Discovering Cooperation:
A Contractual Approach to Institutional Change in Regional International Organizations

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Robert Schuman Centre for Advanced Studies

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Abstract

This paper offers a fresh perspective on institutional change drawing on recent advances in the economic theory of contracting. Contractual incompleteness enhances organizational flexibility, but only at the cost of perceptual ambiguity. We hypothesize that the willingness to engage in a highly incomplete contract depends on shared understandings which reduce the cost of perceptual ambiguity. These claims are evaluated using a new dataset on delegation of state authority to non-state actors in 35 regional international organizations from 1950 to 2010. We are able to confirm across a wide range of models and specifications that reform is guided by contractual incompleteness and that contractual incompleteness is rooted in shared historical experience.

Keywords

Institutional change, regional international organization, contracting, international cooperation.
Why do some institutions change over time while others remain static? In recent years there has been a concerted effort to challenge the notion that institutions are inert unless subject to external shocks. The premise that institutions are intrinsically sticky has been a formidable target because it is sustained by the idea that once modes of belief and behavior are in place they can become self-reinforcing. An extensive sociological literature (e.g. Jepperson 1991, 145) conceives institutions as resting on shared normative routines and commitments that have a tendency to be chronically reproduced. North (1990, 83f) stresses that institutional adaptation is constrained by “routines, customs, traditions, and conventions” which have “tenacious survival ability because they have become part of habitual behavior.” Rational choice institutionalism has drawn attention to the role of reciprocally held expectations in producing stable equilibria in formal, institutionalized patterns of social interaction. As David (1994, 209-10) argues, “what matters above all, obviously, is that the players, somehow, must possess the same, consistent expectations about the ruling convention and that they must be mutually aware of the fact.”

But does the sharing of beliefs and expectations underpin institutional inertia? In this paper, we draw on recent advances in our understanding of incomplete contracting to argue precisely the opposite, namely that an institution which is composed of actors who share norms of appropriate behavior and who come to have mutually convergent expectations about the behavior of others is actually less likely to be characterized by institutional fixity than one composed of actors who do not share such norms and expectations. Our point of departure, in the words of Hall (2010, 217), is that “Institutions are instruments that actors use to negotiate the complexity of the world. Far from dictating particular actions, institutions are seen as enabling structures within which actors exercise a robust agency.”

We hypothesize that an institution faces a sharp trade-off in negotiating the complexity of the world. On the one hand there is value in the flexibility that arises when the formal rules of an institution do not strive to dictate permissible courses of action under all conceivable situations. On the other hand, there is the threat that such incompleteness will exacerbate ambiguity about which actions are appropriate and which are not. After all, the purpose of formal rules is precisely to frame human interaction to reduce uncertainty. We hypothesize that institutions composed of actors who share norms and expectations are able to take advantage of the benefits of incomplete contracting for flexibility because they are less prone to the harmful effects of ambiguity. In short, “[T]here is nothing automatic, self-perpetuating, or self-reinforcing about institutional arrangements” (Mahoney and Thelen 2010, 8). What matters, we shall argue, is the degree of openness in the interpretation of contracts.

In this paper we conceive contractual openness as a variable in order to assess its effect on endogenous institutional change in regional international organizations. Organizations resting on highly incomplete contracts, i.e. contracts that involve unspecified obligations that are open to interpretation, are, we believe, much more likely to undergo endogenous institutional change than institutions based on relatively complete contracts.

Regional international organizations (RIOs) are an instructive field in which to study institutional change. They are composed of regional groupings of states that institutionalize cooperation by establishing formal institutions that resemble the trias politica—a legislative assembly normally dominated by the member states themselves; an executive on which all or a subset of member state representatives sit as delegates or trustees; a secretariat with more or less control over the agenda; some machinery for arbitrating disputes; along with one or more consultative bodies composed of stakeholders or experts. Some 35 such organizations have been set up over the past six decades, and

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1 Pierson (2000, 260) notes that while “organizational and institutional practices are often extremely persistent, path dependent analyses need not imply that a particular alternative is permanently locked in following the move onto a self-reinforcing path.”
they now encompass all but a handful of states. Regional organizations provide a strong test for a theory that emphasizes the causal role of norms and expectations because they are composed of states, not persons. The member states, alone, have the final word on reform of delegation to non-state actors, and they can be expected to be attuned more to material benefits and power than norms.

Regional organizations are substantively important in understanding cooperation among states, but they are particularly interesting for our purpose here because their institutional trajectories vary widely. The Asia Pacific Economic Integration (APEC), the Council for Mutual Economic Assistance (COMECON), and the Southern African Customs Union (SACU) have witnessed little institutional change since their founding. The North American Free Trade Area (NAFTA) and the Latin American Economic System (SELA) have been institutionally frozen from the day they were set up. By contrast, the European Union (EU) has in recent decades authorized the European Court of Justice to impose fines on non-compliant member states, established an independent central bank, extended the agenda-setting powers of the Commission to the budget and accession of new members, and has added a directly elected parliament with veto power over most policy decisions. However, the EU is merely one of a number of regional organizations that has experienced extensive institutional reform. Since its establishment in 1969, the Andean Community has set up a standing tribunal with binding arbitration in which non-state actors have standing and has established a directly elected parliament alongside consultative bodies representing business, labor, and indigenous peoples. The Economic Community of West African States (ECOWAS) established a consultative parliament in 2002 alongside a standing court with binding arbitration to hear disputes among member states, and extended the agenda-setting powers of its secretariat to member state suspension and budgetary non-compliance.

How can one explain such variation in the course of institutional change? The dominant view, shared by neorealist, liberal and principal-agent theories alike, is that change in international organizations is a response to exogenous shocks. For realists, these have their origin in the distribution of power among states (e.g. Gruber 2000; Mearsheimer 1994). For liberals, institutional change is associated with deepening economic interdependence and the demand for overarching rules and dispute adjudication (e.g. Kahler 1995; Keohane 1984; Mattli 1999). Principal-agent theories focus chiefly on adaptation to exogenous changes in asymmetries of information (Epstein and O’Halloran 1999; Hawkins et al. 2006). The approach in this paper, by contrast, emphasizes an endogenous dynamic arising from the flexibility and sustained interaction that takes place under incomplete contracting. Largely compatible with constructivist theories of institutional change and regional cooperation (Checkel 2001; Duina 2006; Katzenstein 2005; Risse 2000), we conceive institutional change as part of a discovery process in which the parties to an incomplete contract may build and reinforce common perceptions that diminish fears of exploitation and facilitate cooperation.

The Argument

Our first move is to conceptualize a regional organization as a contract in which states voluntarily agree to bind themselves to a set of formal rules to facilitate cooperation. All such contracts are incomplete, but the degree of incompleteness varies. We draw on some recent advances in the economic theory of contracting to hypothesize that contractual incompleteness enhances organizational flexibility, but only at the cost of perceptual ambiguity (Gibbons and Henderson 2012; Hart and Moore 2008). Second, we argue that the willingness to engage in an incomplete contract depends on shared understandings which reduce the cost of perceptual ambiguity and which reflect prior historical experience (David 1994).

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2 In fact, the institutional trajectories in regional general purpose organizations tend to exhibit far greater variation than is the case in task specific international organizations (see Lenz et al. 2014).
Our core expectation is that contracting characterized by a high degree of incompleteness has a marked effect on the institutional course of a regional organization which becomes apparent over an extended period of time. Further, we hypothesize that variation in regional contracting is rooted in tolerance of perceptual ambiguity, which we assess by examining the prior historical experiences of the states that form a regional organization.

Efforts to evaluate theories of dynamic institutional change in economic as well as political science literature have focused exclusively on illustrative case studies or have used cross-sectional data. Quantitative assessment of expectations about change has been hamstrung by lack of appropriate data covering institutions over a sufficient period of time (see Pierson 2004, 173). Here we take up Koremenos’ (2005, 563) admonition in her analysis of international agreements that "Certainly future work must address what happens once the agreements are designed.” In the empirical sections of this paper we assess our theory and the major alternatives against a new dataset gathered by the authors that provides a carefully constructed measure of institutional change on up to 70 dimensions across 35 regional organizations on an annual basis between 1950 and 2010.

This allows us to go beyond the comparative statics of institutional design to probe how regional organizations actually change while controlling for the many circumstances that contribute to cross-sectional differences.

**Incomplete contracting, ambiguity, and flexibility**

The classic example of a complete contract is the two-person iterated prisoners’ dilemma (Axelrod 1981; Snidal 1985; Zürn 1992). The participants know the rules and payoffs in the present and future. Each participant knows the past behavior of all other participants and knows that everyone has the same complete information. The only thing that participants cannot predict is the future behavior of the other players. As contracting departs from this closed set-up towards incompleteness, so we must pay attention to the perceptions of the participants if we wish to understand the possibility of cooperation. Three consequences of incompleteness are particularly relevant for our argument:

- Behavior is not reducible to dichotomous choice: either cooperate or defect. There is ambiguity about the interpretation of behavior in relation to the rules of the game. Hence, there is room for disagreement about whether a particular move constitutes compliance or non-compliance with a treaty (Chayes and Chayes 1993; McCabe et al. 2000).

- Behavior is not reducible to uniform discrete moves. There is ambiguity about what actually counts as a move in this game, as opposed to some other game with different norms (Smith 2010). Can an apparent defection be excused because the government is fighting a national election?

- Information about the preferences of others is incomplete, and, in the context of mixed motives situations, is a private good that can influence distributional outcomes (Laffont and Martimort 2002). Hence, it is in the self-interest of any member state to convince others that it is more indifferent to mutual defection than it actually is.

These sources of perceptual ambiguity are variable rather than fixed. On the one hand, incomplete contracts have the virtue of being flexible in the face of exogenous shocks and of being appropriate when there is uncertainty about the nature of the good or service. Highly incomplete contracts are

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3 As Laurent Fabius chided the UK government after it announced its intent to renegotiate conditions for EU membership: “Let’s imagine Europe is a football club and you join, but once you're in it you can't say let's play rugby.” (http://www.bbc.co.uk/news/business-21161842, accessed 3/15/2013).

4 The approach taken here focuses on ambiguity and flexibility, not relation-specific investments. Hart and Moore (2008, 2) observe that the “emphasis on noncontractible *ex ante* investments seems overplayed.” However relation-specific
flexible in responding to contingencies that are inherently unpredictable and correspondingly too costly to write into a contract. Such contracts have little in common with simultaneous exchange of baskets of goods. The purpose of a highly incomplete contract is to allow cooperation to unfold over time without placing one party at the mercy of the other (Knack 2001).

On the other hand, incompleteness enlarges the scope for perceptual ambiguity by increasing the importance of performance in the spirit of the contract in relation to performance in the letter of the contract (Hart and Moore 2008, 3; Williamson 1975, 69). The former, unlike the latter, cannot be judicially enforced. So in order for states to make a highly incomplete contract for a regional organization they must expect not merely to be able to enforce the letter of the contract, but to share priors about its interpretation. And they must be willing to make a commitment not only to the current contract, but to their ability to collectively adapt it to changing conditions. The greater the scope for different perceptions of the same objective behavior, the greater the causal importance of “shared mental models” for identifying mutual gains and negotiating institutions for reaping them (Ostrom 2005, 26-7).

Incomplete contracting, delegation, and time

A highly incomplete contract endows participants with an enhanced capacity for adaptation because it entails non-specific commitments that can be adjusted to unforeseen circumstances. It involves continuous bargaining in the discovery of cooperation in an environment which does not “disclose the alternatives available or the consequences of those alternatives” (Thompson 2003, 9).

Consequently, charting the course of regional integration under highly incomplete contracting involves a series of informational and interpretive tasks. The challenge is to develop institutions that can facilitate searching and learning as well as deciding. The parties to the contract must frame short and longer term objectives, and agree on how best to pursue them; they must determine which actors ought to be consulted in crafting specific policies; they must negotiate substantive commitments over the policies they undertake; and they must find ways to promote compliance with those commitments.

Delegation to non-state agents can be useful in each of these respects. First, delegated agents may have access to information and expertise that is useful for crafting cooperation (Bradley and Kelley 2008; Hawkins et al. 2006; Koremenos 2008; Pollack 2003). Arrow (1974, 53-6) points out that while organizations can acquire more information than can any individual, the information must be filtered, coordinated and compressed if it is to be of use in decision making. A key characteristic of delegation which emerges from empirical studies is that it empowers actors who are oriented chiefly to the production, rather than the distribution, of efficiency gains and who, as a consequence, have a strong commitment to functional problem solving (Beyers and Trondal 2004; Egeberg 1999). Delegated bodies – secretariats, non-state assemblies and executives, consultative bodies, and courts – tend to frame their discourse as the defense of the commonweal against self-seekers protecting national and particularistic interests (Hooghe 2005, 862; 2012). They are therefore uniquely suited to supply and process information that is not readily accessible to national governments and which may aid in discovering cooperation.

(Contd.)
Second, delegation to an independent agent may help to structure iterative and recurrent decision making. A delegated agent can frame the agenda for decision making to avoid issue cycling among alternative legislative proposals (Hawkins et al. 2006; Pollack 2003). The scope for issue cycling is likely to be large in open decision making contexts where the issue space is multidimensional and where initiatives can arise from diverse actors, i.e. in highly incomplete contracts. Whereas a relatively complete regional contract formalizes narrow exchange under limited circumstances, an incomplete contract increases complexity and, as Moe (2012, 17) stresses, “In complex policy areas, the value of agency . . . will tend to be higher, and the optimal level of independence higher.”

Third, delegation to an independent arbitration panel or court can raise the reputational costs of noncompliance and help avoid escalating tit-for-tat retaliation arising from mismatching perceptions. The more incomplete the contract on which a regional organization rests, the greater the scope for interpreting whether a particular behavior is in fact a rule violation. “Since the principals themselves disagree on what the contract implies, they cannot instruct the agent on exactly how to decide on the issue(s) under dispute. Principals, therefore, go to considerable lengths to select (or create) impartial agents with relatively high autonomy” (Hawkins et al. 2006, 18; see also Koremenos 2008, 168-69; Alter 2014; Kono 2007). Correspondingly, there can be value in delegating to a body that, minimally, has some legitimacy in ruling publicly on disputes among states, or beyond that, can enforce its rulings by imposing a fine, sanction, or retaliatory measure.

Yet enlisting the support of non-state actors in solving informational, decisional and interpretive tasks is not without risk. Delegation entails the danger of exploitation. It attenuates member state control, even in the long term, and poses the threat that an individual state might be exploited or that the organization itself might run away from collective member state direction (Kiewit and McCubbins 1991). Multiple principals—the member states—must act collectively to push through reform and this makes it difficult for any subset of states to rein in the agent (Nielson and Tierney 2003, 247-49). Moreover, and most worrying for member states, delegation may begin a self-reinforcing process of progressive power assimilation if agents gain some control over the process of institutional change. In the context of multiple veto-wielding principals, the mechanisms for reining in shirking agents are limited or costly (Hawkins et al. 2006; Pollack 2003).

Consequently, member states can be expected to be willing to delegate authority only to the extent that they come to share frames of reference that ameliorate fears of exploitation. This is a process that evolves over time. Delegation under incomplete contracting can be conceived as an iterated process in which the participants gradually gain information about the norms and expectations of the other participants. Greif and Laitin (2004, 637-38) develop the notion of self-enforcing institutions in which expected and actual behaviors correspond to each other as “socially articulated and distributed rules provide individuals with the initial ‘grain of truth’ to develop subjective beliefs regarding others’ behavior” (see also Kalai and Lehrer 1993, 1021ff). Formal analysis of dynamic games comes to a similar conclusion. Where participants cannot unambiguously observe whether the other player is of the “cooperative” or “noncooperative” type, the optimal strategy is to increase the stakes of the relationship gradually over time as new information becomes available (Halac 2012, 753).

These suppositions are substantiated in the case study literature. Continuous interaction among high-ranking policy-makers in ASEAN’s consensus-oriented institutions has apparently facilitated institutional reform. According to Acharya (1997, 324, 336; see also Tan 2013) “regional actors have grown comfortable with the idea of multilateralism” by “avoiding institutional grand designs demanding firm obligations and reciprocity and focusing instead on the development of a slow-moving consultative process” that creates “a ‘non-threatening’ atmosphere for exploring ways of problem-solving.” A prominent scholar of Mercosur notes: “As several state actors interviewed confirmed, these regularized and structured dynamics of interaction over extended periods led to the development of mutual trust and transparency” which “had a positive impact on the partners’ perceptions of their interests and attitudes towards integration, contributing to deepening their commitment to the project”
In colonial empires were composed of diverse
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struggled jurisdictions exercise distance limited direct colonial control and provided spaces in which native or creole elites could 
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in 1821, Guatemala, Honduras, El Salvador, Nicaragua, and 
independence from Spanish colonial rule 
Costa Rica formed the United Provinces

Incomplete contracting, norms, and historical ties

In an influential article on the conditions of path dependence, David (1994, 207) asks “What is it about 
institutions that causes them to ‘evolve’ incrementally?” The thrust of his answer is that “shared historical experiences and conscious perceptions of a shared past provide one of the principal means 
by which groups of people justifiably may form a system of consistent mutual expectations” (210). This applies with special force to highly incomplete contracts. They require not only that others will believe one's promises, but that others will understand one's promises (Gibbons and Henderson 2012, 1351).

How do rulers of independent states come to share expectations regarding the behavior of others 
sufficient for them to enter into a highly incomplete regional contract? Here we tap two ways in which 
this can happen: 1) when states share a history of common membership within a federation, and 2) 
when states share experience of membership within—and resistance to—a colonial empire.

When independent states contract a federal constitution they are making a commitment not merely 
to its formal rules but to a union in which sovereignty is shared.

This requires that they expect to be able to agree on how to interpret the rules when those who have 
written them no longer live. Federal contracts are deeply incomplete for no written agreement can 
specify how a population will make binding collective decisions over every possible future state of the 
world. This is normally handled by empowering an external enforcer to uphold the bargain. But 
constitutions must be self-enforcing for there is no external agent. The parties to the contract must 
themselves be willing to abide by the contract (North and Weingast 1989). This places great weight on 
what V. Ostrom describes as “a common understanding and basic agreement upon the terms and 
conditions for making collective decisions” (V. Ostrom 1979, 77).

Many federations are short-lived, but the conditions that gave rise to a federation are conducive also 
to regional organization. The federation among five Central American countries in the early 
nineteenth century is a case in point. For two decades after independence from Spanish colonial rule 
in 1821, Guatemala, Honduras, El Salvador, Nicaragua, and Costa Rica formed the United Provinces 
of Central America, an experience which arguably prefigured the establishment of the Central 
American Integration System (SICA) in 1951 because it led to an “attitudinal predisposition toward 
regionalism . . . that has conditioned the receptivity of Central American decision-makers to regional 
commitments,” (Wynia 1970, 321) and which was has been described as a “model for the region to 
this day”(Kühnhardt 2010, 74).

Colonial empire could have a similar effect. European colonial empires were composed of diverse 
communities and territories that eventually congealed into numerous independent states. Even 
neighboring groups had, and in many cases continue to have, diverse native languages and mores. Yet, 
the colonial experience installed a single language-of-state that existed alongside each native language, 
and which had the virtue that it was equally foreign for all. Each colonial power constructed regional 
executives and courts ultimately subordinated to the colonial metropole. But only ultimately. Sheer 
distance limited direct colonial control and provided spaces in which native or creole elites could 
exercise some self-rule and experience the humiliation of arbitrary, usually racial, exclusion. Local 
jurisdictions became the foundation for independent states, but they shared a colonial history and 
struggled for self-rule against a single colonial master.

In his dissertation, Nye (1965, 85) provides an example. The collective experience of Kenyan, 
Tanzanian, and Ugandan elites in British colonial educational and administrative institutions led them 
“to recognize certain obligations and common interests,” an affinity that was reinforced in their
common struggle for independence and which later became the foundation for the East African Community.

Figure One models our two-step argument concerning the causes and the effects of incomplete contracting. A history of socio-economic interaction in a federation or in a colonial empire can generate a common frame of understanding that allows member states to exploit the benefits of incomplete contracting for cooperation by reducing mutual fears of exploitation. Contractual incompleteness involves ongoing mutual adjustment that increases the benefits of delegation for discovering and realizing cooperation.

Figure One: A Model of Institutional Change

Evidence: Measuring Delegation and Contracting

To test these expectations we analyze the history of 35 regional international organizations (RIOs) from 1950 or the year of their establishment to 2010. We define a RIO as an international organization composed of three or more geographically proximate states having a continuous institutional framework (Haftel 2013; Powers and Goertz 2011). In selecting the sample we identified RIO datasets (listed in Powers and Goertz 2011, 2401) and selected organizations that have a distinct physical location or website, a formal structure (i.e. a legislative body, executive, and administration), at least 50 permanent staff (Yearbook of International Organizations, multiple years), a written constitution or convention, and which have a decision body that meets at least once a year. 35 RIOs fit all or all but one of these criteria, including two that no longer exist, COMECON and the first East African Community. The sample, listed in Appendix A, is broadly comprehensive of states and continents, and includes all RIOs that have exercised significant authority since 1950.

Dependent variable: Delegation

We seek to explain Delegation, an additive index of delegation in agenda setting, decision making, and dispute adjudication for each year of a regional organization’s existence. We conceive regional organizations as delegated bodies under arm’s length control of member states (Bradley and Kelley 2008; Hawkins et al. 2006). The principals, the member states, retain ultimate control, but delegated agents may enjoy a degree of autonomy which can, and often does, change over time. States delegate authority to an international organization when they empower a third party to fill in or adjudicate the details of an incomplete contract, provide expert information, select or prioritize proposals that are on the table, and at the authoritative extreme, propose policy initiatives, make binding decisions, or penalize contract violations (Abbott and Snidal 1998; Hooghe and Marks 2014; Lake and McCubbins 2006; Johnson 2013; Pollack 2003; Tallberg 2002).
To assess institutional change in delegation over the course of a regional organization’s existence we disaggregate delegation into dimensions that form the basis for a summary measure. The extent of delegation is a function of a) the composition of the organized bodies in a regional organization (general secretariat, assemblies, executives, judicial bodies, consultative bodies) with respect to their independence from member state control; b) the authoritative competencies of regional bodies in agenda setting, final decision making, and adjudication in c) one or more of six decision areas: accession, suspension, constitutional reform, budgetary allocation, financial non-compliance, policy making. Appendix B provides further detail concerning our coding rules and judgments.

Our focus throughout is on formal rules that can be observed in treaties, constitutions, conventions, special statutes, protocols, and rules of procedure. Formal rules have the distinct advantage that they can be specified independently of behavior. Moreover, although states can exert influence through informal as well as formal channels, examining formal rules presents a hard case for detecting institutional change. Formal agreements impose real costs on states, are explicit and public, and are harder to change or elide because they are embedded in legal documents (Johnson 2013). If formal international authority mattered only marginally or not at all, then one would not expect to find systematic, intelligible, variation. Nor would one expect states to negotiate intensely about their content (Koremenos 2005).

Because the formal rules of a regional organization are determined by the member states themselves, we are able to discount the possibility that delegation builds on itself as agents progressively gain authority. While present Delegation levels might partly reflect past delegation, the association between the initial level of Delegation in a regional organization and the average annual rate of change in delegation is just 0.10 (p=0.59). Hence, knowing the initial level of delegation does not help much in explaining institutional change in delegation over time.

Figure Two summarizes the sample variation in Delegation in box plots. Median values over the period 1950-2010 range from zero for the South Asian Association for Regional Cooperation (SAARC) and the Southern Africa Customs Union (SACU) to 0.53 in the European Union, with the remaining regional organizations distributed fairly evenly in between. The EU is one of four organizations, besides the Council of Europe, the East African Community, and the Nordic Council, with a parliamentary body that operates as a non-state assembly. The EU is also one of five organizations, besides the Central African Economic and Monetary Union (CEMAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), and the Southern African Development Community (SADC) to have a general secretariat with an exclusive right to initiative; and the EU is one of three organizations, besides CEMAC and the Common Market for East African States (COMESA), with a supranational court that provides access to non-state actors, passes preliminary rulings, and whose rules have direct effect. In the lowest third of the dataset are regional organizations as diverse as the Asia-Pacific Economic Cooperation (APEC), the Gulf Cooperation Council (GCC), and the Latin American Integration System (LAIA). These organizations have little more than a weak general secretariat that, at most, draws up the budget or has a non-exclusive right to initiate policy making.
Discovering Cooperation: A Contractual Approach to Institutional Change in Regional International Organizations

Figure Two:
Delegation in 35 regional international organizations from 1950 to 2010 (sample distribution)

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<th>Organization (pre-2014)</th>
<th>Delegation (scale 0-1)</th>
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<td>C. Amer. Integration System (ECA/ACIS)</td>
<td></td>
</tr>
<tr>
<td>C. African Econ. &amp; Monet. Union (CEMAC)</td>
<td></td>
</tr>
<tr>
<td>Asia-Pacific Econ. Coop. (APEC)</td>
<td></td>
</tr>
<tr>
<td>South Afr. Customs Union (SACU)</td>
<td></td>
</tr>
<tr>
<td>South Asian Assoc. Regional Coop. (SAARC)</td>
<td></td>
</tr>
</tbody>
</table>

Independent variables: Contract and contractual dynamic

We conceive a regional organization as a contract among states that choose between flexibility and rigidity depending on whether they share norms sufficient to increase the benefits of contractual flexibility while limiting its costs.⁷ In the absence of prior measures, we estimate Contract as a trichotomous variable for the extent to which it fully specifies the conditions of cooperation with regard to goals, policies, and actors.

We code a contract as relatively complete if it commits member states to a fixed objective under clearly specified conditions.⁸ Relatively complete contracts identify the means to achieve cooperation in a given set of policy areas. The Latin American Free Trade Association, for example, articulates a specific goal: “By the present Treaty, the Contracting Parties establish a free-trade-zone and create the Free Trade Latin American Association” (Art. 1, 1960 Montevideo Treaty). It delineates a program of trade liberalization based on periodic negotiations between member states, the removal of tariffs based on national and common lists, and details flanking measures in industry, tax policy and agriculture. The objective of the Organization of Arab Petroleum Export Countries (OAPEC) is similarly clearly specified: “The principal aim of the Organization shall be the co-ordination and unification of the petroleum policies of Member Countries” (1968 OAPEC Agreement), and its rules and regulations are designed to cover all exigencies.

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⁷ For a broader articulation of modes of authority in international organizations, see Lenz et al. 2014.

⁸ The coding was conducted jointly by two of the authors of this paper at the onset of the data gathering process. We then submitted our judgments to an external expert and then tested the reliability of our coding by having two research assistants familiar with the concepts in the study independently code a random sample of thirteen regional organizations. They agreed on all but one score (Krippendorff’s alpha = 0.78). All results reported in the remainder of this paper are robust to these alternative scorings.
A contract is intermediate if it envisages cooperation among a given set of actors on policy issues that are only partly specified. Unlike relatively complete contracts, intermediate contracts commit governments to vague objectives such as enhancing peaceful co-existence among member states, or fostering their economic and social development. The Shanghai Cooperation Organization (SCO), for example, has among its main goals “to consolidate multidisciplinary cooperation in the maintenance and strengthening of peace, security and stability in the region” and to “facilitate comprehensive and balanced economic growth, social and cultural development in the region through joint action on the basis of equal partnership” (Art. 1, SCO Charter). The Charter also sets out the principles and areas of cooperation, and establishes a specific institutional framework for cooperation.

A contract is highly incomplete if it commits states to a vague purpose—e.g. a “community of peoples” or “ever closer union”—to be achieved by unspecified actors through an open-ended process. The focus is on the process, not the result, because the result is indeterminate. Cooperation is framed as an evolutionary process that is revealed only over time. Similar to intermediate contracts, highly incomplete contracts entail diffuse cooperation over a range of policy areas, but the actors encompass loosely defined representatives of “the people” as well as national governments.

At their founding, the 35 regional organizations in our sample divide in roughly equal parts across the three categories. While an organization can change its contractual completeness over time, this is quite rare. We code six single interval moves towards greater incompleteness, and as we report below, our results hold if we use only the original contracts in the analysis.

As discussed above, we expect a regional organization's contract to reflect the historical experiences of its member states. To explore this possibility we focus on Historical ties, a dichotomous variable for the presence of one or both of the following conditions: experience in an overarching federation or colonial empire. We consider the former to be present when two-thirds or more of the founding member states were constituent parts of an overarching federation or confederation prior to the establishment of the regional organization. We consider the latter to be present when two-thirds or more of the founding member states were part of the same colonial empire prior to the establishment of the regional organization. In the absence of data on elite perceptions prior to regional contracting, these variables have two advantages: they can be reliably observed and they take place prior to the regional contract.

Table One cross-tabulates sample medians for the 35 regional organizations in our sample on initial Contract and Historical ties. Judging from this simplest of overviews, we see reason to suspect that contractual incompleteness reflects Historical ties. Eleven regional organizations with a colonial heritage or experience of federation have an average Contract score of 2.45 compared to 1.95 for the remaining 24 organizations.

---

9 We do not include protectorates accorded by the League of Nations or the United Nations. We count 11 organizations that fit these criteria. These are the Caribbean Community, Central African Economic and Monetary Union, Commonwealth of Independent States, Common Market for Eastern and Southern Africa, East African Community, Economic Community of West African States, Gulf Cooperation Council, Intergovernmental Authority on Development, Organization of Eastern Caribbean States, and Central American Integration System.
Table One:

*Historical ties and Contract* of 35 regional international organizations (sample medians)

<table>
<thead>
<tr>
<th>Historical ties</th>
<th>Complete</th>
<th>Intermediate</th>
<th>Incomplete</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>7</td>
<td>11</td>
<td>6</td>
<td>24</td>
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<tr>
<td>Yes</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>11</td>
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<tr>
<td>Total</td>
<td>7</td>
<td>16</td>
<td>12</td>
<td>35</td>
</tr>
</tbody>
</table>

One of our core expectations, however, is that a given level of *Contract*, whatever its origins, ought to affect the level of delegation in regional organizations. We can evaluate this descriptively by examining trends in *Delegation* between 1950 and 2010. Figure Three, which groups regional organizations by completeness of contract at time of founding, allows one to discern a modest increase in the average level of *Delegation* as one moves from *Contract*=1 to *Contract*=3. The largest increase in *Delegation* in relative terms is recorded by the Southern African Development Community (SADC), which begins in 1980 with just a weak administrative secretariat, finishes in 2010 with a secretariat with extensive executive competences, including an agenda-setting role in budgetary allocation and an exclusive right to initiate policy.

Organizations that have experienced major drops in *Delegation* include the first East African Community (EAC1 in right-hand panel), which was disbanded in 1976 before being re-established in 1996, and COMECON (in middle panel), which ceased to exist in 1991. Both experienced a collapse in their *Delegation* as a result. The more common trend is towards higher *Delegation*, and both the starting point and the increase over time tend to be at least modestly higher among organizations with a more incomplete contract. The Figure shows, in short, that *Delegation* is a moving target, and hints that the initial *Contract* may have something to do with it.

Figure Three:

*Delegation* in 35 regional international organizations (1950-2010), by *Contract* at founding

Indeed, our main analytical focus is on the implications not just of a regional organization's contract, but of how the potential benefits of delegation increase over time in relation to that contract. We need, therefore, to add a time dimension to our *Contract* measure beyond the modest over-time variation that this variable exhibits. Our baseline specification of *Contractual dynamic* is our raw measure of *Contract*, ranging 1 to 3, multiplied by the age of the regional organization (1 for the year of founding, 2 for the second year, 3 for the third, and so on). The resulting measure uses the full variation in our data based on the contract along with the age of a regional organization and the growing depth of interaction that arises over time in relation to contractual incompleteness.
Figure Four summarizes the range and medians for Contractual dynamic. The highest medians are attained by organizations such as the Council of Europe, the European Union, and the Central American Integration System that have highly incomplete contracts and are present for all or most of the 60 years from 1950 to 2010. Relatively young organizations with a relatively complete contract, such as NAFTA and APEC, display the lowest median scores. The Shanghai Cooperation Organization, established in 2002, has the second lowest median score with an intermediate contract, but it is by far the youngest organization in the dataset. To get a grasp how adding a dynamic element to our raw Contract variable magnifies variation, compare two organizations with a relatively complete contract and a roughly 30-year difference in age – for example, the European Free Trade Association (EFTA) and NAFTA—to two organizations with a highly incomplete contract and a 30-year difference in age, founded around the same time—the African Union and Mercosur. Whereas the African Union has one of the highest median scores in the dataset, Mercosur is in the bottom half; yet EFTA has an even lower score than Mercosur, which is still significantly higher than that for NAFTA.

Figure Four: Contractual dynamic in 35 regional international organizations from 1950 to 2010
(sampling distribution)

Our core expectation is that these contracting measures ought to affect the level of delegation in regional organizations. This is consistent with the descriptive measures introduced so far and with Figure Five, which plots organization-specific means for Contractual dynamic and Change in delegation for our observation period. The vertical axis depicts substantial variation in Change in delegation ranging from the significant decline for the pre-1980’s permutation of EAC (-.19 net Change in delegation), to an increase of .38 for the Central African Economic and Monetary Union (CEMAC). We can see that this variation correlates positively (and statistically significantly) with the sample means for Contractual dynamic ($R^2 = 0.23$). These descriptive patterns suggest modest support for our core expectation, but of course we need to subject these simple associations to a variety of controls.
**Alternative explanations and controls**

With its focus on shared mental frames rooted in common historical experience, the theory proposed here rejects the idea that delegation to regional organizations can be explained by exogenous environmental shocks. The literature has highlighted two such sources—trade and power—which we seek to measure and assess.

*Intra-regional trade.* Perhaps the most firmly grounded expectation in the literature on regional delegation is that it should co-vary with economic interdependence (Keohane 1984; Mattli 1999; Stone Sweet and Brunell 1998). Economic exchange develops its welfare-improving potential to the fullest with stable, predictable property rights (North 1990). Hence, trade that traverses international borders creates a demand for coordination among states to provide uniform rules. Reducing barriers to cross-border trade is a core rationale of many regional organizations, and one might expect, therefore, that the greater the trade interdependence within a regional organization, the deeper the level of delegation. This hypothesis has been tested cross-sectionally, but very rarely within regional organizations over time (Haftel 2013; Haftel and Thompson 2006; McCall Smith 2000). We measure trade interdependence in three ways described in Appendix C, including a standard measure, *Intra-regional trade,* a region’s total trade (imports plus exports) as a proportion of member countries’ total trade.

*Power asymmetry.* Scholars in the tradition of Waltzian neorealism hypothesize that powerful states reject strong institutionalization because it inhibits unilateral action (Grieco 1990), and instead
prefer intergovernmental arrangements: “[F]orms of legalization that involve limited delegation . . . provide the crucial basis for cooperation between the weak and the strong” (Abbott and Snidal 2000, 448). Conversely, hegemonic stability theory suggests that unequal distribution of power may expedite the provision of public goods because the dominant state can internalize their benefits and be willing to pay the costs (Krasner 1976; Mattli 1999). Moreover, a hegemon may find the rule of law useful in eliciting compliance by weaker members. We control for these possibilities with a measure of power dispersion, Power asymmetry, the ratio of the material capabilities of the most powerful member state to the average of all other members. The Composite Index of National Material Capabilities (CINC) version 4.0 provides a summary measure of military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population for individual countries (Singer, Bremer, and Stuckey 1972; Singer 1987).

In addition to these principal controls, we consider the following:

Members. The extent of delegation in an organization might be sensitive to the size of its membership. As the number of members grows, decentralized cooperation in the absence of delegated institutions may become more costly as a result of issue cycling and increasing informational asymmetry (Hawkins et al. 2006; Hooghe and Marks 2014; Pollack 2003). This grounds the hypothesis, drawn from the rational design literature, that “centralization of information is … increasingly valuable with larger numbers” (Koremenos, Lipson, and Snidal 2001, 789). We measure Members as the natural log of the absolute number of member states in a given year on the assumption that the effect of an additional member declines as the absolute number increases.

Democracy. Norms of appropriate behavior in democratic states, or the political context in newly democratizing countries, may render elites more willing to delegate (Risse-Kappen 1995). An implication of the democratic peace literature is that autocracies are more likely than democracies to be mutually fearful of exploitation. Moreover, a democratic/democratizing ruler may be more willing than an autocrat to disperse authority. Newly democratizing states, in particular, may use international institutions as external commitment devices (Simmons 2009). We measure Democracy as the annual Combined Polity Score in the Polity IV dataset.

Per capita GDP. We control for the mean per-capita GDP of member states in a regional organization in a given year on the premise that the richer the members, the greater the demand for international cooperation and, correspondingly, delegation to international organization.

Cold War. Finally, we control for the end of the Cold War in 1991 on the grounds that the dissolution of two-power hegemony created new demands for regional cooperation that might be reflected in deeper institutionalization.

Appendix D provides summary statistics for all parameters in the analysis.

Estimation and Results

We analyze these data in several steps beginning with cross-sectional comparison summarized in Table Two. The first two models explore possible origins of an organization’s median Contract using ordered probit models with robust standard errors. We are interested in the possibility that contractual incompleteness reflects the presence of Historical ties. The cross-sectional evidence corroborates this expectation, both in the minimalist Model 1 and in Model 2, which includes the substantively most relevant controls given the limited degrees of freedom in the cross-section. Although the models are not strong, the results are consistent with our expectation that regional organizations with Historical ties tend to have more Delegation.
Table Two: Cross-section estimation of Contract, Delegation, and Change in delegation

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV: Contracta</td>
<td>DV: Delegationb</td>
<td>DV: ΔDelegationc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical ties</td>
<td>0.989**</td>
<td>0.991**</td>
<td></td>
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<tr>
<td></td>
<td>(0.386)</td>
<td>(0.426)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td>0.063***</td>
<td></td>
<td>0.074***</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td></td>
<td>(0.026)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Contract dynamic</td>
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<td></td>
<td>0.002***</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>(0.001)</td>
<td></td>
<td>(0.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democracy</td>
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<td>0.005</td>
<td>0.005</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.003)</td>
<td>(0.005)</td>
<td>(0.005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power asymmetry</td>
<td>-1.380</td>
<td>-0.168**</td>
<td>-0.082</td>
<td>-0.043</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.961)</td>
<td>(0.070)</td>
<td>(0.075)</td>
<td>(0.097)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>-0.239</td>
<td>-0.046</td>
<td>0.006</td>
<td>0.036</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.533)</td>
<td>(0.034)</td>
<td>(0.092)</td>
<td>(0.081)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.074</td>
<td>0.222***</td>
<td>-0.046</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.079)</td>
<td>(0.077)</td>
<td>(0.163)</td>
<td>(0.157)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Pseudo) R-square</td>
<td>0.073</td>
<td>0.099</td>
<td>0.418</td>
<td>0.224</td>
<td>0.215</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
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<td>78.05</td>
<td>-70.11</td>
<td>-41.98</td>
<td>-41.55</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

a Models (1) and (2): DV is RIO’s median Contract (1-3). Estimates are ordered probit with robust standard errors (in parentheses). Pseudo R-squares reported;

b Models (3) and (4): DV is RIO’s median Delegation. Estimates are OLS with robust standard errors (in parentheses);

c Models (5) and (6): DV is Δ Delegation is the Delegation score at time of RIO’s establishment or 1950 (whichever is later) minus score in 2010 or in year of RIO’s demise (whichever is earlier). Estimates are OLS with robust standard errors (in parentheses).

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

The remaining models explore the origins of Delegation. Models 3 and 4 consider how Delegation is affected by baseline measures of contractual incompleteness: Contract (the sample medians again); and Contractual dynamic (the RIO-specific mean scores over the observation period). The models are simple OLS estimation with robust standard errors, where mean Contract scores tap our expectation that incomplete contracting ought to foster delegation. And this is, indeed, what we see. While these and other specifications explain modest proportion of delegation’s variance, they do reveal that more incomplete contracts tend to yield more delegation, net of these and other controls. On the other hand, Contractual dynamic does not significantly increase the average level of delegation. Although this might be an artifact of the modest degrees of freedom, our theory implies that Contractual dynamic is less pertinent to the average level of delegation than to its development over time.

Models 5 and 6 explore this possibility in a cross-sectional context. These consider Change in Delegation, which subtracts an organization’s 1950 or founding Delegation score from its score in 2010 (or its last year of existence). Model 5 suggests that this dynamic is stimulated by a high Contract score—that is, where the regional contract is relatively incomplete. Model 6 suggests that Contractual dynamic similarly spurs Change in delegation. We already saw in Figure Five that the bivariate relationship between Change in delegation and Contractual dynamic is significantly positive. Model 6 shows that this relationship also holds net of a range of controls.

The cross-sectional results provide the simplest, preliminary evidence that regional organizations with more incomplete contracts tend to develop greater levels of delegation. Interestingly, Historical
ties do not directly influence Delegation, however important they may be as exogenous factors underlying the incompleteness of contracting. These are preludes, however, to the more extensive analysis that is possible using the full time-series cross-section information that our new dataset affords.

**Time-series cross-section analysis**

Time-series cross-sectional models provide more decisive tests of the arguments set out here. Given the complex ways in which pooling compounds cross-sectional with time-series inferential threats (e.g. longitudinal and group-wise heteroskedasticity and correlation of standard errors), choosing the appropriate estimator is not straightforward (Beck and Katz 2011). Moreover, the panel is unbalanced since regional organizations vary in their year of founding. And modeling Delegation is prone to bias arising from endogeneity and omitted variables. For all these reasons, our exploration of how Contract and Contractual dynamic influence Delegation must consider an array of estimators and specifications. Table Three summarizes our estimation. All reported models use one-year lagged variables for the full range of controls and include a year count and Cold War dummy to address pressures of time in an unbalanced panel. In light of the inferential threats posed by our data, the reported models vary in specification of contracting dynamics and its influence on Delegation.
### Table Three: Time-series cross-section of Delegation score

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
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</thead>
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<tr>
<td><strong>Contract</strong></td>
<td>0.076**</td>
<td>0.075*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Contractual</strong></td>
<td>0.027***</td>
<td>0.029***</td>
<td>0.005***</td>
<td>0.005***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dynamic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Delegation</strong></td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Democracy</strong></td>
<td>0.006</td>
<td>0.006</td>
<td>0.004*</td>
<td>0.005*</td>
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<td>0.001</td>
<td>0.005</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Power asymmetry</strong></td>
<td>-0.006</td>
<td>-0.021</td>
<td>0.023</td>
<td>0.029</td>
<td>-0.000</td>
<td>0.002</td>
<td>0.102</td>
<td>0.010</td>
</tr>
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<td><strong>Members (logged)</strong></td>
<td>-0.029</td>
<td>-0.029</td>
<td>-0.049</td>
<td>-0.044</td>
<td>-0.010</td>
<td>-0.011</td>
<td>0.029</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Intra-regional trade</strong></td>
<td>0.185*</td>
<td>0.211</td>
<td>0.079</td>
<td>0.083</td>
<td>0.03*</td>
<td>0.028*</td>
<td>0.252*</td>
<td>0.055**</td>
</tr>
<tr>
<td><strong>GDP mean</strong></td>
<td>-0.002**</td>
<td>-0.002**</td>
<td>-0.002**</td>
<td>-0.002*</td>
<td>-0.003*</td>
<td>-0.003*</td>
<td>-0.002**</td>
<td>-0.0003*</td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td>0.004***</td>
<td>0.004***</td>
<td>-0.001</td>
<td>-0.002</td>
<td>-0.001**</td>
<td>-0.001**</td>
<td>-0.009**</td>
<td>0.056***</td>
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<tr>
<td><strong>Cold War</strong></td>
<td>0.008</td>
<td>0.009</td>
<td>0.013</td>
<td>0.014</td>
<td>-0.001</td>
<td>-0.001</td>
<td>0.013</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Delegation</strong></td>
<td>0.892***</td>
<td>-0.108***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-7.32**</td>
<td>-7.52**</td>
<td>2.548</td>
<td>3.505</td>
<td>1.060**</td>
<td>1.139**</td>
<td>13.77</td>
<td>69.16</td>
</tr>
<tr>
<td><strong>Fixed effects (35 RIOs)</strong></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R²overall</td>
<td>0.353</td>
<td>0.334</td>
<td>0.290</td>
<td>0.282</td>
<td>0.951</td>
<td>0.0046</td>
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<td>R²between</td>
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<td>0.222</td>
<td>0.215</td>
<td>0.919</td>
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<td>R²within</td>
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<td>0.483</td>
<td>0.566</td>
<td>0.567</td>
<td>0.901</td>
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<td>0.511</td>
<td>0.052</td>
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<td>AIC</td>
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<td>-6285</td>
<td>-4532</td>
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<td>1,063</td>
<td>1,063</td>
<td>1,063</td>
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<td>Number of RIOs</td>
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<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

DV for Models (1)-(5) and (7): Delegation score
DV for Models (6) and (8): Δ Delegation score (First-difference annual change in Delegation) For legibility, coefficients and standard errors for Contractual dynamics are multiplied by ten.

(1) Random effects estimation using Contract score (1-3) with robust standard errors clustered by RIO (in parentheses).
(2) Fixed effects estimation using Contract (1-3) with robust standard errors clustered by RIO (in parentheses).
(3) Random effects estimation using Contractual dynamic (contract score, 1-3, multiplied by t+1 years of existence) with robust standard errors clustered by IO (in parentheses).
(4) Random effects estimation using Contractual dynamic (contract score, 1-3, multiplied by t+1 years of existence) with robust standard errors clustered by IO (in parentheses).
(5) Fixed effects estimation using Contractual dynamic (contract score, 1-3, multiplied by t+1 years of existence) with robust standard errors clustered by RIO (in parentheses).
(6) Fixed effects estimation using Contractual dynamic (contract score, 1-3, multiplied by t+1 years of existence) and Δ Contractual dynamic (first-difference of contractual dynamic) with robust standard errors clustered by RIO (in parentheses).
(7) Two-stage least squares with fixed effects using Contractual dynamic (instrumented) (Historical ties as excluded instrument), with bootstrapped standard errors (in parentheses).
(8) Two-stage least squares with fixed effects using Contractual dynamic (instrumented) (Historical ties as excluded instrument) and Δ Contractual dynamic (instrumented), with bootstrapped standard errors (in parentheses).---

*** p<0.01, ** p<0.05, * p<0.1
Across these specifications we see unstable results for most controls with the exception of Per capita GDP which tends to be consistently negative and significant. In most specifications, Intra-regional trade is significantly positive, including the random effects baseline and those where a lagged dependent variable is used to address autocorrelation.\(^{10}\)

A dummy variable tapping the end of the Cold War is significant and positive in models that do not specify a lagged dependent variable, indicating that regional organizations responded to the demise of great power duopoly.

However, of principal interest here is our finding that contractual incompleteness tends to spur delegation under these and other controls. The first columns consider the influence of Contract on Delegation in random and fixed effects models. Given the modesty of the over-time variation in both the dependent and, particularly, the key independent variable, it is not a priori obvious that the fixed effect model will be superior. But Hausman tests suggest that Model 2 with 35 unit fixed effects is preferable. The results, however, are virtually identical for the direction, size, and significance of the coefficient Contract.

Models 3 through 5 extend the analysis to our preferred, time-sensitive, specification of contracting, Contractual dynamic. Models 3 and 4 are random-effects and fixed effects models, respectively, and while the main result does not differ appreciably, Hausman tests again suggest the superiority of the latter. Model 5 adds a lagged dependent variable to address autocorrelation and substantive time effects.\(^{11}\) The lagged dependent variable also allows us to control for possible endogenous, development of regional delegation. Whatever the specification, Contractual dynamic has a positive and significant effect on Delegation.

The final two models address the possibility of remaining endogeneity due to omitted variables, reverse causality, or measurement error (Wooldridge 2002). We already seek to minimize endogeneity by measuring Delegation distinctly from Contract, by lagging all right-hand side parameters, and in sensitivity analysis, not shown, by lagging Contract over as many as 15 years. We also probe robustness by including a variety of economic, political, and time-specific fixed effects. But to address the possibility that, despite these strategies, Contract and Contractual dynamic are endogenous, we consider a two-stage model based on our claim that regional contracts have deep roots in the past. Historically prior jurisdictional experiences are exogenous to contracting at the formation of a regional organization. Both our assumptions and empirics suggest that the long-term influence of historical ties run through their effects on the contracts that underpin regional organizations (as stated above, Historical ties are not significantly correlated with Delegation).

These characteristics provide leverage to instrument Contract using Historical ties in two-stage models of Delegation and \(\Delta\) Delegation (c.f. Wooldridge 2002; Bartels 1991). In the first stage we estimate an ordered probit model of Contract with the same controls as Model 4. We then use the predicted probabilities of outcomes 1 and 2 on Contract as the basis for an instrumented measure of Contractual dynamic in second stage OLS estimation in Models 7 and 8. These models are identical to the specifications of Model 4 and 6, respectively, but here we use instrumented measures of contracting dynamics and bootstrap the standard errors (Mooney 1996). The results are weaker than the baseline but maintain statistical significance at the .05 level. We have, in short, consistent support for the view that the dynamics arising from contractual incompleteness foster delegation in regional organizations.

---

\(^{10}\) This specification of trade elicits the most stable and strongest results (others not shown).

\(^{11}\) Indeed, Durbin Watson tests suggest the presence of autocorrelation that requires some correction. Model 5 does so via inclusion of a lagged dependent variable, the high VIF mean notwithstanding, but other methods (e.g. Prais Winsten or other AR1 correction) yield similar results.
These positive effects are substantively as well as statistically significant. Figure Six graphs the predicted effects of Contractual dynamic for Delegation holding all other parameters at their means. The left-hand schedule is derived from Model 4 in Table Three, and that on the right from Model 7. Both specifications of Contractual dynamic account for a considerable proportion of the sample range (0 to .58) in Delegation. While the predicted results for the instrumented measure of Contractual dynamic have broader confidence intervals (significant at p<.03 rather than p<.004 for Contractual dynamic), the substantive effect is stronger. We are of course particularly interested in real-world variation, which can be visualized by comparing the 10th with the 50th or the 50th with the 90th percentiles in the sample variation of Contractual dynamics—represented in Figure Six as broken vertical lines. Moving from the 50th to 90th percentiles in Contractual dynamic predicts an increase in delegation of around .1 to .28 (and from .1 to .4, using the instrumental variable). Over a ten-year period, Contractual dynamic goes up 22.5 points on average. This predicts an increase of .048 in Delegation – roughly 10 percent of Delegation’s sample variation is roughly equivalent to the creation of a consultative body with a formal right of consultation and the move from a non-exclusive to an exclusive right of initiative for the secretariat in policy-making – as occurred in the Southern African Development Community (SADC) between 1996 and 2002. It is also akin to the introduction of an ad hoc arbitration tribunal with conditional third-party review, and retaliatory sanctions – an institutional change that took place in the South Asian Association for Regional Cooperation (SAARC) in 2006. In short, this is a substantively strong marginal effect of contracting dynamics for institutional change.

Figure Six: Predicted Delegation based on Contractual dynamic

![Graphs showing predicted Delegation](image)

Left figure derived from Model 4.
Right figure derived from Model 7.

These results stand up to many further sensitivity and robustness tests. We get similar results using other specifications of Delegation – for instance, sub-combinations of the component features of delegation; various weighting of the components, or binary specifications with various cut-off points in Delegation. Similarly, we get very similar results with different specifications of contracting dynamics, for instance taking initial Contract scores or (up to 15-year) lags of the contracting measures, taking binary specifications of Contract or Contractual dynamic, or alternative intervals for the components of Contractual dynamic (e.g. multiplying Contract with various weightings of organizational age). The results are insensitive to other mixes of the reported controls and to inclusion of further controls; including alternative measures of trade integration; average rather than annual capabilities of member states; variation in GDP per-capita or capabilities among member states; and using year or decade dummies instead of the yearly count. The results are also robust to jackknife analysis in which any given regional organization is dropped, and to exclusion of outlier values of the

19
categories of interest. We believe, in short, that the reported results reflect genuine substantive dynamics in the politics of regional organizations rather than artifacts of particular econometric modeling choices.

Conclusion

The theory offered here has implications for the study of regional international organizations and for our understanding of institutional change more generally. It responds to the fundamental challenge raised by Pierson (2000, 265) to frame an understanding of institutions that recognizes the causal role of path dependency while rejecting the notion that the landscape is frozen unless punctuated by some exogenous force. We do this by theorizing that highly incomplete contracts can produce sustained positive feedback that can lead to institutional change.

Contracting has been an immensely vigorous field of economic research in recent years. We consider it to have broad relevance for the study of political, as for economic, institutions. In particular, the idea that contracting involves a tension between ambiguity and flexibility allows us to connect Elinor Ostrom's (2005) concern with “shared mental models” as a condition for cooperation with the analysis of institutional change. We follow Ostrom and others in highlighting the importance of shared mental models, but suggest that contracting is a causally influential intervening variable. The theory set out here explains institutional change in terms of the incompleteness of the contract underlying an organization, which in turn rests on the extent to which actors share understandings that reduce the costs of ambiguity. Actors who do not share such understandings tend to bind themselves to detailed commitments that can lead little room for adaptation.

The idea that shared mental frames facilitate international cooperation is contested. Whereas constructivist theories of international relations support the notion, realist and liberal institutionalist theories are skeptical. Regional organizations are composed of states—not individuals—that have the final word on institutional reform and these actors may be expected to be less sensitive to norms than to relative power or economic exchange.

In the model offered here, incomplete contracting serves as the buckle between the conditions under which a group of states are willing to cooperate and the institutional flexibility of their cooperation over time. Consistent with both constructivist and common pool resource theory, we find that actors sharing understandings are able to commit to incomplete bargains that facilitate reciprocity. Instead of seeking to reducing ambiguity by tying themselves to specific commitments, such actors can, in Ostrom's (1998, 16) telling phrase, engage “a world of possibility rather than of necessity.”

We introduce a new dataset on delegation of state authority to non-state actors in 35 regional international organizations from 1950 to 2010. We are able to confirm across a wide range of models and specifications that reform is guided by contractual incompleteness. Some regional organizations do more than ensure their survival; they evolve over time to discover cooperation. While we share the view that institutions are a human contrivance to induce equilibria amidst flux, we show that incomplete contracts are dynamic by design. We also find support for the idea that contractual incompleteness is rooted in the common historical experience of the states populating them.

The data we use allows us to sharply distinguish temporal and cross-sectional variation. While theories of international organization drawing our attention to power asymmetry and regime type have proven helpful in explaining cross-sectional variation among regional organizations, we suggest that they are less persuasive as explanations of institutional change. Power relations in most regional organizations have been relatively stable, and while many states have become more democratic, institutional change is as great in regional organizations where there has been limited regime change as in organizations where there have been extensive advances towards democratization.
As temporal data become available, it will be possible to investigate the validity of the claims here for other forms of organization. As Hall (2010, 219) points out, research on institutional change has paid insufficient attention to scope conditions in designing samples. We do not know whether institutional change in organizations as diverse as firms, legislatures, or international organizations can be covered by a common model. In one respect, regional organizations present a hard case for a theory of institutional change because unlike firms or many other institutions, regional organizations have multiple principals rather than a single principal. Moreover, the measure of change adopted in this paper focuses on change in the formal rules, rather than change in informal practices.

Informal practices are both likely to be more elastic than formal rules and more difficult to estimate accurately. This provides additional confidence in the validity of the statistical tests we conduct in this paper, but to assess the generalizability of our findings it is necessary to investigate other institutions systematically over time.
References


# Appendices

## Appendix A: 35 Regional International Organizations (1950-2010)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Name of RO</th>
<th>Years in dataset</th>
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<tbody>
<tr>
<td>CAN</td>
<td>Andean Pact/Andean Community of Nations</td>
<td>42</td>
</tr>
<tr>
<td>APEC</td>
<td>Asia-Pacific Economic Cooperation</td>
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<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
<td>44</td>
</tr>
<tr>
<td>BENELUX</td>
<td>Benelux Community</td>
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<td>CARICOM</td>
<td>Caribbean Community</td>
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<tr>
<td>CEMAC</td>
<td>Central African Economic and Monetary Union</td>
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</tr>
<tr>
<td>CIS</td>
<td>Commonwealth of Independent States</td>
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</tr>
<tr>
<td>COMECON</td>
<td>Council for Mutual Economic Assistance</td>
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</tr>
<tr>
<td>COE</td>
<td>Council of Europe</td>
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<tr>
<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>East African Community prior to 1977</td>
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<tr>
<td>EAC-1</td>
<td>East African Community from 1996 onwards</td>
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</tr>
<tr>
<td>EAC-2</td>
<td>East African Community from 1996 onwards</td>
<td></td>
</tr>
<tr>
<td>ECCAS</td>
<td>Economic Community of Central African States</td>
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</tr>
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<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<td>EFTA</td>
<td>European Free Trade Association</td>
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<td>EU</td>
<td>European Community/European Union</td>
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<tr>
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<td>Gulf Cooperation Council</td>
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<td>Inter-Governmental Authority on Development</td>
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<tr>
<td>LAIA</td>
<td>Latin American Integration Association</td>
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</tr>
<tr>
<td>LOAS</td>
<td>League of Arab States</td>
<td>61</td>
</tr>
<tr>
<td>MERCOSUR</td>
<td>Common Market of the South</td>
<td>20</td>
</tr>
<tr>
<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
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</tr>
<tr>
<td>NordC</td>
<td>Nordic Council</td>
<td>59</td>
</tr>
<tr>
<td>OAPEC</td>
<td>Organization of Arab Petroleum Exporting Countries</td>
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</tr>
<tr>
<td></td>
<td>Organization of American States</td>
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</tr>
<tr>
<td>OAS</td>
<td></td>
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</tr>
<tr>
<td>AU</td>
<td>Organization of African Unity/African Union</td>
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</tr>
<tr>
<td>OECS</td>
<td>Organization of Eastern Caribbean States</td>
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<tr>
<td>PIF</td>
<td>Pacific Islands Forum</td>
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<td>SAARC</td>
<td>South Asian Association for Regional Cooperation</td>
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<td>Southern African Customs Union</td>
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<td>SELA</td>
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<td>SICA</td>
<td>Central American Integration System</td>
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</tr>
<tr>
<td>SPC</td>
<td>South Pacific Community</td>
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</tbody>
</table>

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12 Acronyms refer to the most recent incarnation of the organization.


Appendix B: Delegation

The dependent variable, *Delegation*, measures delegation by member states to non-state bodies in the decision making process for each year of a regional international organization's existence. We assess delegation to a) a range of organized bodies (general secretariats, consultative bodies, assemblies, executives), b) that are primarily or wholly composed of non-member state representatives and that have authority over c) agenda setting and final decision making in d) six decision areas: accession, suspension, constitutional reform, budgetary allocation, financial non-compliance, policy making.

Involvement in the final decision is weighted more heavily (1) than involvement in agenda setting (0.5).

A. Delegation to the general secretariat

Every RIO in the dataset has a secretariat with infrastructural functions such as running the IO’s headquarters, organizing meetings, and maintaining records. However, the extent to which the secretariat carries out executive functions, monitors compliance, and facilitates member state bargaining varies considerably. In the domain of accession, for example, a secretariat may be charged with soliciting or vetting candidates, evaluating whether a prospective member meets accession criteria, or negotiating the conditions of accession. A general secretariat cannot reasonably be expected to be a final decision maker, and so our coding assesses the extent to which the secretariat can go beyond the infrastructural functions to be an agenda setter.

- **GS1: Membership accession.** Is the secretariat authorized to vet, solicit, or negotiate membership of the IO (0, 1)?
- **GS2: Constitutional amendments.** Is the secretariat authorized to initiate or negotiate constitutional amendments (0, 1)?
- **GS3: Substantive non-compliance.** Is the secretariat authorized to initiate a formal proceeding against a member state in non-compliance with IO rules (0, 1)?
- **GS4: Financial non-compliance.** Is the secretariat authorized to initiate a formal proceeding against a member state in financial arrears (0, 1)?
- **GS5: Drafting the budget.** Is the secretariat authorized to (co-)draft the annual budget of the IO (0, 1)?
- **GS6: Policy initiation.** Is the secretariat authorized to propose one or more of the following: recommendations, resolutions, or declarations; programs or projects; laws, regulations, decisions, or directives; protocols or conventions (0, 1)?
- **GS7: Monopoly of policy initiation.** Is the role of the secretariat in initiating policy a) not mandated; b) mandated by the IO’s founding document and shared with other bodies; c) anchored in the IO’s founding document and exclusive (0, 0.5, 1)?
- **GS8: Executive powers.** Is the secretariat of the IO authorized to carry out executive functions, such as framing multi-year strategic plans, drafting policy, or turning general legislation into directives or executive orders (0, 1)?
- **GS9: Monopoly of executive powers.** Does the secretariat monopolize these powers or does it share them with another body (0, 1)?
GS_Delegation is calculated as a summated rating scale ranging from 0 (no delegation) to 9 (maximum delegation) and rescaled from 0 to 1.

B. Delegation to a nonstate Assembly or a nonstate Executive

Most assemblies are member state bodies, but a handful of regional organizations have non-state assemblies wholly or partially composed of directly or indirectly elected public officials, representatives of subnational governments, or transnational interest groups. To meet our criterion these bodies must be a) formally recognized as an assembly in the regional organization’s founding document, and b) endowed with some deliberative, legislative, appointment, or control functions. The assembly is a supreme body; while it is often involved in determining other RIO bodies, it is itself not determined by them.

EXECUTIVES are considered non-state if there is a formal arms-length relationship between the body and member states. This could be because of the composition of the body or because the formal rules governing representation in the body. The condition is met if fewer than 100 percent of members are selected by member governments, for example, because members are co-appointed by the head of the general secretariat or an elected assembly and a member state body; because an international secretariat takes up executive functions; or because an independent expert or court body is involved. The condition is also met when member state representation is indirect, that is, representatives do not receive voting instructions by their government, or they take an oath of independence, or they are constitutionally bound to act on behalf of the organization’s interest rather than particularistic interests.

- Membership accession
  - AS1_a, EX1_a: Can the nonstate assembly/executive initiate accession (0, 0.5)?
  - AS1_b, EX1_b: Does the nonstate assembly/executive (co-)take the final decision on membership (0, 1)?

- Constitutional reform
  - AS2_a, EX2_a: Can the nonstate assembly/executive initiate amendments (0, 0.5)?
  - AS2_b, EX2_b: Does the nonstate assembly/executive (co-)take the final decision on constitutional amendment (0, 1)?

- Membership suspension
  - AS3_a, EX3_a: Can the nonstate assembly/executive initiate procedures against a non-compliant member state (suspension) (0, 0.5)?
  - AS3_b, EX3_b: Does the nonstate assembly/executive (co-)take the final decision on procedures against a non-compliant member state (suspension) (0, 1)?

- Budgetary non compliance
  - AS4_a, EX4_a: Can the nonstate assembly/executive initiate (non-technocratic) procedures against a member state in financial arrears (budgetary non-compliance) (0, 0.5)?
  - AS4_b, EX4_b: Does the nonstate assembly/executive (co-)take the final decision on procedures a member state in financial arrears (budgetary non-compliance) (0, 1)?

- Budgetary allocation
  - AS5_a, EX5_a: Does the nonstate assembly/executive draft the budget (0, 0.5)?
  - AS5_b, EX5_b: Does the nonstate assembly/executive (co-)take the final decision on the budget (0, 1)?

- Policy making
• AS6_a, EX6_a: Does the nonstate assembly/ executive play a role in initiating policy (0, 0.5)?

• AS6_b, EX6_b: Does the nonstate assembly/ executive take the decision on policy (0, 1)?

**Assembly_role** summates scores for these items ranging from 0 (no delegation) to 9 (maximal delegation).

**Executive_role** summates scores for these items ranging from 0 (no delegation) to 9 (maximal delegation).

**C. Delegation to consultative bodies**

Delegation can be to a standing channel or consultative body composed of non-member state representatives where the consultative body a) has some formal status, e.g. it is incorporated in the treaty or convention, in a separate protocol, or on the IO’s organigram or website as a formal consultative body; b) possesses formal rights of consultation on a regular, predictable basis; c) is composed of non-state representatives.

**Consultative _role** summates the maximum score for consultative body on each of these items ranging from 0 (no delegation) to 9 (maximal delegation).

**D. Delegation to judicial bodies**

Finally, delegation can be to a judicial body, which refers to the existence of legally binding third party adjudication to resolve disputes and enforce compliance to the terms of a contract. By disputes about the contract we mean disputes about the interpretation of the major treaty, protocol, legal instruments or policy output. These can involve disagreements among member states, member states and a non-state body, or member states and private parties.

Judicial delegation is an additive six-point scale. The first five components are adopted from James McCall Smith (2000). The sixth dimension was added after consulting experts. Each component is scaled from zero to one.

• **Is there automatic right for third-party review of dispute** (0, 0.5, 1)? A regional organization scores 1 if a member state can initiate litigation over the objections of the party litigated against (automatic right); and 0.5 if access to third party dispute settlement depends on the consent of a political body.

• **Is the composition of the tribunal ad hoc or standing** (0, 0.5, 1)? Regional organizations with a standing tribunal score 1; ad hoc tribunals score 0.5.

• **Are rulings binding, conditionally binding or nonbinding** (0, 0.5, 1)? Our assessment is based on explicit language in the treaty, convention or protocol that sets up the dispute settlement mechanism. Conditional bindingness is applicable when: a) a state consents *ex ante* to bindingness; b) or a state can register a derogation or exception; c) or a decision requires *post hoc* approval by a political body.

• **Do non-state actors have access to dispute settlement** (0, 1)? Under non-state actors are understood third-party international organizations, parliaments, trade, business or public interest groups, or individuals. Access means they can take a member state or a body of the regional organization to court for violation of rights that evolve from the contract.

• **Can a remedy be imposed** (0, 0.5, 1)? Regional organizations score 1 if rulings take direct effect, that is, they bind domestic courts to act; they score 0.5 if states are authorized to take retaliatory sanctions.
Discovering Cooperation: A Contractual Approach to Institutional Change in Regional International Organizations

- **Is there a preliminary ruling system** (0, 0.5, 1)? Regional organizations score 1 if preliminary rulings are compulsory, that is, domestic courts must refer cases of potential conflict between national and supranational law to the supranational court or must abide by supranational rulings; and 0.5 if preliminary rulings are optional.

- **Delegation** is an additive scale whereby each of the delegation components counts equally. The Cronbach’s alpha is 0.81 which indicates relatively high scalability.

### Descriptive statistics

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<thead>
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<th>Indicator</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Min-Max</th>
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<td>Non-state Assembly body</td>
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<td>Consultative body role</td>
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<td>Delegation to judicial bodies</td>
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<td>0—1</td>
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<tr>
<td><strong>DELEGATION (additive)</strong></td>
<td>0.15</td>
<td>0.13</td>
<td>0—.58</td>
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</table>
APPENDIX C: DESCRIPTION OF TRADE VARIABLES

Intra-regional trade is calculated using the following formula:

\[
ITS_{i,t} = \frac{IT_{i,t}}{T_{i,t}} \times 100
\]

where:
- \( IT_{i,t} \) denotes region \( i \)'s intra-regional trade in year \( t \),
- \( T_{i,t} \) denotes region \( i \)'s total trade in year \( t \) (\( i \)'s total imports plus total exports).

The value ranges from 0 to 100. This indicator reflects the importance of the intra-regional trade (i.e. trade interdependence of member states) of a particular regional international organization in its overall trade. The data come from the UN COMTRADE Database.

Trade intensity is calculated using the following formula:

\[
ITII_{i,t} = \left( \frac{IT_{i,t}}{T_{i,t}} \right) \left( \frac{T_{i,t}}{T_{w,t}} \right)
\]

where:
- \( IT_{i,t} \) denotes region \( i \)'s intra-regional trade in year \( t \),
- \( T_{i,t} \) denotes region \( i \)'s total trade in year \( t \) (\( i \)'s total imports plus total exports),
- \( T_{w,t} \) denotes the world’s total trade in year \( t \) (world’s total imports plus total exports).

The value ranges from 0 to \( \frac{T_{w,t}}{T_{i,t}} \).

This value is:
- equal to zero in the case of no intra-regional trade;
- equal to one if the organization’s weight in its own trade is equal to its weight in world trade (geographic neutrality);
- higher than one if intra-regional trade is relatively more important than trade flows with the rest of the world;
- equal to the reciprocal of the organization’s share in world trade when all trade is intra-regional (no extra-regional trade) – that is, the maximum value of the ITII index is the higher the smaller the organization’s total trade.

Symmetrical trade introversion is defined as following:
\[
STJ_{i,t} = \frac{\frac{HITI_{i,t}}{HETI_{i,t}} - 1}{\frac{HITI_{i,t}}{HETI_{i,t}} + 1} = \frac{(HITI_{i,t} - HETI_{i,t})}{(HITI_{i,t} + HETI_{i,t})}
\]

with HITI\(_{i,t}\) a homogeneous version of the intra-regional trade intensity index, whose maximum value is independent from region \(i\)'s trade size. Its denominator is not organization \(i\)'s share in world trade, but its share in the trade of the rest of the world. Thus:

\[
HITI_{i,t} = \left(\frac{\Pi_{i,t}}{T_{i,t}}\right) \frac{ET_{i,t}}{T_{w,t} - \Pi_{i,t}}
\]

HETI (homogeneous extra-regional trade intensity index) the complementary indicator of HITI. It is defined for region \(i\) as:

\[
HETI_{i,t} = 1 - \frac{\frac{\Pi_{i,t}}{T_{i,t}}}{1 - \frac{ET_{i,t}}{T_{w,t} - \Pi_{i,t}}}
\]

where:
- \(IT_{i,t}\) denotes organization \(i\)'s intra-regional trade in year \(t\),
- \(ET_{i,t}\) denotes organization \(i\)'s extra-regional trade in year \(t\),
- \(T_{i,t}\) denotes organization \(i\)'s total trade in year \(t\) (\(i\)'s total imports plus total exports),
- \(T_{w,t}\) denotes the world’s total trade in year \(t\) (the world’s total imports plus total exports).

The value ranges from -1 to 1.

The index for *Symmetrical trade introversion* is:
- equal to minus one in the case of no intra-regional trade;
- equal to zero if the organization's weight in its own trade is equal to its weight in the trade of the rest of the world (geographic neutrality);
- equal to one in the case of no extra-regional trade.
## Appendix D: Summary Statistics

<table>
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<th>Variable</th>
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<th>Std. Dev.</th>
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Discovering Cooperation: A Contractual Approach to Institutional Change in Regional International Organizations

### Appendix E: Correlation Matrix

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