Race to the Bottom?
Overlapping Institutions, Policy Change,
and Markets for Cooperation*

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Abstract

Interstate cooperation in many policy areas is governed by a dense network of overlapping international institutions. In a growing literature on international regime complexity, scholars remain conflicted about whether this environment strengthens or undermines cooperation. This paper examines how regime complexity affects the primary goal of institutionalized cooperation: inducing policy change in member states. I argue that a regime complex will have contrasting effects depending on the degree of differentiation among institutions. In issue areas where institutions function as substitutes, forum shopping by states will generally reduce the degree of policy adjustment achieved in the regime. However, in issue areas where institutions are vertically differentiated—i.e., institutions with deeper rules provide greater value to states—a regime complex can increase policy change. I demonstrate these dynamics formally and provide empirical evidence in a comparative analysis of the development finance and election-monitoring regime complexes.

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 (Drezner, 2009; Lipscy, 2015; Pratt, 2018a), as well as between states and institutional actors (Henning, 2017). 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 has generated concerns over the proliferation of development finance institutions. Because states can obtain similar benefits (e.g., loan programs) from an array of multilateral development banks, they target the institutions where loan conditions are more lenient. The ability to forum shop provides states with leverage and weakens the ability of institutions to demand policy reforms.

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 heterogeneous benefits that vary with the rigor of an institution's rules. An example is election monitoring bodies, where institutions with more strict rules can send a stronger signal about the quality of an election than bodies with weaker standards. The contrasting 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.

To demonstrate these dynamics, I present a simple decision-theoretic model of institutionalized cooperation. The model envisions states as consumers in a "market" for international cooperation. States decide whether to comply with institutional rules by weighing the costs

of policy adjustment against the benefits of compliance offered by each institution. Like consumers in traditional economic markets, their decisions depend on the structure of the market. Specifically, I examine how state behavior changes when we transition from a unified regime (monopolistic market) to a regime complex (oligopolistic market). The most important finding is that states' willingness to adjust national policies depends on the comparability of international institutions. If institutions are undifferentiated, the emergence of a regime complex will (weakly) decrease depth of policy adjustment among states. If an issue area supports differentiated institutions, however, more institutional overlap can increase policy adjustment.

I test the theory by comparing the effect of overlapping institutions on 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.

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.[2] Struett,

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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, Genschel, Zangl 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.

Nance, and Armstrong (2013) finds similar conflict in the maritime piracy regime complex. Hofmann (2009) and Pratt (2018b) argue that regime complexes induce additional inefficiencies due to duplication of effort.

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, 2018b; 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.

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,

Genschel, Zangl 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 defining one metric for assessing cooperation in regime complexes that can be applied across issue areas. Specifically, we should assess regime complexes by their ability to induce policy change in member states. The next section discusses this measure in more detail.

3   Depth of Policy Adjustment

I argue that cooperation in overlapping institutions should be assessed based on the depth of policy adjustment that the regime induces in member states. There are at least three reasons to privilege policy adjustment as an outcome of interest in international regime complexes. First, it corresponds closely with Keohane's definition of intergovernmental cooperation as "a process of policy coordination."[3] International institutions are designed to help states achieve

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[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).

gains through mutual policy adjustment (Keohane, 1984). Their success in facilitating policy adjustment is a natural measure of their efficacy.

Second, policy adjustment is widely used in the literature on international cooperation to judge the effectiveness of individual international institutions. Scholars routinely attempt to estimate the change in state behavior caused by participation in particular institutions.[4] This treatment effect is difficult to identify, given the strategic behavior of states and non-random assignment of institutional membership.[5] The fact that scholars persist in the face of these identification challenges attests to the importance of policy adjustment as the primary criterion for judging cooperation in international institutions.

Third, depth of policy adjustment is a broadly applicable measure that can be used to assess cooperation in almost all issue areas. While institutions in different issue areas are designed to resolve distinct cooperation problems (Martin, 1992; Koremenos, Lipson, and Snidal, 2001), the underlying goal is to shift state behavior in pursuit of a mutually beneficial outcome. An important question for analysts of regime complexity is whether—and under what circumstances—overlapping institutions support or impede this goal.

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 (either a unified regime or a regime complex) on national policies:

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

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,

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[4]For examples, see Simmons (2000); Rose (2004); Gowa and Kim (2005); Goldstein, Rivers, and Tomz (2007); Young (1999); Breitmeier, Underdal, and Young (2011); Russett and Oneal (2001); Boehmer, Gartzke, and Nordstrom (2004); Hafner-Burton and Montgomery (2006); Johnston (2001); Bearce and Bondanella (2007).

[5]See Downs, Rocke, and Barsoom (1996); Von Stein (2005); Davis and Pratt (2018).

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. 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   Forum Shopping and Depth of 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.

4.1 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 $\geq s$.[6] This 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 institution-alized 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 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

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[6]$\alpha + \theta$ can be considered a single quantity in the context of a unified regime. In a regime complex, the α term is constant across institutions, representing the identical benefits of compliance that can be obtained from every institution. The θ term can depend on the standard for compliance (s_j) set by institution j.
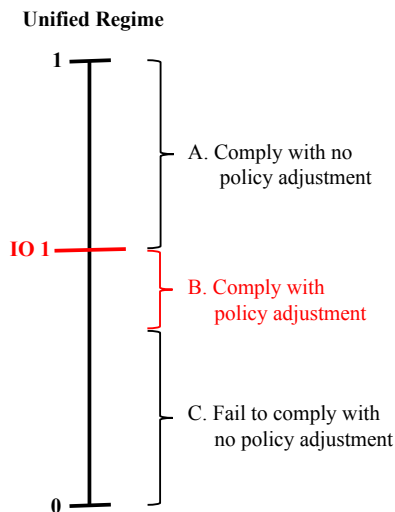
Unified Regime

Figure 1: *Unified Regime*: States arrayed on a continuum of ideal policy levels choose whether to comply with a standard set by a single international institution.

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 "demand" for cooperation in the market—is $N(1 - F(s_1 - \alpha - \theta))$.[7] The depth of policy adjustment is the rate of compliance minus the set of states that make no policy adjustment: $N(F(s_1) - F(s_1 - \alpha - \theta))$.

4.2 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.[8] 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.[9]

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.[10] This environment provides discretion for actors to opportunistically select which claim they recognize and thus which institution should have jurisdiction over their behavior.

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

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[7]To 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 $1 - F(s_1 - \alpha - \theta)$.

[8]Results are consistent with any number of additional institutions.

[9]In 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.

[10]According to Raustiala and Victor, "the defining characteristic of a regime complex is the existence of multiple, overlapping elemental regimes" (2004, 299).

the quality of a domestic election.[11] Similarly, states that are party to multiple human rights institutions can selectively recognize the jurisdiction of one institution in specific circumstances.[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.

4.3 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 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

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[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.

[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.

Unified Regime

1

A. Comply with no
   policy adjustment

IO 1

B. Comply with
   policy adjustment

C. Fail to comply with
   no policy adjustment

0

Regime Complex, Undifferentiated

1

Comply with no
policy adjustment

IO 2

Comply with no
policy adjustment

IO 1

Comply with no
policy adjustment

IO 3

Comply with
policy adjustment

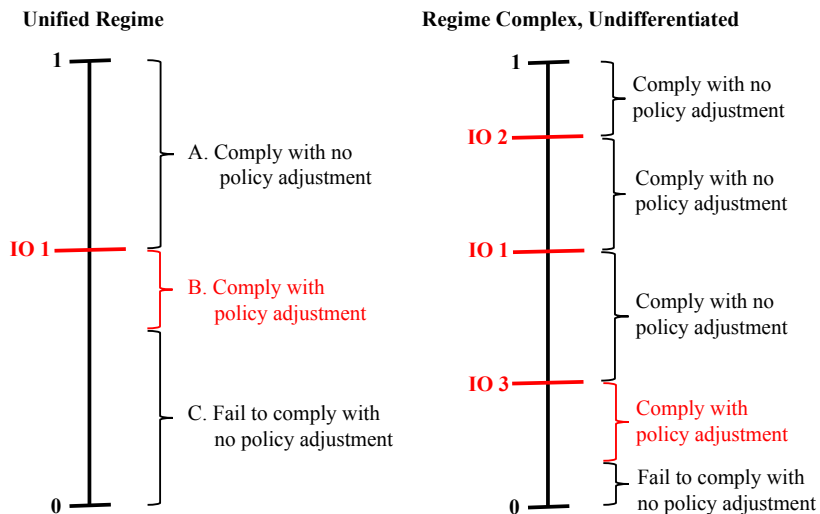Fail to comply with
no policy adjustment

0

Figure 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).

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.[13]

Figure 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

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[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.

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 national policy 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 adjusts* 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]

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 int he 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

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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.

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 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.

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[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 $N(s_{new} - s_{new} - \alpha - \theta) = N(\alpha + \theta)$.

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

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 standards. 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).[18] The benefits of complying with OSCE election standards are therefore greater than in the SADC.[19]

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

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[18]The Southern African Development Community (SADC) came under criticism for its low standards after certifying the 2013 national elections in Zimbabwe as "free and peaceful" despite widespread evidence of misconduct. See `http://www.bbc.com/news/world-africa-23546050`.

[19]See Kelley (2012) for evidence that election monitoring institutions often employ different standards when assessing and certifying elections.

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 (α) representing similar benefits 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 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.*
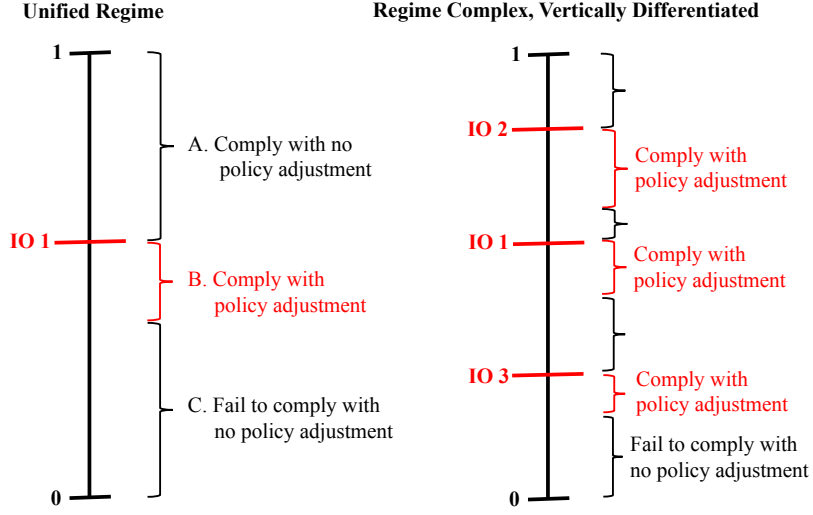
Figure 3: *Regime Complex with Vertically Differentiated Institutions*: States arrayed on a continuum of ideal policy levels choose whether to comply with a standard set by a single international institution (left panel) or a set of institutions with varying benefits (right panel).

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 θ 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

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$[s_3 - \alpha - \theta(s_3), s_3]$. 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 minimum depth of policy adjustment in the vertically differentiated regime occurs when institutional compliance standards are proximate enough that the third condition is binding.[21] In that case, depth of policy adjustment is calculated by summing over the policy adjustment induced by each institution: $\alpha + \theta(s_3) + \theta(s_1) - \theta(s_2) + \theta(s_3) - \theta(s_1)$, or $\alpha + \theta(s_2)$. 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 (α). 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

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[20]In this notation, s_{j-1} represents the closest compliance standard that is lower than s_j.

[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.

when $\theta(s_2) > \alpha + \theta(s_1)$, or $\alpha < \theta(s_2) - \theta(s_1)$.

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 "score-card 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.

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

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[22]The World Bank, the largest multilateral development bank, defines development policy financing as a loan, credit, or guarantee of budget support to governments or a political subdivision for a program of policy and institutional actions to help achieve sustainable, shared growth and poverty reduction. `http://www.worldbank.org/en/projects-operations/products-and-services`.

[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.

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]

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:

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

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

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[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.

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.

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.[26] 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.[27] 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 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

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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.

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 obserations) 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.

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.[28] Treated observations that have an empty matched set are removed from the dataset.[29] 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 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 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 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

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[28]I 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.

[29]The 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.

effect of new development banks on states' macroeconomic policies.

Table 1 presents estimates of the difference-in-differences analysis for the election monitoring and development finance samples.[30] 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 substantively close to zero.
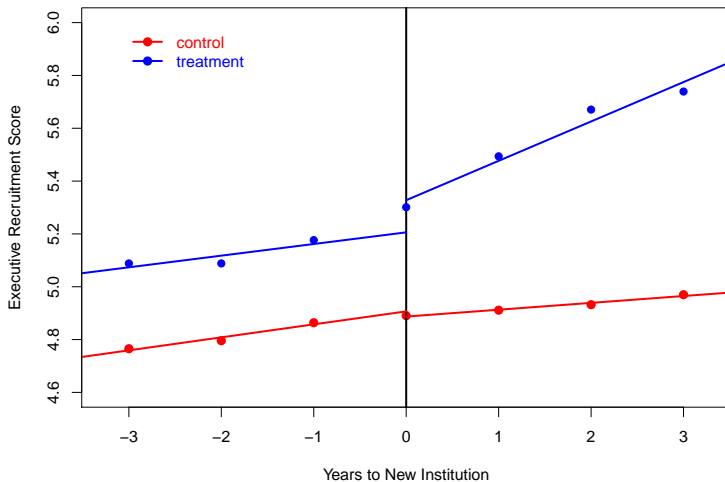

Figure 4: *Election Monitoring Regime Complex*: Points represent means for every time period from t=-3 to t=3 years from the introduction of a new institution. Treated units, defined as states that gained a new development bank, are shown in blue. Controls, defined as states experienced no growth in institutions, are red.

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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.
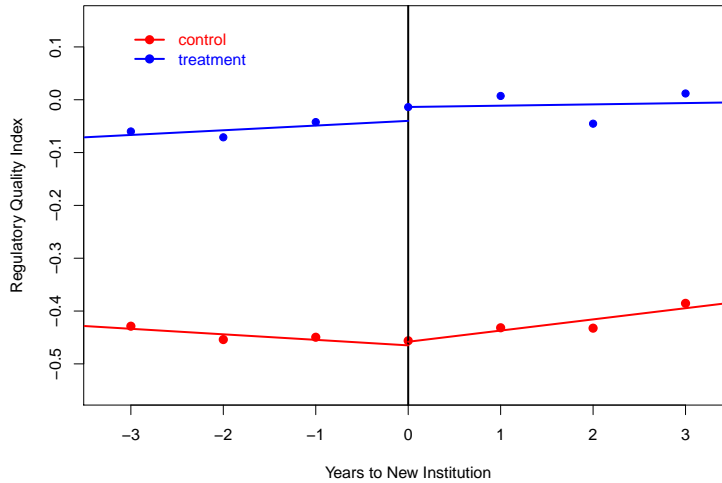
Figure 5: *Development Finance Regime Complex*: Points represent means for every time period from t=-3 to t=3 years from the introduction of a new institution. Treated units, defined as states that gained a potential new election monitoring institution, are shown in blue. Controls, defined as states experienced no growth in institutions, are red.

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.

TABLE 1: *Effect of Institutional Overlap on Depth of Policy Adjustment*

	(1)	(2)	(3)	(4)
	Election Monitoring	Election Monitoring	Development Finance	Development Finance
NEW INSTITUTION	0.244**	0.251**	0.039	0.042
	(0.107)	(0.105)	(0.028)	(0.026)
GDP		0.050		0.110
		(0.467)		(0.104)
GDP PER CAPITA		−0.264		2.207***
		(0.513)		(0.589)
Observations	1,901	1,901	796	796

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. $*p<0.1$; $**p<0.05$; $***p<0.01$.

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 achieve compliance 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 differentiation among development banks and the significant differentiation among election monitors.

By highlighting the role of differentiation in regime complexes, the paper has important 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. Harmonization 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 provide 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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