THE POLITICS OF REGIME COMPLEXES:
POWER, DEFERENCE, AND COOPERATION

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Abstract

Since the end of World War II, states have constructed international institutions at a breakneck pace. As a result, dense clusters of institutions now compete for authority in many issue areas. This dissertation examines the causes and consequences of institutional proliferation. It argues that states create and leverage networks of institutions to advance political goals. In doing so, they confront a tension between increasing control over global governance and reducing the effectiveness of cooperation.

The dissertation contains three articles. In “Angling for Influence: Institutional Proliferation in Development Banking,” I argue that concerns about bargaining power lead states to build overlapping institutions. I test this argument by analyzing how the distribution of vote shares in the World Bank drives the creation of new development banks. Drawing on archival research into the Bank’s historical allocation of votes, I leverage a natural experiment stemming from an early change in the vote share formula. The results reveal that power misalignment has a strong causal effect on institutional proliferation.

The second article, “Deference and Hierarchy in International Regime Complexes,” demonstrates how international organizations (IOs) coordinate to reduce conflict and divide labor. I describe patterns of institutional deference—defined as the acceptance of another IO’s exercise of authority—in the counterterrorism, intellectual property, and election-monitoring regime complexes. I find that IOs that defer to each subsequently divide labor by focusing their efforts on separate subissues. I also show that deference is a strategic act that is shaped both by efficiency concerns and power politics.

The final article, “Race to the Bottom? Vertically Differentiated Institutions and Regime Complexity,” analyzes how overlapping IOs affect international cooperation. I argue that they have contrasting effects depending on the level of differenti-
ation among institutions. When states view institutions as substitutes, the ability to forum shop will reduce the total policy adjustment achieved in the regime. However, when institutions are vertically differentiated—i.e., the depth of an institution’s rules affect the benefits of compliance—a regime complex can increase policy adjustment. I demonstrate these dynamics formally and provide empirical evidence in analyses of the development finance and election-monitoring regime complexes.
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## Contents

Abstract ......................................................... iii  
Acknowledgements ............................................... v  

1 Introduction .................................................. 1  

2 Angling for Influence: Institutional Proliferation in Development Banking  
   2.1 Introduction ............................................... 7  
   2.2 Institutional Proliferation in World Politics ............... 11  
   2.3 The Multilateral Development Lending Regime ............... 17  
      2.3.1 Case Selection ........................................ 17  
      2.3.2 Evolution of the Regime Complex ....................... 19  
      2.3.3 Development Bank Proliferation: Testable Hypotheses  23  
      2.3.4 Measurement and Data .................................. 27  
      2.3.5 Vote Share Allocation at Bretton Woods ............... 33  
   2.4 Results .................................................. 39  
      2.4.1 2SLS .................................................. 39  
      2.4.2 OLS and First Difference Models ....................... 44  
   2.5 Discussion and Future Research ............................ 48  
   2.6 Appendix ................................................ 51  

3 Deference and Hierarchy in International Regime Complexes  
   viii
3.1 Introduction ................................................................. 57
3.2 Why Defer? Jurisdictional Conflict among IOs ..................... 60
  3.2.1 Regulatory Arbitrage and Inefficient Duplication ............ 61
  3.2.2 Institutional Deference: a Mechanism for Coordination .... 64
3.3 Patterns of Deference .................................................... 68
  3.3.1 Data Collection ...................................................... 70
  3.3.2 Deference in Three Regime Complexes ......................... 73
  3.3.3 Division of Labor ................................................... 77
3.4 The Determinants of Institutional Deference ....................... 82
  3.4.1 Data and Measurement ............................................. 85
  3.4.2 Regression Analysis ............................................... 87
3.5 Discussion and Future Research ...................................... 93
3.6 Appendix ................................................................. 96

4 Race to the Bottom? Vertically Differentiated Institutions and Regime Complexity 101
  4.1 Introduction ............................................................. 102
  4.2 Cooperation in International Regime Complexes ................. 104
  4.3 Depth of Policy Adjustment ......................................... 107
  4.4 A Model of Forum Shopping and Policy Adjustment ............. 109
    4.4.1 Unified Regime .................................................. 110
    4.4.2 Regime Complexity .............................................. 112
    4.4.3 Undifferentiated Institutions ................................ 114
    4.4.4 Vertically Differentiated Institutions ...................... 118
    4.4.5 Discussion ....................................................... 122
  4.5 Empirical Test .......................................................... 125
    4.5.1 Data ............................................................... 129
    4.5.2 Results ............................................................ 131
Chapter 1

Introduction

Since the early 1980s, students of inter-state cooperation have sought to explain the emergence and impact of international institutions. These institutions, or “sets of rules meant to govern international behavior” (Simmons and Martin 2002), are often codified in formal treaties. Sometimes, states create and empower international organizations (IOs) to facilitate the implementation of international rules. These instruments of cooperation have attracted significant attention from international relations scholars because they are believed to meaningfully affect state behavior. International institutions channel state efforts towards particular ends, mitigate transaction costs and other sources of inefficiency, and distribute the benefits of cooperation among states (Krasner 1982; Keohane 1984; Krasner 1991).

The most significant historical trend in inter-state cooperation has been the swift and prolonged growth of international institutions. Since the end of the World War II, states have created institutions at a breakneck pace. The number of international organizations increased from less than a hundred in 1950 to over 300 by the year 2000.¹ More than 50,000 formal treaties are now registered with the United Nations (UN).² Figure 1.1 displays the historical growth rate of treaties and

¹Data are from the COW IGO dataset (Pevehouse, Nordstrom, and Warnke 2004).
IOs over the past century. The remarkable proliferation of institutions shown in the figure is likely an understatement of the true rate of growth. The data reflect the creation of new institutions over time, but omit the likelihood that existing treaties and IOs have been expanded to incorporate new rules and policy domains.

The proliferation of international institutions has had at least two effects. First, it has expanded the scope of state behavior that is subject to international rules. As a result, an increasing proportion of state activity has become governed by international institutions. In almost every issue area, contemporary inter-state cooperation is shaped by rules embedded in one or more institutions.

The second effect of institutional proliferation is an increase in density of institutions. Density increases when states create new institutions that overlap in mandate and membership with existing institutions. Much of the growth in treaties and IOs displayed above reflects the “layering” of institutions in the same policy domain. Issue areas such as trade, global health, and development finance, which were
once dominated by a single comprehensive institution, are now governed by an “international regime complex”: a network of distinct and non-hierarchical institutions with overlapping claims of authority.\(^3\)

This dissertation examines the causes and consequences of the rising density of international institutions. The increasing prevalence of regime complexes demands attention because it significantly reshapes the environment in which states cooperate. Individually, international institutions are believed to play an important and constructive role in world politics, facilitating agreement and managing interdependence among states. Yet a growing literature suggests that the emergence of regime complexes may undermine these benefits of institutionalized cooperation. The presence of overlapping institutions in the same issue area often leads to coordination problems, redundancy, and rule conflict (Raustiala and Victor 2004; Alter and Meunier 2009). If states can select among multiple institutions with different rules, they may opportunistically empower institutions with weaker standards and avoid domestic policy change.

The potential for regime complexes to undermine cooperation underscores the need to explain their emergence. Rational institutionalist theory argues that states create institutions because of their ability to reduce transaction costs, overcome market failures, and capture gains from cooperation (Keohane 1984). This provides a convincing account of the initial construction of institutions in an issue area, but struggles to explain the layering of additional, overlapping institutions, which is likely to raise transaction costs.

This discussion suggests an ambitious research agenda, which this dissertation seeks to advance. In the following articles, I examine three questions regarding the emergence and effect of regime complexes. Why do states build multiple international institutions in the same policy domain? Once overlapping institutions are

\(^3\)Raustiala and Victor (2004) coined the term regime complex, which they defined as “an array of partially overlapping and nonhierarchical institutions governing a particular issue-area” (279).
created, can they successfully coordinate to reduce redundancy and rule conflict? Finally, how does the emergence of a regime complex shape the policies of member states that institutions aim to govern?

In “Angling for Influence: Institutional Proliferation in Development Banking,” I argue that power misalignment in existing institutions leads countries to construct overlapping venues for cooperation. The rules that confer influence in institutions often fail to adapt to changes in member state power. Countries engage in strategic institutional proliferation when their influence in existing institutions is constrained by outdated rules. To test this argument, I examine whether power misalignment in multilateral development banks spawns the creation of new lending institutions. I show that the formal vote shares given to countries in the World Bank influences the probability that they build new development banks. Drawing on archival research into the allocation of votes at Bretton Woods, I leverage a unique natural experiment stemming from an abrupt change in the Bank’s vote share formula. Statistical tests show a strong causal effect of power misalignment on institutional proliferation: countries that are under-represented in existing development banks are significantly more likely to create new development finance institutions.

The second article, “Deference and Hierarchy in International Regime Complexes,” examines how overlapping institutions coordinate rule-making. I explain how member states can strategically distribute authority across institutions to mitigate rule conflict and establish a regulatory division of labor. They do so through a process of institutional deference, defined as the acceptance of another institution’s exercise of authority. I use a novel application of text analysis to show that deference leads to a division of labor among institutions governing counterterrorism, election monitoring, and intellectual property rights. I also demonstrate that deference is a strategic act that is shaped by member states’ attempt to maximize

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4This article will be published in the Summer 2018 edition of International Organization (Pratt 2018b).
control over global governance, as well as their interest in improving the efficiency of institutionalized cooperation.

The final article, “Race to the Bottom? Vertically Differentiated Institutions and Regime Complexity,” analyzes how overlapping IOs affect state behavior. I argue that regime complexes will have contrasting effects on states’ national policies depending on the level of differentiation among institutions. When states view institutions as substitutes, the ability to forum shop will reduce the need for policy adjustment by member states. However, in issue areas where institutions are vertically differentiated—i.e., the depth of an institution’s rules affect the benefits of compliance—the emergence of a regime complex can actually strengthen the level of policy adjustment. I demonstrate these dynamics formally and provide empirical evidence in analyses of the development finance and election-monitoring regime complexes.

As outlined above, the first two articles are linked by an emphasis on state concerns about their influence over global governance. States are motivated to maintain and augment their power in international institutions, but—as the second paper demonstrates—this motivation is balanced by a desire to sustain positive-sum cooperation. Concerns about power shape the environment in which states cooperate but do not make institutions meaningless or “epiphemonal” (Mearsheimer 1994). As the third article demonstrates, overlapping institutions maintain an ability to shape state behavior, though the degree to which they can do so depends on how they are arranged vis-a-vis each other. Together, these articles provide new insight into the strategic behavior that gives rise to international regime complexes and shapes state policies once they have emerged.
Chapter 2

Angling for Influence: Institutional Proliferation in Development Banking

Why do states build multiple international institutions in the same policy domain? Prevailing theories of institutional formation emphasize their ability to improve cooperative outcomes. Yet significant coordination problems arise when several institutions compete for authority in the same issue area. I argue that a contest for bargaining power leads states to strategically proliferate institutions. When their influence in existing venues is constrained, states construct new cooperative arrangements to augment their control over global governance. To test this argument, I examine how the distribution of formal vote shares in the World Bank drives the proliferation of new development banks. I leverage a unique natural experiment associated with the allocation of votes at the 1944 Bretton Woods Conference to estimate the causal effect of states’ influence in the World Bank. Statistical analysis shows that the probability of institutional proliferation is significantly higher when power is misaligned in existing institutions. These results demonstrate that con-
cerns about relative influence contribute to the increasing fragmentation of global governance.

2.1 Introduction

Since the end of the World War II, states have constructed international institutions at a breakneck pace. The number of formal international organizations (IOs) grew from less than a hundred in 1950 to over 300 by the year 2000. The volume of multilateral treaties negotiated by states has grown at a similarly rapid pace.\(^1\) This proliferation has generated a significant crowding of governance institutions in issue areas like trade, counterterrorism, and election monitoring, where multiple IOs compete for the authority to regulate state behavior. Recently, the proliferation of multilateral development banks has drawn the attention of policymakers and academics, as the newly formed Asian Infrastructure Investment Bank (AIIB) and New Development Bank (NDB or “BRICS Bank”) challenge the supremacy of established institutions.

The proliferation of IOs is meaningful because it has the potential to undermine international cooperation. International institutions are believed to play an important role in world politics, facilitating cooperation and managing interdependence among states. Yet a growing literature on “international regime complexity” argues that the fragmentation of global governance across multiple IOs often leads to coordination problems, redundancy, and rule conflict (Raustiala and Victor 2004; Alter and Meunier 2009). Policymakers echo these concerns. Commenting on the growth in development aid institutions, a group of government ministers observes that “the effectiveness of aid is reduced when there are too many duplicating initiatives” and

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\(^1\)See Figure 2.1 for a visual depiction of growth in international organizations. Data are from version 3.0 of the Correlates of War IGO dataset (Pevehouse, Nordstrom, and Warnke 2004). The number of multilateral treaties deposited with the United Nations grew from 494 in 1950 to 3,073 in 2000.
cautions against “creating separate new channels that risk further fragmentation.”² While some argue that institutional crowding does not necessarily undermine cooperation, at the very least sustained proliferation demands a high level of policy coordination among IOs (Gehring and Faude 2014; Abbott et al. 2015; Pratt 2018b).

Prevailing theories provide few explanations for the proliferation of multiple IOs in a single policy domain. Rational institutionalist theory argues that states build IOs to reduce transaction costs, overcome market failures, and capture gains from cooperation (Keohane 1984). This functional theory provides a convincing account of IO construction when few pre-existing institutions exist (such as the formation of the World Bank in 1944), but is less compelling when many institutions are already present (e.g., the creation of the Asian Infrastructure Investment Bank in 2015). In the latter context, institutional proliferation is likely to raise transaction costs by increasing uncertainty and introducing multiple bargaining venues.


Figure 2.1: Quantity of International Organizations over Time. Data are from version 3.0 of the Correlates of War IGO dataset (Pevehouse, Nordstrom, and Warnke 2004).
This article offers an alternative theory in which institutional proliferation emerges from a contest for bargaining power among states. States seek influence in IOs because governing institutions invariably involve distributional conflicts. These conflicts generate a desire for control in order to push negotiation outcomes toward a state’s favored position. States that are dissatisfied with their influence build new international institutions in which they have greater control. Rather than a purposeful attempt to fragment global governance across multiple institutions, proliferation is a byproduct of state attempts to increase their influence over multilateral outcomes.

My argument draws on power transition theory, which emphasizes dynamic shifts in the relative power of states and the subsequent conflict over adaptation of the international order (Organski 1968; Gilpin 1981; Zangl et al. 2016). When IOs are created, member states typically design formal and informal rules so that multilateral influence reflects states’ underlying material power. As the distribution of state power shifts, however, institutions do not smoothly adapt. A power misalignment emerges when a state’s influence within the institution is not commensurate with its unilateral power. States engage in institutional proliferation as part of a strategy to rectify these misalignments.

To test the link between power misalignment and institutional proliferation, I examine the creation of multilateral development banks. The regime for development lending grew from a single development bank in 1944 (the World Bank) to twenty-eight overlapping institutions today. These institutions are important actors in world politics. They have collectively disbursed over $400 billion in development finance since the year 2000. Development lending is also an issue area with a clear functional rationale for institutionalized cooperation (i.e., the coordination of global

\(^3\text{Calculations are conducted using OECD data on concessional and non-concessional flows from international financial institutions (http://www.oecd.org/dac/stats/statisticsonresourceflowstodevelopingcountries.htm).}\)
development finance efforts) and a substantial amount of proliferation that is difficult to explain on purely functional grounds. My theory of institutional proliferation suggests that states are more likely to construct new development banks when their influence in the central institution (the World Bank) is misaligned with their underlying material power.

The endogenous nature of state influence in international institutions is a significant obstacle to making accurate causal inferences about the effect of power misalignment. I overcome this problem by leveraging a unique natural experiment that occurred during negotiations over the formation of the World Bank. To satisfy a political promise made to its wartime allies, the United States made an abrupt change to the formula used to allocate vote shares at the 1944 Bretton Woods conference. The formula change generated an exogenous shock to the votes of most member states in the World Bank. I leverage this shock to identify the causal effect of power misalignment in the Bank on the probability that member states create new development banks.

Statistical tests confirm that states are significantly more likely to engage in the proliferation of development banks when their vote power in the World Bank is incommensurate with their broader economic power. If a state is under-represented in the Bank by a single percentage point compared to its underlying economic power, it is 6.8% more likely to participate in the proliferation of new development banks. These results establish the importance of power misalignment in spurring the emergence and expansion of international regime complexes.

The paper is organized as follows. In Section 2, I introduce the power misalignment theory of institutional proliferation, in which states create overlapping IOs to rectify imbalances in multilateral influence. Section 3 describes the regime complex for development lending, presents several testable hypotheses, and describes a newly created dataset of multilateral development bank proliferation. Section 4
presents empirical results that identify a strong effect of power misalignment on the creation of new development banks. Section 5 discusses implications of this finding and identifies avenues for future research.

2.2 Institutional Proliferation in World Politics

The primary argument of this paper is that state competition for bargaining power, rather than an attempt to maximize gains from cooperation, often drives states to construct new IOs. The argument begins with the assumption that states prefer greater influence over the activities and policy decisions of multilateral institutions. States value influence for several reasons. First, it helps them ensure that multilateral outcomes reflect their policy preferences. As Krasner (1991) argues, states participating in institutionalized cooperation care not only about reaching efficiency-enhancing bargains, but also about “which point along the Pareto frontier should be chosen” (p. 43).

Second, states value influence in international institutions even when policy outcomes are consistent with their preferences. Multilateral influence allows states to steer cooperative benefits to their allies (Fleck and Kilby 2006; Kuziemko and Werker 2006; Davis and Pratt 2017). In addition, states – and particularly rising powers – associate influence in IOs with status in world politics (Paul, Larson, and Wohlforth 2014). The degree of control granted to states in multilateral institutions may provide a signal to domestic or international audiences, generating sensitivity among states about their relative influence.

The desire for influence generates dissatisfaction among states who believe that existing institutions fail to provide them with an appropriate level of control. Under certain conditions — most importantly, when a large misalignment arises between a state’s underlying material power and its influence in the regime — a state
will attempt to gather a coalition of partners to construct a new institution which offers it greater control.

The primary independent variable in the theory is the degree of alignment between a state’s influence in multilateral institutions and its underlying material power. I define “underlying material power” as the national resources available to help a country achieve its desired outcome in the issue area via unilateral action. This is similar to Gruber’s conceptualization of “go-it-alone power” in international institutions (2000), as well as Stone’s definition of “structural power” (2011). The relevant material power resource will vary by issue area. For security institutions, the key resource is military strength; for trade and financial institutions, it is economic capacity. I define “influence in existing institutions” as the institutional procedures that help a state to achieve outcomes in the issue area via multilateral action. Influence in multilateral institutions may be formal or informal, though in the empirical analysis below I focus on formal vote power in international organizations.

States’ influence in IOs and their underlying material power are usually well aligned when an organization is initially created. A power misalignment emerges over time when there are large shifts in states’ underlying material power and a bargaining failure prevents the IO from adapting its rules to this new reality. Bar- 

4gaining failures in international institutions occur for a range of reasons. Morse and Keohane (2014) and Zangl et al. (2016) point to states’ inability to resolve information asymmetries through credible signaling as a common source of institutional bargaining failure. Many IOs also delegate control to international bureaucrats, creating vested interests that resist state control and adaptation (Hawkins et al. 

4In addition to changes in the distribution of states’ underlying material power, power misalignment may arise from the temporal sequence with which states join a particular IO. Founding member states often enjoy a larger share of decision-making power than states that join later through accession. In the World Bank, for example, founding members control 1.72% of voting power in the organization, on average, compared to 0.41% for members that acceded in later years (calculations by author).
Urpelainen and de Graaf (2013) argue that adaptation may be stymied when an IO is captured by institutional interests that are opposed to reform. While a full examination of these processes is beyond the scope of this paper, a bargaining failure that prevents institutional adaptation is a necessary condition for power misalignments to emerge and persist in IOs.

The theory’s emphasis on power misalignment implies that states pay close attention to their relative influence in IOs. They expect their influence to reflect their unilateral capacity outside the institution; when it does not, they are more likely to challenge the existing regime via institutional proliferation. The focus on power misalignment builds on a long-standing literature examining power sharing in multilateral institutions. Gruber (2000) argues dominant states have the ability to dictate outcomes in IOs because of their capacity to act alone. This does not imply that decision-making procedures will always disproportionately favor powerful states, however. As Ikenberry (2001) argues, prudent great powers may intentionally design multilateral institutions to augment the influence of weaker states and gain their acquiescence in a mutually beneficial international order. Stone (2011) concurs, describing how powerful states allow others to wield control of formal IO procedures but reserve the right to exert informal influence at pivotal moments.

As this previous work has demonstrated, control of multilateral institutions is often carefully distributed among member states to maintain their support for the regime (Ikenberry 2001; Stone 2011). When power sharing arrangements become inequitable, or are perceived as mechanisms of great power domination, support for the institution may break down. Keohane and Nye (1977) argue that the rules within a single international regime are likely to be renegotiated when bargaining power becomes misaligned. If renegotiation does not occur, disadvantaged states

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5Lake (2009) also describes power-sharing arrangements between dominant powers and weaker states. He argues that weak states enter into voluntary, subordinate relationships with a dominant power in return for the provision of public goods such as security and order.
may take disruptive action to rectify power imbalances. Gilpin (1981) posits that misalignment between state power and the distribution of benefits in the international system can generate hegemonic wars that rebalance the international order. A similar logic drives states concerned about their relative influence in IOs to proliferate new institutions.

In the power misalignment theory of institutional proliferation, states strategically create overlapping international institutions. They pay the potentially high costs of IO formation in order to increase their influence over multilateral outcomes in the issue area. Institutional proliferation bestows additional influence to states in at least two ways. First, proliferating states usually design new institutions to give themselves greater decision-making power than they have in existing IOs. When the Asian Development Bank (ADB) was created in 1966, for example, Japan was awarded more than 20% of formal vote shares (compared to less than 3% in the World Bank). This level of control reflects Japan’s status as a founding member and architect of the new institution.\(^6\)

Second, IO proliferation can reshape influence in the issue area more broadly by offering some states an additional outside option during multilateral negotiations. A state with a credible outside option gains bargaining leverage, shifting negotiation outcomes in its favor (Hirschman 1970; Voeten 2001; Schneider 2011). Other scholars have noted how institutional exit options can potentially alter bargaining power among states (Helfer 2004), including among development banks (Lipsy 2015).\(^7\) According to this logic, the creation of the ADB should grant Japan ad-

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\(^6\)In 1966, Japan was significantly under-represented in the World Bank (2.9% of formal vote shares vs. 5.7% of economic output among World Bank member states). Japanese representation in the World Bank had declined relative to its economic power over the preceding decade, as the country’s rapid economic growth was not matched by proportionate increases in its voting power.

\(^7\)Countries do not usually “exit” IOs in the classic sense of relinquishing their membership in the organization. They can shift negotiations on specific issues from one fora to another, however, and the threat of shifting to a more favorable IO should generate additional bargaining leverage.
ditional influence over lending decisions in the World Bank, since it can credibly threaten to shift proposed programs to the ADB.

Institutional proliferation is therefore a strategy that states use to augment their control over multilateral outcomes. If executed successfully, this strategy generates additional influence in both the new IO and the legacy institution. However, the strategy also entails costs which constrain its use by states. Two constraints are particularly important. The first is the difficulty of amassing a coalition of states to join a new organization. Institutional proliferation is not a unilateral act; it requires the participation of multiple states. The operational success and perceived legitimacy of a new IO grows as it attracts more members, increasing the need to amass a large coalition. Powerful states can buy off potential collaborators through concessions and side payments, but constructing a new organization is significantly easier if there is an existing set of states that are similarly dissatisfied with the current regime.

The second constraint is the efficiency costs associated with creating a new institution. The distribution of gains from institutionalized cooperation may change as new IOs are added to an issue area. When the act of creating a new institution generates large efficiency costs for the proliferating state, proliferation will be less likely. The size and incidence of efficiency costs will vary across policy domains.\(^8\) In issue areas like trade and investment, they are relatively small. Creating a new trade institution (e.g., a preferential trade agreement) does not impose significant new costs on proliferating states. There may be a loss of efficiency from trade diversion, but these costs are not borne by the proliferators; instead, they take the form of negative externalities imposed on states left out of the new agreement. In other issue areas, the introduction of multiple institutions creates significant costs for proliferators. The creation of a new development bank, for example, generates a loss of

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\(^8\)As Martin (1992) argues, each issue comes with a unique set of transaction costs that provide the foundation for states’ strategic interaction.
power for lending states (i.e., those that provide funding for the institution) relative to borrowing states. Each additional development bank provides borrowers with another venue for development finance, facilitating forum-shopping and undermining the monopoly power of lenders. Since proliferating states usually become the primary lenders in a new development bank, they feel these costs directly.\footnote{While the proliferation of development banks may shift power away from proliferating states, it does not necessarily undermine the functioning of the regime complex. Lipscy (2015) argues that as a result, development lending has seen a large amount of institutional proliferation compared to balance of payments lending (i.e., the IMF). Because of incentives created by the structure of the issue area, we should expect some issues to experience significantly more proliferation than others.} Notably, this paper argues that states are sometimes willing to pay these efficiency costs – in effect, sacrificing cooperative gains – in order to strengthen their influence over multilateral outcomes.

The theory presented and tested in this paper makes two important contributions to scholarship on international cooperation. First, it distinguishes the process of institutional proliferation, in which states add multiple overlapping IOs to an issue area, from the initial process of \textit{de novo} institutional formation. The dominant theory of institutional formation is the functional logic originally developed by Keohane (1984): states construct institutions to lower transaction costs and reach cooperative bargains that would be difficult to achieve in their absence.\footnote{This functional account of state demand for institutions also been used to explain institutional design: Koremenos, Lipson, and Snidal (2001) argue that states choose the design of international institutions in order to minimize transaction costs in specific issue areas.} While the functionalist account offers significant insight into why states initially construct an institution, it struggles to explain IO proliferation within a particular issue area. Cooperative outcomes often suffer as issue areas become crowded with institutions,
leading to a fragmented and conflicting set of international rules.\textsuperscript{11} As a result, it is hard to explain institutional proliferation solely by pointing to its anticipated cooperative benefits.\textsuperscript{12}

Second, the paper deepens our understanding of how overlapping institutions emerge and interact. Scholars have made significant progress in understanding the operation of multiple institutions in the same issue area. Studies using the frameworks of “international regime complexity” (Raustiala and Victor 2004; Alter and Meunier 2009), “contested multilateralism” (Morse and Keohane 2014), and “institutional choice” (Jupille, Mattli, and Snidal 2013) examine how IOs with overlapping mandates influence state behavior and shape cooperative outcomes. However, our understanding of why states proliferate institutions in the first place remains under-theorized. Existing treatments tend to emphasize how preference divergence among member states of an IO generates dissatisfaction among a subset of members, spurring calls for a new institution (Urpelainen and de Graaf 2013; Morse and Keohane 2014). However, states may have motives to proliferate IOs even when existing organizations operate in a manner consistent with their preferences. Influence over multilateral outcomes brings states unique benefits, including the ability to extract side payments or incentivize others to engage in desired behavior, that cannot be achieved without control. The power misalignment account illuminates how

\textsuperscript{11}The literature on international regime complexity provides many examples of rule conflict among multiple IOs: Raustiala and Victor (2004) describe “legal inconsistencies” in the regime complex for plant genetic resources, and further argue that “legal conflict among overlapping rules...is a recurring and difficult challenge for regime architects” (300). Similarly, Helfer (2009) finds institutions adopting a “competing regulatory approach” in the intellectual property regime complex (40), Davis (2009) notes “the potential for contradictory legal rulings” among trade institutions (25), and Pratt (2018b) highlights the arbitrage opportunities created by conflicting standards in counterterrorism IOs.

\textsuperscript{12}Johnson and Urpelainen (2012) offer a convincing functional rationale for regime fragmentation, arguing that institutional “separation” is superior to “integration” when positive spillovers are present between two issue areas. However, their model examines when different issue areas should remain governed by different institutions, rather than the presence of overlapping institutions in the same issue area that has been the focus of the regime complexity literature.
concerns about influence may engender institutional proliferation even when states concur on the basic goals and norms of the regime.

2.3 The Multilateral Development Lending Regime

2.3.1 Case Selection

In this section, I introduce the case I will use to test the effect of bargaining power misalignment on institutional proliferation. Development lending is both a puzzling and a substantively important case for examining institutional proliferation. It is a highly salient issue area with a substantial amount of proliferation that is difficult to fully explain on functionalist grounds. Proliferation induces inefficiencies as development banks engage in redundant efforts to screen proposals, negotiate with borrowing countries, and audit funded projects. Development banks have recognized these problems and spend significant time and effort attempting to coordinate with each other. And while proliferating states often claim that new banks will fill unmet development needs in a drastic departure from existing institutions, they often closely replicate the activities of other IOs. A large proportion of development projects approved by the AIIB, for instance, have been co-financed by the World Bank.

As noted in the previous section, the efficiency costs of development bank proliferation make it a puzzling case. Donor states, who are the actors best positioned to create new banks, have few incentives to engage in institutional proliferation. The ability of borrowers to opportunistically “forum shop” and generate competition among lending institutions limits the leverage donors have over borrowers. This
should act as a damper on donor states’ behavior, constraining their willingness to build new institutions.

If states’ primary goal in development lending is to construct a regime complex that maximizes cooperate gains, we should not expect a significant amount of institutional proliferation. However, an abundant academic literature examining the politics of the World Bank and other international financial institutions (IFIs) suggests that states have more self-interested goals. At least two conclusions from this research program are relevant for understanding institutional proliferation. First, IFIs are inherently political institutions; they distribute development finance on the basis of “high politics” at least as much as technical need (Frey and Schneider 1986; Thacker 1999; Stone 2011; Dreher, Sturm, and Vreeland 2009; Copelovitch 2010; Kersting and Kilby 2016). This invites distributional concerns from member states who have differing preferences over the allocation of loans. Second and relatively, influence in IFIs is contested and highly sought after by states (Krasner 1981; Zangl et al. 2016). In both the World Bank and regional development banks, states can use their influence to steer benefits to allies in support of broader foreign policy goals (Fleck and Kilby 2006; Lim and Vreeland 2013). States also trade influence in the World Bank to buy votes in other multilateral institutions (Dreher and Sturm 2012). The findings from this literature confirm the assumptions of the power misalignment theory: states care deeply about their influence in IFIs and will seek to augment that influence when possible.

Finally, development banking provides several advantages that make it an ideal issue area for large-N empirical tests. The presence of a clear focal institution that distributes formal voting power to members (the World Bank) facilitates the measurement of states’ influence in the existing regime. The issue area also provides a unique opportunity for causal identification rooted in the allocation of vote shares at Bretton Woods, the multilateral conference that created the World Bank and In-
ternational Monetary Fund (IMF). I discuss this historical episode in greater detail in the Section 3.5.

2.3.2 Evolution of the Regime Complex

Before turning to the data, this section provides a brief narrative description of the proliferation of multilateral development banks. Multilateral development lending began in 1944, when a large group of states created the International Bank for Reconstruction and Development (IBRD), commonly known as the World Bank. The main impetus for the World Bank was the need to coordinate European economic reconstruction after World War II. Over time, the Bank shifted its emphasis from post-war reconstruction to economic development, and it became primarily a provider of development finance for less developed countries. From its inception, state influence within the Bank was determined by states’ formal vote shares, which are distributed unequally among member states. These vote shares are tied to the capital subscriptions that states are required to contribute to the Bank, though in later years much of the capital for Bank programs came from private finance rather than state contributions.

For the first decade of its existence, the World Bank was the world’s only large multilateral development lending institution. Beginning in the mid-1950s, however, coalitions of states began to construct additional development banks. Many of these early banks were associated with new or existing international organizations. In 1956, for example, members of the Council of Europe created a development bank of their own.\footnote{Although the bank was created by Council of Europe (COE) members and retains the name of the original institution, it has autonomous decision-making authority and is formally a separate legal entity from the COE.} Two years later, European states created the European Investment Bank (EIB) as part of the Treaty of Rome. The debate surrounding the creation of the EIB provides a window into the strategic incentives that
drove states to begin constructing new development banks. France, the most vocal advocate of the EIB, argued that without a bank of their own European states would “soon depend entirely on the United States,” the dominant vote holder in the World Bank (Bussière 2008, 32). Notably, the French proposal was strongly opposed by the United Kingdom, which enjoyed the second largest vote share in the World Bank, on the grounds that it “would have duplicated the Washington institution” (Bussière 2008, 33).

In 1959, states in the Western Hemisphere created the Inter-American Development Bank (IADB), followed the next year by the Central American Bank for Economic Integration. Architects of the IADB cited the “low level of representation of Latin American countries in the existing financial institutions” as a primary justification for the new bank (Diaz-Bonilla and del Campo 2011, 59). Two other large regional institutions, the African and Asian Development Banks, were created in 1965 and 1966, respectively. These new banks tended to focus their lending activities on specific geographic regions, though state membership was generally not restricted to regional states (e.g., the United States and United Kingdom were both early members of the Asian Development Bank). Like the World Bank, these institutions typically employed weighted decision-making rules that allocated unequal influence to member states. However, the distribution of influence in the new banks often departed significantly from the World Bank. In the Asian Development Bank, for example, regional powers sought to limit Western influence over the institution’s operation. According to Wilson, “The Asian feeling at the time was that the World Bank was dominated by ‘Anglo-Saxons’ – by the Western powers led by the United States and Britain...The ambition was therefore to have the Americans not as the largest shareholder but as equal with Japan” (1987, 6).

By 1993, states had created at least twenty-four IOs that participated in development lending alongside the World Bank. These included sub-regional institutions
like the Arab Fund for Economic and Social Development, Caribbean Development Bank, and Nordic Development Fund, as well as development banks emanating from existing institutions (e.g., the OPEC Fund for International Development). Institutional proliferation increased again in the late 2000s, as groups of mostly developing countries led a series of efforts to build banks which gave them greater control over lending decisions. Russia and Kazakhstan created the Eurasian Development Bank in 2006. In 2013, the BRICS countries (Brazil, Russia, India, China, and South Africa) founded the New Development Bank (NDB), intended “as an alternative to the existing US-dominated World Bank.”

The following year, 21 Asian states joined a Chinese-led effort to create the Asian Infrastructure and Investment Bank, which plans to focus on infrastructure lending in Asia. Despite a lobbying campaign by the United States to prevent its allies from joining the AIIB, thirty-six additional countries (including the United Kingdom, Australia and many European states) signed the 2015 Articles of Agreement to become “founding members” of the bank.

Table 2.1 summarizes the observed cases of institutional proliferation in the regime complex for development lending. The table displays all multilateral development lending institutions and their dates of formation, starting with the establishment of the IBRD in 1944. In the final column, I list the number of states that participated in the planning and creation of the new institution (described in further detail in Section 2.3.4).

2.3.3 Development Bank Proliferation: Testable Hypotheses

The power misalignment theory of institutional proliferation argues that the formation of new multilateral development banks is driven by a divergence between

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"About the New Development Bank,” http://ndbbrics.org
<table>
<thead>
<tr>
<th>Institution</th>
<th>Date</th>
<th>Founders</th>
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<tbody>
<tr>
<td>International Bank for Reconstruction and Development</td>
<td>1944</td>
<td>2</td>
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<tr>
<td>Council of Europe Development Bank</td>
<td>1956</td>
<td>7</td>
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<tr>
<td>European Investment Bank</td>
<td>1958</td>
<td>7</td>
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<tr>
<td>Inter-American Development Bank</td>
<td>1959</td>
<td>13</td>
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<td>Central American Bank for Economic Integration</td>
<td>1960</td>
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<tr>
<td>African Development Bank</td>
<td>1965</td>
<td>15</td>
</tr>
<tr>
<td>Asian Development Bank</td>
<td>1966</td>
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<tr>
<td>East African Development Bank</td>
<td>1967</td>
<td>3</td>
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<tr>
<td>Arab Fund for Economic and Social Development</td>
<td>1968</td>
<td>12</td>
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<tr>
<td>Andean Development Corporation</td>
<td>1968</td>
<td>4</td>
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<tr>
<td>Caribbean Development Bank</td>
<td>1970</td>
<td>5</td>
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<tr>
<td>Islamic Development Bank</td>
<td>1973</td>
<td>10</td>
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<tr>
<td>West African Development Bank</td>
<td>1973</td>
<td>5</td>
</tr>
<tr>
<td>Development Bank of Central African States</td>
<td>1975</td>
<td>4</td>
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<tr>
<td>Arab Bank for Economic Development in Africa</td>
<td>1975</td>
<td>17</td>
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<tr>
<td>Development Bank of the Great Lakes States</td>
<td>1976</td>
<td>3</td>
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<tr>
<td>OPEC Fund for International Development</td>
<td>1976</td>
<td>12</td>
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<tr>
<td>Nordic Investment Bank</td>
<td>1976</td>
<td>5</td>
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<tr>
<td>International Fund for Agricultural Development</td>
<td>1977</td>
<td>10</td>
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<tr>
<td>Eastern and Southern African Trade and Development Bank</td>
<td>1985</td>
<td>10</td>
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<tr>
<td>Nordic Development Fund</td>
<td>1989</td>
<td>5</td>
</tr>
<tr>
<td>European Bank for Reconstruction and Development</td>
<td>1991</td>
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<tr>
<td>Black Sea Trade and Development Bank</td>
<td>1992</td>
<td>6</td>
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<tr>
<td>North American Development Bank</td>
<td>1993</td>
<td>2</td>
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<tr>
<td>Economic Cooperation Organization Trade and Development</td>
<td>2005</td>
<td>3</td>
</tr>
<tr>
<td>Eurasian Development Bank</td>
<td>2006</td>
<td>2</td>
</tr>
<tr>
<td>New Development Bank</td>
<td>2013</td>
<td>5</td>
</tr>
<tr>
<td>Asian Infrastructure Investment Bank</td>
<td>2015</td>
<td>17</td>
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states’ influence in the development lending regime and the underlying distribution of material power. When member states are unable to bargain for greater influence within the existing regime, they confront a choice. They can continue to support the current institution despite their relative lack of control. Or they can begin the costly process of constructing a new development bank, where their control over lending decisions more accurately reflects their economic power. The theory implies that states are more likely to make the latter choice when they face large misalignments in influence in the current institution. This logic underpins the primary hypothesis tested in this paper:

**Power Misalignment Hypothesis**: States are more likely to create new development banks when their underlying material power (GDP) exceeds their influence in existing institutions (World Bank vote share).

I argued above that states confront two key constraints on their ability to proliferate institutions: 1) the difficulty of amassing a coalition of states, and 2) the efficiency costs generated by creating new IOs. Efficiency costs will vary primarily across issue areas, and therefore cannot be directly tested in a single issue study. The need to construct a coalition of actors, however, suggests an additional observable implication. Each state’s decision to engage in institutional proliferation is driven not only by its own dissatisfaction, but the dissatisfaction of other states. Creating a new IO requires coming to an agreement with potential partners over the purpose, design, and distribution of authority in the new institution. When a large group of states is concerned about their influence in existing institutions, it is easier to find potential partners with whom these negotiations can be successfully concluded. The need for a coalition generates a second hypothesis:

**Coalition Hypothesis**: A state’s probability of creating a new development bank is increasing in the number of other states dissatisfied with their influence in existing institutions.
The empirical tests will examine whether power misalignment and the availability of a dissatisfied coalition predict when states participate in the creation of new development lending institutions. Of course, this is by no means an exhaustive list of reasons that states might construct new development lending institutions. I briefly discuss alternative explanations below; they motivate the control variables that are included in the empirical analysis.

The most important alternative explanation is that states judge existing institutions on the basis of policy outcomes, not relative power. An under-represented state may be unconcerned about its lack of influence as long as the policy decisions made by the World Bank are consistent with the state’s preferences. In particular, states might evaluate the World Bank according to the distribution of loans the organization provides. If a state is dissatisfied with the way the World Bank disburses development finance, it may be motivated to construct a new development bank that will conform more closely to its preferences.

In the empirical analysis below, I control for two possible dimensions of state satisfaction with World Bank lending decisions.\(^{15}\) First, states may care about their own access to development finance. In this scenario, the demand for more development aid drives institutional proliferation: a coalition of states whose development needs are insufficiently addressed by existing institutions decide to construct a new bank to increase their access to development loans. To account for this possibility, I control for the (logged) annual value of development aid disbursed to each state by existing institutions.\(^{16}\) Because development banks often have a regional geographic focus, I also control for the amount of aid given to the state’s geographic

\(^{15}\)Because policy decisions in the World Bank are affected by member states’ vote power, controlling for them risks introducing post-treatment bias. This bias is likely to attenuate the estimated effect of power misalignment. If greater vote power allows a state to steer the Bank’s decisions in its desired direction, then part of the effect of vote power will be mediated by Bank decisions. In the results below, I show that the effect of vote power misalignment is significant in specifications with and without these controls.

\(^{16}\)Data on aid from existing institutions comes from the AidData dataset (Tierney et al. 2011).
region.\textsuperscript{17} In addition to demand for development aid, an excess “supply” of capital could lead states with large financial reserves to form new banks through which they can disburse development finance. I control for states’ supply of capital for development aid with a measure of annual outgoing bilateral aid flows.

Second, states may prefer that World Bank loans are disbursed to their geopolitical allies. This explanation is consistent with existing work emphasizing geopolitical contestation over World Bank lending patterns (Frey and Schneider 1986; Thacker 1999). If a high percentage of World Bank financing is targeted toward a state’s allies, it will be less likely to engage in institutional proliferation. As World Bank loans departs from a state’s ideal distribution, the probability of proliferation will increase. To account for states’ geopolitical preferences, I control for the percent of World Bank loan disbursements that are distributed to a state’s formal allies\textsuperscript{18} in each year.

Two additional alternative explanations are worth highlighting, even though they cannot be directly accounted for in the empirical analysis. First, the impetus for many development banks was rooted in unique historical circumstances that generated demand for new institutions. The International Fund for Agricultural Development (IFAD), for example, was formed in response to a series of famine-induced humanitarian crises in the 1970s. The European Bank for Reconstruction and Development (EBRD) was created at the end of the Cold War to meet the surge in demand for development finance in post-Soviet states. These context-specific factors clearly shaped patterns of development bank proliferation. Even in these cases, however, power misalignment may have played a significant role. External shocks such as the disintegration of the Soviet Union convinced states to shift their development priorities, but they did not predetermine the creation of new de-

\textsuperscript{17}I use regional categories from the World Bank. I also include a separate control for regional economic integration to address the possibility that states construct regional banks to encourage economic integration among regional partners

\textsuperscript{18}As measured in the Correlates of War Formal Alliances dataset.
velopment banks. States still had to decide whether to use existing institutions or new IOs to meet shifts in demand. That choice was shaped by concerns over power misalignment. By the time the EBRD was proposed, for example, “institutions like the IFC [International Finance Corporation] and EIB were starting operations in Central and Eastern Europe and were well capable of extending their respective roles in the region” (Menkveld 1991, 32). Instead of using these banks, states opted to create an entirely new institution. Among the justifications provided by European officials was the desired ability of European states to make lending decisions “without the consent of the United States” (Bronstone 1999, 27).

Finally, perhaps the proliferation of multilateral development banks operates in a manner akin to the creation of private firms in a competitive market. Profit-seeking producers (donor states) enter the market to capitalize on demand from consumers (borrowing states). Development banks continue to proliferate until an equilibrium is reached such that the introduction of additional banks fails to generate positive profits.\footnote{In other words, “equilibrium in the number of firms is then taken to require all enterprises to earn nonnegative profits, while the introduction of one additional firm is taken to cause each of the incumbent firms to earn profits that are strictly negative” (Baumol, Panzar, and Willig 1982, 4).} There are several problems with applying a simple market logic to multilateral development banks. Unlike in other markets, the pool of potential producers is limited to nation-states, who are generally not profit motivated when creating development banks (a fact attested to by the concessional, below-market interest rates offered by many multilateral development banks). More importantly, all cases of institutional proliferation examined here are carried out by states that are already members of the World Bank. In the market context, this is akin to suppliers who once enjoyed monopoly status creating competing firms and
thereby transforming development lending into a competitive market – a puzzling choice from a purely economic perspective.\textsuperscript{20}

\section*{2.3.4 Measurement and Data}

To test the hypotheses, I collect data on the proliferation of development banks as well as states’ influence in the central development lending institution, the World Bank. The dependent variable is state participation in development bank proliferation. To operationalize proliferation, I identify twenty-seven unique development banking institutions that were created after the establishment of the World Bank (displayed in Table 2.1 above).\textsuperscript{21} I then construct a dichotomous variable, \textit{Institutional Proliferation}, which is measured at the state-year level; it takes a value of one when a state participates in the creation of a new multilateral development bank, and zero otherwise.\textsuperscript{22}

For the main analysis, I code the dependent variable manually, drawing on a range of secondary historical sources to identify the set of states that were meaningful participants in each bank’s creation. See Table 2.4 in the Appendix for a list of the states that participated in the creation of each multilateral development bank in the sample. Figure 2.7 in the Appendix provides a graphical depiction of the distribution of the dependent variable over time. As a robustness check, I classify all states that joined a multilateral development bank in its first year of existence as a “founder.” The dataset includes approximately 9,000 observations, and institutional proliferation occurs in 2.3\% (203) of state-year units.

\textsuperscript{20}A second market-based explanation could point to borrowing states’ demand for differentiated development finance “products” and the tendency of “potential entrants [to] look for unfilled market niches” (Tirole 1988, 346). Even in that scenario, however, existing firms should deter entry by diversifying their products. We should not expect the creation of new banks unless states have some other reason (e.g., concerns about influence) to spurn existing institutions.

\textsuperscript{21}I do not code the World Bank as institutional proliferation since no pre-existing banks were present.

\textsuperscript{22}I distinguish between states who participate in the planning and creation of a development bank and those that join later through accession. States that oppose the creation of an institution may join later if their attempt to block the institution fails.
The primary independent variable is power misalignment within existing institutions. To measure this variable, I first collect annual data on formal vote shares in the World Bank. The World Bank is the clear focal institution in the regime complex. Since its inception, it has been the largest multilateral development bank in terms of lending, personnel, and bureaucratic expertise.\(^{23}\) Formal vote power in the Bank therefore provides a reasonable measure of states’ influence over multilateral development lending. Vote power varies significantly both cross-nationally and within countries over time. Figure 2.2 displays the distribution of World Bank vote power in 2014 for the 30 states with the highest vote share. The United States is the dominant power in the institution, with slightly over 15% of its vote share.

Vote shares in the World Bank are not static, though they often do not change as rapidly as states’ relative economic capacity. Figure 2.3 shows how vote power in the Bank has changed over the last 35 years for select states. Countries that experienced rapid economic growth tended to receive more formal authority in this period (e.g., China and Japan) while others saw their relative influence reduced (United States, United Kingdom).

The independent variable of interest is power misalignment, which is a measure of the difference between a state’s regime-specific influence and its underlying material power. Figure 2.4 demonstrates the relationship between material power and institutional influence by plotting 2014 World Bank vote power for a subset of states (Y-axis) against the same states’ share of 2014 total GDP, a measure of material economic power (X-axis). As the figure shows, some states (e.g., Turkey, France) have a share of World Bank vote power that is almost exactly commensurate with their underlying economic capacity. Others appear to “punch above their weight,” with vote power outstripping their economic might (e.g., Saudi Arabia, Netherlands). A few states are less influential in the World Bank relative to their

\(^{23}\)Figure 2.8 in the Appendix shows the World Bank’s share of total development assistance since 1970.
Figure 2.2: World Bank Vote Share, 2014. The figure displays the 30 states with highest share of formal votes in 2014. Data are from World Bank annual reports.

economic power (e.g., China, Mexico). These are precisely the states I expect to have a higher probability of engaging in institutional proliferation.

I use the data displayed in Figure 2.4 to create a variable called Vote Power Misalignment for each state-year observation. This is the main independent variable used in the empirical analysis. It measures the difference between state $i$’s share of total GDP among World Bank members in year $t$ and its World Bank vote share in the same year: $\text{GDP share}_i - \text{World Bank vote share}_i$. Higher values ($> 0$) indicate that a state’s formal influence in the World Bank falls short of its underlying material power. For example, Brazil represented 3.1% of World Bank members’
economic output in 2014, but only received 1.7% of vote shares in the organization. Its Vote Power Misalignment was 1.4, the difference between these numbers. The Power Misalignment Hypothesis suggests we should observe a positive effect of this variable on the probability that a state participates in institutional proliferation. I also hypothesized that states are more likely to engage in institutional proliferation when they have access to a coalition of partners who are similarly dissatisfied with their influence in existing institutions (Coalition Hypothesis). I construct a second independent variable, Coalition, to test this hypothesis. To create this variable, I assume all states that are “undervalued” in the World Bank (i.e., Vote Power Misalignment > 0) represent a potential coalition of partners for a state interested in creating a new institution. The variable Coalition measures the
Figure 2.4: World Bank Vote Share vs. Relative GDP, 2014. Select states are plotted according to their share of World Bank vote power (Y-axis) and economic power (GDP, X-axis) in the year 2014.
number of these potential partners in a given year. The Coalition Hypothesis predicts a positive effect of Coalition on the probability of institutional proliferation.

A series of control variables address potential confounders and alternative explanations. To account for states’ demand for development assistance, I include states’ GDP, level of development (GDP per capita), and incoming flows of bilateral and multilateral development aid. I also include states’ outgoing aid flows, to capture the possibility that states who give more financial assistance will create development banks in order to facilitate the delivery of development aid. To address states’ geopolitical preferences regarding World Bank loans, I control for the percent of World Bank funds that are disbursed to a state’s formal allies. I account for the possibility that states form development banks to facilitate regional economic integration by controlling for the proportion of each state’s total trade that is conducted with regional partners.\textsuperscript{24} I also include fixed effects for each region to account for varying baseline propensities of some regions to form new banks.

Additional variables address state-level features that influence the probability of institutional proliferation. A control for democratic political institutions reflects the higher propensity of democracies to create and form IOs.\textsuperscript{25} Measures of states’ national military capability control for the potential use of coercion to build a coalition of proliferating states. I include a count of development banks previously joined to address the extent to which states are already represented in the regime complex. Finally, I account for time dependence with a cubic polynomial (Carter and Signorino 2010).

Despite the inclusion of these control variables, endogeneity remains a significant threat to causal identification. Vote shares in the World Bank are not randomly assigned. They are the outcome of a complex bargaining process that is inextri-

\textsuperscript{24}I include an analogous variable at the region level (the proportion of total trade that is conducted intra-region). Geographic regions are defined according to the World Bank’s regional classification scheme.

\textsuperscript{25}States’ polity scores are from the Polity IV dataset.
cably linked to states’ political power, diplomatic prowess, and preferences for development lending. This political process makes it likely that unobserved factors influence both states’ vote power misalignment and their propensity to create new development banks. Endogeneity could generate bias in either direction, depending on how vote shares are allocated. If powerful states are able to bargain for greater influence in the Bank and can also more easily mobilize a coalition for new institutions, coefficient estimates in a standard regression will be biased in a negative direction. On the other hand, if states that are devoted to certain lending practices — for example, condition-based lending that requires borrowers to uphold economic, environmental and social standards — are given more influence in the Bank, and these same states resist the creation of new development banks, regression estimates will be biased in a positive direction.

To account for potential bias, I use an identification strategy that accurately estimates the effect of power misalignment even in the presence of unobserved confounders. Specifically, I leverage a natural experiment that occurred during negotiations regarding the formation of the World Bank. Late in this process, the Bank’s architects switched formulas for allocating votes to member states. I use this abrupt change as an instrument for Vote Power Misalignment in order to estimate its causal effect on institutional proliferation.

2.3.5 Vote Share Allocation at Bretton Woods

Serious planning for the institution that would become the World Bank started in the early 1940s, in the midst of the second World War. American policymakers, anticipating the need for multilateral cooperation to assist in the reconstruction of Europe after the war, began to draw up designs for a “Bank for Reconstruction and Development of the United and Associated Nations” in 1942 (White 1942). Primary responsibility for planning the bank, as well as an International Stabilization
Fund (which would become the IMF), was given to Department of Treasury official Harry Dexter White. White’s influence on the Bank was profound; his thinking shaped its institutional goals, structure, and decision-making procedures. From 1942 until the Bretton Woods Conference in July 1944, White worked closely (and often contentiously) with his British counterpart, the noted economist John Maynard Keynes, to put plans for the bank into action (Steil 2013).

White’s professional correspondence provides a detailed picture of the Bank’s origins, including his plans to distribute vote shares among the founding member states. Initial drafts of the bank, prepared in a series of memos for Treasury Secretary Henry Morgenthau Jr., describe a highly technical institution, with each member state assigned a unique, minimum number of stock shares they would hold in the bank. The earliest formula for member state stock shares was simple and intuitive: each member would contribute “2 percent of its estimated national annual income,” and states would receive “50 votes plus one vote for each share of stock held” (White 1942). This formula for allocating vote power had a clear basis in states’ economic power: those with a higher national income would contribute more to the bank’s capital, and therefore would receive greater influence in the organization.

As White began to negotiate the terms of the bank with US allies, it soon became clear that the purely technical formula would have to bend to certain political realities. The UK, which was comparatively limited in national income but had a very large trade volume, successfully lobbied the United States to add international trade as an element in the vote share formula (White 1943). White would have to contend with similar requests from China and the USSR, the other two major US allies in the war effort. To complicate matters, US officials determined it would be

\[26\text{Stock shares were essentially capital subscriptions; states with a higher number of shares were required to commit greater capital resources to the bank, and they were also given greater influence over lending decisions via increased vote power.}\]
too onerous to negotiate the allocation of vote shares in the World Bank and IMF separately; instead, they decided to come up with a single distribution of decision-making power that would apply to both institutions.

U.S. officials soon realized that the effort would not succeed without first achieving a politically feasible distribution of votes among the “Big Four” allies: the US, UK, USSR, and China. Accordingly, the relative vote power of the Big Four was set at the highest political level, in violation of the original formula envisioned by White. The United States would receive the largest capital subscription of approximately $2.9 billion, the UK half that amount, and the USSR and China slightly less. As in White’s initial draft of the bank, each state’s voting power was tied to their capital subscription (Mikesell 1994, p. 22). Having achieved agreement among these fundamentally important states, White desperately wanted to limit diplomatic negotiations with the other 40 states who would attend the Bretton Woods conference. His strategy for doing so was to tie vote shares to a “scientific formula” and thus limit procedural complaints about the allocation of votes. The challenge was finding a reasonable formula that would still respect the political decision over voting power granted to the Big Four. White assigned this task to an aide named Raymond Mikesell.

Mikesell recalls the assignment from White in his memoir of the negotiations preceding Bretton Woods. White instructed Mikesell to construct a formula using four variables — national income, foreign trade (exports and imports), gold reserves, and dollar holdings. He “gave no instruction on the weights to be used,” but insisted the formula accurately reflect the agreed upon vote shares among the Big Four (Mikesell 1994, p. 22). Mikesell went through “dozens of trials” (p. 22) to create a formula that satisfied these difficult constraints; many of his rejected drafts are included among White’s archival records. Eventually, Mikesell developed a formula that White deemed close enough to the political agreement forged among
the Big Four. Unfortunately, the formula was difficult to justify on any rational basis. According to the Mikesell formula, a country’s capital subscription would be calculated by first taking the sum of 4 quantities: 2 percent of national income, 5 percent of gold and dollar holdings, 10 percent of average imports, and 10 percent of the maximum variation in exports from 1934-1938. This sum was then multiplied by the ratio of average exports from 1934-1938 to national income in 1940 to get a state’s final capital subscription (Mikesell 1994, p. 23).

Stone (2011) describes the resulting quota formula as an attempt by the United States “to cloak in technocratic calculations its political judgments about what share of control it was necessary to cede to each of the great powers in order to secure their participation” (53). For countries outside of the Big Four, what the complex formula accomplished was to add a great deal of randomness to the initial allocation of vote shares. White and Mikesell were aware of this fact, and took great pains to hide the details of the formula from potential member states. Their concern is apparent in White’s personal correspondence. Responding to a memo from Mikesell detailing one proposed vote formula, White scribbles in the margins: “Deny it ever existed!”

As the US and its allies prepared for the Bretton Woods conference, they circulated the proposed distribution of vote shares to participating states, but withheld Mikesell’s formula. At Bretton Woods, the vote quotas arising from the formula were used as starting points for negotiation. States were permitted to issue protests, and some successfully lobbied for increases in vote power over their initial allocation. It appears that deviations from Mikesell’s formula were fairly limited, however. One important reason was effective US control of the “Committee on Quotas” at the conference. The committee was chaired by high-ranking Treas-

\[27\text{Mikesell would report that despite his insistence that vote shares were derived using a scientific formula, delegates “were intelligent enough to know that the process was more political than scientific” (Mikesell 1994, p. 23).}\]
sury official Fred Vinson, and its technical advisor was none other than Raymond Mikesell (Mikesell 1994).

In addition to being an interesting historical episode, the allocation of vote shares at Bretton Woods can be used to help mitigate the endogeneity of bargaining power. I exploit the “randomness” associated with Mikesell’s formula to create an instrument for vote power in the World Bank. Specifically, for each state I calculate the change in vote power that arose by shifting from White’s original vote formula (2% of national income) to the complex formula that was ultimately used at Bretton Woods. Because vote shares in the World Bank are highly path dependent, the shift in vote allocation at Bretton Woods had a long-term effect on their relative control of the institution. The initial change in vote shares can therefore be used as an instrument for states’ bargaining power in the World Bank.28

There are three assumptions embedded in the instrumental variables approach. The first, exogeneity, requires that the instrument’s effect on the independent variable is independent of potential outcomes. In this case, the assumption requires that the “extra” vote power a state received (or lost) by transitioning to the Mikesell formula is unrelated to variables that might influence states to build new development banks, such as their underlying political power or preferences for development lending. This is clearly not true for the “Big Four” allies, whose political power prompted the new vote formula in the first place. For all other states, however, the change in vote share was exogenous to political considerations.29

Two pieces of evidence support the exogeneity assumption. The first is the historical record, which indicates White and Mikesell intentionally searched for a vote

---

28 The additional vote share gained via the change in vote quota formula is positively correlated (0.21) with future vote shares in the World Bank.

29 Importantly, I do not claim that political considerations did not influence the ultimate allocation of vote shares in the Bank itself — merely that the change in vote shares from the original plan to the Mikesell formula was independent of political power for those outside the “Big Four.” In practice, the formula did not fully determine vote shares but were used as guidelines to start negotiations at Bretton Woods. The actual votes deviated from the Mikesell formula, sometimes significantly (see Stone (2011, p. 54)).
quota formula with a single goal in mind: to accurately match the political promise made to the big four allies. Mikesell is clear that the only instructions White provided were related to the big four allies; other considerations were ignored as he adjusted the formula to achieve the correct weighting among the US, UK, USSR, and China. The fact that the formula itself was hidden from other states at Bretton Woods affirms the notion that their interests were not reflected in its construction.

Second, the data reveal no significant correlation between the change in vote shares and observed indicators of political or economic power. Figure 2.5 demonstrates the distribution of the change in vote shares resulting from the use of the Mikesell formula. About half of Bretton Woods participants benefited from the shift in terms of greater vote power; others saw their formal influence fall. Figure 2.6 compares the characteristics of states who gained influence from the Mikesell formula to those that lost vote power. The two groups exhibit no significant differences in economic power (GDP), level of development (GDP per capita), Military Power (CINC score), or political regime (Polity score).

The second IV assumption, often referred to as the “exclusion restriction,” is that the instrument only affects the outcome (institutional proliferation) through its relationship with the independent variable (Vote Power Misalignment). Here the assumption is true by construction, since the instrument constitutes a direct shift in states’ vote power in the Bank. Finally, the third assumption (“monotonicity”) requires that the instrument affects all observations in the same direction. This assumption is violated if an increase in vote power resulting from the formula shift decreases the propensity of some states to engage in institutional proliferation,

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30Mikesell (1994, p. 22-23) states: “White gave no instructions on the weights to be used, but I was to give the United States a quota of approximately $2.9 billion; the United Kingdom (including its colonies), about half the U.S. quota; the Soviet Union, an amount just under that of the United Kingdom; and China, somewhat less...I confess to having exercised a certain amount of freedom in making these estimates in order to achieve the predetermined quotas. I went through dozens of trials, using different weights and combinations of trade data before reaching a formula that satisfied most of Whites objectives.”
while increasing the propensity of others. While this assumption is not directly testable, it is highly unlikely that states become more dissatisfied with the World Bank after being given greater control within the institution.

## 2.4 Results

### 2.4.1 2SLS

To identify the effect of Vote Power Misalignment on institutional proliferation, I use a two-stage least squares (2SLS) model with the following estimating equations for each stage. For state $i$ in year $t$:

$$\text{Vote Power Misalignment}_{it} = \alpha_1 + \gamma_1 \text{Formula Shift}_{i} + \gamma_2 X_{it} + \epsilon_{it}$$

$$\text{Institutional Proliferation}_{it} = \alpha_2 + \beta_1 \text{Vote Power Misalignment}_{it} + \beta_2 X_{it} + \delta_{it}$$

where $X_{it}$ is a vector of control variables discussed in the previous section.
Figure 2.6: *Covariate Balance for States Affected by Mikesell Formula.* Standardized mean differences and 95% confidence intervals for “winners” vs. “losers” from the Mikesell formula. Data are from 1947 (earliest available year after the switch to the Mikesell formula).

Table 2.2 presents the results of the 2SLS models testing the effect of power misalignment on the probability of institutional proliferation. Column 1 reports the results of a model which includes the key independent variable, *Vote Power Misalignment*, instrumented by the vote quota change arising from Mikesell’s formula, as well as a series of baseline control variables. All models further include region fixed effects, a time polynomial, and the four component variables that comprise Mikesell’s vote quota formula.\(^{31}\) Including these variables

\(^{31}\)These variables are not shown in the results table. They include: states’ national income in 1940; average exports form 1934-1938; gold and dollar reserves in 1940; and maximum variation in exports from 1934-1938.
controls for the possibility that Mikesell strategically altered the formula to privilege or undermine states other than the Big Four. The historical record suggests this is unlikely, but to be cautious I include states’ imports, exports, national income, and gold reserves in the years before Bretton Woods. The instrument thus measures the change in voting power arising from Mikesell’s formula, conditioning on the variables in the formula.

The estimated effect of Vote Power Misalignment on institutional proliferation is positive and statistically significant in Model 1, suggesting states are more likely to create new development banks when their authority in the World Bank falls short of their underlying economic power (consistent with the Power Misalignment Hypothesis). The coefficient is substantively large: a one standard deviation increase in Vote Power Misalignment (0.012) causes a 3.8% increase in the probability of institutional proliferation, more than doubling the baseline rate of 2.3%. In contrast, the Coalition variable has no measurable influence on institutional proliferation. This suggests, contrary to the Coalition Hypothesis, that states are not constrained by the need to amass a group of partners to help create a new institution. Control variables perform largely as expected. Democratic states and those with higher GDP are more likely to construct new development banks, while states at lower levels of development (GDP per capita) are less likely to proliferate. Military capacity is negatively associated with institutional proliferation.

Column 2 adds the remaining controls. The effect of Vote Power Misalignment is even larger in magnitude than in Model 1. The Coalition variable is negative and statistically significant, though substantively very small. States’ geopolitical preferences over the distribution of World Bank loans (Loans to Allies) has no significant effect on institutional proliferation. Similarly, the results suggest the creation of new banks is not significantly shaped by states’ need for development aid.
Table 2.2: Effect of Vote Power Misalignment on Institutional Proliferation

<table>
<thead>
<tr>
<th></th>
<th>(1) 2SLS</th>
<th>(2) 2SLS</th>
<th>(3) Reduced Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Power Misalignment</td>
<td>3.352**</td>
<td>6.767**</td>
<td>−11.344***</td>
</tr>
<tr>
<td></td>
<td>(1.454)</td>
<td>(3.163)</td>
<td>(4.734)</td>
</tr>
<tr>
<td>Mikesell Vote Shift</td>
<td>−11.344***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.734)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coalition</td>
<td>−0.001</td>
<td>−0.003**</td>
<td>−0.004**</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.022***</td>
<td>0.046***</td>
<td>0.028***</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.015)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>−0.012*</td>
<td>−0.040**</td>
<td>−0.015**</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.016)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Polity</td>
<td>0.002***</td>
<td>0.003**</td>
<td>0.002**</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Military Capacity</td>
<td>−5.031***</td>
<td>−11.866**</td>
<td>−2.776**</td>
</tr>
<tr>
<td></td>
<td>(1.881)</td>
<td>(4.902)</td>
<td>(0.821)</td>
</tr>
<tr>
<td>Loans to Allies</td>
<td>−0.040</td>
<td>−0.026</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.044)</td>
<td></td>
</tr>
<tr>
<td>Aid Received</td>
<td>−0.001</td>
<td>−0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>Aid Given</td>
<td>0.002</td>
<td>0.002**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,898</td>
<td>1,456</td>
<td>1,456</td>
</tr>
<tr>
<td>F Statistic</td>
<td>19.165</td>
<td>13.818</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Models examining the effect of vote power misalignment on development bank formation. Standard errors are clustered by country. Statistical significance is denoted by: *p<0.1; **p<0.05; ***p<0.01.
(Aid Received), stock of development finance capital (Aid Given), or desire to economically integrate their geographic region (Regional Trade Integration).

The results provides strong support for the effect of vote power misalignment on institutional proliferation. To demonstrate the magnitude of the effect, suppose the World Bank offered China more authority in 2012, changing its Vote Power Misalignment from the observed value (0.078) to a level equivalent to Japan (−0.013). The results in Model 2 indicate this additional influence would make China 62% less likely to create a new development bank (as it did with the Asian Infrastructure Investment Bank shortly thereafter).

Finally, Column 3 shows the results of a linear probability model that estimates the direct effect of the shift in vote power from Mikesell’s formula on the probability of institutional proliferation. Unlike the instrumental variables approach, this reduced form model does not provide an accurate estimate of the effect of Vote Power Misalignment, since it does not consider vote share in relation to states’ underlying economic power. But it can confirm our expectation that an exogenous infusion of additional vote power reduces the probability that a state engages in institutional proliferation. Indeed, the results demonstrate that a one percentage point increase in World Bank vote share decreases the probability of institutional proliferation by 11.34 percentage points.

Diagnostic tests indicate the instrument is strongly correlated with Vote Power Misalignment (F-statistic = 13.818), and further suggest that OLS estimates are likely to be inconsistent (Wu-Hausman test, p = 0.05). Following Conley, Hansen, and Rossi (2012), I perform sensitivity analysis to examine how robust the findings are to violations of the exclusion restriction. In this case, the instrument (the Mikesell formula) can have a direct effect on the outcome (institutional proliferation) of up to +−3.1 until the results become statistically insignificant. This is equivalent

32See Table 2.5 in the appendix for results from the first stage of the instrumental variables model.
to each standard deviation increase in vote share received from the Mikesell formula directly affecting the probability of institutional proliferation by over 3%.

The findings presented above are robust to the inclusion of additional controls (democratization, trade openness, and a count of state memberships in other banks). I re-estimated the models while removing each of the twenty-eight development banks to ensure the results are not driven by one particular institution, with similar results. One potential concern is that the use of the Mikesell formula to instrument future vote power misalignment in the World Bank results in a weak instrument, since the shift in formula only occurs once and subsequent vote shares are shaped by a range of factors. While the F-statistic from the first stage regression suggests the instrument is sufficiently strong, I calculated the Anderson-Rubin standard errors which are robust to weak instruments. Vote Power Misalignment retains its statistically significant effect on institutional proliferation. Finally, I performed a placebo test by repeating the same IV analysis on the proliferation of multilateral security institutions. If the theory is correct, states’ power misalignment in the World Bank should affect their propensity to form new development banks, but not create new security IOs. As expected the estimated effect of Vote Power Misalignment on the proliferation of security institutions is substantively and statistically insignificant.

### 2.4.2 OLS and First Difference Models

The strength of the instrumental variable strategy is internal validity; it correctly estimates the effect of Vote Power Misalignment even in the presence of unobserved confounders. However, this approach also entails two limitations. The first is the need to restrict the sample of observations. To ensure the instrument is exogeneous, I excluded the “Big Four” states (US, UK, China, Russia) and only

\[^{33}^\text{Traditionally, an F-statistic of greater than 10 is considered a sign that the instrument is not weak. In the full model (Column 3), the F-statistic is greater than this threshold (11.179).}\]
included other states for which contemporaneous data is available on the Bretton Woods vote quota formula. This reduces the number of states that are included in the sample.\textsuperscript{34} The models in Table 2.2 therefore estimate the local effect of Vote Power Misalignment on the 34 states affected by the instrument, which excludes many potential states of interest.

Second, the instrument only affects states’ vote power in the World Bank. Realistically, states are likely to consider their level of influence in the broader range of institutions that engage in development finance. China’s decision to create the AIIB, for example, may be driven by its lack of representation in the Asian Development Bank as much as in the World Bank. Likewise, Japan’s dominant position in the Asian Development Bank should dissuade it from establishing additional institutions.

To test these expectations, the final set of results examines the effect of Vote Power Misalignment in a series of non-instrumented regression models. Table 2.3, Column 1 re-estimates the fully specified 2SLS model in a linear probability model, using the same sample as in Table 2.2.\textsuperscript{35} The coefficient for Vote Power Misalignment is statistically insignificant and much smaller in magnitude than in the instrumented version, suggesting the regression results are subject to attenuation bias. We should therefore interpret the coefficients in this table as a lower bound on the true effect of Vote Power Misalignment (i.e., the true effect is more positive than the estimates derived from a linear regression model).

Column 2 expands the sample to the full set of country-year observations. As in

\textsuperscript{34}The 34 remaining states in the sample are: Argentina, Australia, Belgium, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Czechoslovakia, Denmark, Ecuador, Egypt, El Salvador, Finland, Germany, Greece, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Portugal, South Africa, Sweden, Thailand, Turkey, Uruguay, Venezuela, and Yugoslavia.

\textsuperscript{35}I use a linear probability model for consistency with the 2SLS specification. Results are substantively unchanged in a logit model.
the first model, power misalignment has no significant association with institutional proliferation.

The final two columns employ first difference models, leveraging dynamic changes in Vote Power Misalignment to explain the creation of new development banks. These models account for time-invariant, state-level variables that may influence the propensity to engage in institutional proliferation. The results for Model 3 show a positive and statistically significant effect of Vote Power Misalignment, demonstrating that the effect is not limited to the 34 states in the 2SLS sample.

The final model incorporates a separate measure of power misalignment in the four largest regional development banks. To construct this variable, I collect data on states’ vote share in the major development lending institution that corresponds to the states’ geographic region. As in the first Vote Power Misalignment measure, I then calculate the difference in states’ relative vote share in their regional development bank and their relative economic power. Results reveal that states consider more than just their influence in the World Bank when constructing new development banks. While the effect of Vote Power Misalignment in the World Bank remains positive and statistically significant, power misalignment in regional development banks has a separate, significant effect on institutional proliferation. This findings helps explain why institutional proliferation continues to occur even after states have constructed alternative development banks. Each time a bank is created to resolve power misalignment for one set of states, it simultaneously disadvantages others and generates additional motivation for institutional proliferation.

\[ \text{Institutional Proliferation}_{it} \] - \[ \text{Institutional Proliferation}_{it-1} \] as a function of the change in the independent variable, \[ \text{Vote Power Misalignment}_{it} - \text{Vote Power Misalignment}_{i,t-1} \].

Regional development banks included in this model are the European Investment Bank, Inter-American Development Bank, African Development Bank, and Asian Development Bank.

I collect this data for all years in which the regional development banks have publicly available annual reports, where states’ vote shares are listed.
Table 2.3: Effect of Vote Power Misalignment on Institutional Proliferation, OLS Models

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
<td>FD</td>
<td>FD</td>
</tr>
<tr>
<td>Vote Power Misalignment</td>
<td>0.820</td>
<td>0.052</td>
<td>2.531**</td>
<td>1.477**</td>
</tr>
<tr>
<td></td>
<td>(0.872)</td>
<td>(0.144)</td>
<td>(1.021)</td>
<td>(0.607)</td>
</tr>
<tr>
<td>Vote Power Misalignment (Region)</td>
<td></td>
<td></td>
<td></td>
<td>0.118**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.007)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.018**</td>
<td>0.006***</td>
<td>0.003***</td>
<td>0.005***</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.002)</td>
<td>(0.001)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>−0.016**</td>
<td>−0.004*</td>
<td>−0.003</td>
<td>−0.003</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Polity</td>
<td>0.002***</td>
<td>0.0002</td>
<td>0.001</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.0004)</td>
<td>(0.0002)</td>
<td>(0.0004)</td>
</tr>
<tr>
<td>Military Capacity</td>
<td>−2.725*</td>
<td>−0.345***</td>
<td>−0.142**</td>
<td>−0.316***</td>
</tr>
<tr>
<td></td>
<td>(1.427)</td>
<td>(0.100)</td>
<td>(0.064)</td>
<td>(0.083)</td>
</tr>
<tr>
<td>Coalition</td>
<td>−0.003**</td>
<td>0.001</td>
<td>0.005**</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.002)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Regional Coalition</td>
<td></td>
<td></td>
<td></td>
<td>0.009***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.004)</td>
</tr>
<tr>
<td>Loans to Allies</td>
<td>−0.027</td>
<td>0.007**</td>
<td>0.026</td>
<td>0.083**</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.036)</td>
<td>(0.036)</td>
<td>(0.037)</td>
</tr>
<tr>
<td>Observations</td>
<td>1,456</td>
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<td>5,752</td>
<td>5,748</td>
</tr>
<tr>
<td>States</td>
<td>34</td>
<td>160</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>MDBs</td>
<td>17</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>

Notes: Models examining the effect of bargaining power misalignment on states’ propensity to construct new development banks. Standard errors are clustered by country. All models include a time polynomial, region fixed effects, ingoing and outgoing aid flows, regional trade dependence, and memberships in existing banks (not shown). Statistical significance is denoted by: *p<0.1; **p<0.05; ***p<0.01.
2.5 Discussion and Future Research

This paper argues that states are more likely to create new IOs when they believe their influence in existing institutions is constrained by outdated rules. Rather than attempting to maximize cooperative benefits, states often build institutions as part of a competition for influence in multilateral organizations. IOs that fail to adapt to changes in states’ underlying material power risk the proliferation of additional institutions, fragmenting global governance and potentially creating obstacles to effective cooperation.

Power misalignment in existing IOs is one powerful pathway through which states decide to build multiple, overlapping institutions. It provides a rationale for perhaps the most significant trend in international cooperation over the last several decades: the increasing crowding of governance institutions in many issue areas. This trend has only recently begun to attract scholarly attention, and the power misalignment theory offers an important complement to preference-based explanations that have been advanced in the literature. A notable implication of the theory is that we will observe more institutional proliferation than is strictly optimal for cooperation. As the distribution of state power evolves, regime complexes are likely to experience continued fragmentation and its attendant coordination challenges. This expectation stands opposed to the “rational design” literature (Koremenos, Lipson, and Snidal 2001), which argues that international regimes are designed to efficiently address the underlying cooperation problem states confront.

I find empirical support for the effect of power misalignment in the issue area of development lending. By leveraging a unique natural experiment, I demonstrate that imbalances in multilateral bargaining power in the World Bank causes states to construct new development banks. The substantive effect of power misalignment is large in magnitude, significantly increasing the probability of institutional proliferation among disadvantaged states.
My analysis of development lending institutions has several implications that contribute to our understanding of international financial institutions. The first is the sources of leverage that provide states with influence in IFIs. My argument suggests newly established institutions offer proliferating states an additional outside option, which should strengthen their hand in negotiations. As a result, understanding how states influence World Bank lending or disbursement patterns requires knowing who wields power in other development banks as well as the internal politics of the Bank. Second, concerns about severe discord between new banks and existing IFIs may be overblown. If states establish a new institution with the specific intent of providing bargaining leverage – and not to challenge operational practices in existing banks – the institutions may interact more harmoniously than is commonly expected. To serve as a viable outside option, new institutions must be at least a partial substitute for the original IO. This implies new development banks will not function in fundamentally different ways than existing ones. Coordination among multiple institutions will remain a challenge, but the basic mission and operation of new development banks should be consistent with long-standing institutions like the World Bank.

These implications should extend beyond development banking to other salient issue areas in world politics. Other major institutions, including the European Union and the UN Security Council, have formal decision-making procedures that distribute influence unequally to member states. If these procedures fail to adapt to changes in the underlying distribution of state power – as the Security Council is often accused of doing – they may find themselves sharing governing authority with newly established IOs. Even IOs that operate by consensus or give members equal formal vote power are not immune to power misalignment. As Stone (2011) argues, powerful states often exert informal influence over multilateral institutions. Precisely because this process is informal, it may be more difficult to adjust as state
power evolves. The bargaining failures that create power misalignment in weighted IOs may be even more prevalent in institutions which claim to be egalitarian.
2.6 Appendix

Table 2.4: Coding of Institutional Proliferation

<table>
<thead>
<tr>
<th>Institution</th>
<th>Year</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEDB</td>
<td>1956</td>
<td>France, Italy, Turkey, Germany, Belgium, Iceland, Luxembourg</td>
</tr>
<tr>
<td>EIB</td>
<td>1958</td>
<td>France, Netherlands, Italy, Ireland, Belgium, Luxembourg, Germany</td>
</tr>
<tr>
<td>IDB</td>
<td>1959</td>
<td>Brazil, Chile, Colombia, Ecuador, Haiti, Costa Rica, Mexico, Cuba, Dominican Republic, El Salvador, Honduras, Panama, Venezuela</td>
</tr>
<tr>
<td>CABEI</td>
<td>1960</td>
<td>Guatemala, El Salvador, Honduras, Nicaragua</td>
</tr>
<tr>
<td>AfDB</td>
<td>1965</td>
<td>Sudan, Nigeria, Cameroon, DR Congo, Ethiopia, Ghana, Guinea, Cote d’Ivoire, Kenya, Liberia, Mali, Morocco, Sierra Leone, Tanzania, Togo, Uganda</td>
</tr>
<tr>
<td>AsDB</td>
<td>1966</td>
<td>Japan, Sri Lanka, Thailand, Malaysia, Philippines, Thailand, India, Indonesia</td>
</tr>
<tr>
<td>EADB</td>
<td>1967</td>
<td>Kenya, Uganda, Tanzania</td>
</tr>
<tr>
<td>AFESD</td>
<td>1968</td>
<td>Kuwait, Jordan, Tunisia, Algeria, Sudan, Iraq, Saudi Arabia, Syria, Lybia, Egypt, Yemen, Lebanon, Morocco, United Arab Emirates, Bahrain, Qatar</td>
</tr>
<tr>
<td>CAF</td>
<td>1968</td>
<td>Colombia, Chile, Ecuador, Peru</td>
</tr>
<tr>
<td>CDB</td>
<td>1970</td>
<td>Canada, Jamaica, Barbados, Trinidad &amp; Tobago, Guyana, Grenada, United Kingdom, Dominica, St. Kitts &amp; Nevis, St. Lucia, St. Vincent &amp; Grenadines</td>
</tr>
<tr>
<td>IsDB</td>
<td>1973</td>
<td>Saudi Arabia, Egypt, Pakistan, Qatar, Bahrain, Oman, Libya, United Arab Emirates, Malaysia, Morocco</td>
</tr>
<tr>
<td>Institution</td>
<td>Year</td>
<td>States</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>WADB</td>
<td>1973</td>
<td>Cote d'Ivoire, Benin, Niger, Senegal, Togo</td>
</tr>
<tr>
<td>BDEAC</td>
<td>1975</td>
<td>Cameroon, Central African Republic, Congo, Gabon</td>
</tr>
<tr>
<td>ABEDA</td>
<td>1975</td>
<td>Jordan, United Arab Emirates, Bahrain, Tunisia, Algeria, Sudan, Saudi Arabia, Iraq, Oman, Qatar, Kuwait, Libya, Lebanon, Egypt, Syria, Morocco, Mauritania</td>
</tr>
<tr>
<td>BDEGL</td>
<td>1976</td>
<td>Burundi, Rwanda, DR Congo</td>
</tr>
<tr>
<td>OFID</td>
<td>1976</td>
<td>Iran, Iraq, Kuwait, Saudi Arabia, Venezuela, Qatar, Indonesia, Libya, United Arab Emirates, Algeria, Nigeria, Ecuador</td>
</tr>
<tr>
<td>NIB</td>
<td>1976</td>
<td>Denmark, Finland, Iceland, Norway, Sweden</td>
</tr>
<tr>
<td>IFAD</td>
<td>1977</td>
<td>Australia, New Zealand, Netherlands, Mexico, Bangladesh, Sierra Leone, Venezuela, Saudi Arabia, Iran, Kuwait, United Arab Emirates</td>
</tr>
<tr>
<td>ESATDB</td>
<td>1985</td>
<td>Ethiopia, Kenya, Lesotho, Malawi, Mauritius Swaziland, Somalia, Uganda, Zambia, Zimbabwe</td>
</tr>
<tr>
<td>NDF</td>
<td>1989</td>
<td>Denmark, Finland, Iceland, Norway, Sweden</td>
</tr>
<tr>
<td>EBRD</td>
<td>1991</td>
<td>France, Germany, Italy</td>
</tr>
<tr>
<td>BSTDB</td>
<td>1992</td>
<td>Albania, Armenia, Azerbaijan, Bulgaria, Greece, Georgia, Moldova, Romania, Russia, Turkey, Ukraine</td>
</tr>
<tr>
<td>NADB</td>
<td>1993</td>
<td>United States, Mexico</td>
</tr>
<tr>
<td>ECOTDB</td>
<td>2005</td>
<td>Iran, Pakistan, Turkey</td>
</tr>
<tr>
<td>EuADB</td>
<td>2006</td>
<td>Russia, Kazakhstan</td>
</tr>
<tr>
<td>NDB</td>
<td>2013</td>
<td>Brazil, Russia, India, China, South Africa</td>
</tr>
<tr>
<td>AIIB</td>
<td>2015</td>
<td>China, Singapore, India, Vietnam, Philippines, Mongolia, Laos, Cambodia, Oman, Uzbekistan, Thailand, Sri Lanka, Qatar, Pakistan, Nepal, Bangladesh, Brunei, Kazakhstan, Kuwait, Malaysia, Myanmar</td>
</tr>
</tbody>
</table>
Table 2.4 (cont): *Coding of Institutional Proliferation*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Year</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIIB</td>
<td>2015</td>
<td>China, Singapore, India, Vietnam, Philippines, Mongolia, Laos, Cambodia, Oman, Uzbekistan, Thailand, Sri Lanka, Qatar, Pakistan, Nepal, Bangladesh, Brunei, Kazakhstan, Kuwait, Malaysia, Myanmar</td>
</tr>
</tbody>
</table>

Table 2.5: *First Stage Results*

<table>
<thead>
<tr>
<th>Dependent variable: Vote Power Misalignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mikesell Vote Shift</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Region Fixed Effects</td>
</tr>
<tr>
<td>Mikesell Component Variables</td>
</tr>
<tr>
<td>Time Polynomial</td>
</tr>
<tr>
<td>Full Controls</td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
</tr>
</tbody>
</table>

*Note:* Results of the first stage model examining the effect of the instrument (Quota Change) on Vote Power Misalignment. Time polynomial not shown. Statistical significance is denoted by: *$p<0.1$; **$p<0.05$; ***$p<0.01$. 

*Notes:* Results of the first stage model examining the effect of the instrument (Quota Change) on Vote Power Misalignment. Time polynomial not shown. Statistical significance is denoted by: *$p<0.1$; **$p<0.05$; ***$p<0.01$. 

54
Figure 2.7: Institutional Proliferation Variable
Figure 2.8: World Bank Share of Development Assistance. Data is from AidData.
Chapter 3

Deference and Hierarchy in
International Regime Complexes

How do states resolve jurisdictional conflicts among international institutions? In many issue areas, global governance is increasingly fragmented among multiple international organizations (IOs). Existing work argues this fragmentation can undermine cooperation as different institutions adopt conflicting rules. However, this perspective overlooks the potential for inter-institutional coordination. I develop a theory of institutional deference: the acceptance of another IO’s exercise of authority. By accepting rules crafted in another IO, member states can mitigate rule conflict and facilitate a division of labor within the regime complex. I use an original dataset of over 2,000 IO policy documents to describe patterns of deference in the counterterrorism, intellectual property, and election-monitoring regime complexes. Empirical tests support two theoretical claims. First, institutional deference is indeed associated with a division of labor among institutions: IOs that defer to each other are more likely to focus their rule-making efforts on separate sub-issues. Second, deference is a strategic act that is shaped both by efficiency concerns and power politics. Statistical tests confirm that deference is used to efficiently pool re-
sources among disparate organizations, and that IOs with weaker member states tend to defer to organizations with more powerful members.

### 3.1 Introduction

In 2005, the United Nations Security Council (UNSC) adopted Resolution 1617, extending the council’s financial and travel sanctions against al-Qaeda and affiliated terrorist groups (S/RES/1617 2005). The resolution provided an opportunity for the council to articulate a set of legally binding rules regarding state efforts to combat terrorist financing, an increasingly important component of global counterterrorism efforts.\(^1\) Surprisingly, Security Council members passed on this opportunity. Instead of designing its own rules for counterterrorism finance, the UNSC opted to defer to another international organization, instructing member states “to implement the comprehensive, international standards [of] the Financial Action Task Force (FATF)” (S/RES/1617 2005, OP 7).

The FATF is a relatively weak, informal organization with no founding treaty or formal authority in international law (Morse 2018).\(^2\) The UN Security Council, by contrast, is a legally empowered institution with abundant administrative and technical resources. By deferring to the FATF, the Security Council obligated all UN member states to comply with a set of non-binding rules crafted in an informal institution. Why did council members choose to elevate FATF rules for terrorism finance instead of articulating their own — in effect, accepting the authority of a weaker institution? More broadly, why would any international organization accept the authority of another IO, rather than extending its own?

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\(^1\) The resolution was adopted under Chapter VII of the Charter of the United Nations, which gives the UNSC the authority, in the case of a threat to international peace, to “decide what measures shall be taken” to “restore international peace and security.” (United Nations 1945, art. 39).

\(^2\) The FATF maintains a small permanent staff and relies on Secretariat of the Organisation for Economic Cooperation and Development (OECD) for much of its administrative and budgetary work. See [http://www.fatf-gafi.org/about/fatfsecretariat/](http://www.fatf-gafi.org/about/fatfsecretariat/).
In this article, I explore the practice of *institutional deference*: one IO’s acceptance of another organization’s exercise of authority. Deference is a frequent practice conducted by international organizations that operate in the same policy domain. In its most common form, member states of one organization formally adopt a set of rules established by a different institution, as exemplified by the Security Council’s deference to the FATF. Other cases of deference are less formal, with member states adapting an IO’s operational routines, technical assistance programs, or monitoring systems to support the rules of another organization.

Deference is a tool used by IO member states to manage jurisdictional overlap among international institutions. In many issue areas, contemporary global governance is fragmented among multiple IOs that simultaneously attempt to regulate state behavior. The presence of multiple institutions governing a single issue, deemed an “international regime complex” in the literature, often leads to inefficient overlap and inconsistencies in international rules. To avoid these problems, international organizations coordinate rule-making via institutional deference. Just as the UN Security Council recognized the authority of the FATF to regulate counterterrorism finance, IO member states often selectively accept other institutions’ authority over particular sub-issues. This allows institutions to avoid the adoption of conflicting rules and to capture efficiency gains through division of labor.

The use of institutional deference defies the conventional wisdom about regime complexes, which are often portrayed as poorly coordinated and harmful for cooperation. As Abbott and colleagues state, “Typically, regime complex theory treats the co-existence of multiple governance actors with overlapping mandates as a pathology (‘overlap’ or ‘fragmentation’) that threatens governance effectiveness through redundancy, inconsistency, and conflict” (7). By highlighting deference as a

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3This definition is adapted from a recent article by Efrat and Newman (2016), who examine deference agreements among national courts.
mechanism for coordination among institutions, this paper challenges the prevailing view of regime complexity.\textsuperscript{4}

The paper has three closely related goals. First, I define the practice of institutional deference and explain why it is an attractive strategy for member states of international organizations. I develop a theory of deference as a solution to inefficient overlap and inconsistent rules across IOs. The decision to defer is rooted in the preferences of IO member states. When coordination problems undermine cooperation in a regime complex, member states face a tradeoff. They can resolve jurisdictional conflicts by instructing an IO to defer to another organization, but in doing so they surrender the ability to formulate their own rules. As this tradeoff implies, we are more likely to observe deference when the gains from coordinated rule-making exceed states’ desire to maximize control over global governance.

Second, I demonstrate that deference is a common practice that has a significant effect on IO behavior. Section 3 leverages a novel dataset of over 2,000 IO policy documents to examine deference in three issue areas: counterterrorism, intellectual property, and election monitoring. In addition to describing patterns of deference, I use a structural topic model to show how deference shapes IO rule-making by facilitating a division of regulatory labor among IOs. This is particularly important given the central focus in the regime complexity literature on the harmful effects of discordant rules and standards.

Finally, Section 4 explores the political determinants of institutional deference. If deference represents a bargain to manage overlapping IO jurisdictions and divide labor, on whose terms is this bargain constructed? Why are some IOs are privileged over others in the acceptance of regulatory authority? I show that the direction and intensity of deference reflect two broad processes. First, deference is used to overcome cooperation problems by pooling resources among different types of or-

\textsuperscript{4}For exceptions to the generally pessimistic view of regime complexes, see Abbott et al. (2015); Gehring and Faude (2014); Keohane and Victor (2011).
ganizations. For example, member states strategically distribute deference to link IOs with issue-specific technical expertise to IOs with binding legal authority, as in the UNSC-FATF example. Second, deference is shaped by state power: IOs with weaker member states tend to defer to organizations with more powerful members.

3.2 Why Defer? Jurisdictional Conflict among IOs

The last several decades have seen a rapid growth in the number of international organizations that seek to regulate state behavior. This proliferation of IOs has altered the structure of interstate cooperation in many issue areas. Issues such as trade and global health, which were once regulated by relatively integrated regimes, are now governed by a complex network of distinct institutions with partially overlapping mandates and memberships (Raustiala and Victor 2004).

The IOs that govern an issue area do not always act in concert. As Raustiala and Victor (2004) state, “the rules in these elemental regimes functionally overlap, yet there is no agreed upon hierarchy for resolving conflicts between rules” (279). Independent rule-making by multiple IOs often results in a fragmented and potentially conflicting set of international rules and standards.\(^5\) In other words, a common feature of regime complexes is inconsistency in law or regulatory practice.

Much of the literature on regime complexity focuses on the potential for rule conflict to undermine international cooperation. Inconsistent rules among IOs can raise a number of potential barriers to cooperation, including increasing uncertainty.

\(^5\)The literature on international regime complexity is abundant with examples of conflicting rules: Raustiala and Victor describe “legal inconsistencies” in the regime complex for plant genetic resources, and further argue that “legal conflict among overlapping rules...is a recurring and difficult challenge for regime architects” (Raustiala and Victor 2004, 300). Similarly, Helfer finds institutions adopting a “competing regulatory approach” in the intellectual property regime complex (Helfer 2009, 40), and Davis notes “the potential for contradictory legal rulings” among the set of institutions governing international trade (Davis 2009, 25).
and raising transaction costs. I briefly highlight two problems associated with inconsistent rules that have received significant attention in the literature: reduced compliance via regulatory arbitrage and inefficient provision of goods.

### 3.2.1 Regulatory Arbitrage and Inefficient Duplication

Inconsistent rules may reduce compliance when the same actors are subject to multiple regulatory jurisdictions. States can leverage loopholes and incongruencies in regulatory systems to circumvent costly rules — a process known as regulatory arbitrage (Riles 2014). If the compliance costs of conflicting regulations differ, states will prefer to recognize the authority of the lowest-cost regulator. In some cases, this dynamic can create a “race to the bottom” effect that empowers the weakest regulatory authorities (Efrat and Newman 2016). States may also leverage inconsistencies to escape compliance with burdensome requirements — for example, by exploiting gaps in regulatory authority, or by claiming the absence of a clear global standard on a particular issue.\(^6\) The net effect is a reduction in compliance with international rules, norms, and standards.

Chinese and Russian use of the Shanghai Cooperation Organization provides a useful example of arbitrage in the counterterrorism regime complex. Several IOs, including the United Nations (UN) and the Organization for Security and Co-operation in Europe (OSCE), require member states to ensure that national counterterrorism policies protect basic human rights, such as freedom of expression and the right to seek asylum.\(^7\) In 2004, the Shanghai Cooperation Organization (SCO), a regional organization comprised of Russia, China, and the Central Asian states, adopted a set of counterterrorism rules that conflict with these princi-

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\(^6\)Riles notes that “regulatory arbitrage depends on a rich ecosystem of diverse regimes and types of laws, which are not organized into any clear, coherent, hierarchical whole” — a close description of an international regime complex (Riles 2014, 65).

ples. The SCO employs an expansive definition of terrorism, explicitly conflating terrorist acts with the “co-equal evils” of separatism and extremism. It has also adopted controversial policies regarding extradition and denial of asylum for individuals suspected of participating in these activities. In practice, SCO members have leveraged these rules to escape compliance with international human rights obligations. This behavior is far from unique in international regime complexes.

States and other targets of regulation often opportunistically select among multiple regulatory authorities (“forum-shopping”) to avoid complying with international rules they do not like.

The second major problem associated with overlapping institutions is inefficient duplication of effort. Duplication occurs through the promulgation of redundant rules, as well as IO technical assistance or information exchange initiatives designed to implement rules. In many cases, the development of rules within an IO involves the expenditure of significant material and human resources. In the regime complex for intellectual property rights, for example, the development of rules can require lengthy negotiations and a high level of legal expertise. Duplication among multiple institutions, such as the World Intellectual Property Organization (WIPO), the World Trade Organization (WTO), and the World Health Organization (WHO),

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8 For a compendium of official SCO documents including its counterterrorism-related rules and standards, as well as a detailed discussion of how SCO policies relate to other international standards, see Human Rights in China (2011).

9 Notably, SCO members have signaled that the rules of the SCO, despite its informal nature, may receive precedence over globally recognized international legal commitments. In an interview with the NGO Human Rights in China, a high-ranking official in Kyrgyzstan “indicated that the Kyrgyz government’s decision to return Uzbeks fleeing the 2005 Andijan crackdown despite the likelihood that they would be tortured or executed upon their return took place after he had weighed the extradition requirements of the SCO treaties against the prohibitions of the Convention against Torture. In the face of these conflicting obligations, the Kyrgyz government had concluded that the SCO framework took precedence.”

10 Many of the behaviors scholars have linked to regime complexes, including “forum shopping,” “regime-shifting,” and other behaviors associated with “contested multilateralism,” are manifestations of regulatory arbitrage. See Helfer (2004), Raustiala (2006), and Morse and Keohane (2014), respectively, for a discussion of forum shopping, regime-shifting, and contested multilateralism.
generates inefficiency costs and constrains the productivity of IOs in a regime complex.

These barriers to cooperation in regime complexes are acknowledged by both scholars and policymakers. Yet existing theories of international institutions suggest that member states should take action if cooperation is undermined by regulatory arbitrage and duplication. Rational institutionalist theory argues that states create international institutions to generate gains from cooperation (Keohane 1984). This theory implies that states will recognize the costs associated with inconsistent rules and direct IOs to coordinate their rule-making efforts. In the regime complex for intellectual property, for example, the three institutions referenced in the preceding paragraph have established a regular consultative process for “strengthening their cooperation and practical coordination on issues around public health, intellectual property and trade.” These coordination efforts are common among IOs but have largely remained unexamined by scholars.

While institutional deference occurs between two international organizations, I emphasize the role of member states in pushing IOs to reconcile jurisdictional conflicts. Member states create international institutions and typically maintain close control over their activities. Bureaucratic actors within an IO may have some agency in shaping coordination, but the fundamental tradeoff involved in deference — the gains from coordination vs. the loss of control — is reflected most clearly in the preferences of member states.

11 See Alter and Meunier (2009) and Orsini, Morin, and Young (2013) for overviews of academic treatments of these problems, and Rosand (2006) for a policymaker’s perspective.


13 Few scholars have investigated efforts by IOs to coordinate their rules, norms, and standards, despite its clear connection to cooperation in the context of overlapping institutions. Notable exceptions include Biermann et al. (2009)’s study of “inter-organizational networking” and Gehring and Faude (2014)’s examination of institutional division of labor.
3.2.2 Institutional Deference: a Mechanism for Coordination

Faced with the potential for arbitrage and duplication, IO member states have incentives to prevent inconsistent rules. Two potential remedies are harmonization of IO rules or the formal unification of disparate institutions. If states face a single set of harmonized rules, the costs of compliance are constant across regulatory authorities, and regulatory arbitrage ceases to be an attractive strategy. Harmonization also alleviates transaction costs, since rules do not differ across regulatory jurisdictions. This strategy, however, is difficult if not completely infeasible.\(^\text{14}\) IOs in a regime complex have different member states, mandates, and decision-making mechanisms. The likelihood of all states agreeing to a single, comprehensive set of rules is quite low.\(^\text{15}\) Institutional unification is also prohibitively difficult once multiple IOs lay claim to governance of an issue area; the elimination of existing institutions is rare and often opposed by states and IO bureaucrats with vested interests.

When these options are infeasible, regulatory institutions in other contexts have turned to an alternative strategy: clarifying the scope of each body’s regulatory authority to reduce jurisdictional overlap. Instead of adopting a single set of rules, this approach reduces rule conflict by establishing where “each regulatory authority extend[s], and what should be done when these overlap” (Riles 2014, 66). In international law, this approach is known as the “Conflict of Laws” or “Private International Law.”\(^\text{16}\) Its goal is to coordinate rules by assigning areas of contested jurisdiction to a single authority. This strategy is more feasible than unification,

\(^{14}\text{See Riles (2014) and Efrat and Newman (2016) for a discussion of the challenges and costs associated with harmonization.}\)

\(^{15}\text{As Downs, Rocke, and Barsoom (1996) have argued, even if a single universal institution were feasible it would necessarily lack the “depth” of a more exclusive cooperative arrangement.}\)

\(^{16}\text{See Collins et al. (2006) for the definitive treatment of the Conflict of Laws and associated legal concepts.}\)
since each clarification of jurisdiction is limited in scope and does not eliminate any regulatory body.

The practice of institutional deference represents IO member states’ attempt to mimic this “Conflict of Laws” process. When the potential for rule conflict arises, IOs engage in deference, defined as the acceptance of another IO’s exercise of authority. This definition is adapted from Efrat and Newman (2016), who examine formal deference agreements among national courts. As I demonstrate in the next section, deference is a common form of coordination among IOs in a regime complex.

Examples of institutional deference are plentiful in international politics. The introduction described how UN Security Council members accepted the FATF’s rules for terrorist finance rather than developing their own regulations. By doing so, the Council avoided setting multiple, potentially conflicting sets of rules. Other IOs, including the Asia Pacific Economic Cooperation (APEC) forum, have similarly deferred to the FATF. Organizations involved in counterterrorism policy have also granted deference on the issue of aviation security, a key policy priority after the 9/11 attacks. In 2013, the Organization for American States (OAS) pledged to “help member states comply with the International Civil Aviation Organization (ICAO) standards and recommended practices” (OAS 2013). The Organization for Security and Cooperation in Europe (OSCE) also adopted ICAO’s rules, deciding in 2003 “that all OSCE participating states should aim to comply fully with the recommended ICAO minimum security standards” (OSCE 2003). These are instances in which one IO explicitly accepts an exercise of authority by another.

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17 Efrat and Newman (2016) define deference as “one state’s acceptance of the exercise of jurisdiction by another state” (9). Unlike in the judicial context, however, deference among IOs does not signify a commitment to abide by future decisions reached in another institution. Instead, member states of one IO accept a specific set of rules, practices, or standards that were previously codified in another institution.

18 In 2002, APEC leaders committed to “comply as quickly as possible with the [FATF] recommendations” (APEC 2002).
organization, despite the lack of a formal legal hierarchy to resolve jurisdictional conflicts.

Other examples of deference are less conspicuous, with one institution informally accepting the rules of another as it monitors state behavior. This is prominent among some institutions in the regime complex for election monitoring, where multiple IOs develop rules for fair and open elections and assess compliance via election monitoring missions. In a 2008 electoral observation report, for example, the European Union (EU) evaluated the election of Nepal’s Constituent Assembly based on rules adopted by both the OSCE and the Council of Europe (COE) (EU 2008).

Deference can target specific issues where conflicting rules are particularly damaging, and it can be reversed if circumstances change. These characteristics make deference similar to other arrangements for sharing authority among global governance actors, such as delegation and orchestration. Like deference, delegation and orchestration occur when one actor grants another authority in order to pursue governance goals. However, two key differences distinguish deference from these related concepts. First, deference emphasizes a different set of actors. In international relations, delegation has focused on how states (as principals) transfer authority to IOs (their agents). Orchestration theory focuses on how IOs mobilize third parties (primarily NGOs and rarely IOs) to aid their governance efforts. By contrast, deference occurs exclusively between IOs, as one organization accepts an exercise of authority by another.

Second, the temporal sequence of actions associated with deference differs from delegation and orchestration. In delegation and orchestration, the sharing of authority precedes an act of governance. Actors delegate or orchestrate ex ante with

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19 These features distinguish deference from other coordination strategies such as regime unification or the formal nesting of one IO in another (Aggarwal 1998).

20 Hawkins et al. (2006) define delegation as “a conditional grant of authority from a principal to an agent that empowers the latter to act on behalf of the former” (7). Orchestration occurs when an IGO “enlists and supports intermediary actors to address target actors in pursuit of IGO governance goals” (Abbott et al. 2015, 4).
the expectation that the future behavior of the agent/intermediary will reflect their preferences. Accordingly, both orchestration and delegation emphasize mechanisms in which the actor conferring authority attempts to control or “steer” the recipient. Deference reverses this sequence. An exercise of authority (e.g., the formulation of rules by an IO) occurs first, and then another IO decides whether to accept the exercise of authority by validating those rules. Lacking control over organizations’ future behavior, IOs defer \textit{ex post} after observing an act of governance.

The fact that member states of one IO lack the ability to steer another organization after deference has occurred is consequential. It suggests that member states face a tradeoff when attempting to resolve jurisdictional conflicts among IOs. Deferring to another organization helps mitigate duplication and opportunities for regulatory arbitrage, but it also requires member states to surrender the opportunity to formulate their own rules. The use of deference should therefore increase as the gains from coordinated rule-making rise and decrease as states seek to maximize control over global governance. These impulses produce competing expectations regarding the frequency of deference in international regime complexes. One one hand, the overlapping mandates of IOs in regime complexes produce an abundance of jurisdictional conflicts that may be resolved through the frequent use of deference. On the other hand, the fact that multiple institutions were constructed in a particular issue area suggests states have competing preferences over global gover-

\begin{footnote}{21}{According to Hawkins et al. \cite{Hawkins2006}, “what unites specific theories under the umbrella of ‘principal-agent theory’ is a focus on the substantive acts of principals in granting conditional authority and designing institutions to \textit{control} possible opportunism by agents” (7, emphasis added). In describing orchestration, Abbott et al. \cite{Abbott2015} state that “by attaching conditions to their support, IGOs can bring (or keep) intermediaries’ governance goals in line with the IGOs’ own goals. Thus, IGO support both empowers intermediaries \textit{and enhances IGOs’ ability to steer them} (14, emphasis added).}

\begin{footnote}{22}{See Gehring and Faude \cite{Gehring2014} for additional discussion on the tradeoff between states’ general interest in coordinated governance and parochial interest in ensuring their specific preferences prevail.}

68
nance, limiting their willingness to defer. The empirical investigation of deference patterns in the next section helps adjudicate between these expectations.

A final conceptual question raised by deference is its potential to redistribute authority among IOs. Deference occurs whenever one IO accepts another organization’s exercise of authority. In some cases, this acceptance simply reinforces existing authority relations among IOs. When a regional organization defers to the UN Security Council, for example, it does not imbue the Council with added authority since UNSC rules are already binding for all UN member states. In cases without a clear preexisting authority structure, however, deference may generate meaningful shifts in authority from one IO to another. When deference flows are asymmetric, certain IOs expand their jurisdiction while others contract. Deference can thus help construct hierarchies of authority among international institutions.

As the examples in this section illustrate, cooperation in international regime complexes is not condemned to suffer from arbitrage, noncompliance and inefficient duplication. In some instances, IO member states successfully coordinate to reduce or eliminate overlaps in governing authority. In other cases, states are unable to reach agreement regarding whose authority should be privileged when IO jurisdictions overlap. But the challenges involved in institutional deference do not justify the assumption that regime complexity is pathological for cooperation. Instead, assessments of cooperation in regime complexes should be informed by how successfully its constituent institutions are able to coordinate their rules and standards. The next section turns to an empirical exploration of deference in the three regime complexes discussed above: counterterrorism, intellectual property rights, and election monitoring.

Existing scholarship argues that states create overlapping institutions to provide strategic leverage over rule-making (Helfer 2004), reconcile bargaining power misalignments in existing IOs (Pratt 2018a), and overcome bureaucratic capture (Urpelainen and de Graaf 2013).
3.3 Patterns of Deference

I measure empirical patterns of deference by examining the written record of rules, norms, and standards adopted by international organizations that operate in the same policy domain. If deference occurs as hypothesized, it should be reflected in the official corpus of documents that chronicle the exercise of authority by IOs. Examining cases of deference that are formally documented provides a clear measurement advantage but also entails a tradeoff. It excludes potential instances of “deference by abstention,” in which members states of one IO implicitly recognize the authority of another organization by declining to assert their own jurisdiction over a particular category of member state behavior. Instead, it prioritizes “deference by validation” where one IO explicitly accepts an exercise of authority by another organization.24 This is a stronger form of institutional deference, and one that is more likely to mitigate jurisdictional frictions and facilitate a division of labor as discussed above.

Rule-making in international organizations often begins with a broad set of principles negotiated by member states, followed by the development of more specific implementing rules by secretariat officials or issue-specific subsidiary bodies. Raustiala and Victor argue that attempts to coordinate across institutions is more likely to occur at the implementation stage.25 In other words, documentation of institutional deference will not be concentrated in the broad rules that initially shape an IO’s mandate in an issue area but in the subsequent set of IO policy documents that translate broad rules into specific obligations for states.

24The distinction between deference via abstention and validation is introduced by Efrat and Newman (2016).
25In their analysis of IOs governing plant genetic resources (PGR), Raustiala and Victor argue member states instruct their “diplomats [to] first negotiate broad ex ante rules and then defer the task of working out detailed implications to the process of implementation.” Raustiala and Victor (2004)[280]
The IO policy document is the basic unit of measurement for assessing patterns of institutional deference. These documents take a variety of forms, including resolutions, policy guidelines, best practices, mission reports, and codes of conduct. While they typically do not have the binding force of a formal treaty, they are useful vehicles for coordinating with other institutions on specific sub-issues. Each time an IO articulates obligations for member state behavior, it has an opportunity to defer to the rules of another organization. As a result, the presence or absence of deference in IO policy documents reveals the extent to which institutions successfully coordinate rule-making.

3.3.1 Data Collection

For the purposes of this study, an IO policy document includes an act of deference if it constitutes an acceptance of another IO’s exercise of authority. Because the theory emphasizes the preferences of IO member states, I focus on policy documents approved by member states or institutional actors acting as agents of members. I exclude judgments reached by international courts (e.g., the WTO dispute settlement mechanism) where IO member states have little or no agency over the decision to defer.

To measure institutional deference, I collect a large sample of policy documents adopted by IOs in three regime complexes: election monitoring, counterterrorism, and intellectual property rights. I selected these issue areas for two reasons. First, they represent a diverse range of topics, from human rights to security to economic issues. Each issue area has its own set of cooperation problems that complicate the task of coordinating global governance. Second, each regime complex has been the focus of previous scholarly attention. The existence of previous work helps to establish the boundaries of the policy domain and limits subjectivity in determining...
which international organizations should be considered participants in each regime complex.

To find relevant policy documents in these regime complexes, I first identified the set of IOs that participate in global governance of each issue. To be considered part of the regime complex, an IO must formally include the relevant issue in its institutional mandate or actively regulate state behavior in the issue area. Even with this criteria, there can be reasonable disagreement regarding which IOs participate in governance of a particular issue. A broad conception of intellectual property, for example, could encompass a wide range of related issues regulated by dozens of organizations. To narrow the field of candidate IOs, I drew on Kelley’s (2009; 2012) and Hyde’s (2011) extensive examination of the election monitoring regime complex; Helfer’s work on the intellectual property regime complex (2004; 2009); and Rosand’s study of the counterterrorism regime complex (2006). Table 3.1 displays the IOs included in the regime complexes for election monitoring, counterterrorism, and intellectual property rights, as well as the year of entry for each IO.

For each year that a particular international organization participates in governance of the issue area, I collect all IO documents that articulate rules in the relevant policy domain and are publicly available from the IO’s website. For example, a 2010 resolution adopted by the European Parliament documents EU policy

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26 This excludes IOs that occasionally reference an issue area in policy documents but cannot be said to participate in global governance of the issue. IOs which condemned terrorism immediately after the 9/11 attacks, for example, do not automatically become part of the counterterrorism regime complex.

27 An international organization can join a regime complex in two ways. First, a new IO may be constructed in order to govern interstate cooperation in the relevant issue area; in these cases, the year of entry corresponds to the creation of the IO. Second, an existing IO may expand its mandate to include the relevant issue area; the year of entry then corresponds to the year in which the issue area was formally added to the IO’s mandate. For these IOs, the time of entry often coincides with the establishment of a subsidiary body to govern member state behavior in the issue area. For example, the OSCE added an “Action against Terrorism Unit” in 2002 when it began to participate in the regulation of state counterterrorism behavior.

28 Policy documents were retrieved manually from the public websites of each international organization. All IOs examined in this paper maintain websites where policy documents are stored.
Table 3.1: *International Organizations in Three Regime Complexes*

<table>
<thead>
<tr>
<th>Regime</th>
<th>Organization</th>
<th>Year Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election</td>
<td>Organization of American States</td>
<td>1962</td>
</tr>
<tr>
<td>Monitoring</td>
<td>African Union</td>
<td>1989</td>
</tr>
<tr>
<td></td>
<td>Commonwealth Secretariat</td>
<td>1989</td>
</tr>
<tr>
<td></td>
<td>Council of Europe</td>
<td>1989</td>
</tr>
<tr>
<td></td>
<td>Org. for Security &amp; Cooperation in Europe</td>
<td>1990</td>
</tr>
<tr>
<td></td>
<td>United Nations</td>
<td>1990</td>
</tr>
<tr>
<td></td>
<td>European Union</td>
<td>1993</td>
</tr>
<tr>
<td></td>
<td>Economic Community of West African States</td>
<td>1997</td>
</tr>
<tr>
<td></td>
<td>Southern African Development Community</td>
<td>1997</td>
</tr>
<tr>
<td></td>
<td>Commonwealth of Independent States</td>
<td>2001</td>
</tr>
<tr>
<td>Counter-terrorism</td>
<td>South Asian Assn. for Regional Cooperation</td>
<td>1987</td>
</tr>
<tr>
<td></td>
<td>African Union</td>
<td>1999</td>
</tr>
<tr>
<td></td>
<td>Organization of American States</td>
<td>1999</td>
</tr>
<tr>
<td></td>
<td>United Nations Security Council</td>
<td>1999</td>
</tr>
<tr>
<td></td>
<td>Council of Europe</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>Financial Action Task Force</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>Group of Eight</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>International Civil Aviation Organization</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>North Atlantic Treaty Organization</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>ASEAN Regional Forum</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>Asia-Pacific Economic Cooperation</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>Org. for Security &amp; Cooperation in Europe</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>European Union</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>Shanghai Cooperation Organization</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>United Nations</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td>Global Counterterrorism Forum</td>
<td>2011</td>
</tr>
<tr>
<td></td>
<td>Convention on Biological Diversity</td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>Food and Agriculture Organization</td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>World Trade Organization</td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>World Health Organization</td>
<td>1996</td>
</tr>
<tr>
<td></td>
<td>United Nations</td>
<td>2000</td>
</tr>
</tbody>
</table>
on human rights and democracy (European Parliament 2010). I include this resolution in the sample of policy documents used to assess deference among election-monitoring organizations. Overall, this search yields over 2,000 policy documents from the IOs in the election monitoring, counterterrorism, and intellectual property regime complexes.

I parse each document with statistical software to see whether it makes reference to any other IO in the same regime complex. These cross-institutional references are then hand coded on a 5-point scale, with “1” denoting a passing or irrelevant reference and “5” (deference) representing a clear acceptance of another IO’s authority. The EU resolution discussed earlier makes reference to the OSCE, another organization involved in regulating electoral procedures. Specifically, it calls on relevant EU bodies to ensure that OSCE recommendations are “fully and systematically integrated into all EU policy fields” (European Parliament 2010), which is coded as an instance of deference. Missing references—documents in which one IO does not refer to another—are coded as 0. Details of the coding scheme can be found in the appendix.

The reference scores are then used to calculate an aggregated measure of institutional deference for each directed IO dyad in a given year. Institutional deference from IO A to IO B in year \( t \), is calculated as the proportion of IO A’s policy documents from year \( t \) that include at least one explicit case of deference (a score of 5) to IO B. The resulting dataset of institutional deference includes 3,718 unique directed IO dyad-years.

### 3.3.2 Deference in Three Regime Complexes

A review of the deference data reveals three notable trends. First, deference is a common practice among IOs in the same regime complex. The 32 institutions in three regime complexes examined in this paper engaged in over 1,250 unique in-
stances of institutional deference in the time period under study. Even if each particular act of deference represents an acceptance of authority of limited scope, collectively they represent a significant narrowing of jurisdictional overlap in these regime complexes. Overall, approximately 14% of IOs defer to at least one other organization in a given year. This rate differs slightly across policy domains (16.8% in intellectual property vs. 14.4% in counterterrorism and 11.9% in election monitoring) but is commonplace in all three regime complexes.

Second, deference flows are asymmetric, flowing predominantly in one direction within a given pair of IOs. This pattern is notable, since we might expect member states of two IOs occupying the same regulatory space to strike a quid pro quo bargain, engaging in mutual deference to each other on separate sub-issues. Deference in one direction may also generate incentives for the recipient IO to reciprocate in the future, thereby enhancing the legitimacy of the deferring IO. While these incentives are incorporated in the empirical analysis in Section 4, descriptive statistics suggest that among pairs of IOs, one tends to dominate in terms of the total flow of deference. Figure 3.1 displays asymmetric deference between the UN General Assembly and other institutions in the counterterrorism regime complex in the year 2010. As the graph illustrates, the UN is granted a high level of deference from many institutions but does little deferring in return. Only three IOs (ICAO, the UN Security Council, and the FATF) are recipients of institutional deference from the General Assembly.

Third, these patterns of asymmetric deference reveal an informal hierarchy of authority among international institutions in a regime complex. Deference flows may either reinforce or restructure authority relations among IOs. If an informal IO grants deference to a formal, treaty-based organization, it reflects the preexisting distribution of authority among institutions. If deference flows to less powerful

\[29\text{Temporal coverage of each regime complex begins the first year that more than one institution participates in governance of the issue. See the Appendix for additional details.} \]
IOs, or between institutions with similar levels of preexisting authority, it can re-shape governing authority in the regime complex. When uneven flows of deference persist over time, some IOs expand their jurisdiction while others contract. The acceptance of another IO’s authority can therefore reposition organizations with no formal chain of authority into a clear hierarchical relationship. The hierarchy arising from institutional deference is more ad hoc and less absolute than the practice of legally nesting a new IO within an existing institution. Each instance of deference may be a relatively small acceptance of authority on a specific sub-issue; it is only in the aggregate that a clear hierarchy becomes visible.

Figure 3.2 demonstrates this hierarchy in each of the three regime complexes using a network graph. IOs are represented as nodes (circles) in the network, which are connected to each other via directed flows of institutional deference (lines). The size of each IO is proportional to the total amount of deference granted to the insti-

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30Efrat and Newman (2016) make a similar observation about judicial deference agreements between states, observing that “the resolution of these [jurisdictional] conflicts shapes the allocation of governance authority” (410).
Figure 3.2: *Networks of Institutional Deference*: Patterns of institutional deference in three regime complexes are visualized as network graphs. The thickness of each edge (gray lines) is proportional to the level of deference between organizations. Nodes (circles) are sized relative to the total amount of deference granted to the IO.

The figure underscores how the degree of hierarchy differs across each regime complex. Counterterrorism institutions display a clear hierarchical structure, with deference flowing overwhelmingly to the UN General Assembly and UN Security Council. The election monitoring regime complex is less hierarchical, with at least some deference granted to each IO but clear asymmetry in the aggregate flow of deference. Intellectual property has the flattest structure, with deference distributed horizontally among institutions.

A few broad trends are evident in the figure. First, it appears that IOs with the power to set universal, binding rules receive more deference than regionally-defined IOs or those that lack the force of international law. In particular, the UN and UN Security Council loom large in each regime complex. Second, the observed hierarchy in deference flows differs dramatically across policy domains. This suggests that deference is shaped by the structure of the specific cooperation problem that states confront in each issue area. In counterterrorism, for example, divergent rules are
particularly costly; noncompliance by a subset of states threatens the viability of the entire regime.\footnote{In other words, because terrorists can organize and raise funds in one country to attack another, noncompliance generates very high negative externalities in the counterterrorism issue area.} States also largely agree on the basic goals of the counterterrorism regime. These features facilitate the emergence of a few authoritative institutions as focal points for coordination in the regime. In both election monitoring and intellectual property, however, clubs of states can sustain cooperative outcomes even if others follow a different set of rules. As a result, the pressure for coordination – and thus the structure of institutional deference patterns – are attenuated.\footnote{I thank an anonymous reviewer for these valuable insights.}

### 3.3.3 Division of Labor

Now that deference has been established as a practice that generates systematic patterns of relations among IOs, an important question remains: does it matter for how IOs actually govern? To demonstrate that deference is a tool to manage overlapping jurisdiction, I examine the division of labor among counterterrorism institutions. This issue area is well-suited for examining whether deference is associated with a division of labor among IOs. Cooperation on counterterrorism encompasses a range of sub-issues, including transportation security, terrorist financing, criminal justice, and immigration. Global governance of counterterrorism policy reflects these divisions, with IOs developing separate rules for each sub-issue. This governance structure allows us to examine how counterterrorism IOs divide regulatory effort. Do IOs tend to duplicate effort, with each institution separately articulating rules for aviation security, criminal justice, and other issues? Or do some IOs, as hypothesized, use institutional deference to resolve jurisdictional overlaps and focus their rule-making on separate topics?

To measure division of labor among counterterrorism institutions, I estimate the attention IOs devote to particular sub-issues each year using a structural topic
model. A topic model is a statistical tool for estimating latent themes, or topics, in a body of text. Given a large number of documents, a topic model can inductively recover the topics discussed in the text, identify the words most closely associated with each topic, and estimate the proportion of each document devoted to each topic.

I estimate a 10-topic structural topic model on the 677 policy documents produced by IOs in the counterterrorism regime complex from 1999-2013. Many of the ten topics identified by the model are closely associated with functional sub-issues related to counterterrorism policies. For example, one topic features the terms “money,” “launder,” and “fund” among its most frequent words, clearly signaling the topic of terrorism finance. Other topics focus on preventing nuclear terrorism (signified by words such as “nuclear,” “materi[al],” and “safet[y]”), criminalizing terrorist acts (“crime,” “investig[ate],” “court”), and protecting human rights (“right,” “human,” “protect”). Figure 3.5 in the appendix displays the words that appear most frequently in each topic.

The results of the topic model provide a measure of how each IO allocates regulatory effort in each year. This can be used to estimate division of labor among IOs. Deference generates a division of labor only if IOs subsequently differ in their rule-making activity: member states of IO A chooses to accept the authority of IO B to govern a particular sub-issue and instead focuses their attention on separate matters. If this occurs, we should see the regulatory effort (and thus the topical focus) of two IOs diverge as they engage in deference with each other.

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33. In these models, “topics” are probability distributions over the set of words that appear in the documents. See Blei (2012) for an introduction to topic modeling methodology and an overview of existing models.

34. Structural topic models improve on this basic technique by allowing for the incorporation of document metadata, such as authorship and year (Roberts et al. 2014).

35. As in most other topic models, the structural topic model requires the analyst to specify ex ante the number of topics to be estimated. I estimated a variety of models with 5-20 topics and selected the 10-topic model because it scored highest on the key dimensions of exclusivity and semantic coherence (see Roberts et al. (2014)). Author IO and year are included as covariates in the model to allow the distribution of topics to vary systematically by organization and year.
Figure 3.3: Division of Labor with Organization for Security and Cooperation in Europe (OSCE), 2008: The figure displays the distribution of topics discussed by the OSCE in 2008, compared to the Shanghai Cooperation Organization (SCO) and the European Union (EU) in the same year.

Figure 3.3 shows how the topic model results can provide evidence of a division of labor. It compares the OSCE’s regulatory efforts in 2008 with two other IOs, the EU and the SCO. There are several instances of deference between the OSCE and EU in the years preceding 2008 and none between the OSCE and SCO. We should therefore expect the OSCE and EU to divide labor by focusing their rule-making efforts on separate issues, while the OSCE and SCO will have more overlap in their regulatory focus. The figure confirms this expectation. The topics discussed by the OSCE and SCO are very similar (left panel). In contrast, the OSCE and the EU (right panel) have taken a more complementary approach to counterterrorism governance: the OSCE tends to emphasize human rights, while the EU focuses on transportation and nuclear security.

To examine this process systematically, I construct an annual measure of division of labor between each pair of counterterrorism IOs. The measure calculates
the total absolute difference between two IOs’ topic distributions in a given year. As two IOs prioritize different sub-issues, the division of labor measure increases; it decreases as IOs devote regulatory effort to the same sub-issues. The measure is bounded between 0 and 2, and the sample average is 1.00. In the figure above, the OSCE and SCO have a division of labor score of .57, while the OSCE and EU score is 1.05.

Data in the counterterrorism regime complex are consistent with the use of deference as a tool to divide labor. Pairs of IOs that engage in institutional deference have, on average, a division of labor score of 1.19; the corresponding score for IO pairs that do not defer to each other is 0.97. The difference is statistically significant (p-value < 0.01), suggesting that IOs which coordinate via institutional deference devote their governance efforts to different sub-issues.

In addition to comparing levels of division of labor, we can examine how division of labor changes over time once deference occurs. Table 3.2 displays the results of a linear regression model estimating the effect of institutional deference on the subsequent change in division of labor between two IOs. The unit of observation is the directed IO dyad-year. Deference, the independent variable, is measured as the proportion of IO A’s policy documents that contain at least one instance of institutional deference to IO B. The model controls for several potential confounders: the number of overlapping member states, similarity in the foreign policy preferences of member states,36 and whether the IO pair includes an institution with binding legal authority. I also control for member state power asymmetries among IOs, since Gehring and Faude (2014) argue a balanced distribution of power should generate greater division of labor.37 The construction of the dependent variable – the change

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36I measure foreign policy preferences using the ideal point estimates provided by Voeten (2001), which are constructed using UN voting records. The variable represents the average ideal point distance between members of IO A and IO B, multiplied by -1.

37This variable is constructed by taking the absolute difference in the number of “great power” states (as recognized by the Correlates of War dataset) in IO A and IO B.
Table 3.2: Effect of Deference on Division of Labor

<table>
<thead>
<tr>
<th></th>
<th>Dependent variable: Δ Division of Labor</th>
<th>(1) Counterterrorism</th>
<th>(2) Counterterrorism</th>
<th>(3) All Issue Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(0.022)</td>
<td>(0.030)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Deference</td>
<td>0.039*</td>
<td>0.071**</td>
<td>0.047*</td>
<td></td>
</tr>
<tr>
<td>Binding IO</td>
<td>0.011</td>
<td>−0.020</td>
<td>0.120</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.060)</td>
<td>(0.135)</td>
<td></td>
</tr>
<tr>
<td>Power Asymmetry</td>
<td>−0.001</td>
<td>-0.014</td>
<td>-0.013</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.034)</td>
<td>(0.026)</td>
<td></td>
</tr>
<tr>
<td>UN Ideal Point Similarity</td>
<td>0.020</td>
<td>0.407*</td>
<td>0.149</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.240)</td>
<td>(0.126)</td>
<td></td>
</tr>
<tr>
<td>Membership Overlap</td>
<td>0.0001</td>
<td>-0.028*</td>
<td>-0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0003)</td>
<td>(0.017)</td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>IO Dyad Fixed Effects</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,177</td>
<td>1,177</td>
<td>2,025</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Results of linear models estimating the effect of deference on division of regulatory labor. Coefficient estimates are displayed with standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

in division of labor from the previous year – mitigates confounding variables that remain constant within each IO pair. Standard errors are clustered by directed IO dyad.

The results indicate that IO pairs that engage in institutional deference are significantly more likely to divide labor. In the baseline model (Model 1), deference is the only variable with a statistically significant association with division of labor. In Model 2, which adds fixed effects to account for unobserved heterogeneity among IO dyads, the effect is even stronger: when an IO defers to another institution in all
of its policy documents, the two organizations subsequently increase their division of labor by 0.071 (compared to an average change of 0.01).

The counterterrorism issue was selected due to its measurement advantages: governance is differentiated into distinct sub-issues, making it an ideal fit for the topic modeling approach. It is possible, however, that this issue area represents an “easy” test for the effect of deference given the uniquely hierarchical structure of deference flows among counterterrorism institutions portrayed in Figure 3.2. To ensure the results are not limited to counterterrorism, Model 3 expands the test to include IOs in the election monitoring and intellectual property rights issue areas. Deference remains a significant predictor of increasing division of labor across all three issue areas.

### 3.4 The Determinants of Institutional Deference

The preceding section argued that institutional deference leads IOs to focus on different regulatory sub-issues, reducing jurisdictional overlap and dividing labor. I now examine the basis on which this division of labor is created. Coordination via deference represents a cooperative bargain between IO member states over the acceptance of regulatory authority, and like most bargaining scenarios it generates important distributional effects. Member states must decide which institution will be privileged and which will cede jurisdiction. What are the sources of power that allow one organization to “win” deference from another? In other words, how do states decide who will defer to whom?

I consider two distinct models of institutional deference. Both models are rooted in the preferences of IO member states. The first is a “functional efficiency” model, in which member states grant deference in order to overcome obstacles to global governance and maximize cooperative gains. This model recognizes that IOs dif-
fer in expertise, decision-making structure, and legal authority. When the need for coordination arises, states consider the relative strength of each IO in the regime complex and target deference to capitalize on specific institutional complementarities. The functional efficiency model is a natural extension of the functional theory of institutions articulated by Keohane (1984). If states construct institutions in order to reduce transaction costs and generate welfare-enhancing cooperative gains, it is reasonable to expect them to have similar goals when setting the terms of coordination among multiple institutions. In this conception, deference is a tool used to gather expertise and solve coordination problems.

I test three observable implications of the functional model of institutional deference. First, patterns of deference will empower IOs with the greatest expertise in the issue area. IOs should therefore be more likely to defer to technical, issue-specific institutions compared to political organizations with no specific issue mandate. Second, states will use deference to help overcome difficult bargaining problems within IOs. Regulatory action is often blocked in organizations where decision-making procedures require a consensus or supermajority of votes. In these cases, the organization is likely to defer to another IO with fewer veto points – in effect, using another institution as a means to overcome bargaining sclerosis. Third, deference will help pool institutional expertise, which is needed to formulate effective rules, with legal obligation, which is needed to bind state behavior. Deference should therefore be more common between IOs that adopt binding rules and technical, information-rich institutions.

The functional model of deference is consistent with a rational division of labor in the regime complex, where enlightened member states use deference to efficiently resolve cooperation problems. However, deference also has distributional effects that weigh on member states’ decisions. When an IO engages in deference, the power to govern is often shifted from one set of IO member states to another.
Instead of a tool to maximize cooperation, states may view deference as a means to enhance their own rule-making authority.

The “Member State Power” model assumes states seek to maximize their own governing authority in the regime complex. This model emphasizes the fact that deference represents an agreement over the scope of regulatory authority — a bargain over whose rules will prevail when jurisdictions overlap. Unless two IOs have perfectly identical memberships, this generates a conflict of interest between the IOs’ member states; each state would prefer to have their own rules privileged. As in other bargaining environments with conflicting interests, states’ material power is an important driver of outcomes. In this case, power imbalances imply that IOs with relatively weak members are more likely to defer to organizations with powerful member states.

Two mechanisms translate member state power into institutional deference. First, states with high material capability tend to enjoy more influence in international organizations (Stone 2011). As diplomats meet in IOs to discuss the ideal distribution of regulatory authority, powerful states are better equipped to steer deference toward their preferred institutions. Second, powerful states may simply coerce or buy off weak members of an opposing IO. Since member states ultimately control the budgets and authority of international organizations, weak states can then instruct their IO to defer to the more powerful IO. If this pattern persists, the effective regulatory authority of “powerful” IOs grows, the authority of “weak” IOs contracts, and a power-based hierarchy may emerge in the regime complex.

In the empirical tests that follow, I consider two observable implications of the Member State Power model. First, when power imbalances exist among members of two IOs, we should expect deference to flow toward institution with more powerful members. Since states prefer to maintain governing authority in the regime complex, each set of members draws on their diplomatic or coercive capacity to ensure
its own organization is granted deference. The second way in which state power can shape deference is via the decision-making rules of each institution. Some IOs grant augmented decision-making ability to their more powerful member states. Weighted decision-making rules tend to emphasize sources of national power, such as population or size of the domestic economy. IOs that use weighted voting therefore give powerful countries additional sway. When the regulatory jurisdictions of two IOs overlap, powerful states will favor the organization where they have the most influence over outcomes. As a result, a power-based model expects powerful states to steer deference toward IOs with weighted voting procedures.

The contrasting expectations of the Functional Efficiency and Member State Power models mirror a longstanding debate among strands of rational institutionalist (RI) theory. RI theory conceptualizes IOs as performing functions that are valuable to states, but scholars have differed in their emphasis on power and distributional concerns. One strand, represented by the “Rational Design” literature, argues that states are very good at optimizing the design of institutions to perform their functions effectively. This view is consistent with the Functional Efficiency Model, as governing power in a regime complex is distributed to the most capable organizations. Another strand of RI theory emphasizes the significance of distributional issues and power disparities, therefore expecting institutions to deviate from a straightforward functionalist design (Krasner 1991). The Member State Power model similarly prioritizes power concerns and suggests regime complexes have a broad tendency to allocate governing power to the strong at the expense of the weak.39 The empirical analysis that follows offers a unique opportunity to test

38 See Koremenos, Lipson, and Snidal (2001) and the corresponding Rational Design issue of International Organization.
39 This implication is consistent with work by Benvenisti and Downs (2007) and Drezner (2009), who argue that powerful states stand to benefit the most from the fragmentation of rule-making bodies.
these conceptions of rational institutionalism in a new domain: the use of deference in international regime complexes.

3.4.1 Data and Measurement

The dependent variable for this analysis is the intensity of institutional deference between directed pairs of IOs. Institutional deference is measured from IO policy documents as described in Section 2; it ranges from 0 to 1. The unit of analysis is the directed IO dyad-year. Data from all three regime complexes provide approximately 3,700 unique observations. The analysis will examine whether differences in member state power or functional complementarities drive institutional deference between IOs.

The independent variables represent the two models of deference discussed above. Member state power is measured as the difference in the number of “great powers” in each IO, as determined by the Correlates of War Project (2011). To make the variable suitable for the directed-dyad format of the data, I calculate the difference in great powers between the recipient of deference and the granter. As we examine the level of institutional deference from IO A to IO B, Great Power Difference measures how many more great power states are members of IO B compared to IO A. A positive coefficient on this variable indicates deference tends to flow toward IOs with more great power members. I also include a dichotomous variable (Weighted Voting) that takes a value of one if the recipient of deference employs weighted decision-making procedures, and zero otherwise.\textsuperscript{40}

Three variables represent the functional efficiency model. The first, Technical IO, is a dummy variable equal to one if the recipient of deference is an issue-specific, technical organization. Second, the variable Binding-Technical Pair equals one when an IO dyads features one IO with binding legal authority and one tech-

\textsuperscript{40}Data on weighted decision-making procedures draws on the work of Hooghe and Marks (2015).
nical institution. Finally, the variable *Decision-Making Difference* measures the relative ease of decision making among two IOs. To construct this variable, I first score each IO according to the ease of its decision-making process. Organizations requiring a simple majority to adopt policy rules receive a 3; those requiring a supermajority receive a 2, and those that demand consensus receive a 1. I then subtract the score for the granter of deference from the score for the recipient of deference. The resulting variable ranges from -2 to 2. It achieves its highest value when an IO with onerous decision-making procedures considers deferring to an IO with the lowest threshold for rule adoption. The functional efficiency model expects a positive and statistically significant coefficient on this variable.

In addition to these primary variables, other factors likely influence the direction and intensity of institutional deference among IOs. If these factors are also correlated with the key independent variables, omitting them can introduce bias. As before, I control for membership overlap and the similarity of foreign policy preferences among member states of the two institutions. In addition, I include controls for the budget of the potential recipient of deference, as well as an indicator variable equal to one when one IO in the pair is legally nested in another. To control for the propensity of regional organizations to defer to IOs with more universal membership, I create a dummy variable for “regional to global” IO pairs. I address the potential for deference in one direction to generate reciprocal deference by including an indicator equal to one if deference previously occurred in the opposite direction for each IO pair. Finally, I include fixed effects for each issue area and a cubic polynomial to address temporal dependencies. Further details regarding the construction of all variables can be found in the appendix.

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41 Budget numbers are collected from information in the Yearbook of International Organizations, where available, and otherwise from the home website of each institution.
3.4.2 Regression Analysis

The dependent variable requires a regression model appropriate for proportional outcome data. In the results presented below, I use a generalized linear model with a logistic link function. This specification allows the response variable to take any value in the range \([0,1]\).\(^{42}\) Directed institutional deference is modeled as follows:

\[
\text{Defence}_{a \rightarrow b,t} = \logit^{-1}(\alpha + \beta_1 \text{Great Power Difference}_{a \rightarrow b,t} + \beta_2 \text{Weighted Voting}_b \\
+ \beta_3 \text{Technical IO}_b + \beta_4 \text{Binding-Technical Pair}_{a,b} \\
+ \beta_5 \text{Decision-Making Difference}_{a \rightarrow b} + \beta_5 D_{a \rightarrow b,t})
\]

Institutional deference from organization \(a\) to organization \(b\) in year \(t\) is assumed to be a function of the two member state power variables (Great Power Difference and Weighted Voting), the three functional efficiency variables (Technical IO, Binding-Technical Pair, and Decision-Making Difference), and a vector of control variables \(D\).

Results are presented in Table 3.3. Model 1 is a simple baseline specification with only the key independent variables; the second model incorporates control variables to address potential confounders. Model 3 further incorporates fixed effects for each pair of IOs; this model estimates the effect of our key variables while controlling for the underlying propensity of each specific pair of international organizations to engage in institutional deference.\(^{43}\) In all models, standard errors are clustered by directed IO dyad.

The two Member State Power variables (Major Power Difference and Weighted Voting) have a consistent, positive association with deference across all models.

Each additional major power member state in an IO predicts a statistically signif-

\(^{42}\)Papke and Wooldridge (1996) refer to this approach as a “fractional regression model.”

\(^{43}\)The IO pair fixed effects specification in Model 3 uses bayesian estimation (bayesglm() in the arm package in R) to reduce overfitting.

89
Table 3.3: Effect of State Power and Functional Efficiency Variables on Institutional Deference

<table>
<thead>
<tr>
<th></th>
<th>Dependent variable: Institutional Deference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Major Power</td>
<td>0.218***</td>
</tr>
<tr>
<td>Difference</td>
<td>(0.055)</td>
</tr>
<tr>
<td>Weighted</td>
<td>0.698**</td>
</tr>
<tr>
<td>Voting</td>
<td>(0.293)</td>
</tr>
<tr>
<td>Technical IO</td>
<td>−0.088</td>
</tr>
<tr>
<td></td>
<td>(0.340)</td>
</tr>
<tr>
<td>Binding-Technical Pair</td>
<td>0.926***</td>
</tr>
<tr>
<td></td>
<td>(0.316)</td>
</tr>
<tr>
<td>Decision-Making Difference</td>
<td>0.298**</td>
</tr>
<tr>
<td></td>
<td>(0.145)</td>
</tr>
<tr>
<td>UN Ideal Point Difference</td>
<td>−0.161</td>
</tr>
<tr>
<td></td>
<td>(0.277)</td>
</tr>
<tr>
<td>IO Budget</td>
<td>−0.040</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
</tr>
<tr>
<td>Regional-Global IO pair</td>
<td>−0.475</td>
</tr>
<tr>
<td></td>
<td>(0.327)</td>
</tr>
<tr>
<td>Reciprocity</td>
<td>2.133***</td>
</tr>
<tr>
<td></td>
<td>(0.206)</td>
</tr>
<tr>
<td>Issue Area FE</td>
<td>✓</td>
</tr>
<tr>
<td>IO Dyad FE</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>3,718</td>
</tr>
</tbody>
</table>

Notes: Results of generalized linear models estimating the effect of state power and IO characteristics on directed institutional deference. All models control for membership overlap, an indicator for nested IOs, and a cubic polynomial for time (not shown). Statistical significance is denoted by: *p<0.1; **p<0.05; ***p<0.01.
icant increase in the amount of deference it is granted by peer institutions. Similarly, IOs that employ weighted voting schemes receive substantially more deference than those with egalitarian decision-making rules. These results provide strong support for the Member State Power hypothesis: states’ material power appears to be an important driver of institutional deference among IOs.

The results also provide compelling evidence for the Functional Efficiency model. IO dyads that pair a technical body with an institution that has binding legal authority are significantly more likely to engage in deference. Deference also tends to flow toward IOs with more permissive decision-making structures, suggesting states may strategically use deference to resolve intractable bargaining problems. The coefficient on these variables are significant and positive in Models 1 (the baseline model) and 3 (with IO dyad fixed effects). They fail to achieve statistical significance in Model 2, potentially due to correlation with other IO design features like global orientation and budget size. The third functional variable, Technical IO, has a significant effect on deference only in Model 3.

Substantive effect size is difficult to infer from the logit coefficients. Figure 3.4 shows the average marginal effect on institutional deference when each continuous variable is increased by one standard deviation (dichotomous variables move from 0 to 1), while other variables are held at their observed values.44 An increase in the Major Power Difference variable by one standard deviation (3 additional major power member states) produces a 0.042 increase in institutional deference. This effect represents a 69% increase over the average deference score of .061. Weighted Voting has slightly larger effect; moving from an egalitarian to a weighted decision-making procedure induces an average increase of 0.046 in the amount of deference granted to an institution. The effect of Binding-Technical Pair is similar in magnitude, representing an increase in deference of 0.047 when an IO dyad features

---

44Figure 3.4 uses the baseline model specification (Table 3.3, Model 1). See the appendix for the equivalent figure for Model 3 with IO dyad fixed effects.
Figure 3.4: *Substantive Effects of Power, Efficiency Variables on Institutional Def-erence*: The figure displays the change in the intensity of deference resulting from a one standard deviation increase in each variable (dichotomous variables are shifted from 0 to 1). 95% confidence intervals are calculated via 1,000 clustered bootstrap simulations of Model 1.

one legally-empowered IO and one technical institution. The marginal effect of *Decision-Making Difference* is smaller (0.017) but remains statistically significant, while the *Technical IO* indicator has no discernible effect on deference flows.
Taken together, the analysis suggests deference is a strategic act that is shaped both by efficiency concerns and power politics. The strong effect of two of the functional efficiency variables suggest states use deference to efficiently pool resources among disparate organizations. At the same time, there is robust evidence that the distributional consequences of institutional deference also shape coordination among IOs. Powerful states tend to drive deference toward their preferred IOs, expanding their governing authority at the expense of the weak.

Empirical findings are robust to a range of alternative measures and model specifications. Alternative regression models, including a linear model, a probit link function, and a binomial regression model at the policy document level produce substantively identical results. To ensure the results do not depend on a specific operationalization of the outcome variable, I recode deference using the full 1-5 scale discussed in Section 3 and re-run the analysis with consistent results. Finally, to address the possibility that the “Major Power” variable is too crude a measure to capture subtle differences in member state capacity, I re-estimate the models with different measures of member state power, including the Correlates of War National Material Capabilities (NMC) index and the average GDP of an IO’s member states. Separately, I also test the member state power variables after removing institutional design variables, such as decision-making procedures, that may be influenced by the presence of powerful states. Results are robust to these changes.

Two final issues influence the interpretation of these results. The first is potential endogeneity associated with regime complex formation. Overlapping institutions are constructed by states, so each IO’s membership and its specific design features are strategically selected rather than randomly assigned. Deference patterns are likely to be influenced by the process of constructing new IOs. For example, suppose a group of states are dissatisfied with bargaining gridlock in a particular institution. These states may strategically create a new IO with fewer members and
a more permissive decision-making procedure, adopt a new set of rules, and then
lobby the original IO to defer to those rules. This sequence of events is observation-
ally equivalent to “functional” deference among preexisting IOs. Nonetheless, this
behavior still conforms to the underlying logic of the functional efficiency model:
states pool resources across IOs to overcome cooperation problems. The process of
regime complex formation could also operate in a manner consistent with the mem-
ber state power model, if states design new institutions to maximize their control
over global governance. Since the incentives for institutional proliferation mirror
the two models examined here, and would produce the same patterns of deference
if present, the processes driving regime complex formation are compatible with the
empirical results.

A second issue is the role of IO legitimacy in driving patterns of deference.
Member states are more likely to accept an act of rule-making by another IO if
they view the organization as legitimate. Buchanan and Keohane (2006) draw a
distinction between normative and sociological legitimacy. Normative legitimacy
concerns whether an institution has the right to rule. States may have a variety of
standards for assessing the normative legitimacy of IOs. While these are not explic-
itly modeled in the preceding analysis, several of the independent variables can be
viewed as proxies for legitimacy standards. For example, global IOs with universal
membership may enjoy a right to rule through the consent of all states. Technical
IOs have superior information that may make them normatively preferable to
more political bodies.45 The fact that both global and technical organizations
receive more deference from other IOs suggest they may be normatively preferable
institutions.

Sociological legitimacy concerns whether an institution is widely believed to have
the right to rule. Deference flows are thus a signal of legitimacy in the sociologi-

45 Universal membership and technical expertise closely mirror two standards of legitimacy
(state consent and comparative benefit, respectively) discussed by Buchanan and Keohane (2006).
cal sense. When member states of one IO accept the authority of another, they are conferring legitimacy on the latter institution. The empirical tests in this section therefore shed light on how sociological legitimacy is constituted among IOs.

3.5 Discussion and Future Research

This paper identifies two fundamental problems associated with global governance in international regime complexes — inefficient duplication and regulatory arbitrage — and argues that states address these problem through the practice of institutional deference. Deference is a common form of coordination among IOs; its goal is to minimize areas of overlapping jurisdiction by assigning authority to a single organization. Evidence of institutional deference in the counterterrorism, election monitoring, and intellectual property regime complexes are consistent with this purpose. IOs that engage in deference with each other tend to have less jurisdictional overlap, focusing their regulatory efforts on separate sub-issues.

Deference can be used to facilitate efficient governance of a policy area, and there is evidence that member states are more likely to engage in deference when two IOs share functional complementarities. This finding sheds light on the motivating example presented at the start of the paper. The UN Security Council defers to the Financial Action Task Force (FATF), at least in part, because the FATF is an information-rich, technical body that is uniquely well placed to articulate and monitor rules on terrorist finance. This makes it an attractive partner for the Security Council, which enjoys binding legal authority but lacks the technical expertise of the FATF.

Deference also has distributional effects. Acts of deference confer legitimacy on specific institutions. They also shape or reinforce the distribution of governing authority among IOs. Because patterns of deference are correlated with member state
power, attempts to coordinate rule-making may generate an informal hierarchy of regulatory bodies that benefits the strong at the expense of the weak.

The paper provides two key contributions to the broader literature. First, it offers the first systematic account of institutional deference in international regime complexes. The empirical analysis shows that states have been able to reduce jurisdictional overlap using the practice of institutional deference, a rebuttal to more pessimistic assessments of cooperation in regime complexes. These results suggest scholars should update their standards for assessing the effectiveness of international institutions. In a unified regime, effectiveness is usually judged on the basis of depth of cooperation, defined as “the extent to which [the institution] requires states to depart from what they would have done in its absence” (Downs, Rocke, and Barsoom 1996, 383). In regime complexes, however, effective cooperation demands not only depth but also inter-institutional coordination. In other words, assessing cooperation in regime complexes requires investigating how institutions interact with each other in addition to the obligations they place on member states.

Second, the paper has implications that extend beyond the three regime complexes examined here. Regulatory arbitrage and the attendant pressure for coordination is a feature inherent to regime complexes, and to other environments featuring multiple, overlapping regulatory authorities. This analysis suggests that when regulatory bodies — including IOs, courts, or sub-national authorities — attempt to address legal inconsistencies, they may generate unseen but important shifts in governing authority.

The analysis also highlights the need for more scholarship on how regulatory institutions handle overlaps in authority. Institutional deference is one observable strategy employed by regulatory institutions, but there are others (e.g., avoiding inconsistencies by dividing labor geographically among institutions). Alternative strategies may have different effects on the distribution of governing power.
addition, future scholarship should more directly tackle the question of how the constituent institutions in regime complexes emerge and evolve. This paper takes regime complex structure as given, and asks what impact regulatory coordination among institutions has on the distribution of governing authority. But regime complex structure and the institutional features of IOs are themselves determined by states. The factors that drive this process — those that lead states to join institutions, create new IOs, or shift the design of existing ones — are important additional areas of inquiry.
### 3.6 Appendix

Table 3.4: Summary Statistics: Election Monitoring, Counterterrorism, and Intellectual Property Regime Complexes

<table>
<thead>
<tr>
<th>Regime Complex</th>
<th>Time Span</th>
<th># IOs</th>
<th>Avg. Members</th>
<th>Total Occurrences of Deferece</th>
<th>Avg. Deference among IO dyads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter-Terrorism</td>
<td>1999-2013</td>
<td>16</td>
<td>48</td>
<td>740</td>
<td>0.073</td>
</tr>
<tr>
<td>Election Monitoring</td>
<td>1994-2013</td>
<td>6</td>
<td>178</td>
<td>110</td>
<td>0.069</td>
</tr>
<tr>
<td>Intellectual Property</td>
<td>1989-2013</td>
<td>10</td>
<td>49</td>
<td>426</td>
<td>0.036</td>
</tr>
</tbody>
</table>
### Table 3.5: Summary Statistics: Member State Power and Functional Efficiency Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Unit of Measurement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Deference</td>
<td>Directed IO</td>
<td>Proportion of Policy Documents</td>
<td>0.061</td>
<td>0.191</td>
</tr>
<tr>
<td>Great Power Difference</td>
<td>Directed IO</td>
<td>Count of Great Power States</td>
<td>-0.307</td>
<td>3.000</td>
</tr>
<tr>
<td>Weighted Voting</td>
<td>IO Year</td>
<td>Indicator</td>
<td>0.102</td>
<td>0.303</td>
</tr>
<tr>
<td>Technical IO</td>
<td>IO</td>
<td>Indicator</td>
<td>0.478</td>
<td>0.500</td>
</tr>
<tr>
<td>Binding-Technical Pair</td>
<td>IO</td>
<td>Indicator</td>
<td>0.531</td>
<td>0.500</td>
</tr>
<tr>
<td>Decision-Making Difference</td>
<td>Directed IO</td>
<td>Decision-Making (IO B) - Decision-Making (IO A)</td>
<td>0.056</td>
<td>0.992</td>
</tr>
</tbody>
</table>
Table 3.6: Institutional Deference: Coding Scheme

<table>
<thead>
<tr>
<th>Score</th>
<th>Type</th>
<th>Criteria</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Passing Reference</td>
<td>IO A refers to IO B’s activities or rules on a matter not relevant to the issue area</td>
<td>Commonwealth Secretariat, 1995: &quot;[We] welcomed the adoption by the Organization of African Unity of the Pelindaba Treaty on the Establishment of an African Nuclear Weapon Free Zone.&quot;</td>
</tr>
<tr>
<td>2</td>
<td>Rule Reference</td>
<td>IO A refers to IO B’s activities or rules in the issue area</td>
<td>Organization of American States, 2010: “The Commonwealth Secretariat also mounted a three-person [election monitoring] mission under the leadership of the Hon. Chris Carter, a former New Zealand Minister.”</td>
</tr>
<tr>
<td>3</td>
<td>Intent to Coordinate</td>
<td>IO A makes an attempt to coordinate its activities or rules with IO B</td>
<td>World Trade Organization, 1998: “The secretariat was asked to contact the FAO, the secretariat of the Convention on Biological Diversity and UPOV to request factual information on their activities.”</td>
</tr>
<tr>
<td>4</td>
<td>Cooperative Action and Rule Endorsement</td>
<td>IO A engages in a joint endeavor with IO B or endorses a set of rules or activities undertaken by IO B</td>
<td>World Trade Organization, 1999: “The secretariat cooperates with a number of intergovernmental organizations, notably with WIPO pursuant to the agreement between WIPO and the WTO...and the joint initiative on technical cooperation.”</td>
</tr>
<tr>
<td>5</td>
<td>Deference</td>
<td>IO A explicitly accepts IO B’s authority on a particular issue</td>
<td>Asia Pacific Economic Cooperation, 2002: “[APEC members] are implementing the measures called for in relevant UN Security Council resolutions and are putting in place the legal and regulatory mechanisms to implement Resolution 1373.”</td>
</tr>
<tr>
<td>Nuclear/Transportation</td>
<td>Terrorism Finance 1</td>
<td>Criminalization of Terrorism</td>
<td>Terrorism Finance 2</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
<td>-------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>secur</td>
<td>requir</td>
<td>act</td>
<td>report</td>
</tr>
<tr>
<td>state</td>
<td>institut</td>
<td>crimin</td>
<td>transact</td>
</tr>
<tr>
<td>nuclear</td>
<td>regul</td>
<td>crime</td>
<td>legal</td>
</tr>
<tr>
<td>organ</td>
<td>inform</td>
<td>case</td>
<td>amicft</td>
</tr>
<tr>
<td>materi</td>
<td>bank</td>
<td>court</td>
<td>issu</td>
</tr>
<tr>
<td>develop</td>
<td>compani</td>
<td>police</td>
<td>custom</td>
</tr>
<tr>
<td>work</td>
<td>include</td>
<td>list</td>
<td>finance</td>
</tr>
<tr>
<td>provide</td>
<td>recommend</td>
<td>unit</td>
<td>complianc</td>
</tr>
<tr>
<td>safeti</td>
<td>effect</td>
<td>secur</td>
<td>busi</td>
</tr>
<tr>
<td>aviat</td>
<td>implement</td>
<td>investig</td>
<td>relat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terrorism Finance 3</th>
<th>Diplomacy 1</th>
<th>Diplomacy 2</th>
<th>Diplomacy 3</th>
<th>Multilateralism</th>
</tr>
</thead>
<tbody>
<tr>
<td>money</td>
<td>author</td>
<td>person</td>
<td>requir</td>
<td>state</td>
</tr>
<tr>
<td>launder</td>
<td>measur</td>
<td>artic</td>
<td>oper</td>
<td>member</td>
</tr>
<tr>
<td>risk</td>
<td>law</td>
<td>provid</td>
<td>terrorist</td>
<td>resolut</td>
</tr>
<tr>
<td>use</td>
<td>appl</td>
<td>shall</td>
<td>servic</td>
<td>council</td>
</tr>
<tr>
<td>organis</td>
<td>section</td>
<td>offenc</td>
<td>activ</td>
<td>commite</td>
</tr>
<tr>
<td>provid</td>
<td>also</td>
<td>order</td>
<td>institut</td>
<td>terror</td>
</tr>
<tr>
<td>account</td>
<td>conduct</td>
<td>may</td>
<td>can</td>
<td>convent</td>
</tr>
<tr>
<td>fund</td>
<td>entiti</td>
<td>nation</td>
<td>system</td>
<td>request</td>
</tr>
<tr>
<td>financi</td>
<td>foreign</td>
<td>purpose</td>
<td>inform</td>
<td>intern</td>
</tr>
<tr>
<td>compani</td>
<td>request</td>
<td>state</td>
<td>countri</td>
<td>legal</td>
</tr>
</tbody>
</table>

Figure 3.5: *Topics Discussed by Counterterrorism IOs*: The figure displays the 10 highest probability words in each of the ten estimated topics. Topic labels are assigned by the author based upon the most common words. All words have been stemmed and converted to lower case.
Figure 3.6: Substantive Effects of Power, Efficiency Variables on Institutional Def-erence: The figure displays the change in the intensity of deference resulting from a one standard deviation increase in each variable (dichotomous variables are shifted from 0 to 1). 95% confidence intervals are calculated via 1,000 clustered bootstrap simulations of Model 3.
Chapter 4

Race to the Bottom? Vertically Differentiated Institutions and Regime Complexity

In many policy areas, interstate cooperation is governed by a dense network of overlapping international institutions. A growing literature on international regime complexity analyzes the causes and consequences of institutional overlap, but scholars remain conflicted over how this environment affects the primary goal of institutionalized cooperation: inducing policy change in member states. In this paper, I examine the conditions under which regime complexity increases the ability of institutions to shape state behavior. The proliferation of institutions has contrasting effects depending on whether institutions offer similar benefits to states. In issue areas where institutions function as substitutes, the ability to forum shop will generally reduce the degree of policy adjustment achieved in the regime. However, in issue areas where institutions are vertically differentiated—i.e., the depth of an institution’s rules affect the benefits of compliance—a regime complex can increase policy change. I demonstrate these dynamics formally and provide empirical evi-
dence in a comparative analysis of the development finance and election-monitoring regime complexes.

4.1 Introduction

Rapid growth in the number and scope of multilateral institutions since World War II has transformed the structure of global governance in many issue areas. Instead of a single unified regime, states frequently confront a regime complex: a set of partially overlapping international regimes that are not hierarchically ordered (Raustiala and Victor 2004; Alter and Meunier 2009). Regime complexes feature a dense network of institutions that compete for authority over the same issue area. This environment gives rise to strategic behavior by states, who must choose among multiple institutions when crafting new rules or seeking judgments about compliance.

Recent scholarship has improved our understanding of how regime complexity expands the range of bargaining strategies available to states (Alter and Meunier 2009; Jupille, Mattli, and Snidal 2013; Morse and Keohane 2014). Other work illuminates how the presence of multiple institutions influences power relations among states, and vice versa (Drezner 2009; Lipsy 2015; Pratt 2018a). However, existing scholarship provides inconsistent answers to perhaps the most fundamental question raised by the increased density of institutions: how does institutional proliferation affect international cooperation? Many scholars argue that the fragmentation of governance across multiple institutions harms cooperation by fomenting ambiguity, encouraging rule conflict, and undermining compliance (Raustiala and Victor 2004; Alter and Meunier 2009; Struett, Nance, and Armstrong 2013). Others contend that regime complexes facilitate more effective cooperation: they can increase flexibility (Keohane and Victor 2011), boost legitimacy (Kelley 2009), and engender greater expertise (Lesage and Van de Graaf 2013) compared to unified regimes.
This paper makes two contributions that reconcile these contradictory findings. First, I propose a simple criterion for international cooperation—depth of policy adjustment—that can facilitate comparisons between unified regimes and regime complexes as well as comparisons across different regime complexes. This criterion is commonly used in studies of institutional compliance, but has not featured prominently in the literature on regime complexity. It is consistent with the fundamental goal of international regimes: supporting mutual policy adjustment by states. It is also applicable across a wide range of issue areas. The emergence of a consensus criterion for assessing interstate cooperation is key for making progress in the regime complexity research agenda, where competing findings in the extant literature may be partially attributable to the competing metrics used by scholars (e.g., harmonization of rules, compliance rate, flexibility, legitimacy, etc.).

Second, I provide a theory of strategic state behavior in regime complexes that explains the heterogeneous effects of institutional proliferation. In some issue areas—particularly those where multiple international institutions offer identical benefits to member states—the emergence of a regime complex will decrease depth of policy adjustment. As states gain the ability to “forum shop” (Busch 2007; Alter and Meunier 2009), they will opportunistically empower institutions with weaker standards and reduce the need for policy change. This dynamic is behind current concerns over the proliferation of development finance institutions. Because states can obtain similar benefits (loan programs) from an array of multilateral development banks, they target institutions where loan conditions are more lenient. In other policy domains, however, regime complexity can have the opposite effect. The proliferation of multiple institutions will deepen policy adjustment if institutions are vertically differentiated: i.e., they provide benefits to states that increase with the rigor of an institution’s rules. An example is election monitoring, where institutions with more strict rules can send a stronger signal about the quality...
of an election than bodies with weaker standards. The heterogeneous effects of regime complexity have been overlooked in the current literature, which has largely consisted of scholars examining specific regime complexes within a single issue area.

I demonstrate these dynamics with a decision-theoretic model of institutionalized cooperation. The model envisions states as consumers in a “market” for international cooperation. States decide whether to adjust their national policies by weighing the costs of policy adjustment against the potential benefits of compliance with each institution. Like consumers in traditional economic markets, their decisions depend on the structure of the market. I examine how state behavior changes when we transition from a unified regime (monopolistic market) to a regime complex (oligopolistic market). The model shows that depth of policy adjustment will (weakly) decrease when states move from a unified regime to an undifferentiated regime complex. If the issue area supports differentiated institutions, however, the transition from a unified regime to a regime complex can increase policy adjustment.

I test the theory by comparing the effect of overlapping institutions on depth of policy adjustment in the domains of election monitoring and development finance. In each case, I leverage dynamic changes in the institutional environment to estimate how the layering of additional institutions shapes states’ national policies. Consistent with theoretical expectations, I find that the creation of overlapping institutions is associated with deeper policy adjustment in the election monitoring regime complex, where institutions are vertically differentiated. In the development finance regime complex, however, institutional overlap has no discernible effect on state policies.
4.2 Cooperation in International Regime Complexes

Much of the existing scholarship on international regime complexity emphasizes the challenges overlapping institutions create for effective cooperation. Scholars typically highlight the inefficient duplication and coordination problems that arise when multiple institutions share jurisdiction.  

1. Raustiala and Victor (2004), for example, note the tendency for institutions governing plant genetic resources to adopt competing or contradictory rules.  


Alter and Meunier (2009) note that regime complexity allows states to engage in “cross institutional political strategies” which may undermine the goals of the regime. A common strategy is *forum shopping*, where states selectively engage with particular institutions that favor their policy preferences (Busch 2007; Alter and Meunier 2009). Forum shopping enables regulatory arbitrage as opportunistic states avoid costly rules, empower the weakest institutions, and encourage a race to the bottom (Pratt 2018; Riles 2014; Efrat and Newman 2016). States may also use one forum to directly challenge the rules or authority of another, a strategy known as *regime shifting* (Helfer 2004; Morse and Keohane 2014). These behaviors have the potential to undermine compliance and increase conflict within a regime complex.

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1. Abbott and colleagues summarize the modal scholarly perspective on international regime complexity: “Typically, regime complex theory treats the co-existence of multiple governance actors with overlapping mandates as a pathology (‘overlap’ or ‘fragmentation’) that threatens governance effectiveness through redundancy, inconsistency, and conflict.” (Abbott et al. 2015, 7).

2. Raustiala and Victor argue more broadly that “legal conflict among overlapping rules...is a recurring and difficult challenge for regime architects.” 2004, 300.
Alongside the pessimistic view of institutions, some contend that regime complexity brings distinct advantages over unified regimes. Kelley (2009) argues that the presence of overlapping election monitoring organizations can boost legitimacy of international norms and facilitate action that might otherwise be blocked. Keohane and Victor (2011) assert that the climate change regime complex represents a more flexible and adaptable governance system than a single, comprehensive institution. Lesage and Van de Graaf (2013) explain how institutional overlap in energy and tax governance has reinforced the comparative advantage of individual institutions like the Organisation for Economic Co-operation and Development (OECD).

What accounts for these competing perspectives on cooperation in international regime complexes? One likely explanation is that the effect of overlapping institutions is heterogeneous. In some issue areas, the introduction of multiple institutions has encouraged conflict and non-compliance. In other domains, regime complexity may result in a more flexible and complementary governance system. Recent scholarship acknowledges the divergent trajectories of regime complexes (Orsini, Morin, and Young 2013; Gehring and Faude 2014; Abbott et al. 2015; Pratt 2018b). But this work has largely focused on describing and conceptualizing disparate outcomes, rather than explaining their emergence. I build on these efforts by demonstrating why the proliferation of institutions damages cooperation in some issue areas and facilitates it in others.

A second factor that has stymied progress on this question is the lack of an agreed upon standard for assessing cooperation. Scholars disagree about the effect of overlapping institutions, in part, because of the abundance of different metrics that have been used in empirical examinations. Among the outcomes examined in existing work are the degree of rule conflict in a regime (Raustiala and Victor 2004), competition among actors (Struett, Nance, and Armstrong 2013), level of institutional coordination (Gehring and Faude 2014; Pratt 2018b), adaptability
and flexibility (Keohane and Victor 2011), and strength of norms (Kelley 2009).
The examination of different outcomes makes it difficult to draw inferences about
heterogeneous effects of overlapping institutions. This problem is exacerbated by
the use of case studies of individual regime complexes, which has been the most
prevalent empirical strategy in this literature.

This paper takes a step toward overcoming these shortcomings by clearly defin-
ing a metric for assessing cooperation in regime complexes that can be applied
across issue areas. Specifically, I argue we should assess regime complexes by their
ability to induce policy change in member states. The next section discusses this
measure in more detail.

4.3 Depth of Policy Adjustment

I argue that cooperation in overlapping institutions should be assessed based on the
depth of policy adjustment that the institutions induce in member states. This cri-
terion is consistent with Keohane’s definition of intergovernmental cooperation as
“a process of policy coordination.”\(^3\) International institutions are designed to help
states achieve mutual gains through mutual policy adjustment (Keohane 1984).
Their success in accomplishing this goal is the most direct measure of their efficacy.

The ability of institutions to encourage policy adjustment is emphasized in a
large literature examining the effectiveness of international institutions. Scholars
attempt to estimate the change in state behavior caused by membership in a par-
ticular institution.\(^4\) This treatment effect is difficult to identify, given the strategic

\(^3\)In Keohane’s words, “intergovernmental cooperation takes place when the policies actually
followed by one government are regarded by its partners as facilitating realization of their own
objectives, as the result of a process of policy coordination” (1984, 51-52).

\(^4\)For examples, see Simmons (2000); Rose (2004); Gowa and Kim (2005); Goldstein, Rivers,
and Tonn (2007); Young (1999); Breitmeier, Underdal, and Young (2011); Russett and Oneal
(2001); Boehmer, Gartzke, and Nordstrom (2004); Hafner-Burton and Montgomery (2006); John-
ston (2001); Bearce and Bondanella (2007). There are a number of hypothesized mechanisms by
which institutions induce policy adjustment in states, including direct enforcement, reciprocity,
reputational concerns, and socialization.
behavior of states and non-random assignment of institutional membership.\textsuperscript{5} The fact that scholars persist in the face of severe identification challenges attests to the importance of policy adjustment as the primary criterion for judging cooperation in international institutions.

I define depth of policy adjustment as the total change in states’ national policies that occurs due to the presence of an international regime. If we envision national policies as existing on a continuum from shallow to deep (e.g., from protectionist to liberal trade posture), the quantity can be formalized as the total treatment effect of the regime on national policies:

\[
DPA = \sum_{i=1}^{N} E[\text{Policy Level}_i|\text{Regime}] - E[\text{Policy Level}_i|\text{No Regime}]
\]

This definition is similar to the concept of “depth of cooperation,” defined by Downs, Rocke, and Barsoom as the “extent to which [a treaty] requires states to depart from what they would have done in its absence” (1996, 383). The primary difference is that Downs, Rocke, and Barsoom focus on the degree of policy adjustment required to be compliant with an institution or treaty, while I emphasize realized policy adjustment. This distinction is important in the context of regime complexity, because the presence of multiple institutions is likely to be systematically related to states’ propensity to comply with particular institutions. As a result, we need to know not only what policy adjustments are required by international institutions, but whether states choose to comply or ignore those requirements.

The proposed metric is focused primarily on the depth of state policy change in response to institutional rules. Because it aggregates over all states in the system, however, it also incorporates information on the breadth of states that are willing to participate in multilateral institutions. If states “opt out” of cooperation by renouncing participation in the regime, they have no reason to adjust their national policies.

\textsuperscript{5}See Downs, Rocke, and Barsoom (1996); Von Stein (2005); Davis and Pratt (2017).
policies. This lack of policy change will be reflected in the measure, which captures the total depth of policy adjustment achieved by the regime.

Depth of policy adjustment is a useful concept because it facilitates analysis of how cooperation changes as international institutions proliferate. It refines the general question posed by students of regime complexity—are overlapping institutions good or bad for cooperation?—to a more tractable form: does regime complexity increase or decrease depth of policy adjustment, compared to a unified regime? The next section turns to this question.

4.4 A Model of Forum Shopping and Policy Adjustment

To analyze the effect of institutional proliferation on depth of policy adjustment, I construct a decision-theoretic model of states adjusting their national policies in response to an international regime. The model envisions states as consumers in a “market” for international cooperation. In unified regimes with a single institution, they face a single monopoly producer, and they choose whether to adjust their national policy to gain the benefits of engagement with the institution. In regime complexes, states can forum shop among multiple institutions. I demonstrate how one particular feature of a regime complex—whether institutions are vertically differentiated—determines the depth of policy adjustment undertaken by states.

The model is built on four assumptions. First, each state has an ideal policy level that it would adopt in the absence of an international regime. These preferred policy levels are distributed along a spectrum from 0 (lowest possible level) to 1 (highest level) according to a continuous density function, $f()$. This assumption does not suppose that international institutions only regulate a single issue; most
do not. Instead, it simplifies the analysis by decomposing states’ multifaceted interests into a series of specific preferences over single policy domains.

Second, international institutions operate by setting a standard, or floor, for states’ national policies. States with policies above this standard may obtain a benefit from compliance with the institution’s rules. States with policies below this level fail to comply and gain no benefit from the institution. There are a wide range of possible benefits from compliance with international institutions. These include direct benefits, such as financial aid, technical assistance, or market access, as well as more diffuse benefits associated with a state’s reputation. Avoiding penalties imposed on non-compliant states can also be viewed as a benefit of compliance.

Third, states find it costly to adjust their national policies away from their ideal levels. In the model, states will internalize the costs of policy adjustment, and these costs are increasing in the size of the adjustment. Fourth and finally, states are rational and seek to maximize payoffs.

These four assumptions allow us to analyze state behavior in a range of institutionalized environments. I first consider a scenario where state policies are regulated by a single international institution, and then examine how depth of policy adjustment shifts as states are subject to overlapping institutions of different types. As I demonstrate below, the effect of regime complexity depends crucially on how overlapping institutions are arrayed vis-a-vis each other.

4.4.1 Unified Regime

In the unified regime scenario, states confront a solitary international institution with an exogenously determined standard for compliance, $s$. States obtain a payoff of $\alpha + \theta$ if they comply with the institution by adopting a policy level $\geq s$.\footnote{$\alpha + \theta$ can be considered a single quantity in the context of a unified regime. In a regime complex, the $\alpha$ term is constant across institutions, representing the identical benefits of compliance that can be obtained from every institution. The $\theta$ term can depend on the standard for compliance ($s_j$) set by institution $j$.}
payoff represents the benefits of compliance with the international institution, as well as the avoidance of non-compliance penalties. If states choose to adjust their policies from their ideal policy level $p_i$, they pay a cost that increases in the size of the policy adjustment.

In this environment, states are akin to consumers in a monopoly market for institutionalized cooperation. They can “purchase” the benefits of compliance by raising their national policy level to the institutional standard. States pay differential costs for this benefit because their ideal policy levels are not identical. Some states require no costly policy adjustment because their ideal policy level is above the institutional standard. Others have to increase their policy level to $s$ or fail to gain the benefits of cooperation.

A state’s utility depends on its decision to comply and the size of the required policy adjustment. It is equal to:

- 0 if the state chooses not to comply with the institution: *non-compliance*
- $\alpha + \theta$ if the state complies and its ideal policy level is higher than the institutional standard ($p_i \geq s$): *compliance with no adjustment*
- $(\alpha + \theta) - (s - p_i)$ if the state complies and its ideal policy level is lower than the institutional standard ($p_i < s$): *compliance with adjustment*

Figure 4.1 provides a visual depiction of the unified regime scenario. The vertical line represents a continuum of potential policy levels, ranging from 0 to 1. States’ ideal policy levels are distributed on this continuum by the density function $f(p)$. States choose whether to adopt a realized policy level high enough to be compliant with a single international institution (IO 1). This choice is determined by a simple cost-benefit calculation. If the costs of policy adjustment are lower than the benefit of compliance, states comply with the institution; otherwise states fail to comply. This process sorts states into three categories. One set of states has ideal
policy levels that are above the compliance threshold. These states (set A in Figure 1) do not adjust their national policy but are nonetheless compliant with the single institution. A second set of states (B) has ideal policy levels that are below the compliance threshold, but close enough that the costs of policy adjustment are lower than the benefits of compliance. These states choose to increase their national policy level to the standard $s_1$. Finally, the third set (C) deems the costs of policy adjustment to be too high to justify the benefit of compliance, so chooses to be noncompliant and remain at their ideal policy levels.

The figure emphasizes the significant difference between depth of policy adjustment and another potential measure of cooperation, the rate of compliance with the regime. Both sets A and B are compliant, representing a large portion of states’ potential ideal policy levels. But depth of policy adjustment is significantly lower, because it measures only those states in which the regime has affected the level of national policy (set B). For a known distribution of ideal policy levels, $f(p)$, we can calculate both quantities. The rate of compliance—equivalent to the level of “de-
mand” for cooperation in the market—is $N(1 - F(s_1 - \alpha - \theta))$. The depth of policy adjustment is the rate of compliance minus the set of states that make no policy adjustment: $N(F(s_1) - F(s_1 - \alpha - \theta))$.

### 4.4.2 Regime Complexity

How is cooperation affected once we introduce multiple institutions? To answer this question, I analyze a scenario where two new institutions are added to the issue area. For illustrative purposes, suppose one of the new bodies (IO 2) sets a compliance threshold higher than the existing institution, while the other (IO 3) has a lower standard for compliance. Because I am interested in the effects of institutional overlap, I assume all states are at least potential members of all three institutions.

I will analyze how depth of policy adjustment changes as states gain the ability to forum shop among multiple institutions. Forum shopping occurs when “actors select their international venues based on where they are best able to promote specific policy preferences, with the goal of eliciting a decision that favors their interests” (Alter and Meunier 2009, 16). The ability of states to forum shop is a defining feature of regime complexity, because institutions make overlapping authority claims. This environment provides discretion for actors to opportunistically select which claim they recognize and thus which institution should have jurisdiction over their behavior.

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7To see why, note that a state will only choose not to comply with the institution when its ideal policy level $p_i$ is sufficiently low that the costs of adjustment $(s - p_i)$ are greater than the benefits of compliance $(\alpha + \theta)$. This occurs when $p_i < s - \alpha - \theta$. The proportion of states that do comply is therefore $1 - F(s_1 - \alpha - \theta)$.

8Results are consistent with any number of additional institutions.

9In other words, I examine policy adjustment among those states that are subject to multiple, overlapping institutions. Those that are members of only one institution will behave as discussed in the previous section.

10According to Raustiala and Victor, “the defining characteristic of a regime complex is the existence of multiple, overlapping elemental regimes” (2004, 299).
In the analysis that follows, I will allow states to choose the institution from which they will seek a compliance decision. For example, a state confronting an array of election monitoring organizations can select which body will be invited to observe and adjudicate the quality of a domestic election.\textsuperscript{11} Similarly, states that are party to multiple human rights institutions can selectively recognize the jurisdiction of one institution in specific circumstances.\textsuperscript{12} This does not entail an assumption that each institution enjoys equal legitimacy or legal status. Indeed, the potential for differentiation among institutions is the key independent variable that shapes depth of policy adjustment in international regime complexes. However, I do assume that membership in multiple institutions provides states with the ability to make selective claims of compliance with particular institutions, whether they are election monitoring bodies, trade agreements, or development banks.

As before, states must adopt a policy level equal to or greater than a particular institutional standard in order to obtain the benefits of compliance with that institution. If a state adopts a realized policy level that differs from its ideal level, it pays a cost commensurate with the size of the policy adjustment.

### 4.4.3 Undifferentiated Institutions

In the initial regime complex scenario, I consider the case where institutions provide undifferentiated benefits to compliant states. Each institution offers an identical benefit, $\alpha + \theta$, to states that receive a favorable compliance decision from that institution. This makes institutions equivalent to substitute goods from the perspective of states: they choose among institutions only on the basis of their relative

\textsuperscript{11}In practice, states can and often do invite multiple institutions to monitor an election. Though the model only allows states to choose a single institution, it is consistent with a scenario where states select multiple institution and receive a compliance benefit from the most rigorous (highest standard) institution.

\textsuperscript{12}For example, Morse and Pratt (2018) describe the strategic selection of human rights institutions governing the use of torture by the United States and Kyrgyzstan. In each case, countries made selective claims of compliance with weaker institutions that they claimed should have jurisdiction instead of the more rigorous Convention Against Torture.
cost, represented here by the degree of policy adjustment required to reach each institution’s compliance standard.

Development finance institutions are close to the ideal type of undifferentiated institutions. States seeking funds for development projects can approach an array of multilateral development banks. In return for loan programs, these development banks often require states to uphold economic, environmental, and social standards. While the severity of these conditions varies across development banks, the benefits of compliance—i.e., the funds a state receives after fulfilling the conditions—are largely homogeneous. A $20 million loan finances the same project whether it comes from the World Bank, Inter-American Development Bank, or the Development Bank of Latin America.\textsuperscript{13}

Figure 4.2 shows how states choose to adjust their national policies in the undifferentiated regime complex scenario (right panel). As before, states are arranged according to their ideal policy levels, from 0 to 1. States select among the original institution (IO 1), as well as an institution with deeper (IO 2) and shallower (IO 3) standards for compliance. The unified regime is reproduced (left panel) to demonstrate how cooperation shifts once new institutions are present.

State behavior in this regime complex reflects a “race to the bottom” dynamic, as states forum shop to institutions with weaker compliance standards. The only states willing to comply with IO 1 and IO 2 are those with ideal policy levels that are already above the standards set by these institutions. Those with lower ideal policy levels can obtain a higher utility by forum shopping to the weakest institution. As a result, the ability of IO 1 and IO 2 to induce policy adjustment among states has been nullified by the presence of IO 3. Only IO 3, the institution with the weakest compliance standard, can engender states to increase their level of na-

\textsuperscript{13}One objection is that projects financed by an institution known to impose more conditions, such as the World Bank, may attract more private capital. In that case, development finance institutions are not completely undifferentiated and may exhibit some features of vertically differentiated institutions, discussed below.
Figure 4.2: *Regime Complex with Undifferentiated Institutions*: States arrayed on a continuum of ideal policy levels choose whether to comply with a standard set by a single international institution (left panel) or a set of undifferentiated institutions (right panel).

In a regime complex, states face a distributional shift in their ability to obtain the benefits of compliance. Depending on the compliance standard set by the weakest institution, there may be a remaining group of non-compliant states who are unwilling to bear the costs of policy adjustment.

Compared to a unified regime, the undifferentiated regime complex affects both *who adjust* and *how much adjustment* occurs. States that previously adjusted their national policies to comply with IO 1 will now forum shop to IO 3, obtaining the same benefits at lower cost. They no longer undertake any policy adjustment. In their stead is a new of new states who were previously unwilling to bear the policy adjustment costs of IO 1 but are willing to pay the lower costs of complying with IO 3. This suggests more broadly that in regime complexes with undifferentiated institutions, institutional proliferation will shift policy adjustment toward states with the “weakest” preferences in the policy space.\(^{14}\)

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\(^{14}\)This distributional shift in policy adjustment does not result from coercion from states with the “highest” policy preferences. Instead, it stems from the new opportunity for cooperation provided to states with preferences for lower policy levels. These states now face a low-standard institution that offers them a compliance benefit without the need for large shifts in national policies. All states — including those that undertake new policy adjustment in the undifferentiated regime complex — are “better off” in terms of their net utility compared to the unified regime.
We can calculate the depth of policy adjustment in the regime complex compared to a unified regime. We have seen that in the undifferentiated regime complex, policy adjustment only occurs among states with ideal policy levels lower than the compliance standard of the weakest institution (IO 3). In particular, only states with an ideal policy level in the range \((s_3, s_3 - \alpha - \theta)\) will find the benefit of compliance large enough to warrant the required increase in policy level. If \(s_3 - \alpha - \theta \geq 0\) (i.e., the weakest compliance standard is sufficiently higher than the minimum policy level among states), depth of policy adjustment in the regime complex is equal to \(N(F(s_3) - F(s_3 - \theta))\). If \(s_3 - \alpha - \theta < 0\), depth of policy adjustment is \(N(F(s_3))\).

With the additional assumption that states’ ideal policy levels are distributed uniformly along the continuum of policy depth,\(^{15}\) we can conclude that undifferentiated regime complexes will have weakly lower depth of policy adjustment than a unified regime (Proposition 1).

**Proposition 1** Depth of Policy Adjustment is weakly lower when states transition from a unified regime to an undifferentiated regime complex.

To see why this result holds, consider the case where all “new” institutions have a higher compliance standard than the original institution. Depth of policy adjustment in the regime complex will be equal to the unified regime, since states forum shop downward to the weakest institution. Now consider the case where at least one new institution has a lower compliance standard than the original institution. If the new, lowest compliance standard is greater than \(\alpha + \theta\), depth of policy adjustment is again identical in the unified regime and regime complex: \(N(\alpha + \theta)\).\(^{16}\) If the

\(^{15}\) Assuming a uniform distribution is not strictly required for this result. We can allow for a wide range of distributions as long as they are unimodal and reach their highest density at a policy level \(geqs_1\). This latter condition will be satisfied if the original institution was designed such that its compliance standard was at the peak of the ideal policy level distribution.

\(^{16}\) With a uniform distribution of states’ ideal policy levels, depth of policy adjustment in the unified regime is \(N(s_{original} - s_{original} - \alpha - \theta)\), or \(N(\alpha + \theta)\). Depth of policy adjustment in the undifferentiated regime complex is \(N(s_{new} - s_{new} - \alpha - \theta) = N(\alpha + \theta)\).
compliance standard is less than $\alpha + \theta$, depth of policy adjustment strictly decreases compared to a unified regime.\(^{17}\)

This result means that the proliferation of undifferentiated multilateral institutions cannot increase cooperation among states; it can only decrease depth of policy adjustment or leave it unaffected. States' ability to select among a new range of institutional options generates a race to the bottom. While institutions may be able to mitigate the loss of cooperation through coordination, the growing density of institutions creates strong incentives for states to avoid costly standards via forum shopping.

### 4.4.4 Vertically Differentiated Institutions

How does the pattern of cooperation shift as institutions offer distinct benefits to states? While issue areas like development finance are composed of institutions that provide undifferentiated benefits, many policy domains feature institutions with varying returns to compliance. We now examine depth of policy adjustment in regime complexes with differentiated institutions.

Institutions with differentiated benefits are common in world politics. Trade institutions, for example, vary in the degree of liberalization they require states to undertake. For potential members of trade institutions, a deeper trade agreement offers a larger benefit in terms of market access to other states in the regime. This larger benefit may be tied to greater costs, if the state must make significant policy adjustments to comply with a deep institution and gain market access.

Election monitoring institutions feature similar variation in the benefits of compliance. Such institutions function by certifying the legitimacy of national elections. The primary benefit they provide is a signal to domestic and international actors that an election was conducted in accordance with national and international stan-

\(^{17}\)Depth of policy adjustment in the undifferentiated regime complex is $Ns_{\text{new}}$, which is less than $N(\alpha + \theta)$ since $s_{\text{new}} < \alpha + \theta$. 

120
ards. Election monitoring institutions with high standards for compliance, such as the Organization for Security and Cooperation in Europe (OSCE), can provide a stronger signal than institutions with weaker standards, like the Southern African Development Community (SADC). The benefits of complying with OSCE election standards are therefore greater than in the SADC.

These examples reflect a specific type of heterogeneity in a regime complex: institutions are vertically differentiated. In traditional economic markets, goods are vertically differentiated if consumers agree that some goods provide a higher value than others. Rather than perceiving products to be perfect substitutes, consumers view them as ordered along a single dimension, such as quality. In the trade and election monitoring regime complexes, states are in an analogous environment. Multiple institutions provide vertically differentiated benefits to compliant states. When states forum shop in this environment, they must compare not only the cost (size of required policy adjustment) associated with each institution, but also the particular level of benefits each institution provides.

In vertically differentiated regime complexes, the benefits of compliance an institution are tied to the depth of institutional standards. Deeper trade agreements are more attractive due to their depth—i.e., they set a high standard for compliance that induces other member states to open their domestic markets. Election monitoring institutions with strict rules provide a strong signal precisely because they are known to have stringent standards. To incorporate this feature into the model, I define the benefit provided by an institution to be a function of the institutional standard for compliance: \( \alpha + \theta(s_j) \) for institution \( j \). Benefits of compliance now feature two distinct terms: a constant term \( (\alpha) \) representing similar benefits

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19 See Kelley (2012) for evidence that election monitoring institutions often employ different standards when assessing and certifying elections.
Figure 4.3: *Regime Complex with Vertically Differentiated Institutions*: States arrayed on a continuum of ideal policy levels choose whether to comply with a standard set by a single international institution (left panel) or a set of institutions with varying benefits (right panel).

across institutions, and a variable term ($\theta(s_j)$) that captures differentiation among institutions. $\theta(s_j)$ is increasing in $(s_j)$ to reflect the vertical differentiation discussed above.

Figure 4.3 demonstrates state behavior in a vertically differentiated regime complex (right panel). Unlike in the undifferentiated context, states do not automatically forum shop to the weakest institution. Because institutions with higher compliance standards (e.g., IO 2) offer a unique level of benefits to states, many states now choose to adjust their national policies to become compliant with this institution. Just as a market with vertically differentiated goods can sustain different price levels, the regime complex can sustain policy adjustment across multiple institutions with different standards.

Depth of policy adjustment in the vertically differentiated regime complex compares favorably to the undifferentiated scenario. With the same assumption of a uniform distribution of states’ ideal policy levels, depth of policy adjustment is always higher when states choose among a set of vertically differentiated institutions
than in an undifferentiated regime complex. The second proposition reflects this insight.

**Proposition 2** *Depth of Policy Adjustment is strictly higher in a vertically differentiated regime complex, compared to an undifferentiated regime complex.*

For a fair comparison between the undifferentiated and vertically differentiated scenarios, I assume the sum of benefits provided by multilateral institutions is identical in each regime complex. Otherwise, Proposition 2 would follow by construction: if one type of regime complex has the advantage of offering a higher quantity of benefits to states, it can trivially induce more policy adjustment in those states. In the undifferentiated regime complex, the three institutions offer equal benefits to compliant states (total benefits = \(3(\alpha + \theta)\)), while in the vertically differentiated regime complex each provides a unique benefit (\(3\alpha + \theta(s_1) + \theta(s_2) + \theta(s_3)\)). Setting these quantities to be equal implies that the constant \(\theta\) term in the undifferentiated regime complex is equivalent to the average of the \(\theta(s_j)\) terms in the vertically differentiated regime complex.

I previously showed that the undifferentiated regime complex yields a maximum depth of policy adjustment of \(N(\alpha + \theta)\), as states adjust their policies to comply with the weakest institution. In the vertically differentiated regime complex, each institution will yield some level of policy adjustment by states. The institution with the weakest compliance standard (IO 3) will induce policy adjustment among states with ideal policy levels in the range \([s_3 - \alpha - \theta(s_3), s_3]\). States will adjust their policies to comply with other institutions under three conditions: 1) policy adjustment is required to comply with the institution \((p_i < s_j)\), 2) the benefits of compliance are greater than the costs of policy adjustment \((\alpha + \theta(s_j) - (s_j - p_i) > 0)\), and 3) the net payoff of compliance with the institution is greater than the payoff of complying with a weaker institution \((\alpha + \theta(s_j) - (s_j - p_i) > \alpha + \theta(s_{j-1}) - (s_{j-1} - p_i))\).\(^{20}\) The min-

\(^{20}\)In this notation, \(s_{j-1}\) represents the closest compliance standard that is lower than \(s_j\).
imum depth of policy adjustment in the vertically differentiated regime occurs when institutional compliance standards are proximate enough that the third condition is binding. In that case, depth of policy adjustment is calculated by summing over the policy adjustment induced by each institution: $\alpha + \theta(s_3) + \theta(s_1) - \theta(s_2) + \theta(s_3) - \theta(s_1) = \alpha + \theta(s_2)$. Because $\theta(s_j)$ is increasing in $s_j$ and $s_2$ is the highest compliance standard, depth of policy adjustment is greater than in the undifferentiated regime complex: $\alpha + \theta(s_2) > \alpha + \frac{\theta(s_3) + \theta(s_1) + \theta(s_2)}{3}$.

Finally, we can identify the conditions under which the transition from a single institution to a vertically differentiated regime complex will increase depth of policy adjustment. As Proposition 3 states, the proliferation of institutions will increase depth of policy adjustment if the new institutions are sufficiently differentiated.

**Proposition 3** For sufficiently differentiated regime complexes ($\theta(s_2) - \theta(s_1) > \alpha$), Depth of Policy Adjustment increases when states transition from a unified regime to an vertically differentiated regime complex.

This condition holds when the difference in benefits a state can receive from complying with the deepest institution (IO 2 in the figures above) compared to the original institution (IO 1) are greater than the constant returns to compliance (\(\alpha\)). To see why Proposition 3 holds, consider the minimum possible depth of policy adjustment in the vertically differentiated regime. This occurs when the weakest compliance standard ($s_3$) is 0, such that it requires no policy adjustment in order for any state to comply. Depth of policy adjustment in the regime complex is then $\theta(s_2)$. That quantity will be higher than the unified regime when $\theta(s_2) > \alpha + \theta(s_1)$, or $\alpha < \theta(s_2) - \theta(s_1)$.

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21 In other words, when the compliance standards set by each institution are close enough that states must choose between complying with multiple institutions that each yield positive payoffs.
4.4.5 Discussion

The model provides three insights into state behavior in overlapping institutions. First, undifferentiated regime complexes tend to generate a race to the bottom, lowering (or leaving unaffected) the depth of policy adjustment achieved by multilateral institutions. In these regime complexes, only the lowest-standard institution can actually motivate states to change their policies. States may claim compliance with high-standard institutions, but only because the policy level they would have adopted in the absence of any regime is sufficiently high to meet institutional standards. Undifferentiated regime complexes are therefore composed of a single, low-standard institution capable of driving policy adjustment and several higher-standard but effectively neutered institutions.

Second, vertically differentiated regime complexes always outperform their undifferentiated counterparts in their ability to engender policy adjustment. When high-standard institutions can offer benefits that low-standard institutions cannot, some states will “race to the top.” In vertically differentiated regime complexes, institutions with various standards can sustain policy adjustment in states.

Finally, the creation of overlapping institutions can increase depth of policy adjustment, compared to a single unified regime, if the new institutions are sufficiently differentiated. Because states tend to have different preferences in any policy domain, a set of institutions with varied standards can increase policy adjustment as long as the institutions are not viewed as substitutes by states.

The model suggests the emergence of regime complexes will generate heterogeneous effects on international cooperation, consistent with the debate in the existing literature. These heterogeneous effects emerge naturally from rational states responding to different strategic environments. Differentiation among multilateral institutions is the key variable that shapes when regime complexity will yield more or less policy adjustment by states.
The model raises at least two important questions that are not directly addressed by the three propositions. First, what determines the degree of differentiation among institutions? In the preceding discussion, I assume they are shaped exogenously by the issue area regulated by a regime. The cooperation problem that characterizes each issue area necessitates a specific set of institutional activities. Sometimes these activities make institutions easily substitutable. Development finance institutions are relatively undifferentiated because of the nature of their primary institutional output: they provide states with financial assistance, an exchangeable good that does not change in value as institutional standards shift. Trade and election monitoring institutions operate in very different policy domains and provide outputs that are significantly less fungible. The benefits offered by these institutions (market access and indications of election quality) vary significantly when compliance standards are raised or lowered.

These examples suggest a set of mechanisms that help generate vertical differentiation among institutions in a regime complex. The first is reciprocity: if the benefits of compliance with an institution depend upon reciprocal policy adjustment by other member states, institutions with different standards will be vertically differentiated. Higher-standard institutions offer more value because they generate greater reciprocity by others. The regime complex for trade is an ideal-typical example of the reciprocity mechanism.

The second mechanism is signaling. If the primary role of institutions is to reveal states’ policies or behaviors to others, different standards for compliance will generate varying benefits. Election monitoring institutions are an example of institutions that primarily serve a signaling function. Others include human rights bodies or institutions that engage in “scorecard diplomacy” (Kelley 2017) to reveal information about states’ domestic policies. When cooperation in an issue area is
dependent upon reciprocity and signaling, we should therefore expect regime complexes in the issue area to be vertically differentiated.

The second question not directly addressed in the model regards the strategic adaptation of institutions as the dynamics of the model play out. In the undifferentiated regime complex, we observed that many high-standard institutions were rendered incapable of motivating policy adjustment among member states when weaker institutions are added. How do these institutions respond to their new environment? While it is reasonable to think of institutions as fixed in the short term, what happens in the long term as states begin to shift elsewhere?

The theoretical framework presented above suggests at least three possible outcomes. First, high-standard institutions may continue to lose “market share” as states flock to lower-standard bodies. Eventually, the high-standard institutions will cease to exist or become “zombie” organizations that fail to make progress towards their mandate (Gray 2018). Second, institutions may lower their standards in an attempt to regain the engagement of a larger number of states. This is the classic “race to the bottom” scenario where competitive pressures lead to the deterioration of standards. Finally, institutions may try to differentiate themselves from their peers. If multilateral institutions can incorporate signaling or reciprocity as a key component of their activities, they may survive (and even thrive) in the presence of lower-standard institutions. This behavior would allow vertical differentiation to emerge endogenously from the strategic behavior of institutions. Such a strategy is beyond the scope of the current paper but worthy of additional attention from scholars.
4.5 Empirical Test

To test the predictions of the model, I will compare depth of policy adjustment in two regime complexes, development finance and election monitoring. These issue areas were selected because they approximate the ideal-types of an undifferentiated and vertically differentiated regime complex, respectively. The model suggests competing results for states’ policy adjustments across the issue areas. As states confront multiple development finance institutions, they should forum shop to the institution with the weakest compliance standards, weakly reducing their need to change national policies. I therefore expect a null or negative effect of institutional overlap on depth of policy adjustment. The proliferation of election monitoring bodies, on the other hand, should be associated with an increase in policy adjustment by states.

Each regime complex is linked to a specific policy domain where states are required to maintain certain standards to qualify for the benefits of institutional cooperation. Within the domain of development finance, I focus on the practice of development policy lending. Development policy loans (previously referred to “structural adjustment loans”) are issued by multilateral development banks to facilitate the adoption of policies that promote economic growth in recipient states. The funds provide budget support to member states that are undertaking costly regulatory reforms.\(^{22}\)

The interaction between states and development banks operates in a manner consistent with the model: states must commit to a set of macroeconomic and regulatory policies to achieve the desired benefit (budget support) from the multilateral institution. States may approach a range of development banks for a development

policy loan. These banks have varying standards for compliance, allowing states that have the appropriate standing in multiple institutions to forum shop.23 I will examine how access to multiple development lending institutions affects changes in regulatory policies among states. Because the benefits of compliance—in this case, funds for budget support—are largely substitutable across institutions, I expect development finance to mirror the undifferentiated regime complex analyzed above: the creation of overlapping institutions should have a null or negative effect on policy adjustment.

In the domain of election monitoring, states can similarly forum shop among monitoring institutions with varying levels of rigor. Election monitoring institutions operate by sending observer missions into countries to assess the quality of domestic elections. Because election observation missions require the consent of the host government, states can opportunistically choose to invite institutions with low or high standards to observe and certify their national elections.24 Unlike the development finance regime, however, election monitoring institutions are vertically differentiated. The benefits of compliance stem from the signal that an election certification sends to the domestic public and international actors, and this signal will vary in strength depending on the particular monitoring institution. I therefore expect the election monitoring institutions to reflect characteristics of a vertically differentiated regime complex. States that have access to multiple institutions should experience a greater increase in policy adjustment compared to states that have fewer institutional options.25

23 A former Vice President of the World Bank confirmed the presence of significant variation in the standards set by multilateral development banks. For example, in the 1980s the Inter-American Development Bank offered a development policy loan to Argentina with a set of conditions that the World Bank was unwilling to agree to. Interview by author, February 10, 2018.

24 Kelley (2012) describes the differences in practice among election monitoring institutions that generate variance in certification behavior. Election monitors disagree frequently and vary significantly in their willingness to highlight problems with an election.

25 Because the two issue areas are very different, there is no feasible measurement for national policies that would apply to both regime complexes. As a result, I cannot directly test Proposition 2.
There are two significant threats to inference when estimating the effect of regime complexity on depth of policy adjustment. First, the outcome variable (depth of policy adjustment) requires knowledge of an unknown counterfactual. It is defined as the change in national policies that arise due to the presence of a regime, compared to what states would have done in the absence of a regime. In both development finance and election monitoring, policy areas in which an international regime has governed state behavior for many decades, it is difficult to approximate what national policies would look like absent any multilateral institution. Fortunately, this problem can be sidestepped by examining how depth of policy adjustment changes as a system shifts from a unified regime to a regime complex. Using the definition of depth of policy adjustment provided in Section 3, the outcome of interest is the following:

\[
\Delta \text{DPA} = \sum_{i=1}^{N} \{E[\text{Policy Level}_i|\text{Regime Complex}] - E[\text{Policy Level}_i|\text{No Regime}] - (E[\text{Policy Level}_i|\text{Unified Regime}] - E[\text{Policy Level}_i|\text{No Regime}])\}
\]

which simplifies to

\[
\sum_{i=1}^{N} \{E[\text{Policy Level}_i|\text{Regime Complex}] - E[\text{Policy Level}_i|\text{Unified Regime}]\}.
\]

In other words, we do not need to make inferences regarding states’ behavior in the absence of a regime. Instead, we can focus on the difference in states’ policy levels when they face a large set of institutional options compared to fewer options.

The second threat to inference is the endogeneity of overlapping institutions. States are strategic actors; they proliferate institutions to serve political goals. Comparing policy levels among states that are subject to a single institution’s jurisdiction and those that are subject to multiple institutions could produce biased estimates if states consider the effect of institutional proliferation before
constructing new governing bodies. I take two steps to mitigate this problem. First, I conduct a difference-in-differences analysis that leverages dynamic shifts in institutional overlap. Specifically, I compare changes in the policy levels of states that remain under the jurisdiction of a fixed number of institutions to those that experience growth in the number of institutions claiming authority to regulate their behavior. This strategy allows for the possibility that states with more institutional options have systematically different policy levels than states that have fewer options. The difference-in-differences approach instead relies on a “parallel trend” assumption: in the absence of the treatment (here, regime complexity), states would have equivalent changes in their policy levels as in a unified regime. Second, I examine only the subset of weaker states that would find it difficult to create new institutions on their own. These states are “price takers” in the market; the structure of the regime is plausibly exogenous to their political preferences because they have limited ability to shape it.

4.5.1 Data

For both analyses, the unit of analysis is the state-year. Outcome variables represent state policies in the issue area regulated by the election monitoring and development finance regimes, respectively. In the election monitoring regime complex, I use an annual measure of the quality of states’ domestic elections. In development finance, I use a yearly index of states’ macroeconomic and regulatory policies. In both cases, the primary independent variable is the number of institutions that a particular state can select from in a given year.

Election Monitoring

The dependent variable for the election monitoring analysis is the extent to which states hold national elections in a free, fair, and open manner. Data on the
quality of elections comes from the “executive recruitment” score in the Polity IV dataset. This variable combines annual measures from the Polity dataset on the regularity, competitiveness, and openness of national elections (Marshall, Gurr, and Jaggers 2016). It ranges from 1 (16.2% of observations) to 8 (31.6%), with scores increasing in the quality of a state’s elections.

The independent variable is the number of election monitoring institutions from which a particular state can select. I use data from Kelley (2012) to identify the set of election monitoring institutions and their dates of operation. To translate this data to the state-year level, I count the number of institutions each state could potentially invite to monitor its elections in any given year. The number of “potential observers” ranges from 1 to 11. There is significant temporal and cross-sectional variation in this variable. Variation across countries occurs due to the different geographic scope of monitoring institutions. Some institutions only monitor the elections of member states (e.g., the OSCE); others are regional (Asian Network for Free Elections) or global (e.g., International Republican Institute) in scope. The entry of new institutions (e.g., the Commonwealth of Independent States in 2001) drives temporal variation. As a result, the number of election monitoring institutions available to Jordan in the year 1986 (1) is different from the number available to India in the same year (2), and is also different than the number available to Jordan in 1989 (4). The data cover the period 1980-2015 and include 5,439 state-year observations.

Development Finance

The dependent variable for the development finance regime complex is the extent to which states adopt liberal macroeconomic policies. To operationalize this

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26 Following Kelley, I include both intergovernmental organizations and non-governmental organizations that monitor elections.

27 I begin in 1980 because it is the first year a multilateral institution (the Commonwealth Secretariat) sends an election observation mission, according to the Kelley (2012) data.
variable, I draw on the Worldwide Governance Indicators (WGI) Project composite measure of “Regulatory Quality” (Kaufmann, Kraay, and Mastruzzi 2011). The WGI Regulatory Quality index assesses the ability of states’ economic and regulatory policies to promote private sector development. It assigns each state a score based on its trade posture, monetary policy, and regulatory environment. Regulatory Quality scores range from -2.65 to 2.26; higher scores indicate a more liberal macroeconomic policy stance. The WGI data is available for most states in the system but only for the years 1996, 1998, 2000, and 2002-2015.

The independent variable is the number of multilateral development banks a state is a member of in a given year. States must be a member of a development bank in order to seek a development policy loan. Because such loans are only available to developing countries, I exclude states in the top 50% of global GDP per capita each year. Among the remaining states, there is significant variation in membership patterns across development finance institutions. I use the COW IGO dataset to code states’ memberships in multilateral development banks (Pevehouse, Nordstrom, and Warnke 2004). In the sample, the number of potential development banks available to states ranges from 0 (0.5% of observations) to 8 (0.07%). The variable increases over time as states join new development banks (e.g., Armenia’s set of available banks grows from 2 in 1996 to 4 in 2009, after joining the Asian Development Bank and the Eurasian Development Bank). The dataset includes 1,428 state-year observations.

4.5.2 Results

To estimate the effect of overlapping memberships on states’ national policies, I use a difference-in-differences design. The treatment variable represents the introduction of a new overlapping institution in the issue area. Control observations are those which did not experience an increase in the number of available institutions
from which they can select. Importantly, this approach does not require treated and control observations to have similar levels of national policies. Instead, it assumes that without the introduction of a new institution, treated and control states would have similar trends in their national policies over time. If this assumption is correct, any observed differences in these trends can be attributed to the onset of new overlapping institutions.

To minimize systematic differences between treated and control units, I employ the matching approach proposed by Imai, Kim, and Wang (2018). For each treated observation (i.e., each observation in which a state gains an additional institutional option in the issue area), I identify a matched set of control observations that are not treated but have an identical treatment history over the past three years. I refine this matched set by selecting only the control observations that have similar covariate values to the treated observation. Treated observations that have an empty matched set are removed from the dataset. This process is performed separately for the election monitoring and development finance samples, yielding a set of treated and control variables that have very similar pre-treatment trajectories.

Figure 4.4 displays the trend in national election quality among treated and control states in the election monitoring regime complex. The blue points show the average “executive recruitment” score of the states that gained at least one new overlapping institution in a given year. The red points show the same quantity for states that do not gain a new potential election monitoring institution. In the years prior to the introduction of the new institution, both groups feature an upward

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28I calculate the Mahalanobis distance measure between the treated observation and all control observations in the matched set, using information on states’ economic power (GDP) and income (GDP per capita). I keep only those control observations that have a Mahalanobis distance of less than three from the treated observation. Control observations for treated unit \( i \) are assigned a weight of \( \frac{1}{M_i} \) with \( M_i \) denoting the number of matched observations.

29The selection of matched control observations and the elimination of treated observations with no matched control set reduces the sample significantly in both the election monitoring and development finance analyses. There are 1,901 remaining state-year observations in the election monitoring sample and 796 in the development finance sample.
trend in election quality. Once the new institution is present, however, the treated group experiences a noticeable increase in election quality while the control group trend remains flat. This is evidence that the introduction of overlapping election monitoring institutions increases policy depth among states.

Contrast this result with Figure 4.5, showing the same relationship for the development finance regime complex. In the years prior to the introduction of a new multilateral development bank, both treated and control observations are experiencing a flat trend in regulatory quality. Once the new bank is introduced, the trend for both groups is largely unaffected. If anything, the control group begins a slight upward trend in regulatory quality, suggesting the availability of an additional institution for treated units may have slightly depressed their regulatory quality scores in subsequent years. This is consistent with a negative or null effect of new development banks on states’ macroeconomic policies.

Table 4.1 presents estimates of the difference-in-differences analysis for the election monitoring and development finance samples. All standard errors are clustered at the country level. Column 1 shows results for a baseline model in the election monitoring regime complex. The positive and statistically significant coefficient of NEW INSTITUTION indicates that states that experienced the introduction of overlapping election monitoring institutions adjusted the quality of their elections in a positive direction. These results are substantively identical when GDP and GDP per capita are added as control variables (Column 2).

In contrast, the creation of overlapping institutions has no effect on policy adjustment in the development finance regime complex (Columns 3-4). Not only is the coefficient of NEW INSTITUTION statistically insignificant in these models, it is

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30 The models are estimated using weighted least squares with unit and time fixed effects, as recommended by Imai, Kim, and Wang (2018). Country and year fixed effects not shown in the table below. Weights for each observation are shaped by how often the observation appears in the matched set of a treated unit. See Imai, Kim, and Wang (2018, 16) for the specific weighting scheme.
Figure 4.4: Election Monitoring Regime Complex: Points represent means for every time period from \( t=-3 \) to \( t=3 \) years from the introduction of a new institution. Treated units, defined as states that gained a new development bank, are shown in blue. Controls, defined as states experienced no growth in institutions, are red.

Substantively close to zero. The presence of overlapping development banks appears to have little bearing on states’ regulatory and macroeconomic policies.

To compare the estimated substantive effect size of a new institution in the two regime complexes, I standardized the treatment and outcome variables and re-estimated models 2 and 4. This allows us to gauge the effect of a one-standard deviation increase in the treatment variable on states’ national policies in each issue area. The results underscore the large difference in the estimated magnitude of the effect across the election monitoring and development finance domains. A one standard deviation increase in institutional options in the election monitoring regime complex is associated with a 0.07 standard deviation increase in national election quality. The analogous effect in the development finance regime complex is only 0.01, seven times smaller. These results are consistent with the contrasting effects predicted by the model.
Figure 4.5: Development Finance Regime Complex: Points represent means for every time period from t=−3 to t=3 years from the introduction of a new institution. Treated units, defined as states that gained a potential new election monitoring institution, are shown in blue. Controls, defined as states experienced no growth in institutions, are red.

Table 4.1: Effect of Institutional Overlap on Depth of Policy Adjustment

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<th>(3)</th>
<th>(4)</th>
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<td>Election Monitoring</td>
<td>Development Finance</td>
<td>Development Finance</td>
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<td>NEW INSTITUTION</td>
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<td>0.251**</td>
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<td>(0.104)</td>
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<td>GDP PER CAPITA</td>
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<td></td>
<td></td>
<td>2.207***</td>
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<tr>
<td></td>
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<td>(0.589)</td>
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<tr>
<td>Observations</td>
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<td>1,901</td>
<td>796</td>
<td>796</td>
</tr>
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</table>

Notes: Results of difference-in-difference models estimating the effect of overlapping institutions on depth of policy adjustment. Coefficient estimates are displayed with standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.
4.6 Conclusion

This paper resolves an important puzzle that has emerged in the study of overlapping international institutions: why does the proliferation of governing bodies seem to improve cooperation in some issue areas, while harming it in others? I provide a theory of multilateral cooperation that explains these heterogeneous effects. The theory highlights a consequential distinction between undifferentiated and vertically differentiated regime complexes. In the former, states treat institutions like commodities, substituting one for another based solely on the degree of policy adjustment required to meet compliance standards. In the latter, institutions provide unique value to states. They are not easily substituted, so states will bear greater costs in order to comply with high-standard institutions.

I elucidate the argument via a model of states in a “market” for multilateral cooperation. The model demonstrates how the shift from a unified regime to a regime complex—as in the shift from a monopolistic to oligopolistic industry—can have drastically different effects on state behavior. Undifferentiated regime complexes encourage a regulatory “race to the bottom” that limits the ability of institutions to shape states’ national policies. Vertically differentiated regimes, however, allow an array of institutions with different standards to have a meaningful impact on member states. Results from the model show that the proliferation of undifferentiated institutions cannot increase policy adjustment among states, while the creation of overlapping institutions that are sufficiently differentiated can increase the regime’s effect on state behavior.

A paired analysis of the election monitoring and development finance regime complexes supports the intuition of the model. In development finance, the introduction of new, overlapping multilateral development banks has no discernible effect on states’ adoption of liberal macroeconomic policies. However, the introduction of new election monitoring institutions significantly increases the quality of
states’ national elections. These results are consistent with the lack of vertical differ-
entiation among development banks and the significant differentiation among
election monitors.

By highlighting the role of differentiation in regime complexes, the paper has im-
portant implications for the design and operation of global governance institutions.
Scholars and policymakers routinely call for greater harmonization and cooperation
among institutions that regulate the same policy domain. The analysis presented
here suggests such strategies could potentially make institutions less effective. Har-
monization represents a return to a unified regime, where all states are governed
by a single set of rules. If a regime complex features institutions that already pro-
vide highly differentiated benefits, harmonizing standards would yield less policy
adjustment by states. Instead, institutions could engender more policy adjustment
by increasing the differentiation among regulatory bodies in the issue area.


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