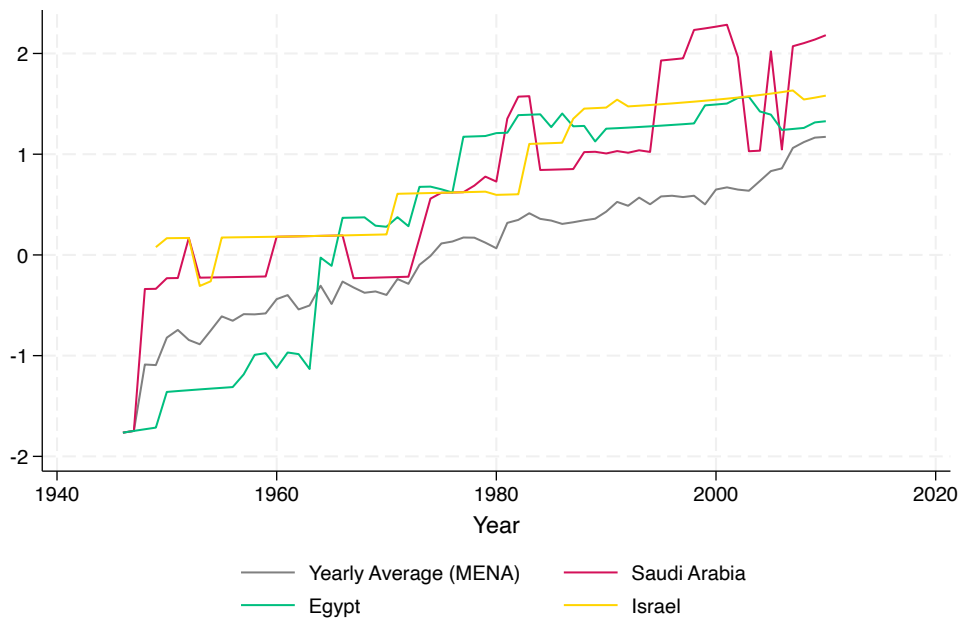
The remaining variable – *Imports to US* – also has difficulty parameters that differ substantially across both models under consideration. In the original model, the difficulty parameters range from -1.68 to 1.54, with intermediate cutoff points at -.77, -.003, and .68. In the *de facto* model, the difficulty parameters range from -1.09 to +1.03, with

intermediate cutoff points at -.48, .01, and .48. The *de facto* model's difficulty parameters are spread together in a closer manner than they are in the *de jure* model. However, the distances between each cutoff point are also closer, indicating that the *de facto* model is perhaps better at differentiating between observations with varying levels of the latent trait, given their value for the *Imports to US* variable. A final consideration worth noting is that in the *de facto* model, the discrimination parameter (slope) of each line for *Imports to US* is steeper than the corresponding graph in the *de jure* model. The increase in steepness is a reflection of the fact that the discrimination parameter is higher in the *de facto* model than the *de jure* model.

While there are slight differences in the statistical results between the original and revised IRT models, it is more interesting and informative to compare the estimates of interstate patronage from each model. **Figure 4A** in the **Appendix** displays the *de facto* model's estimates of interstate patronage from the United States, averaged by country for the entire period under consideration (1946-2010). A few considerations are worth noting. The most notable difference in the rankings of patronage recipients between the *de facto* and *de jure* models is the ascendance of those countries that have a "special" – or more strategically flexible – relationship with the United States in the *de facto* model. Countries such as Egypt, Morocco, Saudi Arabia, Israel, Indonesia, and Pakistan are located significantly higher on the list of patronage recipients in the *de facto* model compared to the *de jure* model. This makes sense intuitively, given that the *de facto* model measures the more strategically flexible forms of support that flow from the United States to various countries around the globe, and these countries are some of the largest beneficiaries of this type of support. For instance, Pakistan has been a large

recipient of various forms of military and political aid from the United States for decades, particularly due to its proximity to, and stance towards, some of the United States' strategic interests in the Middle Eastern region (such as terrorism). Similarly, Southeast Asian countries such as Indonesia and the Philippines have been in the circle of the United States for decades, playing the role of regional proxies (or balancers) in the Asian region in the United States' quest to extend influence abroad and advance its foreign policy goals. The previous section touched on the importance of countries such as Israel and Saudi Arabia to the United States – their position in the ranking of the *de facto* model's estimates provides support for the idea that their relationship with the United States is more strategically flexible and thus better represented by the *de facto* model rather than the *de jure* model. Figure 4B displays the yearly average of patronage from the United States to Egypt, Saudi Arabia, and Israel.

**Figure 4B: Patronage (*De Facto*), Yearly Average for Egypt, Saudi Arabia, and Israel (1946-2010)**



Another interesting result in the *de facto* model is that a number of African countries are ranked relatively high in relation to their position in the original model. Ethiopia, for example, is ranked much higher in the *de facto* model than the *de jure* model. Nigeria, Kenya, and the Democratic Republic of the Congo are also ranked much higher in the *de facto* model than the original model. This also makes sense intuitively. Historically, African countries have struggled to receive the same institutional forms of support and assurance from the United States, and as a result, have relied on more *de facto* forms of support from the United States such as military aid and various forms of trade. Thus, it makes sense intuitively to see the African countries ranked relatively higher on the *de facto* model's results when compared to the model with more codified and institutional (or *de jure*) forms of support included in the mix of variables. Moreover, in recent years, Africa has been the focus of significant efforts by the United States to extend its influence, mostly due to Africa's role as an arena of competition with China, as well as African countries' inability to control extremism and other forms of security concerns.

It is also worth mentioning the countries that are ranked lower in the results of the *de facto* model versus the *de jure* model. One interesting finding is that in the *de facto* model, traditional allies of the United States – such as those in Western Europe – are generally ranked lower than they are in the *de jure* model. For instance, Belgium is ranked relatively high in the original model but is located near the middle of the pack in the *de facto* model. A more dramatic example is that of Luxembourg – in the *de jure* model, the country is located near the top quarter of the rankings with other Western European countries. Again, these findings make sense intuitively, given that Western

European countries have much closer institutional ties with the United States. Moreover, these countries do not merit strategic flexibility due to their stable nature and close ideological/historical ties with the United States. In turn, it is not surprising to see them slip to a lower position in the *de facto* model. It should be noted, however, that Germany occupies a much higher position in the *de facto* model than the *de jure* model – perhaps this is due to the influence of more a strategically-flexible relationship between the United States and Germany, particularly in relation to other Western European countries.

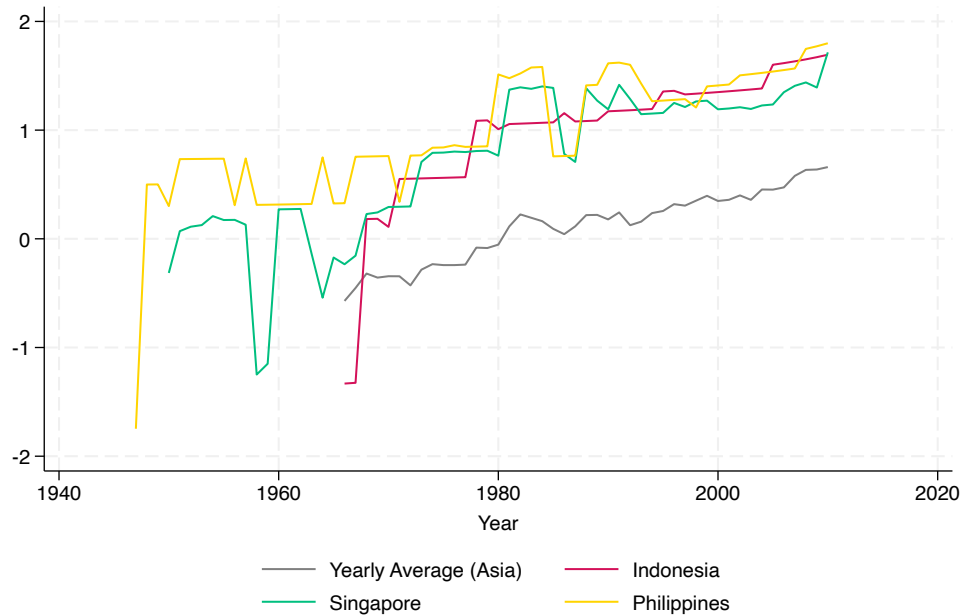
**Figures 4C-4E** in the **Appendix** display the country-level averages of the *de facto* model's estimates of patronage for three decades within the period under consideration: 1960-1969, 1980-1989, and 2000-2010. The time-series graphs in the next few paragraphs (Figures 4F and 4G) compare several selections of countries in Africa and Asia with the yearly average of *de facto* patronage for the 1946-2010 period. It is worth first briefly considering how different countries move in the overall rankings of *de facto* patronage recipients across decades, particularly in relation to their movement across decades in the *de jure* model. In the 1960s, a number of countries with more strategically flexible – or “special” – relationships with the United States are ranked higher in the *de facto* model than the *de jure* model. These countries include Ethiopia, India, Iran, Libya, Morocco, and Venezuela (among others). It makes sense for these countries to be ranked higher in the *de facto* model rather than the original model due to their relationship with the United States being characterized by more short-term arrangements that are targeted toward achieving short-term foreign policy goals rather than long-term foreign policy agendas. In the 1980s, some different countries find themselves near the top of the *de facto* rankings when compared to their position in the

original model during the same period. These countries include Egypt, Indonesia, Malaysia, and Saudi Arabia. The ascendance of these countries signals their increased importance to the United States' foreign policy goals during the height of the Cold War. Indonesia, for instance, became a close partner of the United States after the East Timor Crisis and the resultant increase in American aid to the country (Smith 2003). On the other hand, Malaysia has been more strategically important than other countries in the region due to its economic strength – economic interests have long led the United States to support certain countries so it should not be surprising to see Malaysia's trade with the United States as strategically important in the context of interstate patronage.

In the 2000s, countries such as Egypt, India, and Israel continue their climb up the *de facto* rankings, an insight that illustrates the continued (and growing) importance of these countries to the United States' interests in the Middle East and South Asia. A couple of other countries are also notable for their ascendance in the patronage rankings such as Singapore and South Africa. Both of these countries have had relations with the United States for a long time – Singapore due to its anti-Communist/anti-Chinese stance and South Africa due to its European origins. However, in the post-Cold War era these countries have been the focus of vast economic interactions as America have shifted its focus to Africa and East Asia in the post-Cold War era. **Figures 4F and 4G** display the yearly value of patronage for Singapore, Indonesia, and the Philippines (in Figure 4F), and Nigeria, Kenya, and the DRC (in Figure 4G) in relation to the *de facto* averages of interstate patronage for the Asian and African regions. The graphs illustrate the relative importance for these countries for their respective regions.

Generally, the temporal dynamic of the *de facto* model is that, when compared to the original model, traditional partners stay near the top in each decade but are eventually surpassed by more strategically flexible partners over time. However, it is also true that

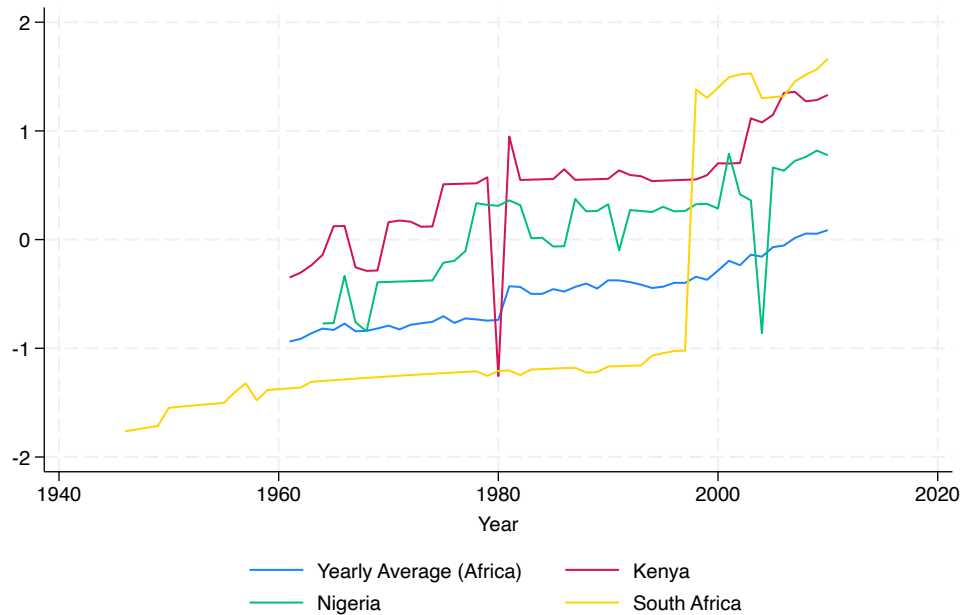
**Figure 4F: Patronage (*De Facto*), Yearly Average for Singapore, Indonesia, and the Philippines**



these strategically flexible partners can fall lower in the rankings as their strategic importance and political orientation to the United States shifts over time. For instance, Venezuela is located near the top of the *de facto* rankings in the 1960s but is located much lower in the next two decades under consideration. The most plausible reason for this shift is the changing dynamics of the relationship in the post-1960 era due to the two countries' differing visions of the international drug trade and the ascendance of left-wing nationalism in Venezuela in the late 1990s. Regionally, throughout the entire period, Latin America and Western Europe are represented near the top of the rankings, indicating their continued importance to the United States' foreign efforts regardless of

the decade under consideration. In the 1980s, it is clear that the Asian and the Middle Eastern/North African regions become more important to the United States as countries from this region are located relatively higher in the 1980s than the previous decade under consideration. In the post-Cold War era, Africa and East Asia become more important to the United States' economic and security interests, with countries such as South Africa and Singapore being located "highest" in the 2000-2010 decade.

**Figure 4G: Patronage (*De Facto*), Yearly Average for Nigeria, Kenya, and South Africa**



## V. Conclusion and Empirical Implications

The IRT models' results and estimates presented in this chapter shed light on the dynamics of patronage from the United States to every country between over the 1946-2010 period. The original, full model analyzes the cumulative impact of eight wide-ranging (*de jure* and *de facto*) indicators across the set of country-year observations. The statistical results of the model provide information regarding the ability of each indicator



to assist in differentiating between observations with varying degrees of the latent trait (discrimination parameter), and the predicted values of the latent trait at which point a particular observation would be expected to fall into different categories of the variable under consideration (difficulty parameters). Together, parameters impart an overall picture of how each variable performs in the model. While most of the variables are relatively unproblematic, there are a couple of indicators to which their inclusion in the model is questionable. The *Currency Association* variable suffers due to its inability to assist in the differentiation of observations with varying levels of patronage from the United States, while the *Alliance Obligations* and *Foreign Military Financing* variables have problematic difficulty parameters. This chapter also presents the results of a revised model that includes the tangible and strategically flexible indicators of patronage but excludes the more binding indicators. A *de facto* model is developed in order to reveal the dynamics of those relationships in which a more strategically flexible form of patronage may be present. In the *de facto* model, the five indicators perform consistently and as expected logically.

The patronage estimates arising from the two models produce some interesting insights surrounding the dynamics of interstate patronage in both a wide-ranging, *de jure* context and a more strategically flexible, or *de facto* context. In both models, the estimates represent the relative amount of patronage from the United States on a yearly basis. In the *de jure* model, the estimates are the product of a comprehensive conceptualization and measurement of patronage by which institutional variables such as alliance agreements and UN voting are part of a wide-ranging foreign policy effort to lend support to client regimes. In the *de facto* model, the estimates aim to capture more

short-lived and informal relationships between the United States and potential clients around the globe. The estimates produced both models reveal that there are distinct groups of patronage recipients when ranking them in relation to each other (Western Europe and Latin America near the top, for example) as well as countries that make relatively large movements across decades (such as Egypt, Israel, or Saudi Arabia).

The modeling and estimation of interstate patronage is interesting in its own right – however, given the continuous and wide-ranging nature of the measurement (temporally and spatially), it is worth thinking through some empirical applications and implications of the measurement. As outlined in previous chapters, the patronage measurement is centered around the idea that assistance from a patron (in this case, the United States) increases the ability of the client regime to maintain power domestically. Naturally, this project’s empirical application of the patronage measurement analyzes how the receipt of patron support impacts different situations in which a client regime’s domestic power is threatened by regime challengers. Given that the patronage measurement is conceptualized with client security in mind, it makes sense to investigate how (and why) the reception of patronage from the United States impacts client behavior in the context of regime insecurity.

## CHAPTER 4

### INTERSTATE PATRONAGE AND CLIENT STATE REPRESSION

#### **I. Introduction**

To this point, the main focus of the project has been the conceptualization and measurement of interstate patronage. The previous two chapters developed and presented the results of two empirical models of interstate patronage that is comprised of a number of indicators of patron support from the United States to every country between the 1946-2010 period. The results indicate that the dynamics of interstate patronage vary depending on the recipient country, temporal period, and empirical model under consideration. Moreover, the analysis of the patronage measurement raises questions about the empirical implications of the patronage phenomenon in an array of political contexts. As a next step, it is worth exploring whether the changing dynamics between the United States and its associated clients around the world lead to relevant changes in the behavior of client regimes.

This project argues that the benefits of patronage lead client regimes to engage in higher levels of repression than similarly situation non-client regimes, but only under certain conditions. The remainder of this chapter develops several empirical models to test the theoretical predictions outlined in the first chapter. In the next section, a condensed version of the project's theory and hypotheses is presented. The next section develops the key methods, variables, and data sources that are leveraged in order to empirically test the project's theoretical predictions. The chapter then turns to an analysis and discussion of the empirical results before offering a few concluding remarks.

## II. Theory/Hypotheses

The central focus of the project's empirical analysis is the impact of patron support on the use of repression by the client regime. Generally, the presence of interstate patronage bolsters the repressive capacity of client regimes and increases their willingness to utilize physical repression against their internal population. Repressive capacity refers to the ability of a client regime's repressive apparatus to effectively carry out a repressive order from the regime's leadership. Two elements of a regime's repressive capacity are impacted by the receipt of patronage – the *scope* and *cohesion* of the regime's repressive agents (Way and Levitsky 2006). Scope refers to the extent to which the regime can engage in various forms of repression across the regime's territory. Cohesion refers to the extent to which a regime's repressive agents are loyal to the regime and willing to engage in physical violence at the regime's request. As a generality, regimes with high scope and cohesion are typically the most effective at repressing and managing opposition within their borders because they can engage in a wide variety of repressive activities across the entirety of the regime's physical territory.

This project argues that the presence of patron support bolsters the scope and cohesion of the client regime's repressive apparatus through two avenues. First, the receipt of economic, military, and political resources increases the capacity of the regime's repressive agents to carry out the surveillance and repression of the regime's opponents. The scope and cohesion of a regime's repressive apparatus are determined (at least in part) by the extent of resources that can be directed towards repressive activities such as surveillance, training, etc. The resources and backing afforded by a patron thus directly contribute to the capacity of the regime to engage in repression. This is

particularly true when a patron's economic and military assistance is considered (Blakeley 2006; Bell et al. 2017; Omelicheva et al. 2017). For example, it is not difficult to imagine how economic aid, arms transfers, and military training from a patron to a client may be utilized to fund more repressive agents and carry out more repressive operations. The resources and backing that a client receives from its patron can also bolster the internal cohesion of the regime's individuals and institutions that are tasked with carrying out repression. Benefits such as additional technology/funding and an intangible sense of backing from the patron lead regime insiders and its repressive agents to have more faith in the regime to maintain and potentially increase its domestic power.

Thus, patronage increases the scope and cohesion of the regime's repressive apparatus. In turn, the regime is more *capable* of engaging in repression against its domestic population. However, there is a second consideration that patronage can impact: the willingness of the regime to engage in repression. This project argues that the receipt of resources and backing from a patron leads client states to be more willing to engage in repression by reducing their reliance on the population for legitimacy and revenue. In other words, patronage increases the willingness of a client regime to engage in repression because a patron's resources and backing insulate the regime from needing to satisfy its domestic constituency. In an authoritarian setting, this means that the client regime is more willing to engage in repression against "the masses" when it receives patron support because citizen support is non-essential and, in the case of backlash, the regime has additional resources to quell the opposition. The key line of literature that supports this notion surrounds the resource curse and rentier states, both of which are situations in which some form of unearned income reduces the accountability of the

regime to its citizens and also serves to bolster the regime's grip on power (Ross 2001; Jensen and Wantchekon 2004; Smith 2004; Ahmed 2012). Additional research on the impact of unearned income finds that reduced accountability to a regime's population leads them to engage in higher rates of repression (DeMeritt and Young 2015; Girod et al. 2018).

Overall, interstate patronage is a direct means of bolstering the repressive capacity of client regimes and allows them to gain access to unearned income. These points lead to the first hypothesis:

**H1: As interstate patronage increases, client regimes engage in higher degrees of physical repression.**

It is worth briefly considering the role of strategy when it comes to patron support of a client regime, and the subsequent impact of a patron's strategic goals on client regime repression. The conceptualization of patronage presented in the first chapter of this project makes a direct connection between the allocation of military, economic, and political support and the strategic goals of the patron state. Throughout history, instances of interstate patronage have been motivated by the strategic goals of the patron state and its desire to bring about one (or more) desired policy outcomes. For example, during the Cold War, the United States allocated resources to various countries throughout the world due to security-oriented motivations that were broadly focused on containing the spread of communism across the world. In the early 2000s, the United States extended its "patronage" to a number of Middle Eastern, North African, and Southern Asian countries in order to stop the spread of religious extremism and terrorism. In more recent years, the United States has bolstered its relationship with countries in East Asia, the Middle East,

and Eastern/Southern Europe to confront the rising security threats of China, Iran, and Russia.

What is the implication of a patron's strategic goals for human rights in client regimes? It cannot be denied that the strategic goals of a patron have an influence on the extent to which a client regime utilizes its newfound resources for repressive purposes. In general, the most intuitive situation in which a client regime would have more freedom to engage in repression after receiving a patron's resources is that in which the patron is supplying resources for security-related purposes. There are at least two main reasons for this. First, security-oriented patronage is more likely to be directly related to the allocation of weapons, military training, and logistical support than other motivations for patronage. These types of resources can be used quite readily to engage in repressive behavior against regime opponents. Furthermore, situations in which a patron is particularly concerned about security are probably more likely to be situations in which a patron turns a blind eye to human rights abuses as long as its security preferences are being met.

On the other hand, if a patron is not particularly concerned with security but rather focused on issues of economic and/or political importance (such as economic liberalization or democratization), it is not implausible to think that the patron would have a problem with its resources being utilized for repressive purposes. Indeed, in the post-Cold War era much impetus has been put on economic and political liberalization across the world. As such, human rights abuses that are made possible by a patron's resources and backing, at least in part, have fallen out of favor and can result in backlash

from the patron, particularly if there is not a security-related issue in the proximity of the client regime.

This is all to say that the strategic goals of a patron surely matter in affecting the use of state repression by client regimes – however, it is a bit unclear when, where, and why certain goals result in higher or lower levels of repression in client settings. This project aims to shed some light on these considerations by splitting the main empirical analysis into smaller subsets focusing on the Cold War and the post-Cold War era. The idea is that in the Cold War, the United States had an almost singular focus on ensuring that its security-related desires were being met by client regimes. In the post-Cold War era, however, the United States has been much more focused on economic and political liberalization, two processes that are inherently associated with lower levels of state repression by client regimes. Thus, the empirical analysis should show divergent effects of interstate patronage on human rights across these two periods. However, this project does not make a definitive hypothetical prediction regarding these dynamics given that this could be the motivation for a future analysis and the fact that security-related patronage is still a dominant force in the United States' foreign policy in the post-Cold War era.

While interstate patronage may, on average, lead client regimes to engage in higher degrees of repression, there are a few variable elements between clients that are worth considering. Two elements in particular merit attention – the degree of institutionalization of the client regime and the nature of the threat facing the client regime when it engages in repression. While authoritarian regimes all share the feature of being nondemocratic and ruled by an inner circle of elites, autocratic regimes often differ



in important ways, particularly when considering a regime's repressive behavior (Svolik 2012). One differentiating characteristic among authoritarian regimes is the degree of the regime's institutionalization versus personalization. Institutionalization refers to the extent that the regime operates based on a set of formal and/or informal rules, norms, and procedures. Personalization is essentially the opposite – personalized regimes operate based on the preferences and directives of the dictator leading the regime.

In contrast to the monolithic nature of early analyses of authoritarian regimes, recent work on comparative authoritarianism has revealed important variation in the degree to which authoritarian regimes are institutionalized. This variation in institutionalization has implications for the behavior of authoritarian regimes, both in regard to their general strategy of opposition management and their specific repressive strategy. Broadly speaking, there are three ways in which autocratic institutions help regimes manage threats and maintain power. Political institutions – such as political parties, legislatures, etc. – allow autocratic regimes to signal their strength and influence in society, gather information on potential opposition, and manage threats through nonviolent means (Brancati 2014). These advantages allow the regime to be flexible when handling regime threats – challengers can be deterred from challenging the regime due to its strength and cohesion, coopted into the regime through institutional means, or repressed using information gathered through institutional channels (Magaloni 2006, Gandhi and Przeworski 2007; Gandhi 2008; Svolik 2012, Lust 2009; Ezrow and Frantz 2011).

Ultimately, institutions have an impact on the repressive behavior of authoritarian regimes. The presence of formal and informal rules, norms, and procedures that guide the

day-to-day operation of the regime leads members of the regime to have more certainty in the ability of the regime to manage threats and sustain its power. In turn, members of the regime have a heightened sense of cohesion and confidence that their behavior will not be met with negative consequences or backlash from civilians. Moreover, the information gathering function of institutions increases the quality and efficiency of potential repressive activities carried out by the regime. Altogether, authoritarian institutions impact the cohesion/loyalty of the repressive apparatus and the quality of information that the regime can gather on opposition threats. These considerations have led scholars to find that institutionalized authoritarian regimes are generally less repressive than personalized regimes although this finding might be due to the capacity of institutionalized regimes to engage in more selective – and thus efficient – forms of repression than personalized regimes (Frantz and Kendall-Taylor 2014; Ritter 2014; Rivera 2017; Frantz et al. 2020).

It has been argued that interstate patronage increases the *general* propensity of client regimes to engage in repression – the increased capacity and willingness to repress afforded by a patron’s support leads plausibly to higher levels of state repression. The question now becomes: How do varying degrees of institutionalization interact with interstate patronage to influence state repression? In short, this analysis argues that interstate patronage to institutionalized client regimes leads them to engage in less physical repression than personalized client regimes. The reasoning behind this position comes from the earlier discussion regarding the resources that patronage affords to client regimes. The resources that a patron provides can be utilized by an institutionalized regime to gather information, motivate a repressive apparatus, and coopt potential

challengers via institutional means. As a result, an institutionalized regime that receives patronage can utilize its newfound resources to advance its interests through nonviolent means and more readily manage opposition threats due to the extent of the regime's integration into society. Put differently, patronage allows institutionalized regimes to extend their comparative advantage in managing opposition threats through a mix of violent and nonviolent strategies.

However, it is interesting to think through potential ways in which patronage may still increase certain facets of repression within an institutionalized client regime. In this argument, it is expected that patronage will increase the capacity of institutionalized regimes to engage in more sophisticated forms of opposition management that mix violent and nonviolent strategies. Yet, even if institutionalized regimes are less repressive generally than personalized regimes, it is possible that institutionalized regimes may engage in different repressive strategies when dealing with opposition threats. These strategies might also be directly impacted by the resources afforded by interstate patronage.

The project's second hypothesis follows from this discussion:

**H2: As the degree of patronage increases, institutionalized client regimes engage in lower degrees of physical repression than personalized client regimes.**

This project also thinks through different scenarios in which a client regime would be most likely to use the extra resources and backing from its patron supporter for repressive purposes. Despite important differences, all political regimes share a fundamental interest in maintaining their power. Protests, external crises, and internal rivalries can be destabilizing for a client regime and can reduce the regime's likelihood of

political survival. Threats to a client regime's power may upset the balance of power and distribution of power within a particular society, leading client regimes to take substantial measures to maintain control. In turn, elite insiders often reap considerable resources from their position in a political regime and devote considerable resources to managing domestic opposition through coercion and/or cooptation (Frugé 2019; Kaire 2019).

Patronage provides the opportunity for extra repressive capacity that may prove useful in situations in which the regime's survival is uncertain.

This analysis focuses on two additional scenarios in which a client regime's security may be under threat from internal challengers. The differentiating characteristic between the two scenarios is whether the challenge is violent (or nonviolent) in nature. The nature of the threat refers to the extent to which a client regime's faces a nonviolent or violent form of opposition. This consideration is critical because the nature or intensity of the challenge may lead to certain behaviors by the client regime, particularly in the context of state repression. For instance, a client regime may face a largely nonviolent instance of mass mobilization. On the other hand, a client regime may face a violent challenge in the form of an armed rebellion or insurgency. Thinking through the influence of interstate patronage in each of these situations may reveal interesting patterns of repression in the context of heightened security salience for the client regime.

The first situation this project focuses on is an internal nonviolent threat to the regime: a mass protest. A mass protest involves hundreds or, in major cases, thousands of people organizing to nonviolently challenge a political regime. Mass protests can be particularly destabilizing for autocratic regimes for several reasons. Well-organized nonviolent resistance campaigns can attract international attention, divide regime elites,

and make it nearly impossible for the regime to organize its repressive apparatus in response to mobilization (Stephan and Chenoweth 2008; Chenoweth and Stephan 2011; Cunningham et al. 2017). Naturally, autocratic regimes have a keen interest in quelling forms of mass protest before they can exert negative forces on the regime's ability to remain in power.

A wide range of scholars have found that autocratic regimes are particularly responsive to mass mobilization – both real and potential (Moore 1998; Carey 2006; 2010; Pierskalla 2010). However, several factors may hinder the regime from efficiently quelling the protest through repression. For instance, in reviewing the variation in repressive behavior in the post-Cold War era, some scholars have found that cohesion, loyalty, and perceived protection after repression are critical factors in facilitating the effective use of repression in regime crises, particularly those involving masses of civilians (Way and Levitsky 2006; Levitsky and Way 2012; Brownlee et al. 2015). Depending on these factors, regimes may respond to mass mobilization with different intensities and scopes of repression.

In general, it is reasonable to assume that regimes face three related issues when it comes to quelling a nonviolent mobilization campaign. First, regardless of the size and scope of the mobilization, regimes have an interest in identifying and demobilizing the leaders of a mass opposition movement. By definition, leaders organize and galvanize civilian populations in support of an anti-regime cause. In turn, if possible, regimes aim to identify and eliminate opposition leaders from the movement in an effort to disrupt the movement by removing its leadership (Sullivan 2016). Moreover, eliminating opposition leaders quietly can help the regime avoid unnecessarily repressing larger swaths of

population, an action that might invite further opposition. Yet, identifying, monitoring, and removing specific individuals from a modern society requires extensive organization and resources on the part of the regime (Slater and Fenner 2011). Patronage provides an obvious pathway for clients to engage in the selective repression of nonviolent opposition leaders because it provides the extra resources necessary to engage in higher-quality monitoring and more accurate forms of repression.

Moreover, patronage helps client regimes solve two additional challenges that come with repressing nonviolent regime challenges – the potential of negative backlash that may result in a more intense anti-regime movement (Francisco 2004; Sullivan and Davenport 2017) and making sure that their repressive agents are loyal and will carry out their orders to engage in physical repression. Repressing a nonviolent campaign can have the unintended consequence of motivating non-participants to engage in the movement and can make the existing movement even more steadfast in their opposition, both of which present substantial challenges for the regime. Due to this, regimes calculate their ability to handle a potential backlash if their repressive actions spark more anti-regime sentiment before engaging in particular forms of repression. The extra resources and backing provided by a patron can help the regime protect itself from any negative backlash if mass repression is on the table.

In addition, the individuals tasked with carrying out the state's violence need to have some level of assurance that the regime is going to continue surviving and that the agents will not face negative consequences for repressing the regime's citizens. Patronage is supremely suited to addressing this problem that autocratic regimes face. Given that patronage is, by definition, from one of the most powerful actors in the world, there is a

substantial level of backing that is provided to any regime that becomes a client. The tacit protection of a particular regime can be a powerful signal for the individuals within a regime that are tasked with exacting violence on the population. Indeed, scholars have found that having a patron increases the durability of the regime while also allowing the regime more leeway to incentivize its repressive agents to stay loyal to the regime (Ritter 2014; Tolstrup et al. 2019; Casey 2020).

Thus, patronage is especially useful in situations in which an autocratic regime faces nonviolent mass-based opposition. What are the implications for repression? The regime faces difficulty in identifying, monitoring, and removing opposition leaders without sparking backlash and while maintaining the loyalty of its repressive forces. Patronage allows regimes to increase the accuracy and efficiency of its repressive response to mass-based nonviolent challenges by solving each of these challenges facing the regime. Moreover, since the threat in this scenario is not from within the regime, there is little elite in-fighting that could reduce the ability of the repressive apparatus to function as efficiently as possible. As a result, regimes should be able to carry out specific, targeted repression when patron support is present. Therefore, this project hypothesizes the following:

**H3: If a client regime experiences mass mobilization, the client regime will engage in higher degrees of physical repression than similarly situated non-client regimes.**

The second situation this project focuses on is an internal violent challenge to the regime: an armed rebellion. Armed rebellions are defined as violent organized challenges to the state that have the ultimate goal of replacing the current regime with a new one. Armed rebellions present uniquely challenging situations for any political regime – the

presence of armed, organized, anti-regime actors threatens the regime's ability to quell dissent and necessitates a repressive response to some degree. More specifically, regimes face three challenges when dealing with an armed rebellion: preparing and dealing with organized anti-regime violence; monitoring and controlling the population while fighting; and ensuring loyalty and regime durability during crisis (Fearon and Laitin 2003; Hultquist 2017). Immediately, the presence of violence makes an armed rebellion a more urgent threat to the regime than other types of challenges – moreover, the existence of an organized rebellion indicates a substantial level of (at least tacit) support among the population that is closest to the rebel group's ideology, ethnicity, geographic location, etc. (Ottmann 2017).

Under normal circumstances, the pressures from an armed rebellion can be particularly debilitating for a political regime – however, patronage can help client regimes solve these problems in times of civil strife. Namely, patronage provides extra resources and support that the regime can utilize to bolster its ability to fight the organized rebellion and repress the population that is closest (figuratively) to the rebel group. The influx of economic, military, and political aid can provide the extra boost a client regime needs to manage a domestic conflict and can have significant implications for repression during times of armed rebellion. By definition, patronage increases the capacity of the client regime to engage in physical repression. This increased capacity can be leveraged to manage the challenges of managing an armed rebellion.

The difficult challenge of managing both the organized (rebel group) and unorganized (civilian) not only divides resources but can also divide internal decision-makers, leading to a less effective repressive apparatus that cannot identify, monitor, and



remove key leaders of the opposition movement with efficiency. In addition, the presence of a large potential recruitment pool in civil conflicts leads the regime to take a more collective approach to repression in order to limit the growth of the violent opposition movement (Llyall 2009). Finally, although elites may be divided internally about how to manage dissent, the regime is generally in lockstep with regard to its desire to maintain power. Thus, while the regime may not be able to selectively repress critical individuals within the opposition movement, the regime is likely still able to maintain loyalty among its repressive agents, particularly in the presence of patronage. Overall, then, the urgency and nature of an armed rebellion leads regimes to take an indiscriminate approach to quelling dissent. Critically, this repression is also likely more intense and widespread than a similarly situated non-client state. Thus, the final hypothesis:

**H4: If a client regime experiences an armed rebellion, the client regime will engage in higher degrees of physical repression than similarly situated non-client regimes.**

### **III. Methods and Data**

This section develops an empirical model to test the theoretical predictions presented in the preceding section. The following paragraphs describe the variables and methods that are utilized in the empirical analysis. Before continuing, it is worth briefly mentioning the case universe under consideration. In this analysis, the case universe is comprised of 7,889 country-year observations from the Geddes et al. (2014) Political Regimes Dataset (Geddes et al. 2014). The country-year observations in this analysis are comprised of all autocratic and democratic regimes (except the United States) between 1946-2010.

For the variables in the analysis, a good starting point is the main dependent variable— physical state repression. As stated elsewhere in this project, physical state repression refers to acts of violence perpetrated by a state government against citizens who may (or may not) be dissenting against the regime. Instances of state repression include kidnappings, torture, and extrajudicial killings, and the targets of state repression can be specific (for instance, the leader of an anti-regime organization) or broad (for instance, demonstrators at a mass protest event). The measure of state repression used in this analysis aims to capture the general quality of repressive behavior in a particular regime for any given year in the analysis (1946-2010). More specifically, this general indicator of repressive behavior measures the quality of human rights performance in a given country-year observation based on multiple sources of events-based and standards-based reports on a country’s propensity to engage in physical repression. This indicator is a continuous measurement, with larger values indicating a “better” degree of human rights performance while smaller values indicate a “worse” degree of human rights performance for the observation. Thus, smaller (or decreasing) values for the dependent variable correspond to “more” state repression amid worsening human rights in the country under consideration. Data for this variable come from the Latent Human Rights Scores Volume 4 dataset (Fariss et al. 2020) and cover every country between 1946-2010.

There are four independent variables in this analysis. The primary independent variable is the degree of interstate patronage that a particular country receives in a particular year. Conceptually, this variable represents the extent to which a particular country receives backing from the United States in a year, relative to all other countries in

that year. Data for this variable come from the original measurement of interstate patronage developed in the previous two chapters. In all regression models, this variable is lagged in order to account for the fact that the receipt and implementation of the resources afforded by patronage likely takes a bit of time to have a behavioral impact on physical repression. Put differently, on a general level, it is probable that patronage does not have an immediate impact in the repressive behavior of the recipient regime. Money, weapons, and other forms of resources take time to receive, disperse, and use. As such, the patronage estimates in the model are lagged by one year with the purpose of uncovering a more realistic relationship between the receipt of patronage and subsequent changes in repressive behavior.

In the main regression analysis (H1), estimates from both the *de jure* and *de facto* models of interstate patronage are utilized as the independent variable in separate regression analyses. For the remaining regression models (H2-H4), only the *de facto* estimates of interstate patronage are utilized due to their closer connection to the “flexible” and tangible aspects of interstate patronage that might be more closely tied to repressive behavior. Data for this variable cover the 1946-2010 period for every country in the case universe, and this variable is continuous. More detailed information for this variable can be found in the previous two chapters.

The remaining three independent variables interact with the degree of patronage that a country receives to determine a country’s repressive behavior. These variables follow from the second, third, and fourth hypotheses presented in the theoretical discussion. The first of the ancillary variables is the degree of institutionalization found in a particular client regime for a given year in the 1946-2010 period. Conceptually, the

degree of institutionalization refers to the extent to which a particular political regime is structured and guided by a set of predetermined and relatively stable rules, procedures, and norms for exercising political authority. Data for this variable come from the Political Regime Dataset (Geddes et al. 2014) and are binary, country-year entries. The measurement scheme is as follows. For a given country and year, the observation receives a “1” if the political regime is democratic, or alternatively, if the regime is a party-based or monarchical autocracy. If the political regime is none of these, the regime receives a “0” for the observation. The reasoning for this coding scheme is rather straightforward. In each of these regime settings, political authority is structured by a relatively stable and effective set of rules, procedures, and norms. For instance, democracies are defined by their adherence to rules and procedures that enable citizens to exercise their preferences over political outcomes, as well as the separation of different branches of government in order to ensure a fair and impartial governance system (at least in theory). Thus, democracies generally have a high degree of institutionalization in relation to other types of political regimes.

Moreover, while autocracies are generally less institutionalized than democracies, some autocratic regimes are more institutionalized than others. Party-based and monarchical autocracies are two types of authoritarian regimes that are guided by a relatively stable set of rules, procedures, and norms. Party-based regimes tend to have nominal elections, legislatures, and other “democratic” institutions that are controlled by the dominant party in power. For instance, consider the institutionalization of Mexico’s aptly named Institutional Revolutionary Party (or PRI) or the Chinese Communist Party (CCP). In both settings, elections, legislatures, and other institutions have been created

and maintained by the dominant party for the purpose of managing political authority and potential regime challenges (Brancati 2014). Monarchical autocracies do not have elections to the same extent for obvious reasons but tend to follow a relatively stable set of rules, procedures, and norms that are defined by the monarch and their inner circle. For instance, the Saudi Arabian regime is a hereditary monarchy that, while guided by the monarch, exercises tremendous control over the various legal, judicial, economic, and cultural institutions found within its territory through various members (and allies) of the royal family. On the other hand, personalized autocracies and/or regimes experiencing instability lack the extent of institutionalized power that the other types of regimes in this analysis enjoy. These regimes either exercise power in a capricious manner or lack the institutional structure to manage threats in relatively nonviolent ways.

The next two independent variables correspond to hypotheses three and four. Mass mobilization is conceptualized as the presence of large-scale anti-regime demonstrations/protests in which citizens and opposition leaders are participants. In this analysis, mass mobilization is measured as the number of protests that a particular regime experiences in a given year. While there are several plausible ways to operationalize mass mobilization, this particular measurement is chosen in order to gauge whether the overall frequency of anti-regime demonstrations leads client regimes to engage in higher (or lower) levels of repression in relation to nonclient regimes. Data for this variable come from the Urban Social Disorder (V3) dataset (Thomson et al. 2022) and cover the 1960-2010 period. For each country-year observation, the number of mass mobilization events the country experienced in that year is recorded.

The final independent variable measures the presence of armed rebellion in a given country during a year in the 1946-2010 period. Conceptually, armed rebellion refers to organized violence directed towards the state with the purpose of overturning the existing political regime or seceding from the existing political regime's territory to create a new state. Operationally, this variable is measured in a binary manner in which an observation receives a "1" if there is intrastate conflict occurring within the country's territory that results in at least twenty-five battle-related deaths in a given year. Data for this variable come from the Uppsala Conflict Data Program's Armed Conflict Dataset (V23.1) and cover the entire 1946-2010 period in the current analysis (Gleditsch et al. 2002; Davies et al. 2023).

There are also several control variables in the empirical analysis. These variables are included in the analysis in order to control for potential extraneous influences on the outcome variable under consideration. In other words, the inclusion of these variables is intended to control for alternative explanations surrounding why certain regimes might change their repressive behavior across the 1946-2010 period. The five control variables are as follows. The first control variable is a binary indicator that records whether or not the country under consideration is engaged in an armed conflict with another state in a given year. This variable is included to control for any effects on repression that might arise from being engaged in an interstate conflict. Previous research finds that interstate conflict can lead regimes to be more repressive in order to maintain domestic control and avoid appearing vulnerable to potential opposition groups within the regime's territory (Ritter 2014; Wright 2020; Heffington 2021; Kopp et al. 2023). Data for this variable also come from the Uppsala Conflict Data Program's Armed Conflict Dataset. For any

country-year observation in the analysis, the observation receives a “1” if the country under consideration is engaged in armed interstate conflict with another country (defined as twenty-five battle-related deaths during a year) in the 1946-2010 period. If the country is not engaged in an armed interstate conflict in a given year, the observation receives a “0.”

The next control variable measures another contextual factor that might lead certain regimes to engage in higher (or lower) degrees of physical repression: the degree of ethnic fractionalization in a given country. Ethnic fractionalization refers to the extent to which the ethnic composition of a country’s population is split across various ethnic groups. Previous studies find that ethnic fractionalization can have an impact on a state’s use of physical repression through a number of mechanisms. For instance, ethnic fractionalization can highlight political, economic, and social inequalities that lead the dominant ethnicity to more freely engage in violence and discrimination against subordinate ethnic groups (Rørbæk and Knudson 2017; Ye and Han 2019). Moreover, given that many client regimes are found in developing countries where ethnic tensions are more prevalent than other sociopolitical settings, it is worth including a consideration of ethnic fractionalization. Data for this variable come from the Historical Index of Ethnic Fractionalization and cover the entire 1946-2010 period in the analysis (Dražanová 2020). These data are a continuous measurement that ranges from 0-1. The values for each observation correspond to the likelihood of any two randomly selected individuals in the country under consideration being from the same ethnic group. Higher values indicate a relatively low degree of ethnic fractionalization because there is a high probability that two individuals are from the same ethnic group. Conversely, lower values

indicate a relatively high degree of ethnic fractionalization because there is a low probability that two individuals are from the same ethnic group.

The next control variable aims to account for another contextual factor that can affect levels of physical repression: the durability of a particular regime. Regime durability refers to the quality that some regimes possess that leads them to be long lasting and particularly adept at managing threats to their rule. For example, some regimes have proven their ability to manage domestic and international crises, and not only maintain, but in many cases, consolidate their power over time. Why does regime durability matter for the current analysis of physical repression? Put simply, regimes that are particularly durable often have more avenues of opposition management at their disposal due to their experience at coopting opposition threats and managing dissent through institutional means (Pepinsky 2014). Furthermore, previous studies find that more durable regimes are often better equipped to carry out more sophisticated forms of repression, which leads to various forms of physical repression depending on the particular scenario under consideration (Levitsky and Way 2012; Josua and Edel 2015). Data for this variable come from the Political Regimes Dataset (Geddes et al. 2014) and cover the 1946-2010 period. This variable is measured by recording the age of the regime in the country-year observation under consideration. While age is not a perfect measurement of regime durability, it is not implausible to suggest that younger (or shorter-lasting) regimes are not, on average, as durable as older (or longer-lasting) regimes. Thus, the age of a particular regime is a reasonable proxy for the durability of the regime.



The next two control variables capture socioeconomic factors that might lead to different repressive environments across observations. These variables are the GDP per capita in the country under consideration, and the (logged) population of the country under consideration. These variables are included to account for factors that might be related to the level of development within a particular country or the extent to which the regime faces a large and potentially volatile urban population. Higher (or lower) levels of development may lead the regime to be more (or less) careful in exercising widespread repression for fear of stirring opposition from middle- and upper-class citizens and foreign actors who might be operating within the country. Thus, the GDP per capita is recorded for each country-year observation in the analysis. This variable is further logged in order to minimize the effect of outliers in terms of GDP per capita. Larger populations have also been found to be more susceptible to facing physical repression at the hands of the state due to the mobilizing potential of large populations (Poe and Tate 1994; Bove et al. 2017). To minimize the effect of large outliers in terms of population, this the raw population value is also logged for each country-year observation in the analysis. Data for these variables come from the World Bank and span the period 1960-2010. Finally, a binary indicator is included to account for dynamics related to the Cold War that might have an impact on the dependent variable.

A complete list of the variables and their information is presented below in **Table 1**. In order to test the theoretical predictions presented earlier in the chapter and the document, this analysis leverages a series of linear regression models that analyze the influence of interstate patronage and the other independent variables on physical repression. The period under analysis in the regression is 1960-2010 due to missing data

for some variables prior to 1960. In all of the regression analyses, an ordinary least squares (OLS) regression leveraged due to the dependent variable – human rights performance – taking on a continuous measurement.

**Table 1: List of Variables in Regression Analysis**

<b>Variable</b>	<b>Measurement</b>	<b>Coverage</b>	<b>Source</b>
HR Performance ( <b>DV</b> )	Continuous	1946-2010	Fariss et al. (2020)
Interstate Patronage ( <b>IV</b> )	Continuous	1946-2010	Original Dataset
Institutionalization ( <b>IV</b> )	Binary (0/1)	1946-2010	Geddes et al. (2014)
Mass Mobilization ( <b>IV</b> )	Count (# Events/Year)	1960-2010	Thomson et al. (2022)
Intrastate Conflict ( <b>IV</b> )	Binary (0/1)	1946-2010	Gleditsch et al. (2002) Davies et al. (2023)
Interstate Conflict ( <b>Control</b> )	Binary (0/1)	1946-2010	Gleditsch et al. (2002) Davies et al. (2023)
HIEF ( <b>Control</b> )	Continuous	1946-2010	Drazanova (2019)
Regime Durability ( <b>Control</b> )	Count (Regime Age)	1946-2010	Geddes et al. (2014)
GDP/Capita ( <b>Control</b> )	Continuous (Logged)	1960-2010	World Bank
Population ( <b>Control</b> )	Continuous (Logged)	1960-2010	World Bank
Cold War ( <b>Control</b> )	Binary (0/1)	1946-2010	N/A

Two different specifications of regression models are developed and analyzed in the empirical analysis in order to handle temporal dynamics that may affect the dependent variable: a country-fixed effects model and a non-fixed effects model with robust standard errors clustered at the country level. In all models, time-fixed effects are included in order to account for unobserved heterogeneity in repressive behavior across different years in the 1960-2010 period. For example, repression was much more permissible and widespread in the 1960-1990 period than the 1990-2010 period due to

general changes in repressive behavior. Time-fixed effects essentially control for temporal changes in repressive behavior.

The next considerations are necessary in order to account for the time-series nature of the data and the fact that there are country-level effects that likely influence the relationship between the primary variables of interest in this analysis. Country-fixed effects models effectively subtract the group-level means from the mathematical process of formulating the variable coefficients in order to eliminate country-specific heterogeneity that may influence the dependent variable. In other words, fixed effects analyze the variance around group-level means for each unit in the panel. In the fixed effects models, the “panel” is specified as the countries in the dataset. There are 137 different countries in the dataset. The time variable is simply the year under consideration in the 1960-2010 period.

In all non-fixed effects regression models, robust standard errors clustered at the country level are included in order to account for heterogeneity in baseline repressive behavior across different countries in the dataset. Countries vary in their repressive behavior such that certain political regimes are much more repressive than others. Put differently, repressive behavior is not independently and identically distributed throughout the dataset, and it is necessary to account for unobserved differences between countries that might bias the regression coefficients in the model. As such, it is statistically sound to run the regression model within each cluster of countries in order to gain a more accurate understanding of how the independent variables influence physical repression. Clustering the standard errors around each country in the dataset can lead to

more accurate coefficient estimates that are less susceptible to outliers. The next section presents the results of the regression models discussed above.

#### **IV. Results and Analysis**

##### **a. Primary Results**

The results of the analysis' primary regression models are presented below. **Table 2** presents the results of the primary models that assesses the general impact of interstate patronage on physical repression. Notice that in the primary models, the regressions are run with both formulations of the independent variable (*de jure* patronage and *de facto* patronage estimates). The main regression table also includes the results from both the OLS model with clustered standard errors at the country level, and the country-fixed effects model. The constant term is not reported due to its irrelevance to the analysis. It is worth briefly noting the differences between the OLS and fixed effects coefficients in each of the results in the coming pages. In each set of results, there are at least a few coefficients in the fixed effects model that are markedly different from the coefficients from the OLS model. Fortunately, this element of the results mainly impacts the control variables rather than the primary explanatory variables of interest. That is, the direction and size of the coefficients for the main variables of interest are largely the same in the OLS and fixed effects models. A notable difference between the coefficients of the OLS and fixed effects models are that the standard errors are smaller across almost every regression model for the variables in the analysis. In turn, the coefficient estimates for the fixed effect models have a higher tendency to achieve statistical significance. Smaller standard errors also indicate a model with more precise estimates, even if the model

**Table 2: Primary Regression Model Results, 1960-2010**

VARIABLES	(1) OLS	(2) Fixed Effects	(3) OLS	(4) Fixed Effects
<b>Interstate Patronage (De Jure)</b>	<b>-0.096 (.078)</b>	<b>0.018 (.025)</b>		
<b>Interstate Patronage (De Facto)</b>			<b>-0.119 (.094)</b>	<b>0.082*** (.022)</b>
Institutionalization	-0.075 (.121)	0.260*** (.037)	-0.059 (.113)	0.261*** (.036)
Mobilization Events	-0.045*** (.010)	-0.024*** (.003)	-0.047*** (.011)	-0.024*** (.002)
Intrastate Conflict	-0.962*** (.113)	-0.645*** (.026)	-0.959*** (.111)	-0.641*** (.026)
Interstate Conflict	0.004 (.207)	0.026 (.058)	0.001 (.213)	0.042 (.058)
Ethnic Fractionalization	-0.109 (.183)	0.202 (.253)	-0.096 (.182)	0.174 (0.253)
Regime Durability	0.008** (.003)	0.006*** (.001)	0.008*** (.003)	0.006*** (.001)
GDP/Capita (Logged)	0.274*** (.054)	0.163*** (.021)	0.285*** (.060)	0.152*** (.021)
Population (Logged)	-0.266*** (.042)	-1.197*** (.058)	-0.255*** (.049)	-1.199*** (.058)
Autocracy	-0.813*** (.125)	-0.303*** (.041)	-0.785*** (.116)	-0.296*** (.041)
Cold War	-0.013 (.199)	-1.135*** (.133)	-0.116 (.168)	-1.066*** (.134)
Observations	5,424	5,424	5,424	5,424
Clustered Standard Errors	YES	NO	YES	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	YES	NO	YES
R <sup>2</sup>	0.651	0.373	0.653	0.375
Number of Countries	137	137	137	137

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

sacrifices overall explanatory power (compare the  $R^2$  of the OLS versus fixed effects models). Thus, perhaps the fixed effects coefficients are more informative and reliable for the current analysis. Regardless, the results from both configurations of the regression analysis are presented in the coming pages to demonstrate both the sensitivity of some models as well as the robustness of certain relationships between the key variables of interest.

Turning to the results of the **Table 2**, a few conclusions can be drawn about the general, cross-national relationship between levels of patronage from the United States and levels of physical repression in recipient countries. At the most general level, the first hypothesis (**H1**) is not supported in any configuration of the regression model. The primary hypothesis presented in the theoretical section of this chapter (and more broadly in Chapter 1) is that increasing levels of patronage will lead to an increase in physical repression due to patronage's impact on the scope/cohesion of the repressive apparatus and heightened insulation from the "masses" who are often the targets of repression. In the OLS models, the coefficient is in the expected direction for both formulations of interstate patronage (-.096 and -.119) in the *de jure* and *de facto* models respectively). However, the coefficient estimates are not statistically significant in these models, indicating a lack of confidence in the certainty of the estimates. In other words, the model cannot determine with an acceptable degree of confidence whether interstate patronage has an effect different from zero.

Interestingly, the coefficients for the interstate patronage variable are in the opposite direction as expected in the fixed effects models. In the country-fixed effects models, the coefficients for both formulations of interstate patronage are positive (.018

and .082) – however, only the *de facto* estimate is statistically significant at the 99-percent confidence level. This finding indicates that *de facto* interstate patronage is associated with an improvement in human rights in the recipient country, even after controlling for the additional independent variables. Thus, while the general results do not support the first hypothesis, there is some evidence that interstate patronage influences the repressive behavior of recipient countries – just not in the expected direction. The findings from the main regression models also lead to questions about whether a more fine-tuned (or disaggregated) approach to the regression analysis might be more informative than a general, pooled analysis of all countries in the world. Indeed, countries vary significantly on certain characteristics (for example, regime type) that might have important implications for the relationship between interstate patronage and physical repression. Moreover, the passage of time has a plausible theoretical connection to the way that patronage might be distributed and utilized, particularly in terms of human rights abuses. For instance, the Cold War was a period of heightened geopolitical competition in which a patron may have been more permissible towards a client regime utilizing the resources afforded by a patron for repressive purposes. Consider this dynamic in comparison to the post-Cold War era in which democratization and human rights protections have been more at the forefront of the United States’ foreign policy.

**Tables 3-5** display the results of three regression models that aim to account for these potentially important considerations surrounding interstate patronage and physical repression. The full results for each model can be found in the **Appendix. Table 3** displays the results of two regression models that analyze the impact of interstate patronage on physical repression in autocracies versus democracies. These coefficients

are the result of dividing the country-year observations into two groups depending on whether the observation is autocratic or democratic for a given year in the 1960-2010 period. The results of the regression models in Table 3 are quite interesting and reveal some important insights about the different ways in which interstate patronage influences human rights across regime types. In both the OLS and fixed effects configurations of the regression models, a consistent set of results emerges in which interstate patronage has diverging effects on human rights in autocracies versus democracies. When the set of observations is restricted to only autocratic regimes, interstate patronage has a positive and statistically significant (in the country-fixed effects model) influence on the quality of human rights in recipient countries. This is evidenced by a positive coefficient in the OLS and FE models (.105 and .135, respectively) and a 99-percent confidence level surrounding the estimates.

Surprisingly, when the set of observations is restricted to only democracies, an opposite pattern emerges. The results indicate that, on average, interstate patronage leads to worsening human rights in democracies. This is a rather unexpected finding given that democracies are generally associated with relatively “better” human rights practices than autocracies and institutional safeguards to prevent abuse at the hands of government agents. On the other hand, autocracies are typically viewed in an opposite manner, more so as regimes with the willingness and capacity to take advantage of citizens if the opportunity arises. Taken together, the results of the autocracies versus democracies regression models are a bit counter-intuitive – however, there is a plausible explanation for why there is a divergence in the way in which patronage influences human rights in autocracies versus democracies.



**Table 3: Interstate Patronage and Physical Repression for Autocracies versus Democracies**

VARIABLES	(1) OLS	(2) OLS	(3) FE	(4) FE
	Autocracy = 1	Autocracy = 0	Autocracy = 1	Autocracy = 0
<b>Interstate Patronage (De Facto)</b>	<b>0.105 (.079)</b>	<b>-0.398*** (.098)</b>	<b>0.135*** (.028)</b>	<b>-0.094** (.037)</b>
Observations	3,137	2,287	3,137	2,287
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R <sup>2</sup>	0.535	0.721	0.252	0.461
Number of Countries	106	94	106	94

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

One explanation could be that on average, autocratic regimes inherently engage in relatively high levels of repression such that they cannot reasonably “increase” their repression on a level that would be statistically meaningful. Put differently, it could be that patronage does not have a negative influence on human rights in autocracies because they already specialize in repression and do not need to put the resources afforded by patronage toward engaging in higher levels of abuse. Instead, autocracies could be putting the resources afforded by patronage to use through institutional means which could lead to an overall reduction in physical repression. A similar thought process applies to the patronage coefficients in the democratic regression models as well. Perhaps the reason for the negative influence of patronage on human rights in democracies is because democracies have an inherent tendency to manage governmental affairs through institutional means. As such, any resources afforded by patronage would be better put elsewhere in order to shore up an area of governance in which the regime could not previously focus on: physical repression.

In essence, this explanation posits that a substitution effect is occurring in the presence of interstate patronage when comparing autocracies versus democracies. In the context of physical repression, substitution refers to the strategic use of different strategies (repression or accommodation) in order to manage domestic dissent (Moore 2000; Svobik 2012). In general, regimes can show a tendency to manage potential regime threats through a mix of violence and/or institutional approaches. On average, autocracies tend to engage in higher levels of physical repression (or violence) than institutional accommodation when managing threats. Democracies are essentially the opposite – while some democracies are relatively repressive, the hallmark feature of democracies is their ability to manage threats through nonviolent, institutional channels (such as elections, legislatures, etc.). Given these inherent differences, interstate patronage may provide an opportunity for autocracies to engage in higher levels of nonviolent institutional accommodation than before, or democracies to engage in higher levels of physical repression than before. Thus, one possible explanation for the counterintuitive results is that a substitution effect is occurring in each regime type.

As mentioned previously, it is also worth exploring the temporal dynamics of interstate patronage in order to determine the influence of interstate patronage on human rights across different time periods. **Table 4** displays the results of two regression models that analyze the influence of interstate patronage on human rights in the Cold War (1960-1991) versus the post-Cold War (1992-2010) eras. Exploring this relationship across these two periods is interesting due to the fact that the Cold War was the height of strategic competition and client cultivation in the modern era, as well as the fact that the United States' foreign policy priorities have shifted markedly from the strategic

containment of communism to the promotion of political and economic development around the world (as defined by democratization and free-market economic policies).

The coefficients in **Table 4** estimate the influence of *de facto* interstate patronage on human rights in both time periods. Interestingly, the only statistically significant coefficient is the country-fixed effects regression of interstate patronage and human rights in the Cold War (99-percent). The positive coefficient indicates that on average, when the set of observations is restricted to only those in during the years of the Cold War, interstate patronage leads to an improvement in human rights practices in recipient countries. This is a bit of a surprising finding because the Cold War is often viewed as an era in which the United unashamedly supported repressive autocracies and condoned physical abuses against citizens in the developing world. However, the results of this regression indicate the opposite – while the United States may have supported repressive autocracies, its support is generally associated with a positive improvement in human rights. The remaining three coefficients are not statistically significant – as such, it is not

**Table 4: Interstate Patronage and Physical Repression during the Cold War versus Post-Cold War**

<b>VARIABLES</b>	<b>(1) OLS Cold War = 1</b>	<b>(2) OLS Cold War = 0</b>	<b>(3) FE Cold War = 1</b>	<b>(4) FE Cold War = 0</b>
<b>Interstate Patronage (De Facto)</b>	<b>-0.116 (.103)</b>	<b>-0.142 (.119)</b>	<b>0.114*** (.030)</b>	<b>0.030 (.030)</b>
Observations	2,923	2,501	2,923	2,501
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R <sup>2</sup>	0.578	0.671	0.319	0.286
Number of Countries	114	135	114	135

Robust Standard Errors in Parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

possible to make any conclusion about the impact of interstate patronage in these models and time periods.

**Table 5** displays the coefficients for interstate patronage when the set of observations is divided by both regime type and temporal period. The result is four regression models that each correspond to one of four combinations of regime type and temporal period. Disaggregating the set of observations just a bit further is the next logical step after exploring the influence of regime type and temporal period in an independent manner. Given that interstate patronage is such a wide-ranging and catch-all concept and measurement, disaggregating the observations into smaller groups may reveal interesting and useful insights that were not immediately clear before. The two rows of coefficients in Table 5 correspond to the results of the models under the OLS and country-fixed effects configurations.

**Table 5: Comparing Interstate Patronage and Physical Repression by Regime Type and Era**

VARIABLES	(1) Cold War, Autocracies	(2) Cold War, Democracies	(3) Post-CW, Autocracies	(4) Post-CW, Democracies
<b>Interstate Patronage (OLS Model)</b>	<b>0.057</b> (.095)	<b>-0.322***</b> (.108)	<b>0.210**</b> (.099)	<b>-0.443***</b> (.124)
<b>Interstate Patronage (Fixed Effects Model)</b>	<b>0.137***</b> (.034)	<b>-0.163***</b> (.063)	<b>0.053</b> (.044)	<b>-0.065</b> (.040)
Observations	2,004	919	1,133	1,368
Time-Fixed Effects	YES	YES	YES	YES
Number of Countries	92	57	83	89

Robust Standard Errors in Parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results of the four regression models are quite interesting and provide a more comprehensive picture of how interstate patronage influences human rights across the globe. Starting with the Cold War, the country-fixed effects model finds the same

interesting autocracy/democracy dynamic in the regime type model. That is, in the Cold War, it appears that interstate patronage has a positive influence on human rights in autocracies while having a negative influence on human rights in democracies. Each of the coefficients for the Cold War regressions are in the same direction regardless of model (OLS or fixed effects), and three of the coefficients are statistically significant at the 99-percent confidence level.

Moving to the post-Cold War era, the coefficients indicate a similar pattern between autocracies and democracies – the coefficients for the autocratic regimes in this era are positive while the coefficients for the democratic regimes in this era are negative. However, the coefficients differ in their statistical significance across the OLS and fixed effects models. The coefficients in the fixed effects model are not statistically significant (and are much smaller) while the coefficients in the OLS model are both statistically significant at the 99-percent confidence level.

Ultimately, the disaggregation of the country-year observations into four groups based on regime type and temporal period reveals a more comprehensive and informative picture of interstate patronage. While the general results in **Table 2** did not provide much evidence of interstate patronage having an impact on human rights, there are clear, consistent, and statistically significant effects when the set of countries is divided into autocracies versus democracies and the Cold War versus post-Cold War eras. The results indicate that interstate patronage from the United States has a consistently positive and statistically significant influence on the quality of human rights in autocratic recipient countries. On the other hand, the results indicate that interstate patronage from the United States has a consistency negative and statistically significant influence on the quality of

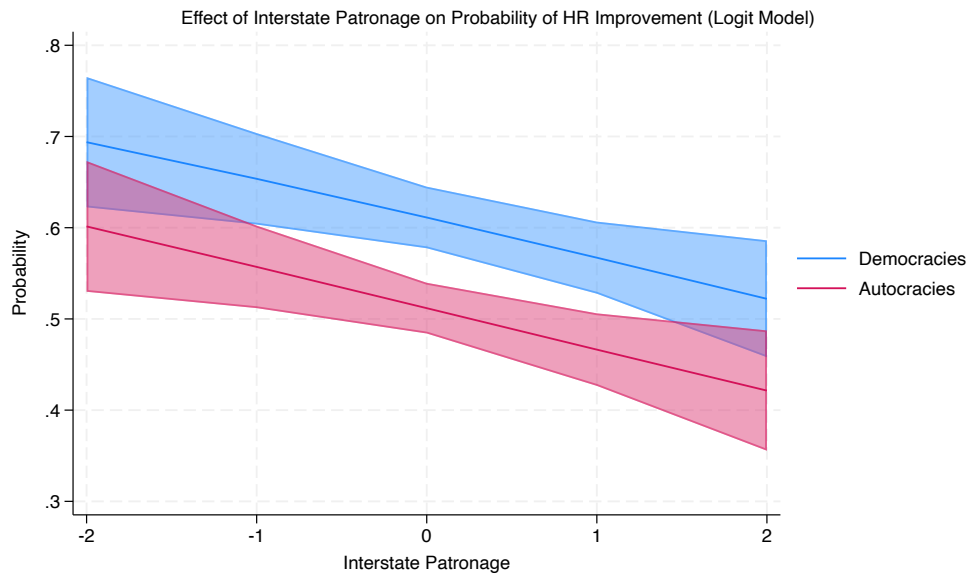
human rights in democratic recipient countries. While these results do not fully support the first hypothesis outlined earlier in the project, they are quite interesting and could represent some sort of a substitution effect occurring when autocratic/democratic countries receive increasing levels of interstate patronage. Moreover, the finding that patronage leads to worsening human rights in democracies lends some support to the first theoretical prediction outlined in this project, though the reason why is a bit unclear.

### **b. Alternative Specifications**

Before moving to the secondary hypotheses introduced earlier in the chapter, it is worth exploring some alternative model specifications and visualizations in order to understand the dynamics between interstate patronage and human rights in recipient countries a bit more. Three changes are made to the primary regression model. In place of the continuous dependent variable, two different outcomes are analyzed: a binary measure of state repression that indicates if a country improved (1) or worsened (0) its human rights practices in a given year, and an ordinal measure of state repression from the Political Terror Scale (Gibney et al. 2023). Due to these changes in the nature of the outcome variable, the regression method changes from linear regression to a logistic regression model (for the binary outcome variable) and an ordered logit model (for the ordinal outcome variable). In addition, to investigate the varying effects of interstate patronage across different regime types, a four-level ordinal measure of regime type replaces the binary measure of autocracy-democracy in the main regression analysis. Data for this ordinal measure of regime type come from the Polity 5 dataset (Marshall et al. 2002). The ordinal measure of regime type has four levels based on the following coding scheme: strong autocracies (-10 to -6), weak autocracies (-5 to 0), weak

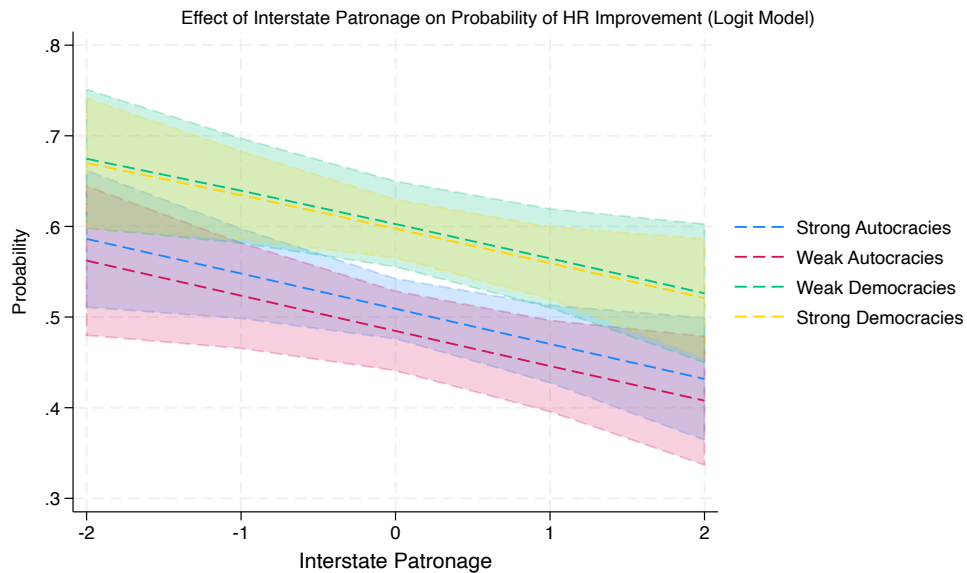
democracies (1 to 5), and strong democracies (6 to 10). The results of the analyses using these alternative specifications are visualized in the marginal effects plots below. The full results can be found in the **Chapter 4 Appendix**.

**Figure 1: Logistic Regression Model Results**



Beginning with **Figures 1 and 2**, the results of the logistic regression models indicate that increasing levels of interstate patronage are associated with a lower probability of human rights improvement in client settings. In other words, as levels of interstate patronage increase, recipient regimes are increasingly less likely to improve their human rights practices. The marginal effects plot in **Figure 1** indicates that while democratic clients are consistently more likely than autocratic clients to see an improvement in human rights, both regime types become less likely to see improvements

**Figure 2: Logistic Regression Results (with Polity Regime Type Variable)**

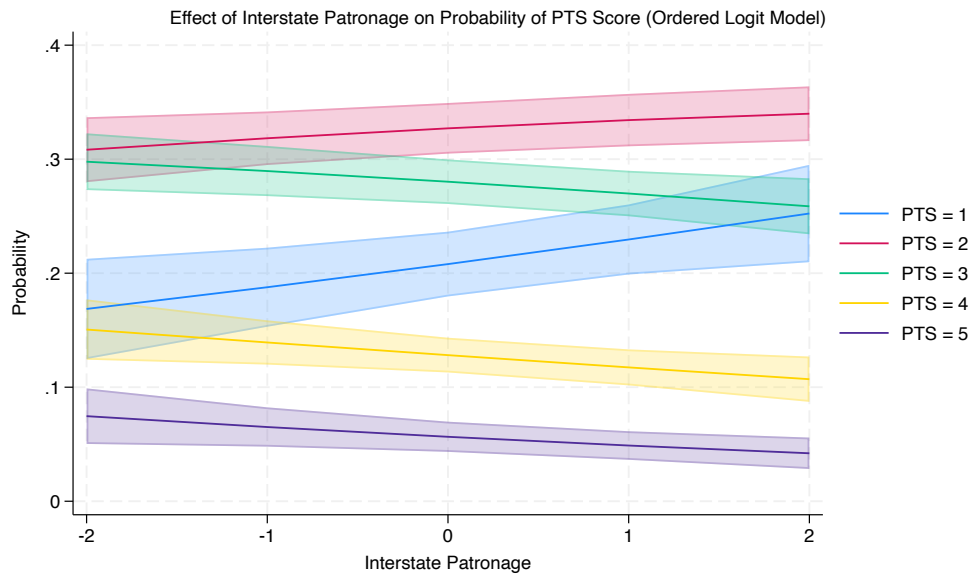


levels of patronage increase. **Figure 2** presents the marginal effects plot for the logistic regression with the four-level ordinal measure of regime type. The results in **Figure 2** match the nature of the findings in **Figure 1**: strong and weak democratic clients are both consistently more likely to see an improvement in human rights than strong and weak autocratic clients, but all four regime types become increasingly less likely to improve their human rights as levels of patronage increase.

**Figure 3** presents the results of the ordinal logistic regression model in which the dependent variable is the five-level ordinal measurement of state repression. In the PTS coding scheme, values increase as state repression becomes more widespread and intense within a given country. As such, PTS scores closer to 1 indicate the “least” amount of state repression while PTS scores closer to 5 indicate the “most” amount of state



**Figure 3: Ordinal Logistic Regression Results (DV= PTS)**



repression. **Figure 3** depicts the marginal effects plot for increasing levels of interstate patronage and corresponding probabilities of a client regime falling into one of the five categories of the PTS scores.

The results indicate a few insights worth mentioning. Only two categories of PTS scores become more likely as levels of interstate patronage increase while the other three categories become slightly less likely as patronage increases. The two categories that become more likely for client regimes as interstate patronage increases are the first and second categories (PTS = 1 and PTS = 2). In other words, as patronage increases client regimes become more likely to fall into the lower categories of state repression. On the other hand, as patronage increases, client regimes become less likely to fall into the upper categories of state repression (though only slightly). Put together, it seems that the impact of interstate patronage on PTS scores is relatively mixed and a bit difficult to identify – an insight that echoes the results of the primary regression analysis presented earlier.

### c. Secondary Hypotheses

Tables 6-8 display the coefficients for the variables of interest in the models corresponding to H2-H4. The full results for these models can be found in the **Chapter 4 Appendix. Table 6** displays the OLS and country-fixed effects models' coefficients for interstate patronage after the sample has been divided into two groups based on whether the recipient country is institutionalized or not. The second hypothesis (H2) predicted that interstate patronage in the context of regime institutionalization would lead to an improvement in levels of physical repression in the recipient country.

**Table 6: Effect of Interstate Patronage on Human Rights in Institutionalized Regimes**

VARIABLES	(1) OLS Inst. = 1	(2) OLS Inst. = 0	(3) FE Inst. = 1	(4) FE Inst. =0
<b>Interstate Patronage (De Facto)</b>	<b>-0.147 (.104)</b>	<b>-0.021 (.131)</b>	<b>0.077*** (.024)</b>	<b>0.017 (.050)</b>
Observations	4,040	1,384	4,040	1,384
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R <sup>2</sup>	0.646	0.482	0.355	0.228
Number of Countries	128	67	128	67

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results of the analysis provide moderate support for this hypothesis. While neither of the coefficients for the OLS model are statistically significant, and the direction of the coefficient in the OLS models is in the opposite direction of the theoretical expectation, the country-fixed effects coefficient for institutionalized regimes is statistically significant at the 99-percent confidence level. Moreover, the direction of the coefficient is positive, indicating that in the context of regime institutionalization, interstate patronage has a positive impact on the quality of human rights in recipient countries. In other words, the fixed effects model is predicting that, on average, interstate

patronage in the context of institutionalized recipient regimes leads to lower levels of physical repression. Thus, the results provide support for the second hypothesis – it seems that in the context of regime institutionalization, interstate patronage has a positive impact on human rights that is larger and more statistically significant than the effect of patronage in non-institutionalized settings.

**Table 7: Effect of Mobilization and Interstate Patronage on Human Rights**

VARIABLES	(1) OLS	(2) Fixed Effects
Interstate Patronage ( <i>De Facto</i> )	-0.178* (.097)	0.041* (.024)
Mobilization Events	-0.060*** (.011)	-0.032*** (.003)
<b>Interstate Patronage x Mobilization Events</b>	<b>0.025*** (.009)</b>	<b>0.016*** (.003)</b>
Observations	5,424	5,424
Clustered Standard Errors	YES	NO
Time-Fixed Effects	YES	YES
Country-Fixed Effects	YES	YES
Number of Countries	137	137
R <sup>2</sup>	.654	.378

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7** displays the coefficients for the interaction term between interstate patronage and the number of mobilization events that a recipient regime experiences in a given year. The third hypothesis (H3) predicted that the combination of interstate patronage and increasing numbers of mobilization events would lead to harsher degrees of physical repression. Since both variables in the interaction term are continuous (or non-dichotomous), the coefficient on the interaction term represents the change in slope (or the effect on human rights) as both the degree of patronage and the number of mobilization events increases. The coefficients on the interaction term between patronage

and mobilization are both statistically significant at the 99-percent confidence level. However, their direction is positive rather than negative, indicating that when a country receives high(er) degrees of interstate patronage and experiences increasing numbers of mobilization events, the regime decreases its use of physical repression (presumably to accommodate the group(s) organizing the mobilization). This is an interesting finding because it lends a bit of credence to the notion that the resources afforded by patronage allow regimes to expand and diversify their strategies when it comes to managing dissent.

It is also worth mentioning the coefficients for the independent effects of patronage and mobilization. In the OLS model, the coefficient for interstate patronage is negative, quite large, and statistically significant at the 90-percent confidence level. This is contrast to the country-fixed effects model which estimates the influence of interstate patronage as positive and quite small, while also carrying a 90-percent degree of confidence. These contradictory coefficients illustrate the sensitivity of these models to configuration and specification. Moreover, while the main regression models failed to find statistical significance for most of the patronage coefficients, both patronage coefficients are significant in this model, which adds to the robustness of the general findings after disaggregation.

**Table 8** displays the OLS and country-fixed effects models' coefficients for the final regression under consideration in this analysis between interstate patronage and armed rebellion (or intrastate conflict). The coefficients displayed in the table correspond to the effect of interstate patronage after the countries were split into two groups based on whether the country was experiencing an armed rebellion in a given year. The fourth and final hypothesis predicted that in the context of intrastate conflict, interstate patronage

would lead to worsening human rights because the regime would feel highly threatened and be more willing to use violence to control dissent. Once again, the findings do not support the theoretical prediction – in the OLS model, neither of the coefficients are statistically significant.

However, in the fixed effects model both coefficients for the patronage variable are positive and statistically significant at the 99-percent confidence level, indicating that patronage does have an impact in the context of intrastate conflict. More specifically, it appears that in the context of armed rebellion, increasing levels of interstate patronage are associated with less human rights violations. The effect of patronage in the context of armed rebellion is also larger than the impact of patronage in times of relative peace. Taken together, although these findings are not aligned with the theoretical predictions outlined earlier, they provide more support for the results from the main regression models and increase the credibility surrounding the patronage-repression connection.

**Table 8: Effect of Interstate Patronage on Human Rights during Armed Rebellion**

<b>VARIABLES</b>	<b>(1) OLS Rebellion = 1</b>	<b>(2) OLS Rebellion = 0</b>	<b>(3) FE Rebellion = 1</b>	<b>(4) FE Rebellion = 0</b>
<b>Interstate Patronage (De Facto)</b>	<b>0.091 (.096)</b>	<b>-0.159 (.101)</b>	<b>0.191*** (.042)</b>	<b>0.045* (.026)</b>
Observations	1,026	4,398	1,026	4,398
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R <sup>2</sup>	0.309	0.590	0.259	0.326
Number of Countries	85	135	85	135

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Before moving to the chapter’s conclusion, it is worth briefly discussing some potential complications when it comes to leveraging and analyzing these results. It is clear from the results presented in the preceding pages that the relationship between

interstate patronage is quite sensitive to the model configuration and specification that is being leveraged. One potential explanation for this is that there is a degree of endogeneity between some of the predictor variables in the analysis. That is, it is not implausible to suggest that at least some of the predictor variables are correlated in ways that might bias our understanding of the independent effect of any particular variable. For instance, interstate patronage is probably correlated with GDP/capita for the simple reason that countries with higher degrees of economic development are attractive to patron states due to their economic strength that is often accompanied by some strategic asset that has given the recipient country some sort of advantage (such as oil reserves, sea access, etc.).

A simple correlation matrix between the variables in the analysis reveals that the correlation between interstate patronage and GDP/capita is .49, indicating a relatively high degree of correlation and potential endogeneity between the variables. Several other independent variables have generally high correlation values as well, such as institutionalization and regime durability. This point is intended to urge caution when analyzing the results of the preceding regression analyses and their implications for endeavors involving scholars and policymakers. Ultimately, it seems that interstate patronage does have some sort of effect – even if it is minimal – and that the direction of the effect is not as the various aspects of the theory expected. The next section concludes the chapter by recapping some of the key findings from this chapter’s analysis, as well as briefly discussing its strengths, weaknesses, and implications for future research.

## **V. Conclusion**

This chapter explored the empirical connection between the original measure of interstate patronage developed in the previous chapters and levels of physical repression

in recipient countries. In the first chapter of this dissertation, a theoretical section culminating in four hypotheses is presented. The primary hypothesis of the theoretical section (**H1**) predicted that the receipt of patronage from the United States would lead recipient countries to engage in higher levels of physical repression. The results of the empirical analysis provide some support for the first hypothesis – on average, interstate patronage does lead to worsening human rights, but only in democracies. In autocratic settings, the opposite effect emerges. On average, interstate patronage leads to an increase in human rights quality in autocratic countries. This pattern holds in both the Cold War and post-Cold War eras, indicating that it is a robust finding that merits some sort of an explanation.

One potential explanation for this finding is that a substitution effect is occurring in which autocracies utilize the resources afforded for patronage to increase their capacity to accommodate regime threats through institutional means. On the other hand, perhaps democracies utilize the resources afforded by patronage to increase their capacity to engage in violence against citizens. Put differently, it could be that patronage allows either autocracies or democracies to shore up the side of threat management that they are not inherently good at. Another potential explanation is that the resources afforded by patronage allow regimes to engage in more specialized and targeted forms of repression. In autocracies, this may result in an overall reduction in physical repression given that autocracies are already relatively repressive in general. Conversely, in democracies, institutional safeguards and public watchdogs are probably more apt to notice even small changes in repressive behavior. This may lead to more public reports of repressive

behavior that may not be getting picked up in autocratic human rights scores in the dataset.

Regardless, there is a consistent and clear set of findings that emerges from the main regression results. The next hypothesis sought to investigate whether regime-level differences in institutionalization interacted with interstate patronage to influence human rights in significant ways. **H2** predicted that increasing levels of patronage to institutionalized client regimes (as defined by democracies, party-based autocracies, and monarchies) would lead to less physical repression than personalized regimes (as defined by personalized and military-based autocracies). The results of the regression analysis surrounding this hypothesis provide moderate support for the theoretical prediction. The findings indicate that in the context of regime institutionalization, interstate patronage has a positive and statistically significant influence on the quality of human rights in recipient states. It should be noted that this result is only statistically significant in the country-fixed effects model – however, the fixed effects model is likely the “better” model given its precision and relative conservatism in terms of the coefficients it produces.

What about the final two hypotheses? The aim of the final two hypotheses was to analyze the influence of interstate patronage in the context of two regime-threatening scenarios in order to determine whether higher degrees of patronage lead regimes to respond with more or less repression when under threat. The third and fourth hypotheses focused on situations of regime uncertainty involving mass mobilization and intrastate conflict (respectively). The results of these regression models do not support the theoretical predictions because the influence of patronage in each model is in the opposite direction of the hypotheses. In the model with the interaction between interstate



patronage and mobilization events, the interaction term is positive and statistically significant in both the OLS and country-fixed effects models, indicating that as levels of patronage increase and the number of mobilization events increases, client regimes engage in lower levels of physical repression. This finding goes against **H3** which predicted that mobilization would be met with harsher degrees of repression in the presence of high(er) degrees of interstate patronage.

The final set of regression analyses focused on the influence of interstate patronage on human rights in the context of an armed rebellion (or intrastate conflict). **H4** predicted that in the context of intrastate conflict, interstate patronage would lead to worse human rights violations in the form of heightened physical repression. The results of the regression after splitting the sample based on countries experiencing intrastate conflict indicate that in times of internal conflict, increasing levels of patronage leads recipients to improve their human rights violations and engage in lower levels of physical repression. Moreover, while the effect of patronage is also positive and statistically significant in the non-conflict set of countries, the effect of interstate patronage in the context of intrastate conflict is substantially larger.

The empirical analysis presented in this chapter has a few strengths that merit a brief discussion. First, and perhaps most importantly, this chapter's large-N quantitative analysis surrounding the effect of an original measure of interstate patronage on the quality of human rights in recipient countries is the first of its kind in political science research. Previous attempts to study the effect of interstate patronage did not use an original, quantitatively based measure of patronage (Casey 2020). Moreover, recent studies surrounding interstate patronage have focused somewhat on how foreign backing

influences human rights abuses, but have never attempted to engage in a cross-national, global-level analysis of interstate patronage and its effect on physical repression. By leveraging a continuous, global measurement of interstate patronage from the United States to recipient countries, this analysis provides original insights into how an understudied form of bilateral relations can impact the quality of human rights across the globe.

Another strength of the empirical analysis is that the significant and thought-provoking findings fit nicely into previous scholarship surrounding the causes and dynamics of state repression. The counterintuitive findings from the main regression analysis – namely, the different effect of patronage in autocracies versus democracies – brings into question the various ways in which patronage might be used to handle regime threats. The discussion surrounding the results presented a potential explanation for these results based on a substitution effect occurring in which autocracies utilize the resources from patronage to engage in more institutional management of regime threats while democracies utilize the resources to engage in relatively higher levels of security and repression. Thus, patronage allows autocracies and democracies to substitute one strategy of threat management for the other (repression versus accommodation). This explanation fits into previous scholarship surrounding the dissent-repression nexus and how regimes alter their strategies of threat management under different circumstances (Moore 1998; 2000; Davenport 2007; Frantz and Kendall-Taylor 2014; Ritter and Conrad 2016).

Another related explanation for the counterintuitive findings centers around the concepts of indiscriminate versus selective repression (Kalyvas 2006). Indiscriminate repression refers to the practice of engaging in wide-spread repression aimed at

neutralizing large numbers of the population. For instance, a regime may indiscriminately fire upon protesters without regard to who might be the leader of such mobilization efforts. On the other hand, selective repression refers to the use of more fine-tuned and targeted methods of violence aimed at neutralizing the leaders and key administrative members of anti-regime threats. For example, instead of firing indiscriminately upon protestors, a regime may decide to use targeted instances of repression to take out the key members behind the mobilization. Scholars generally argue that selective repression requires more resources and skill because it requires specialized techniques and methods that require more training and operational resources than mass repression (Way and Levitsky 2006). The resources afforded by patronage could allow recipient regimes to engage in selective repression when they previously could not. In autocracies, a shift to selective repression would probably lead to an overall decrease in physical repression – thus, the positive coefficient for autocracies in the regression analysis. On the other hand, if a democracy engages in higher levels of selective repression, it is going to be viewed negatively because democracies generally have low levels of physical repression. Thus, the negative coefficient for democracies in the regression analysis. These are merely potential explanations for the main regression findings, but they do fit nicely into areas of scholarship that have been influential in the study of state repression.

While the empirical analysis has its share of strengths, it also suffers from a few weaknesses that may impact the reliability of the findings and the degree of certainty surrounding any conclusions that are made about the relationship between interstate patronage and physical repression. First, while the results of the regression analysis are consistent and seemingly robust to a number of different specifications and samples, they

are still only correlational – that is, the research design of the empirical analysis is not aimed at establishing causality between the variables. Given this fact, there is always the possibility of omitted variable bias and questions about how exactly interstate patronage influences human rights. For instance, the results indicate that interstate patronage has a positive effect on human rights in autocracies, but the analysis cannot help with determining the causal mechanisms at play that drive the result. Moreover, since the results are based on statistical associations, there is always the possibility that the inclusion/exclusion of certain variables can drastically change the results. The current empirical analysis aims to mitigate this problem by including the most relevant of control variables, but this is still a shortcoming of the empirical approach. The next chapter will discuss some opportunities to achieve causality in future analyses.

Another weakness of the empirical analysis is that there is an inherent degree of endogeneity between the regressors that can complicate the interpretation of the findings and affect the overall picture of how interstate patronage impacts human rights. As mentioned briefly in the discussion surrounding the results, it is not implausible to suggest that some of the independent variables are correlated with the main explanatory variable of interest (patronage) to a problematic degree. For instance, GDP/capita is likely correlated with interstate patronage because countries with higher levels of economic development might be more attractive potential clients to the United States. Or consider the fact that regime durability could be positively correlated with interstate patronage due to the fact that patrons could select their clients based on stability and their perceived chances of surviving. In turn, the interpretation of the coefficients in the models' results may not be as reliable as one would ideally prefer. Indeed, if the

independent variables are correlated to a problematic extent, then it is difficult to understand how much “work” interstate patronage is when it comes to variation in human rights violations.

Overall, the empirical analysis is a solid first step at examining the role of a previously understudied aspect of international relations – patronage – and its effect on physical repression around the world. While the empirical analysis has some strengths, it also suffers from a few shortcomings that would need to be addressed in future studies surrounding this research question and method of analysis. In the next chapter, a recap of the key theoretical and empirical details of the project is presented. The chapter then turns to a discussion of some scholarly and practical implications of the findings presented in this chapter before offering some concluding remarks.

## CHAPTER 5

### CONCLUSION AND NEXT STEPS

#### **I. Summarizing the Dissertation**

The primary focus of this dissertation is the conceptualization and measurement of interstate patronage, along with its application to an area of substantive interest: state repression. In addressing the gap in research surrounding the concept, measurement, and application of interstate patronage, this dissertation makes a few theoretical and empirical contributions to the subfields of international relations and comparative politics. The dissertation starts by bringing the lack of proper scholarly attention surrounding the conceptualization, measurement, and application of interstate patronage into focus. While some scholars have focused on the conceptualization of interstate patronage in the past, there is no consistent or unified approach to studying these unique relationships between countries. This dissertation is the first to conceptualize and measure interstate patronage as a continuous phenomenon, building on the earlier conceptualizations and measurements that came before this dissertation (Carney 1989; Casey 2020). In addition, previous studies surrounding interstate patronage are primarily focused on conceptualization rather than empirical application of the measurement to substantive areas of international relations and comparative politics.

This dissertation's conceptualization of interstate patronage is original and has several advantages over previous efforts to conceptualize this dynamic between states. The current conceptualization of interstate patronage takes inspiration from research in comparative politics surrounding patron-client ties in domestic settings. In a review of the literature surrounding patron-client ties, Hicken (2011) identifies five fundamental

characteristics of patronage. Put together, patronage is a dyadic, voluntary relationship between a dominant and subordinate actor that is based on repeated and mutually beneficial exchanges between the actors. In the case of interstate patronage, these characteristics are simply applied to relations between states. In turn, interstate patronage is conceptualized as a dyadic, voluntary, and mutually beneficial relationship between a dominant (patron) and subordinate (client) state. Moreover, this conceptualization of interstate patronage is multidimensional and continuous in nature – that is, the flow of resources and benefits between the patron and client states come from multiple sources and patronage can come in a range of degrees that varies from dyad to dyad.

In order to create a quantitative measure of interstate patronage, this dissertation develops an original, “latent” estimate of interstate patronage between the United States and every potential client state between the 1946-2010 period. Interstate patronage is modeled as an underlying (or latent) variable because previous studies have modeled multidimensional concepts using latent item-response models and because, in theory, interstate patronage between the United States and other countries should be modeled as an underlying, multidimensional variable that drives the different sources of support from the United States. In the measurement section of the dissertation, two formulations of interstate patronage are developed. The first formulation – *de jure* interstate patronage – consists of eight indicators corresponding to three stable, institutionalized forms of cooperation between states, as well as five strategically flexible forms of support. These estimates are called the *de jure* estimates because they feature the stable, institutionalized forms of support. The other formulation of interstate patronage excludes the institutionalized forms of support while keeping the five remaining indicators. This

formulation is called the *de facto* formulation because it provides a picture of patronage that is based exclusively on strategically flexible forms of assistance.

The resulting estimates of interstate patronage provide an interesting illustration of how the United States allocates its various forms of support to different countries around the world. The third chapter focuses on these estimates in a high degree of detail – however, for the sake of brevity, a few key insights from the estimates are as follows. First, in both formulations of the patronage estimates, there is a clear regional ordering of countries that receive patronage from the United States. For instance, (unsurprisingly) Western Europe is heavily represented at the top of patronage recipients while African countries tend to find themselves near the bottom of the rankings. However, there are some interesting differences between the *de jure* and *de facto* estimates – most notably, in the *de facto* estimates, there are a few strategically flexible client states that move around a lot in relation to most countries in the world. These strategically flexible states include Israel, Egypt, Saudi Arabia, and the Philippines, among others. The presence and empirical visibility of these strategically ambiguous patron-client relations between the United States and these countries lends credence to the accuracy of the *de facto* estimates to capture the informal and more strategically manipulable relationships between states in the international system.

Finally, this dissertation makes an original contribution by applying the two formulations of the patronage estimates to a substantive area of international relations and comparative politics – namely, the influence of interstate patronage on the use of state repression by client states. In the first and fourth chapters, several theoretical arguments and empirical predictions surrounding the impact of interstate patronage on the quality of



human rights in client countries are presented in detail. To test the empirical predictions, this dissertation leverages a series of linear regression models with country- and time-fixed effects on a global sample of countries between 1960-2010. Perhaps unexpectedly, the findings indicate that interstate patronage from the United States *improves* human rights protections in autocratic client states, while patronage from the United States *harms* human rights protections in democratic client states. There are a few potential explanations for this – the analysis and conclusion of chapter four explores these explanations in more detail.

Put together, this dissertation makes several theoretical and empirical contributions. By introducing an original conceptualization of interstate patronage that is generally applicable to any dyad between a dominant and subordinate power, this dissertation provides a framework for further theoretical refinement and development in future analyses. Moreover, by conceptualizing patronage as a continuous phenomenon, this dissertation speaks to existing theoretical debates over “unique” forms of interstate relationships such as hierarchies and informal empires (Lake 2009; Savage 2011). By developing an original, quantitative measure of interstate patronage, this dissertation makes an empirical contribution to the study of interstate patronage and other forms of potentially “latent” relations between countries. By applying the original measure to an area of empirical inquiry in international relations and comparative politics, this dissertation provides a model for how this measure can be leveraged in future analyses and raises more questions about how interstate patronage and state repression are related.

## **II. Final Thoughts and Next Steps**

The contributions and findings of this dissertation lead to several avenues of improvement in the theoretical and empirical considerations of the dissertation, particularly surrounding the conceptualization and measurement of interstate patronage, along with its application to an area of empirical interest in political science.

Theoretically, there is room for refinement in the conceptualization of interstate patronage and the hypothetical connections between interstate patronage and client state repression. Conceptually, while the current formulation of interstate patronage includes five distinct considerations, there is room for adding or subtracting elements from the conceptualization. For instance, the current conceptualization does not include an explicit consideration of the strategic nature of the relationship between the dominant and subordinate state. This is a potentially large omission, especially considering the fact that most of the most archetypical patron-client ties in the world system are between states seeking a strategic advantage for some reason. Another potential consideration is the role of the international environment in facilitating (or limiting) the presence of these strategically flexible relationships. For example, in the Cold War (and previous eras of geopolitical competition throughout history), the cultivation of foreign clients was much more permissible than in the current day, where such relationships are often viewed negatively. At the least, incorporating a consideration of strategy and the international environment into the conceptualization would help to round out the concept of interstate patronage for future analyses.

There is also room for refinement surrounding the empirical predictions presented in the theoretical sections of the dissertation. While the dissertation's main hypotheses aim

to account for the effect of interstate patronage on state repression both generally and in context-specific scenarios, there is still room to refine and expand some of the predictions in future analyses. One central theoretical consideration that should be included in future analyses surrounding the relationship between patronage and human rights is the role of the patron's strategic goals in mediating the patronage-repression connection. The theory and hypotheses in the empirical application of the patronage measurement do not spend much time incorporating shifting strategies into the theoretical discussion. Future analyses should account for variation in periodic shifts in patron goals when thinking through the patronage-repression linkage. For instance, it is widely accepted that the United States' strategic goals shifted dramatically at the end of the Cold War from a strategy of containment through the cultivation of aligned states to the promotion of modernization and democratization across the globe. Given the different strategic pressures on the patron in these different time periods, it is quite reasonable to expect that the patronage-repression relationship might be different in the periods in which strategic pressures call for more flexible client relationships, and vis-versa. This consideration leads more broadly to questions about the potential application of principal-agent theories to analyses of interstate patronage.

Empirically, future analyses can build on the measurement of interstate patronage and its application to human rights (and other outcomes). The measurement of the concept can benefit from further refinement in the indicators included in, or excluded from, the measurement, as well as different measures of the indicators themselves in order to better understand how the observable forms of patronage combine to create a more general measure of interstate patronage. For example, in Chapter 2, a few of the indicators

included in the measurement of interstate patronage have problematic qualities and may not be as informative or useful in the analysis. In other words, some of the indicators might be dead weight in the measurement of interstate patronage. As such, perhaps they should be excluded from the measurement in future analyses for theoretical and statistical parsimony and clarity. Alternatively, future analyses can identify different measurements of the indicators that may be more appropriate and informative for the purposes of interstate patronage. In either case, there is room for refinement in the empirical measurement of interstate patronage.

In terms of the application of the measurement to substantive areas of political science, there is room to improve its application to both state repression and other areas more broadly. One weakness of the empirical analysis is that it does little to establish causality between the independent and dependent variables of interest. Future analyses could take a more direct approach to establishing causality by leveraging more causal-empirical methods such as difference-in-differences (DID) designs. DID research designs aim to isolate the causal influence of a particular variable of interest by identifying the moment in which the onset of the variable acts as a “treatment” or exogenous shock to the established system. Analyses of DID designs take any difference in outcomes before and after the treatment group receives the shock as the causal influence of the explanatory variable of interest (given a few additional assumptions). In the context of the current dissertation, a DID design could aim to isolate the impact of interstate patronage by identifying a point in which patronage increased or decreased dramatically to a certain country and differences in the outcome variable before/after the allocation or withdrawal of patronage.

Finally, there are other areas of international relations and comparative politics that could benefit from an analysis including the original measurement of interstate patronage developed in this dissertation. While the current analysis focused on state repression as the outcome variable of interest, there are many other outcomes that could be significantly impacted by the presence of varying degrees of interstate patronage. For instance, a related piece of previous scholarship focuses on how patronage impacts the durability of authoritarian client regimes (Casey 2020). The original measurement developed in this dissertation could be applied to the same study in order to test the robustness of the previous results and potentially uncover more interesting dynamics when it comes to the domestic consequences of interstate patronage. Other areas of substantive application could be: the causes and consequences of civil conflict; state capacity and state building; and economic development, among other topics.

In sum, this dissertation makes several theoretical and empirical contributions to the subfields of international relations and comparative politics. By conceptualizing, measuring, and applying an original formulation of interstate patronage to a substantive area of political science, this dissertation aims to advance scholarship surrounding the unique and increasingly relevant relationships between dominant and subordinate states in the international system.

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APPENDIX A

CHAPTER 3 APPENDIX: INTERSTATE PATRONAGE ESTIMATES

Figure 2B: Patronage (*De Jure*), Averaged by Country (1960-1969)

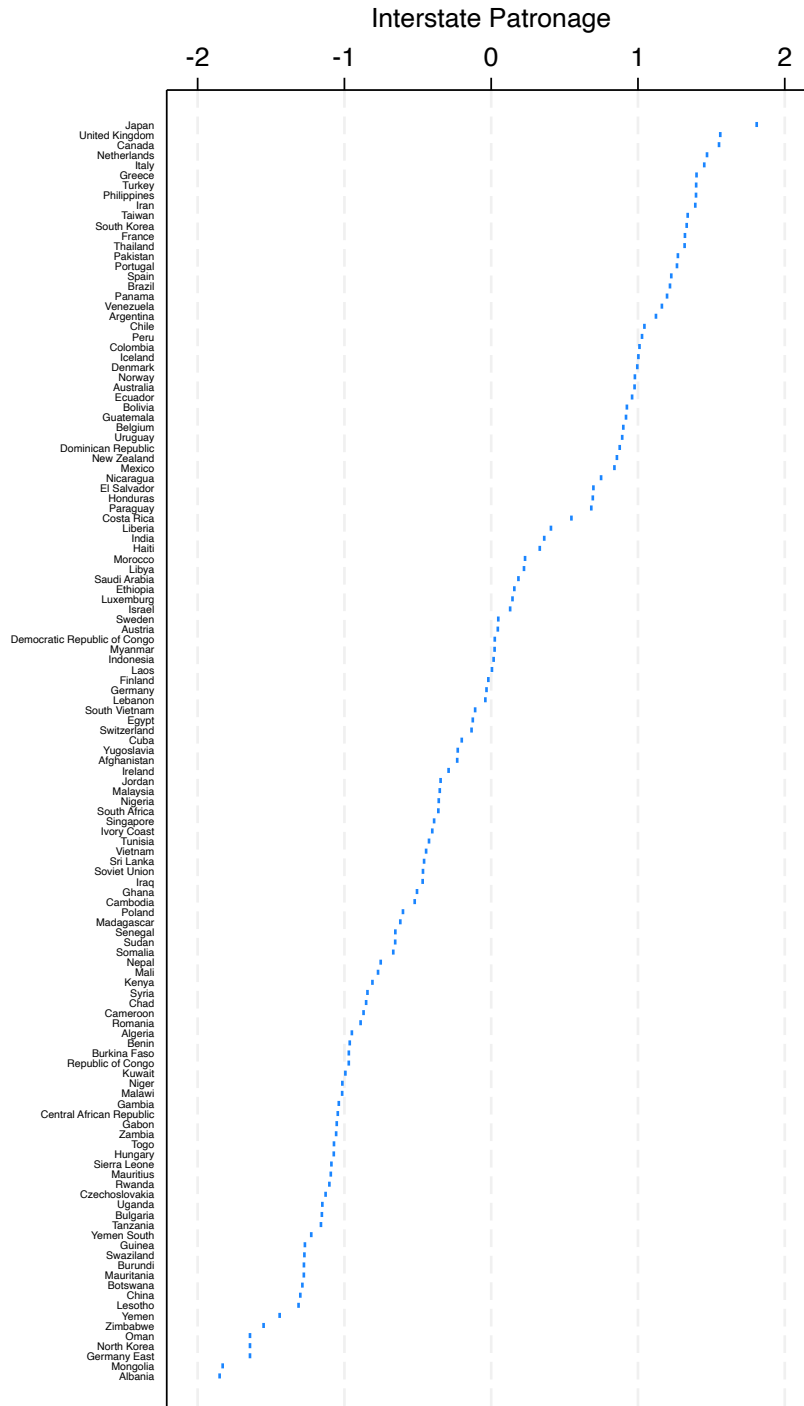


Figure 2C: Patronage (*De Jure*), Averaged by Country (1980-1989)

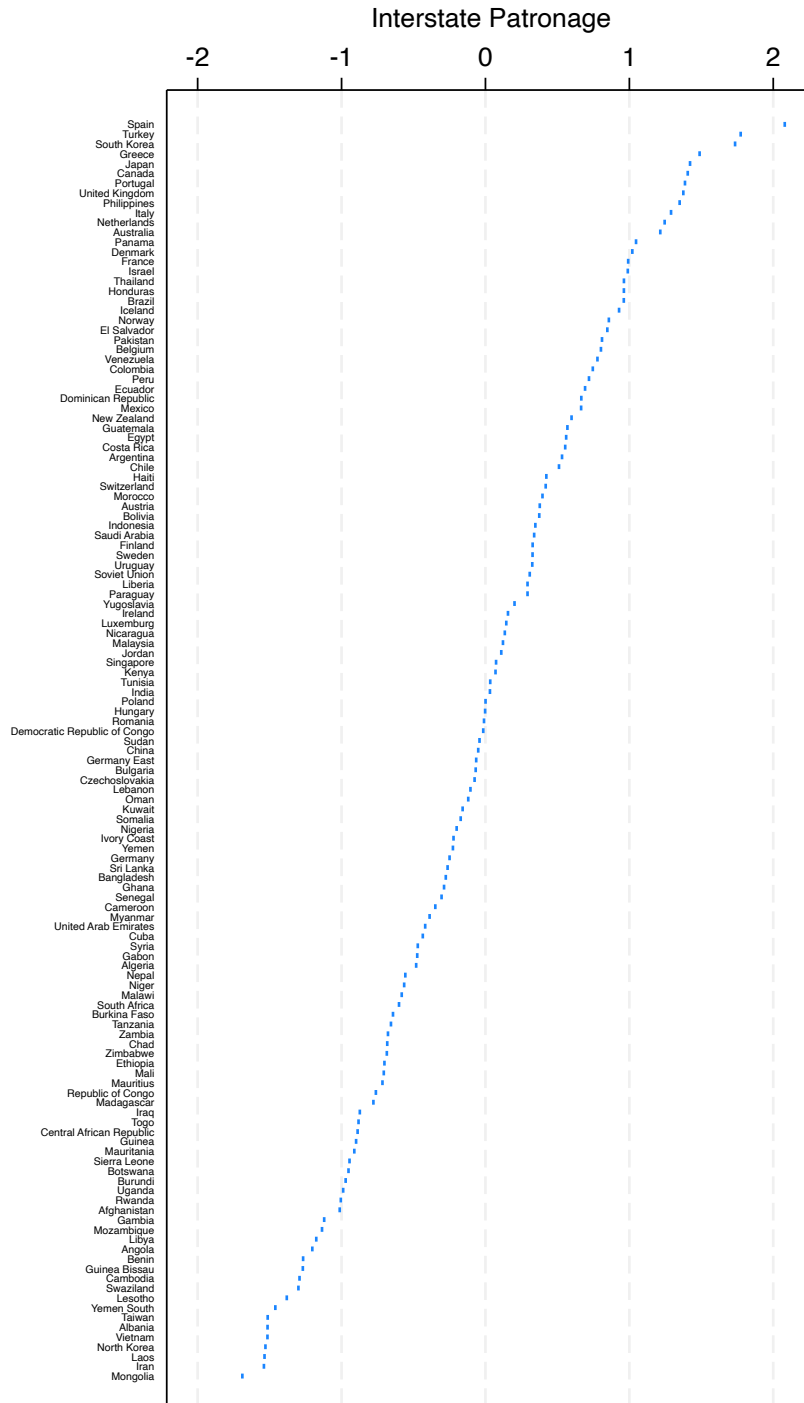


Figure 2D: Patronage (*De Jure*), Averaged by Country (2000-2010)

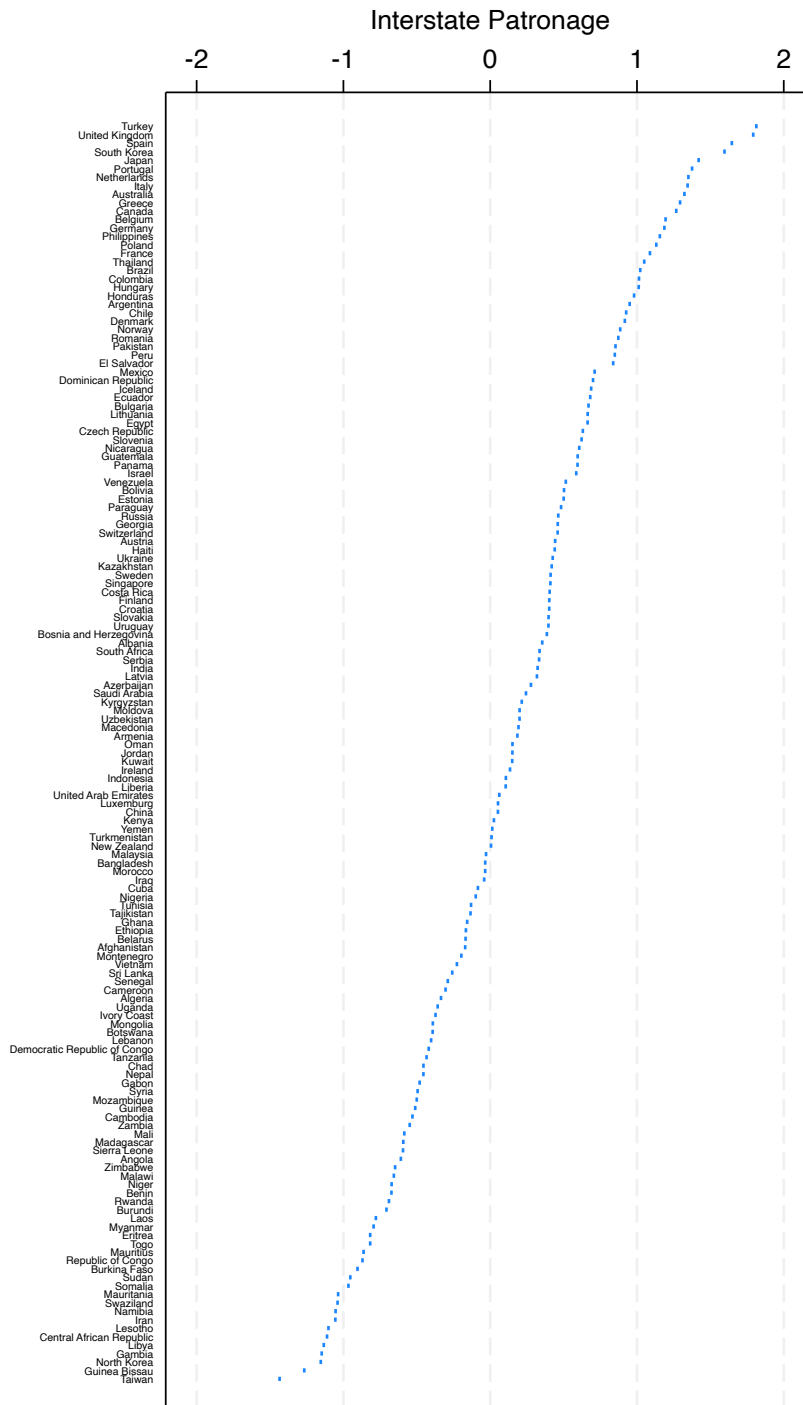


Figure 4A: Patronage (De Facto), Averaged by Country (1946-2010)

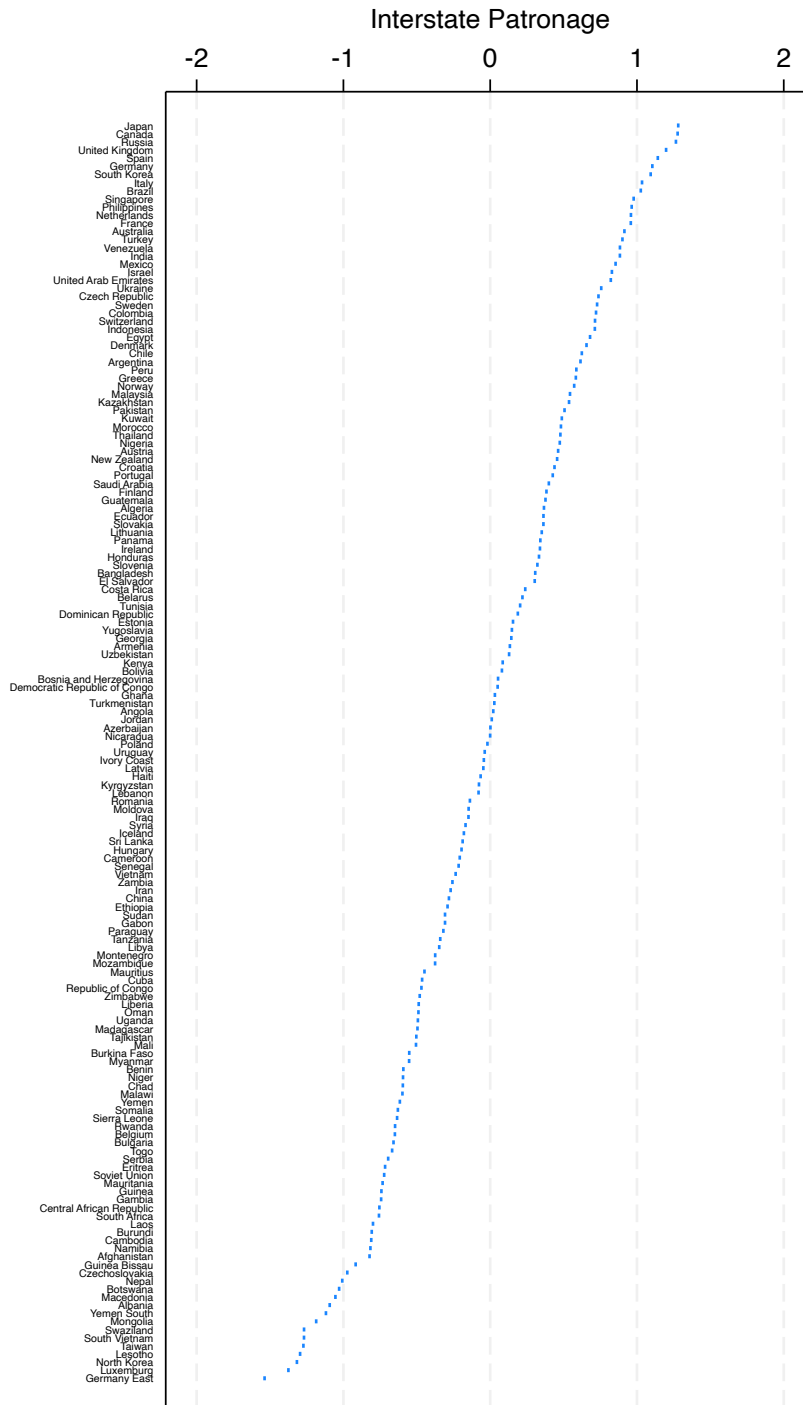


Figure 4C: Patronage (*De Facto*), Averaged by Country (1960-1969)

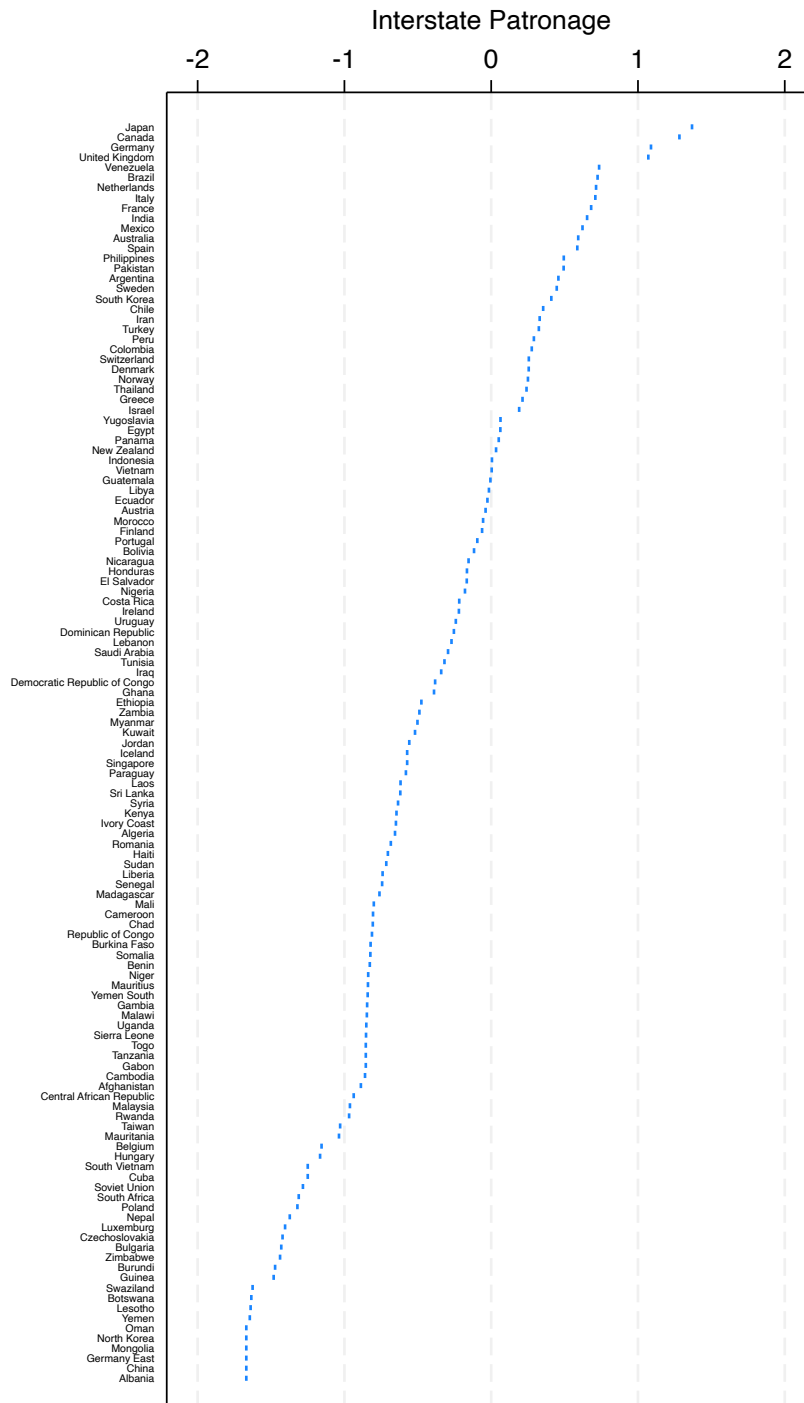




Figure 4D: Patronage (*De Facto*), Averaged by Country (1980-1989)

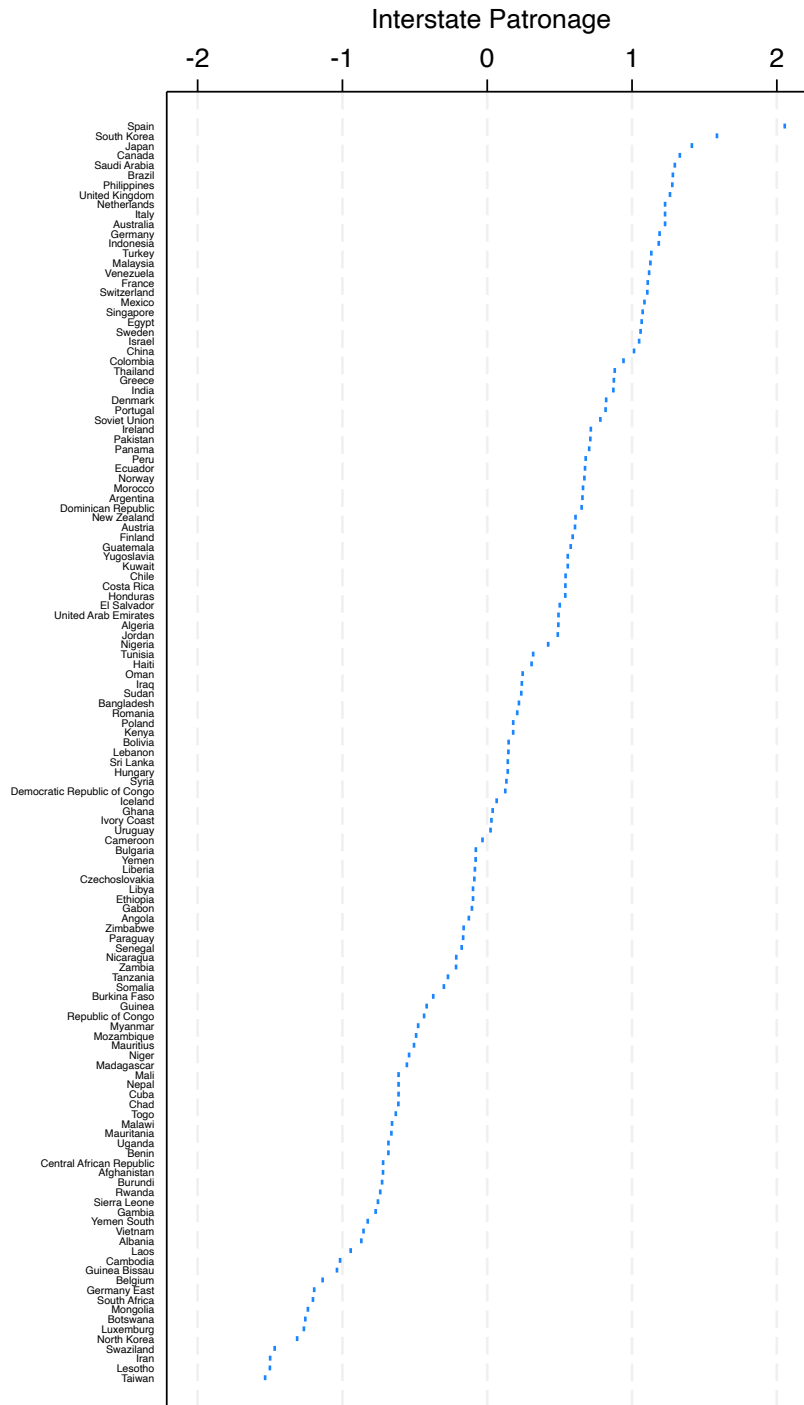
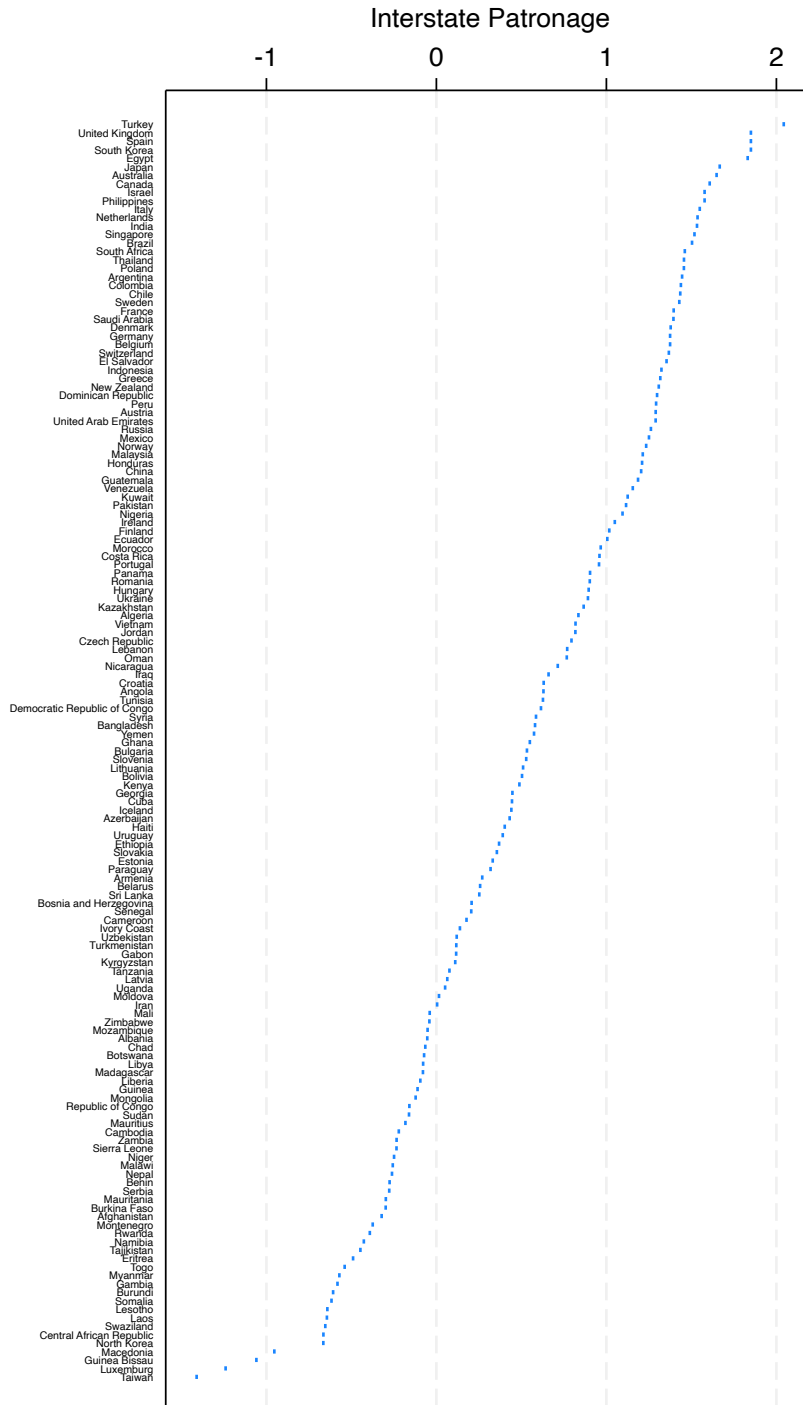


Figure 4E: Patronage (*De Facto*), Averaged by Country (2000-2010)



APPENDIX B

CHAPTER 4 APPENDIX: EMPIRICAL ANALYSIS RESULTS

**Table 3: Interstate Patronage and Physical Repression for Autocracies versus Democracies**

VARIABLES	(1) OLS	(2) OLS	(3) FE	(4) FE
	Autocracy = 1	Autocracy = 0	Autocracy = 1	Autocracy = 0
<b>Interstate Patronage (De Facto)</b>	<b>0.104</b> (.079)	<b>-0.398***</b> (.098)	<b>0.135***</b> (.028)	<b>-0.094**</b> (.037)
Institutionalization	0.219** (.099)		0.199*** (.043)	
Mobilization Events	-0.039*** (.008)	-0.035*** (.013)	-0.024*** (.004)	-0.028*** (.004)
Intrastate Conflict	-0.939*** (.091)	-0.995*** (.248)	-0.487*** (.032)	-0.615*** (.046)
Interstate Conflict	0.057 (.205)	0.173 (.211)	0.021 (.061)	0.287** (.135)
Ethnic Fractionalization	0.278 (.197)	-0.363 (.255)	0.148 (.354)	0.121 (.369)
Regime Durability	0.004*** (.001)	0.012*** (.004)	0.011*** (.001)	0.003 (.002)
GDP/Capita (Logged)	0.043 (.057)	0.454*** (.065)	0.113*** (.025)	0.137*** (.040)
Population (Logged)	-0.313*** (.039)	-0.223*** (.078)	-0.505*** (.097)	-1.643*** (.102)
Cold War	-0.510* (.265)	-0.047 (.176)	0.042 (.198)	-1.792*** (.212)
Observations	3,137	2,287	3,137	2,287
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R-squared	0.535	0.721	0.251	0.461
Number of Countries	106	94	106	94

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4: Interstate Patronage and Physical Repression during the Cold War versus Post-Cold War**

VARIABLES	(1) OLS Cold War = 1	(2) OLS Cold War = 0	(3) FE Cold War = 1	(4) FE Cold War =0
<b>Interstate Patronage (<i>De Facto</i>)</b>	<b>-0.116</b> (.103)	<b>-0.142</b> (.119)	<b>0.114***</b> (.030)	<b>0.030</b> (.030)
Institutionalization	-0.003 (.131)	0.114 (.144)	0.020 (.047)	0.376*** (.074)
Mobilization Events	-0.050*** (.010)	-0.044*** (.014)	-0.027*** (.004)	-0.019*** (.003)
Intrastate Conflict	-1.022*** (.127)	-0.863*** (.156)	-0.581*** (.034)	-0.556*** (.036)
Interstate Conflict	-0.066 (.256)	0.407** (.201)	0.135** (.062)	0.134 (.107)
Ethnic Fractionalization	-0.025 (.220)	-0.219 (.209)	1.737*** (.631)	-0.415 (.459)
Regime Durability	0.007** (.003)	0.009*** (.003)	0.011*** (.001)	-0.000 (.001)
GDP/Capita (Logged)	0.237*** (.067)	0.319*** (.065)	0.138*** (.030)	0.144*** (.034)
Population (Logged)	-0.243*** (.055)	-0.269*** (.058)	-2.116*** (.100)	-0.109 (.119)
Autocracy	-0.892*** (.166)	-0.748*** (.122)	-0.424*** (.055)	-0.114 (.074)
Observations	2,923	2,501	2,923	2,501
Clustered Standard Errors	YES	YES	NO	NO
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	NO	NO	YES	YES
R <sup>2</sup>	.599	.671	.336	.286
Number of Countries	114	135	114	135

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5A: Comparing Interstate Patronage and Physical Repression by Regime Type and Era (OLS)**

VARIABLES	(1) Cold War, Autocracies	(2) Cold War, Democracies	(3) Post-CW, Autocracies	(4) Post-CW, Democracies
<b>Interstate Patronage (De Facto)</b>	<b>0.057 (.095)</b>	<b>-0.322*** (.108)</b>	<b>0.210** (.099)</b>	<b>-0.442*** (.134)</b>
Institutionalization	0.214* (.124)		0.197* (.110)	
Mobilization Events	-0.040*** (.010)	-0.038*** (.014)	-0.036*** (.012)	-0.033* (.017)
Intrastate Conflict	-0.996*** (.120)	-0.814*** (.236)	-0.813*** (.117)	-1.117*** (.302)
Interstate Conflict	0.052 (.252)	0.039 (.313)	0.232 (.148)	0.386* (.204)
Ethnic Fractionalization	0.319 (.252)	-0.540* (.318)	0.171 (.204)	-0.261 (.293)
Regime Durability	0.004*** (.001)	0.009** (.004)	0.003*** (.001)	0.013*** (.004)
GDP/Capita (Logged)	0.015 (.073)	0.530** (.090)	0.079 (.059)	0.436*** (.077)
Population (Logged)	-0.305*** (.047)	-0.188 (.129)	-0.339*** (.146)	-0.245*** (.077)
Observations	2,004	919	1,133	1,368
Time-Fixed Effects	YES	YES	YES	YES
Clustered Standard Errors	YES	YES	YES	YES
R <sup>2</sup>	.487	.736	.645	.720
Number of Countries	92	57	83	89

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5B: Comparing Interstate Patronage and Physical Repression by Regime Type and Era (Fixed Effects)**

VARIABLES	(1) Cold War, Autocracies	(2) Cold War, Democracies	(3) Post-CW, Autocracies	(4) Post-CW, Democracies
<b>Interstate Patronage (De Facto)</b>	<b>0.137*** (.034)</b>	<b>-0.163*** (.063)</b>	<b>0.053 (.044)</b>	<b>-0.065 (.040)</b>
Institutionalization	-0.075 (.053)		0.651*** (.114)	
Mobilization Events	-0.023*** (.004)	-0.027*** (.004)	-0.024*** (.005)	-0.018*** (.004)
Intrastate Conflict	-0.407*** (.040)	-0.510*** (.060)	-0.341*** (.046)	-0.660*** (.055)
Interstate Conflict	0.100 (.066)	0.306** (.126)	0.162 (.120)	0.182 (.202)
Ethnic Fractionalization	-2.127*** (.866)	2.050** (.859)	3.446*** (.681)	-3.999*** (.615)
Regime Durability	0.015*** (.002)	0.010*** (.002)	0.006** (.003)	-0.008* (.005)
GDP/Capita (Logged)	0.101*** (.034)	0.118** (.055)	0.221*** (.043)	0.084 (.053)
Population (Logged)	-0.390 (.168)	-2.674*** (.160)	0.400** (.175)	-0.265 (.198)
Observations	2,004	919	1,133	1,368
Time-Fixed Effects	YES	YES	YES	YES
Country-Fixed Effects	YES	YES	YES	YES
R <sup>2</sup>	0.209	0.637	0.225	0.295
Number of Countries	92	57	83	89

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: Effect of Institutionalization and Interstate Patronage on Human Rights**

VARIABLES	(1) OLS	(2) Fixed Effects
Interstate Patronage ( <i>De Facto</i> )	-0.171 (.127)	0.091*** (.034)
Institutionalization	-0.051 (.111)	0.259** (.037)
<b>Interstate Patronage x Institutionalization</b>	<b>0.063</b> <b>(.109)</b>	<b>-0.011</b> <b>(.032)</b>
Mobilization Events	-0.046*** (.011)	-0.024*** (.032)
Intrastate Conflict	-0.959*** (.111)	-0.641*** (.002)
Interstate Conflict	0.005 (.214)	0.042 (.058)
Ethnic Fractionalization	-0.101 (.182)	0.183 (.254)
Regime Durability	0.008** (.003)	0.006*** (.001)
GDP/Capita (Logged)	0.286*** (.060)	0.153*** (.021)
Population (Logged)	-0.254*** (.050)	-1.200*** (.058)
Autocracy	-0.774*** (.117)	-0.299*** (.042)
Cold War	-0.110 (.168)	-1.065*** (.134)
Observations	5,424	5,424
Clustered Standard Errors	YES	NO
Time-Fixed Effects	YES	YES
Country-Fixed Effects	NO	YES
Number of Countries	137	137
R <sup>2</sup>	.627	.375

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Table 7: Effect of Mobilization and Interstate Patronage on Human Rights**

VARIABLES	(1) OLS	(2) Fixed Effects
Interstate Patronage ( <i>De Facto</i> )	-0.178* (.097)	0.041* (.024)
Mobilization Events	-0.060*** (.011)	-0.032*** (.003)
<b>Interstate Patronage x Mobilization Events</b>	<b>0.025*** (.009)</b>	<b>0.016*** (.003)</b>
Institutionalization	-0.058*** (.113)	0.255*** (.036)
Intrastate Conflict	-0.958*** (.111)	-0.640*** (.026)
Interstate Conflict	0.036 (.206)	0.070 (.058)
Ethnic Fractionalization	-0.104 (.179)	0.119 (.252)
Regime Durability	0.008** (.003)	0.006*** (.001)
GDP/Capita (Logged)	0.293*** (.059)	0.148*** (.021)
Population (Logged)	-0.248*** (.049)	-1.203*** (.057)
Autocracy	-0.785*** (.116)	-0.298*** (.041)
Cold War	-0.107 (.166)	-1.103 (.134)
Observations	5,424	5,424
Clustered Standard Errors	YES	NO
Time-Fixed Effects	YES	YES
Country-Fixed Effects	NO	YES
Number of Countries	137	137
R <sup>2</sup>	.654	.378

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 8: Effect of Intrastate Conflict and Interstate Patronage on Human Rights**

VARIABLES	(1) OLS	(2) Fixed Effects
Interstate Patronage	-0.140 (.099)	0.038 (.024)
Intrastate Conflict	-0.970*** (.104)	-0.653*** (.026)
<b>Interstate Patronage x Intrastate Conflict</b>	<b>0.076 (.123)</b>	<b>0.136*** (.027)</b>
Institutionalization	-0.062 (.113)	0.255*** (.036)
Mobilization Events	-0.047*** (.011)	-0.025*** (.002)
Interstate Conflict	0.017 (.213)	0.070 (.058)
Ethnic Fractionalization	-0.103 (0.181)	0.127 (.252)
Regime Durability	0.008** (.003)	0.006*** (.001)
GDP/Capita (Logged)	0.288*** (.060)	0.151*** (.021)
Population (Logged)	-0.253*** (.049)	-1.230*** (.058)
Autocracy	-0.785*** (.116)	-0.306*** (.041)
Cold War	-0.115 (.169)	-1.121*** (.134)
Observations	5,424	5,424
Clustered Standard Errors	YES	NO
Time-Fixed Effects	YES	YES
Country-Fixed Effects	NO	YES
Number of Countries	137	137
R <sup>2</sup>	.652	.378

Robust Standard Errors in Parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1