#### Explaining the Similarity of Regional Organizations: Demand, Opportunities to Learn, and Domestic Constraints

#### Abstract

Recent studies demonstrate that institutional-design features diffuse among international and regional organizations, making them more similar to one another. While providing important insights, this existing research is limited. First, it focuses on the diffusion of select organs or policies. We do not know whether adoption of them makes them more similar overall, and insights are not necessarily generalizable. Drawing on a novel dataset of regional organizations, we demonstrate that their similarity does not increase over time. This observation poses a puzzle for the dominant sociological-institutional explanation in the field, which expects an increase in similarity over time. Second, we solve this puzzle by contrasting the dominant sociological diffusion approach with a rational-design theory taking diffusion into account. Accordingly, institutional designs diffuse, but the effect is conditional on the demand for innovative designs, opportunities to learn about them, and on the absence of domestic constraints impeding the adoption of external designs. While demand and opportunities to learn have similarity-increasing effects, domestic constraints nurture dissimilarity. We demonstrate that when accounting for demand, the sociological-institutional explanation becomes a special case of a demand-driven one: that is, fully consistent with a particular combination of demand, opportunities to learn, and domestic constraints.

Keywords: diffusion, institutional design, international organizations, regional organizations, large-N

#### 1. Introduction

Do regional organizations (ROs) share important similarities, and do they become more similar over time? If the latter is indeed true, is it because institutional designs diffuse? These important questions in International Relations have seen much contestation, both in terms of the degree of similarity of ROs and potential causes. While some point to increased variety in institutional forms over time,<sup>1</sup> others observe convergence toward some highly visible institutional designs, such as that of the European Union.<sup>2</sup> For ROs, this is a particular interesting question because the number thereof has increased substantially since the early 1990s.<sup>3</sup> Explaining the similarity of institutional designs among ROs promises answers, then, to a number of important questions in IR.

*First*, the question of whether and to what extent ROs are becoming more similar over time is important because it contributes to the debate on where institutional designs even come from. Is institutional design the outcome of independent decisionmaking determined by functional demand and state preferences—as theorized by proponents of the rational-design theories of international institutions<sup>4</sup>—or is it the result of interdependent decision-making—as the literature on diffusion and inter-organizational interactions suggests?<sup>5</sup> Inspired by diffusion studies, a substantial literature has developed explaining the widespread adoption of similar institutional-design features across a large number of international organizations (IOs). Studies have documented the spread of institutional bodies and regulations among the IO and RO population, like bureaucratic oversight mechanisms,<sup>6</sup> EU-style courts among ROs,<sup>7</sup> regional parliaments,<sup>8</sup> institutional-access provisions for non-state actors,<sup>9</sup> or regulations on democratic accountability.<sup>10</sup> While this literature has sharpened our understanding of the factors facilitating the diffusion of institutional designs, it is highly focused on individual bodies or single issue-areas, and tests diffusion theories using only a limited

<sup>&</sup>lt;sup>1</sup> Hettne and Söderbaum 2000. Koremenos, Lipson, and Snidal 2001.

<sup>&</sup>lt;sup>2</sup> Lenz, Burilkov, and Viola 2019.

<sup>&</sup>lt;sup>3</sup> Schneider 2017. Pevehouse et al. 2019. Panke 2020.

<sup>&</sup>lt;sup>4</sup> Keohane 1984. Koremenos, Lipson, and Snidal, 2001. Koremenos 2016. Thompson 2010.

<sup>&</sup>lt;sup>5</sup> Simmons and Elkins 2004. Johnson 2014. Lenz 2021.

<sup>&</sup>lt;sup>6</sup> Grigorescu 2010.

<sup>&</sup>lt;sup>7</sup> Alter 2012.

<sup>&</sup>lt;sup>8</sup> Cofelice 2019. Schimmelfennig et al. 2020.

<sup>&</sup>lt;sup>9</sup> Sommerer and Tallberg 2019.

<sup>&</sup>lt;sup>10</sup> Stapel 2022.

set of IOs. The results are therefore not generalizable. A novel dataset on the similarity of institutional designs among ROs over a time period of 70 years allows more robust inferences about similarity, the effects of diffusion, and what factors drive it. In a first step, we demonstrate that the level of similarity among ROs has not increased over time, but remains constant at a relatively low level.

*Second*, an important debate has evolved on the question of the EU's influence on the institutional design of other ROs.<sup>11</sup> Research on the diffusion of institutional designs converges on an explanation privileging sociological institutionalism. Accordingly, IOs—and most importantly the EU as a RO—promote the Union's design as the most legitimate and appropriate one for ROs. A recent theoretically and empirically compelling study of about half the ROs in our dataset shows that the EU exerts a systematic influence on ROs through direct contact and via demonstration effects.<sup>12</sup> Again, if the EU is being emulated, it is puzzling that it does not lead to an increase in similarity among the population of ROs, which are by definition the most likely to adopt the EU's design.

Our finding of a persistent level of similarity raises the question of whether diffusion is actually the best explanation for institutional design? In a second step, we argue that it does. We contrast the common wisdom, privileging sociological institutionalism and the supply of institutional designs by IOs as well as some ROs, with a perspective systematically considering the demand for innovative designs and constraint factors. The key demand factor we investigate is economic complexity as a measure of an RO's demand for institutional bodies, rules and regulations. The key constraint factor is the RO's democracy level. We show that when integrating these factors into the analysis, it is those related to the adopting ROs rather than political globalization—that is, membership in IOs alone—or those related to the sending RO that drives the similarity seen in institutional designs among ROs.

*Third*, the question of whether and to what extent ROs are similar is important because it contributes to the debate on the effects of regime type on the institutional design of IOs. A substantial literature demonstrates that IOs with a predominantly democratic membership base design their institutions significantly differently from those with mixed or predominantly autocratic forms of belonging. Democratic membership

<sup>&</sup>lt;sup>11</sup> Jetschke 2009. Lenz 2021. Acharya 2016.

<sup>&</sup>lt;sup>12</sup> Lenz 2021.

increases the chance of the conclusion of such agreements,<sup>13</sup> leads to more open forms of regionalism,<sup>14</sup> greater access by transnational actors,<sup>15</sup> as well as increased commitment to liberal international norms.<sup>16</sup> In diffusion studies, however, the effects of democracy are hardly ever statistically significant. This raises the question of whether diffusion is less likely among ROs with democratic membership? We demonstrate that the effects of democracy on institutional similarity are conditional. Economically complex democracies are more likely to adopt designs from other organizations; politically less globalized democracies are significantly less likely to do so, crafting instead more unique designs.

Overall, we argue that institutional similarity and the adoption of institutional designs by ROs are determined by: a) DEMAND for regulations and institutional designs; b) OPPORTUNITIES TO LEARN about them; and, c) DOMESTIC CONSTRAINTS. Similarity is conditional on the demand for innovative designs and opportunities to learn about them, which has similarity-increasing effects. It also depends the absence of constraints impeding the adoption of external designs.

We provide the first comprehensive test of this and alternative explanations for—to the best of our knowledge—a full sample of ROs over a longer period of time. Overall, we find that political globalization, a proxy for the effects of IOs, plays a significant role in explaining the similarity of ROs. The more politically globalized a RO is, the more opportunities to learn its members will have and the more similar its design becomes to another RO. All other effects are conditional and driven by the adapting RO. In particular, there are highly interesting interaction effects between political globalization, economic complexity, and democracy: *First*, the higher its levels of economic complexity, the lower the effects of its political globalization on similarity. Economically more complex ROs appear to be less dependent on the spread of designs by IOs. *Second*, higher levels of democracy are associated with an increase in the effects of economic complexity on similarity. One possible explanation is that democracies deal more efficiently with complex demands. *Third*, as political globalization increases, so do the effects of democracy on similarity. At low levels of political globalization, however, democracies become more dissimilar to other ROs. In the debate on

<sup>&</sup>lt;sup>13</sup> Milner and Kubota 2005.

<sup>&</sup>lt;sup>14</sup> Solingen 1998.

<sup>&</sup>lt;sup>15</sup> Tallberg, Sommerer, and Squatrito 2016.

<sup>&</sup>lt;sup>16</sup> Tallberg et al. 2020.

sociological versus rational explanations for similarity, one might conclude that there are two paths toward similarity: a demand-driven one, where political globalization does not play a major role, and—in the absence of demand—a supply-driven one work-ing through political globalization. This makes the sociological-institutional explanation a special case in being a rational one.

The rest of the paper is structured as follows: *First*, we map RO similarity over time, presenting descriptive data on patterns of similarity. *Second*, we outline our theoretical model, derive testable hypotheses, and pit them against alternative explanations. *Third*, we assess these models on the basis of an econometric analysis. *Fourth and finally*, we summarize our findings and outline the implications of our analysis for diffusion research, research on institutional complexity, the centrality of the EU in the diffusion of institutional designs among ROs, as well as for future studies following our line of research.

# 2. The Similarity of Institutional Designs among Regional Organizations, 1946–2015

Our analysis of similarity builds on a recently released dyadic dataset of organizational similarity.<sup>17</sup> We have selected this dataset because it comprehensively surveys design features of RO's across several dimensions: normative, institutional, and policy related. Alternative datasets usually provide measures either on the institutional side or policy competencies.<sup>18</sup> For every combination of two ROs in the dataset, the Regional Organizations Similarity Index (ROSI) calculates the match between a series of characteristics vis-à-vis institutional design. The unit of analysis is the *RO-design dyad*. The dataset was assembled by coding the founding and major amending documents for each organization using a questionnaire containing 312 questions and over 2,000 binary response items.

The ROSI dataset defines a RO as an organization that consists of at least two contiguous member states, is multipurpose in scope (i.e. does not coalesce around only one topic, such as the Organization of Arab Petroleum Exporting Countries), and has

<sup>&</sup>lt;sup>17</sup> Jetschke et al. 2021.

<sup>&</sup>lt;sup>18</sup> The Measuring Institutional Authority dataset (Hooghe et al 2017) contains data for about half of the dataset used here, whereas the ROCO dataset only measures policy competencies (Panke 2020).

an institutionalized structure for decision-making (which does not have to include a secretariat, such as was the case for the Association of Southeast Asian Nations, ASEAN, until 1992). The dataset also includes a limited number of transcontinental organizations that fulfill these criteria but span more than one region, such as the North Atlantic Treaty Organization (NATO).<sup>19</sup> While lowering the membership criteria from three to two member states and the absence of a secretariat might risk including many bilateral agreements like preferential trade agreements (PTAs), empirically this is not the case because PTAs tend to be neither multipurpose nor sufficiently institutional-ized.<sup>20</sup>

The ROSI codebook covers a multitude of institutional-design features, from core norms to dispute-settlement mechanisms. But most of its items focus on capturing features common to all organizations: namely their policy competences and structure. The resulting array of binary values constitutes the initial state of a RO's institutional design (treaty design at time t). The coding is updated every time the design is changed significantly by subsequent agreements, which means a RO can appear multiple times in the dataset corresponding to its institutional design in different periods. As an example, the dataset includes four institutional configurations of the Latin American and Caribbean Economic System (SELA), beginning with its 1975 founding design and considering changes introduced in 1978, 1982, and 1987. SELA 1987 thus represents the design resulting from the founding agreement and the cumulative modifications in 1978, 1982, and 1987 (RO design at time t). In the next step, each RO design generated in this way is then matched with every other RO design, resulting in a dataset of ROdesign dyads. Dyadic data in our case is an appropriate structure because our dependent variable is intended to measure the substantial similarities between two ROs.<sup>21</sup> To establish the similarity between the ROs of a dyad, we use a Jaccard index. The latter compares each individual binary item between both designs, and increases with a higher number of matches.

Interpreting ROSI is straightforward: it is the proportion of identically coded items between two institutional designs, in relation to all items for which at least one

<sup>&</sup>lt;sup>19</sup> The first NATO treaty in our dataset (1949) defines NATO as an RO according to Chapter VIII of the United Nations, with the purpose of settling disputes and furthering economic prosperity and stability. <sup>20</sup> A list of organizations meeting these criteria is provided in Table A1 in the Appendix 1.

<sup>&</sup>lt;sup>21</sup> For a critical discussion of the usefulness of dyadic data in IR research, see Cranmer and Desmarais 2016. Poast 2016.

of the designs has an affirmative coding. The index ignores items absent in both designs.<sup>22</sup> A ROSI of 25 indicates that of all the items coded as 1 for at least one design in the dyad, 25 percent coded identically.

Given that similarity is our core concept, one might wonder whether there are institutional-design features shared by all ROs—a "baseline" of similarity. However, empirically there is not a single item that all ROs share, although the overwhelming majority are centered on the policy goals of economic development (a trait shared by 97 percent of ROs) and social development (88 percent). Policy areas such as cooperation on security matters or the environment are shared by about 70 percent of all ROs. Beyond these fundamental policy goals, *dissimilarity* in institutional design is much more common however.

This is also true when looking at the formal organs of an institution. While we might assume that most ROs have a central council consisting of heads of state, in reality this is only true in 59 percent of all cases. Even a basic organ like a secretariat organizing the institution's work—sometimes also labeled "Executive Secretariat," "Bureau," or "Commission"—is only a feature of about 80 percent of cases, which means a full one-fifth of all ROs make do without it.

The impression of perhaps lower-than-expected similarity continues with regard to specific norms anchored in RO agreements. While almost all ROs (97 percent) refer to *some* norms, only three norms even reach the threshold of being mentioned in a majority of cases. These are: human rights (55 percent), democracy (52 percent), and member-state sovereignty (49 percent).

Using dyads from the dataset as illustrations (see Figure 1 below), ROSI allows us to gauge how alike certain designs are and where that similarity comes from. The bar graph below conveys the following information: The density of the bars indicates in how much detail the members of a RO specify their organization's design. The more bars visible, the greater the number of items mentioned; larger white spaces indicate low specificity of the agreements of two ROs (e.g., the nonexistence of specific organs beyond those most important for decision-making).

<sup>&</sup>lt;sup>22</sup> The Jaccard index is calculated as follows: Beginning with two sets of binary items, let joint occurrences (1-1) be *a*, and divergent occurrences be *b* (1-0) and *c* (0-1). The resulting Jaccard index will be a / (a + b + c). Note that joint absences (0-0) are disregarded.





Notes: Each bar graph represents one dyad across all items in the codebook, with ROSI similarity given on the left. Blue bars indicate items that were coded identically by both designs, while red bars show dissimilar coding. Gaps indicate items not present in either design.

When we compare the design of the East African Community (EAC) in 2009 after the "Protocol on the Establishment of the EAC Common Market" to the EU's design in 1992 after agreeing on the "Maastricht Treaty," we find a very high ROSI of 51— several standard deviations above the dataset average. As the bar graph shows, most of the items are coded affirmatively by at least one RO (though there are a few white gaps in the graph), and the designs match frequently across the entire codebook. Most matches occur in the left third of the graph, which corresponds to codebook sections revolving around norms and policy competences—in fact, both account for 62 percent of all matches in this EAC-EU dyad.

As the bar graphs illustrate, ROSI is a high-abstraction measure: two dyads with the same overall similarity can have their matches in different sections of the codebook, and "complex" dyads with many affirmatively coded items can be as similar as "simple" dyads with few coded items. While some high ROSI scores result from similarities in the institutions' structure, others are due to similar policy competences. One of the highest-scoring dyads in the dataset is the aforementioned comparison between the EU in 1992 and the EAC in 2009, both of which have 176 items in common. This significant overlap has two main sources to it: *First*, both designs not only mention a wide range of policy areas but provide also specifics about the envisaged economic, security, environmental, social, and cultural policy provisions. *Second*, key organs of both designs are highly similar: The Council of Ministers, the Legislative Assembly, and the East African Court of Justice are modeled on the Council of the EU, the European Parliament, and the European Court of Justice. As a result, both designs share 97 items capturing their policy areas and 56 items capturing their structure.

Two of the oldest ROs in our dataset, the Organization of American States and the League of Arab States, also exhibit an above-average ROSI of 31 for their 1948 and 1950 designs respectively—these share a similar vision of security cooperation, such as nonuse of force, inviolability of borders, collective security, and a mutual-defense guarantee. Out of the 53 items that these designs have in common, 36 (68 percent) are related to security and sovereignty. In the dyad between the Shanghai Cooperation Organization 2007 and the Cooperation Council of Turkic Speaking States 2009, the high ROSI of 39 is explained by similar provisions on cooperation in the economic, social, cultural, and infrastructure sectors—but also by similarities between the Councils of Heads of State and the Secretariats.

Looking across the dataset, several surprising patterns of similarity can be identified. On the dyadic level, the most-similar institutional pairings occur in Africa specifically between the Common Market for Eastern and Southern Africa (COMESA) and the EAC. Five dyads between the 1993 design on COMESA's founding and later EAC designs produce ROSI values greater than 49—more than three standard deviations above the mean of the dataset. In some sense, this is expected because both organizations have a significant membership overlap and intertwined histories. Perhaps more surprising are dyads such as the Eurasian Economic Union 2014 showing a high similarity (ROSI 49.5) to the EAC in 2007, or the design of the Latin American and Caribbean Economic System 1982—with it exhibiting a striking overlap with that of the Indian ocean Rim Association 2014 (ROSI 37.8).

Looking at the other side of the spectrum, around 60 dyads in the dataset show not a single overlapping item, such as the Council of the Entente 1959 and ASEAN 1976. Among the lowest-scoring dyads with at least some overlapping items, several Latin American ROs are frequently represented—such as the Bolivarian Alliance for the Peoples of Our America (ALBA), the Andean Community (CAN), and the Central American Integration System (SICA). Their often-idiosyncratic designs—sometimes based on explicitly socialist values in the case of ALBA, or including parliamentary assemblies as with CAN—tend to diverge strongly not only from each other but also the dataset average too.



Figure 2. Average ROSI over Time

Note: ± 1 Standard Deviation as Dotted Lines

More trends emerge on the aggregate level. Figure 2 shows the average ROSI for all dyads in each year, and a moving average for all dyads up to the one in question. Over the 70+ years in the dataset, ROSI mostly remains at a base similarity of around 15 when averaged each year across all dyads, although *which* elements produce similarity can change over time. The number does not appear to be high, but considering that it reflects overall similarity across all cases it is, in fact, substantial—that is, we would expect any two given RO designs to share 15 percent of their elements regardless of their context.

Pronounced yearly decreases and increases in similarity can be tied to the effects of specific designs, which also serve as a validity check on ROSI. As an example, the dip in yearly averages in the mid-1980s stems from the introduction to the dataset of the West Nordic Council's 1985 design (average ROSI 12), which is both simple and highly specific with its basis in parliamentary cooperation and resource management. But the average ROSI is subsequently increased by the relatively highly emulated designs of the Intergovernmental Authority on Development 1986 (average ROSI 22) and of the Organization of Islamic Countries 1987 (average ROSI 19).

This wave-like pattern can be seen across the entire dataset, although with a decreasing peak-to-peak amplitude over time. Additionally, the standard deviation of yearly ROSI decreases as time passes, which is partially due to a larger volume of dyads for later years—mitigating the influence of outliers. Importantly, the average ROSI between all organizations has stayed almost constant at about 15 percent for more than 70 years now: there is neither a decreasing average that would indicate more unique institutional designs nor an increasing average indicating a convergence of designs.

Sociological institutionalism as the common wisdom in this field struggles to explain the observed patterns of similarity. Despite the dramatic increase in the number of ROs after 1990 we do not observe a corresponding *increase* in similarity, which is what a sociological-institutional explanation would expect.<sup>23</sup> The persistent level of similarity raises the question of whether diffusion plays a role at all and if there is a diffusion effect, of what the factors are that mitigate it and explain the persistent level of similarity witnessed.

3. Explaining the Similarity of Institutional Designs: Theories and Hypotheses

#### 3.3 The diffusion of institutional designs: Legitimacy-driven emulation

3.4 Common wisdom concerning the similarity of institutional designs among regional and international organizations privileges the diffusion of appropriate institutional designs for ROs. This explanation is grounded in the sociologicalinstitutionalist notion that organizations emulate other ROs' features because these are considered legitimate by their external environment. Emulation is the

<sup>&</sup>lt;sup>23</sup> Drori, Yong Jang, and Meyer 2006. On membership, see: Pevehouse et al., 2019.

conscious adoption of a policy innovation out of concern for status and legitimacy<sup>24</sup>; it is a "mimetic process beyond evidence of functional value,"<sup>25</sup> leading to "striking similarities across organizational entities worldwide."<sup>26</sup> This theory expects the cross-regional adoption of similar institutional designs among an extremely varying sets of states, as particular institutional designs become associated with and reflect culturally encoded institutions, so-called scripts, as well as broader trends in modern societies.<sup>27</sup> IOs and international nongovernmental organizations are crucial conveyers hereof, because they share rationalized accounts of IOs' standards. These usually evolve around the principles of rationality and universality.

A number of empirical studies on the diffusion of institutional designs among ROs support the sociological-institutional explanation. Schimmelfennig et al. (2021) find evidence in the case of the spread of regional parliaments; Lenz (2021) sees the EU as a global promoter of its own integration experience, which it spreads given its selfunderstanding of it being a pioneer organization.<sup>28</sup> He demonstrates that the EU's level of institutionalization is systematically associated with increasing levels thereof in other ROs. A number of qualitative studies on individual organizations also support this explanation. A range of studies on ASEAN demonstrate that members have at various points over the Association's lifetime adopted integration plans that did not reflect its de facto level of economic integration-or adopted institutions, such as a regional parliament-even though most of its members were autocratic.<sup>29</sup> While providing important insights on the determinants of diffusion, these studies are limited to the spread of EU-related individual organs, policies, and norms. Their findings are therefore not necessarily generalizable. If the EU's institutional design was a script on regional organization, we should see a rapid increase in the similarity of ROs-especially from the second half of the 1990s onward, as most ROs were founded then. The systematic adoption of EU design features among a larger population should substantially increase

<sup>&</sup>lt;sup>24</sup> Meyer and Rowan 1977. Finnemore 1996.

<sup>&</sup>lt;sup>25</sup> Zapp and Dahmen 2017, 493.

<sup>&</sup>lt;sup>26</sup> Jetschke, 2009. Höllerer, Walgenbach, and Drori 2017, 214. Lenz, Burilkov, and Viola, 2019.

<sup>&</sup>lt;sup>27</sup> Finnemore 1996. Guler, Guillén, and Macpherson 2002. Deephouse and Carter 2005. Lee and Strang 2006.

<sup>&</sup>lt;sup>28</sup> Schimmelfennig et al. 2020. Lenz 2021.

<sup>&</sup>lt;sup>29</sup> Jetschke, 2009. Rüland and Bechle 2014.

the similarity index. This is not happening, however: the index remains at the same level of similarity.

We contrast the sociological-institutionalist explanation with one drawing on the proposed rational design of international institutions. While rational explanations are usually introduced in diffusion studies as a null hypothesis, with the key assumption being that independent decision-making occurs on institutional-design choices, a number of scholars have called for integrating factors associated with this literature.<sup>30</sup> Most explicitly, Stapel (2022) notes the need to integrate demand factors into explanations for diffusion<sup>31</sup>; other studies focus on regime type as a condition for diffusion<sup>32</sup>; and, still others look at the role of IOs in a rational as opposed to a sociological account of diffusion. This is the case when IOs offer opportunities to learn from others through observing the effects of others' design choices or when IOs disseminate scientific results.<sup>33</sup>

When it comes to state preferences, an equally long list of studies suggest that regime type plays a role in design choices.<sup>34</sup> A number of empirical studies support the hypothesis that democracies design IOs differently. Democratic membership increases the chances of concluding RO agreements,<sup>35</sup> leads to more open forms of regionalism,<sup>36</sup> deeper commitments to liberalization,<sup>37</sup> increased access for transnational actors,<sup>38</sup> and greater commitment to liberal international norms.<sup>39</sup> In diffusion studies, however, the effects of democracy are hardly ever statistically significant.

<sup>&</sup>lt;sup>30</sup> Similar institutional forms emerge where member states are arranged in similar constellations of interests or ideas. Rationalist as well as constructivist approaches, focusing on the role of ideas of regional integration and legal culture, are compatible with this view. See: Acharya and Johnston 2007; Duina 2006. More developed states or more democratic ones agree on institutional designs that systematically differ from those of less developed or less democratic states. See: Milner and Kubota, 2005. Solingen 1998. Because there is considerable cross-regional and intraregional variation, organizational variance should correspondingly be high, and the random co-evolution of institutional designs should be a correspondingly rare event: "Major institutions [are] organized in radically different ways." Koremenos, Lipson, and Snidal, 2001, 761.

<sup>&</sup>lt;sup>31</sup> Risse 2016. Stapel 2022.

<sup>&</sup>lt;sup>32</sup> Tallberg, Sommerer, and Squatrito, 2016.

<sup>&</sup>lt;sup>33</sup> Fink 2013. Holzinger, Knill, and Sommerer 2008.

<sup>&</sup>lt;sup>34</sup> Solingen 1998.

<sup>&</sup>lt;sup>35</sup> Milner and Kubota, 2005.

<sup>&</sup>lt;sup>36</sup> Solingen 1998.

<sup>&</sup>lt;sup>37</sup> Baccini and Kim 2012; Baccini 2019.

<sup>&</sup>lt;sup>38</sup> Tallberg, Sommerer, and Squatrito, 2016.

<sup>&</sup>lt;sup>39</sup> Tallberg et al., 2020.

The model that we present here systematically includes demand and constraint factors. We argue that the persistent similarity of institutional designs is better explained by a combination of demand, opportunities to learn, and constraints. We do not suggest that these factors are new in the study of diffusion. We do claim, however, that our theory provides a compelling account for the persistence of institutional designs, and we show that significant explanatory traction can be gained by looking at how these variables interact.

#### 3.5 The DOC model: Demand, opportunities to learn, and constraints

Our model integrates three major factors in a rational-institutionalist account of diffusion: DEMAND, OPPORTUNITIES TO LEARN, and CONSTRAINTS. To model the redesign of ROs, we draw on the IO, diffusion, and evidence-based policymaking literatures. *First*, in line with the scholarship on the rational design of international institutions,<sup>40</sup> we assume that RO members—when considering the redesign of their organization—decide on the basis of functional demand about core functions, on what exact features to adopt. *Second*, they—and here we draw on diffusion studies, a newer literature on scientific-evidence-based decision-making and "boilerplate provisions"<sup>41</sup>—screen their environment for useful innovations that help RO members to adapt—and improve their organization's institutional design. The degree to which they adapt is associated with opportunities to learn, as determined by the level of political globalization.<sup>42</sup> *Third*, based on the literature regarding domestic influences on international institutional designs, we argue that the level of democracy conditions the degree of adaptation to other ROs.

Our first explanatory factor highlights the demand for an institutional design that increase a RO's core functions: this factor has affinities to the functional strand of rational institutionalism. Institutional-design choices reflect a functional demand generated by specific problem structures.<sup>43</sup> Member states seek to adapt the institutional

<sup>&</sup>lt;sup>40</sup> Keohane 1984. Koremenos, Lipson, and Snidal, 2001. Tallberg et al. 2014.

<sup>&</sup>lt;sup>41</sup> Shipan and Volden 2008. Gilardi 2010. Tallberg et al., 2020. Stapel 2022. Sanderson 2002. Robinson et al. 2020.

<sup>&</sup>lt;sup>42</sup> Fink, 2013.

<sup>&</sup>lt;sup>43</sup> Koremenos, Lipson, and Snidal, 2001.

design of their organization in ways that increase the RO's core functions: the promotion of peace and of economic prosperity.<sup>44</sup> These two goals reflect what was once merely a causal belief,<sup>45</sup> but by now is backed up by scientific evidence. Namely that both factors are interdependent: *peaceful relations require international organization, and economic prosperity requires peace.*<sup>46</sup> The interrelatedness of economic prosperity, peaceful relations, and IOs is one of the most powerful causal beliefs informing decision-making within ROs. This causal belief goes a long way,<sup>47</sup> but today's bestknown example is the EU—often cited as the "model" for state interactions that have transitioned from states of war to sustained peace, coupled with high economic prosperity.<sup>48</sup>

If RO members are oriented toward increasing those core functions, which features are most likely to spread therewith and what determines their diffusion? The dominant explanation for the success of the EU privileges economic factors: The Bloc managed to develop peaceful relations and prosperity among its members because it economically integrated.<sup>49</sup> On a general level, one of the most consistent findings of the liberal peace and development economics literatures is that trade affects both economic prosperity (in the form of growth) and peace (through the consequences of interdependence).<sup>50</sup> This, again, suggests the priority of trade-related factors (as compared to conflict-related ones) as an important determinant of similarity. Trade-related regulations then diffuse because of the dramatically increased integration of ROs into global trade structures. RO members not only have to consider which rules, regulations, and institutions are functionally necessary to increase economic interdependence among themselves; they also have to determine which rules, regulations, and institutions are

<sup>&</sup>lt;sup>44</sup> Haftel 2012. Boehmer 2008.

<sup>&</sup>lt;sup>45</sup> Singer and Wallace (1970, 521) (articulate this explicitly, and take it as the starting point for systematic research into the effects of intergovernmental organizations. "Most of us assume or hope that such institutions somehow do contribute to international peace. More particularly, we assume that they have contributed, however modestly, to some reduction in the incidence of war in the past and, more importantly, are likely to do so in the future."

<sup>&</sup>lt;sup>46</sup> Oneal et al. 1996. Boehmer, Gartzke, and Nordstrom 2004. Weede 2004.

<sup>&</sup>lt;sup>47</sup> Cheever and Haviland 1954. Nye 1971.

<sup>&</sup>lt;sup>48</sup> Russett and Oneal 2002, 25-29.

<sup>&</sup>lt;sup>49</sup> Russett 1993.

<sup>&</sup>lt;sup>50</sup> Dreher 2006. Gartzke and Westerwinter 2016.

important to increase trade with the outside world and which will further their international integration too.<sup>51</sup> They have to harmonize them with, or unilaterally adapt to, other ROs' rules and regulations if they want to truly benefit economically.

Reflecting this logic, most of the studies in the field include trade as a determinant for regional integration and diffusion.<sup>52</sup> We believe, however, that trade is not the best measure for a functional demand for institutional designs. Rather, it is economically complex trade that creates the demand for similar institutions and regulations.<sup>53</sup> A RO that primarily exports fuel and energy, such as the Eurasian Economic Community, is less likely to need complex regulations. A RO constituting a complex economy, such as the EU or the North American Free Trade Agreement, will need complex regulations to oversee trade among members and with the outside world. Here, actors have to harmonize, as divergent rules and regulations create trade frictions. Extant research on the effects of international-trade regulations demonstrates that dissimilar ones negatively affect trade flows, and that, vice versa, more detailed and harmonized trade regulations actually increase trade.<sup>54</sup> However, the regulation of liberalized trade is not only about trade liberalization—it is also about regulating the unintended effects of trade, as in the case of environmental degradation.<sup>55</sup> Thus, economic complexity triggers regulative activity leading to similarity.

At this point, the boilerplate literature can contribute to our understanding of why ROs align their agreements. It explains the copying of text elements and phrases from other international agreements.<sup>56</sup> It points out that expressing design choices in terms of a similar language rather than via another agreement is rational: such choices reduce transaction, implementation, and monitoring costs. Copying from other ROs reduces transaction costs as taking over specific rules and regulations is less burdensome than drafting idiosyncratic provisions. Copying from others provides bargaining leverage, as specific provisions provide focal points and signal nonnegotiable terms. And, copying from others reduces implementation costs—as a boilerplate provision that is found to be compatible with domestic law in the member states of one RO is also likely to be compatible with the domestic laws of those member states belonging to similar

<sup>&</sup>lt;sup>51</sup> Bandelj and Mahutga 2012. Kim and Shin 2002.

<sup>&</sup>lt;sup>52</sup> Baccini and Dür 2015. Simmons 2013. Elkins, Guzman, and Simmons 2006.

<sup>&</sup>lt;sup>53</sup> Alter, 2012. Abbott and Faude 2021.

<sup>&</sup>lt;sup>54</sup> Vigani, Raimondi, and Olper 2012. de Frahan and Vancauteren 2006.

<sup>&</sup>lt;sup>55</sup> de Frahan and Vancauteren, 2006.

<sup>&</sup>lt;sup>56</sup> Poulsen and Waibel 2021. Peacock, Milewicz, and Snidal 2019.

legal traditions, such as common or civil law. Finally, in the implementation phase, boilerplate language reduces uncertainty of interpretation vis-à-vis a given provision over time. In sum, especially in complex settings, adapting to other ROs in terms of taking over similar provisions is rational and likely.

This results in the following hypothesis on similarity between RO<sub>i</sub> and RO<sub>j</sub>, where RO<sub>j</sub> is the younger RO in a RO-design dyad (the one that adapts its institutional design), and RO<sub>i</sub> is the older RO design in the RO dyad (the one to which other ROs adapt):

*Hypothesis 1*: Similarity is driven by RO<sub>j</sub>'s functional DEMAND for institutional innovations increasing its peace- and prosperity-promoting functions.

The <u>second</u> explanatory factor highlights the OPPORTUNITIES TO LEARN about new institutional designs. Problem-solving-oriented RO member states might search for institutions in a process of trial and error; however, it is far more rational to screen their environment for solutions that have been found elsewhere. Here, especially IOs constitute key sources of information. Most importantly, they provide learning opportunities for RO members, leading to the adoption of similar policies, regulations, and institutions.<sup>57</sup>

One aspect of their influence is that IOs distribute scientific-evidence-based recommendations on how to increase the peace- and prosperity-promoting functions of ROs, reflecting their status as the biggest producers of research worldwide.<sup>58</sup> ROs then adopt institutional designs from peers if those designs have a known association to core functions; in other words, if they are known to contribute to peace and economic prosperity. Buethe and Kedoro Kigwiro (2020) mention that the World Bank and the Organisation for Economic Co-operation and Development (OECD) provided scientific evidence to African ROs suggesting that competition policy can help alleviate poverty and foster inclusive growth.<sup>59</sup> The World Bank also advocates state integration into global trade structures as a path to faster growth and the reduction of poverty.<sup>60</sup> In their

<sup>&</sup>lt;sup>57</sup> Fink, 2013.

<sup>&</sup>lt;sup>58</sup> Jakobi 2012. Fink, 2013. Zapp 2020 (online first).

<sup>&</sup>lt;sup>59</sup> Büthe and Kigwiru 2020, 44.

<sup>&</sup>lt;sup>60</sup> Schiff and Winters 1998. Collier and Dollar 2002. Schiff and Winters 2003.

empirical study on the convergence of environmental policies, Holzinger et al. (2008) find a "striking" effect to emanate from access to and communication with IOs.<sup>61</sup> As the boilerplate literature shows, model agreements frequently come from IOs (like the OECD).<sup>62</sup>

We argue here that IOs do disseminate information on institutional innovations, motivating their members to adopt them if doing so is the recommended course of action. But our argument on the standard-promoting role of IOs deviates in notable aspects from sociological institutionalism's assumption about "mimicking." Accordingly, RO members take on the rules, regulations, and institutions recommended by IOs out of a concern for legitimation among peers, and they do so "beyond evidence of functional value."<sup>63</sup>

By contrast, we draw on the accumulating empirical evidence pointing to the function of IOs as scientific authorities and conveyers of knowledge on the other.<sup>64</sup> We argue that RO members and their staff are bounded rational actors: They cannot comprehensively screen their environments or constantly observe each other or infer best practices; not only does "gathering information [have] costs,"<sup>65</sup> but actors might also face different, equally beneficial options.<sup>66</sup> Additionally, selecting one design over another leads to uncertainty, most importantly about the impact alternative institutional choices would have.<sup>67</sup> An example here is dispute settlement, where ROs can choose arbitration or adjudication: that is, an ad hoc-created dispute-settlement panel or a court respectively.<sup>68</sup>

Here, IO membership offers opportunities. It lowers the costs of informationgathering, and it decreases the uncertainty related to the consequences of selecting one institutional design feature over the other: IOs provide the rules and regulations for the efficient coordination of actors and policies. The literature on epistemic communities argues that scientific-evidence-based information-seeking is a particular type of bounded learning, where the current best evidence on a specific problem provided by

<sup>&</sup>lt;sup>61</sup> Holzinger, Knill, and Sommerer, 2008, 584.

<sup>&</sup>lt;sup>62</sup> Peacock, Milewicz, and Snidal, 2019.

<sup>&</sup>lt;sup>63</sup> Zapp and Dahmen, 2017, 493.

<sup>&</sup>lt;sup>64</sup> Drori et al. 2020. Zapp, 2020 (online first).

<sup>&</sup>lt;sup>65</sup> Meseguer 2006, 37.

<sup>&</sup>lt;sup>66</sup> Jupille, Mattli, and Snidal 2013, 22.

<sup>&</sup>lt;sup>67</sup> Jupille, Mattli, and Snidal 2013.

<sup>&</sup>lt;sup>68</sup> Alter and Hooghe 2016.

IOs informs decision-making on specific policies.<sup>69</sup> We know from empirical studies that states (and their electorates) turn to IOs for advice. We also know that they are more likely to adopt a recommendation when it is distributed by IOs.<sup>70</sup> Such recommendations lower the institutional costs of searching for and bargaining over a new institutional arrangement, should a specific option have a known effect vis-à-vis a pre-ferred outcome.<sup>71</sup> This should be particularly effective because the quality of information—as current best evidence—increases policymakers' confidence in their decisions taken under conditions of uncertainty. Diffusion, in general, "is an uncertainty-reduction process."<sup>72</sup> Especially if such information posits specific cause-and-effect relationships, the knowledge generated by IOs become an "important determinant of international policy coordination,"<sup>73</sup> leading to new patterns of behavior and—as we argue—contributing to the diffusion and similarity of institutional designs. Thus, ROs having more opportunities to learn are likely to adapt their institutional designs more extensively.

This results in the following hypothesis on the similarity between RO<sub>i</sub> and RO<sub>j</sub>:

*Hypothesis 2*: Similarity is driven by RO<sub>j</sub>'s OPPORTUNITIES TO LEARN about innovative institutional designs.

The <u>third</u> explanatory factor highlights the influence of DOMESTIC CONSTRAINTS on institutional-design choices. Extant work on political regimes and international cooperation emphasizes the interaction between international and domestic factors. One aspect that stands out from this literature is the democratic status of IO member states.<sup>74</sup> A number of studies find that there is a measurable effect of having a democratic membership base on the design of IOs.<sup>75</sup> The dominant explanations for this effect empha-

<sup>&</sup>lt;sup>69</sup> Sanderson, 2002. Cairney 2016.

<sup>&</sup>lt;sup>70</sup> Linos 2011, 680. Busch et al. 2021 (online first).

<sup>&</sup>lt;sup>71</sup> Jupille, Mattli, and Snidal 2013.

<sup>&</sup>lt;sup>72</sup> Rogers 2003, 217.

<sup>&</sup>lt;sup>73</sup> Haas 1992, 3.

<sup>&</sup>lt;sup>74</sup> Solingen 1998. Milner and Kubota, 2005.

<sup>&</sup>lt;sup>75</sup> Mansfield, Milner, and Pevehouse 2008. Linos, 2011. Grigorescu 2015. Tallberg, Sommerer, and Squatrito, 2016. Sommerer and Tallberg, 2019.

size that democracies externalize their domestic institutions and try to strategically legitimize themselves.<sup>76</sup> However, the variable does not find consistent and robust support in statistical analyses explaining the spread of specific organs, such as parliaments, or for measures indicating the level of authority or delegation of policy competencies.<sup>77</sup>

Our own argument draws on two types of scholarship creating diverging expectations regarding the effect of (democratic) regime type. The literature on domestic veto players consistently holds that democracies involve a greater range of societal groups in their decision-making on institutional-design choices. As a consequence, the number of veto players is larger than in autocracies, with effects on the institutional design of agreements.<sup>78</sup> Democracies also have the more complex economies.<sup>79</sup> Having more complex economies implies that they have more issues to negotiate, with consequences for the precision of the agreements concluded.<sup>80</sup> Agreements are not only more likely to be more detailed—and therefore longer—but also more precise, albeit in ways that substantially vary from one democratic RO to another. In their large-N study of PTAs, Allee and Elsig (2017) find that those concluded under larger veto-player constraints contain fewer liberalization commitments, weaker dispute-settlement mechanisms, and more opt-outs in the form of trade remedies.

Another body of work holds, meanwhile, that democracies are more open and science-oriented.<sup>81</sup> Democratic forms of government are more compatible with the universalism of science than autocratic regimes are. As Popper suggested, unconstrained scientific progress threatens to undermine the fragile historicist visions on which closed autocratic societies tend to be built.<sup>82</sup> This leads Merton to conclude that "anti-rationalism and the centralization of institutional control both serve to limit the scope provided for scientific activity."<sup>83</sup> Based on this logic, democracies should also be more open to IOs' scientific advice, an expectation that is supported by Katerina Linos's research.<sup>84</sup>

<sup>&</sup>lt;sup>76</sup> Tallberg, Sommerer, and Squatrito, 2016.

<sup>&</sup>lt;sup>77</sup> The level of democracy is not significant in the studies of: Hooghe and Marks 2015. Lenz and Burilkov 2017. Jetschke and Münch 2020. Panke, 2020. Schimmelfennig et al. 2020.

<sup>&</sup>lt;sup>78</sup> Tsebelis 2002. Mansfield, Milner, and Pevehouse, 2008. Allee and Elsig 2017. Debre 2020.

<sup>&</sup>lt;sup>79</sup> Mealy, Farmer, and Teytelboym 2019. Whetsell et al. 2021.

<sup>&</sup>lt;sup>80</sup> Abbott et al. 2000. Goldstein et al. 2000.

<sup>&</sup>lt;sup>81</sup> Whetsell et al., 2021.

<sup>&</sup>lt;sup>82</sup> Popper 1966.

<sup>&</sup>lt;sup>83</sup> Merton 1973, 278.

<sup>&</sup>lt;sup>84</sup> Linos, 2011.

Following this logic, the level of democratization among members could be both conducive to increasing similarity (in the science-oriented interpretation of democracy's effects) or contrariwise to lowering it (in the veto-player interpretation of the effects of democracy).

This results in the following hypothesis on similarity between RO<sub>i</sub> and RO<sub>j</sub>:

*Hypothesis 3*: Similarity is driven by the DOMESTIC CONSTRAINTS of RO<sub>j</sub>, as imposed by regime type.

We seek to demonstrate that these three identified factors together provide the best explanation for the institutional similarity among ROs. Following Holzinger et al.'s suggestion to test interactions among diffusion variables, we expect strong interactions between these three factors. This we also test for.

## 3.6 3.3 Alternative explanations: Functional demand, pressures of economic globalization, and legitimate organizations

We test our theory against three popular alternative explanations for organizational similarity: namely ones derived from rational institutionalism assuming independent decision-making, International Political Economy, and sociological institutionalism respectively. Rational institutionalism provides the undisputedly dominant explanation for the design of international institutions. It expects that similar institutional designs emerge where the underlying problems creating the demand are similar.<sup>85</sup> A second major explanation for variation in institutional designs favors the environmental context, most importantly international structures of interdependence. This factor is grounded in IPE approaches to institutional design.<sup>86</sup> We test two causal mechanisms through which globalization might affect institutional designs: competition and ratcheting-up (pressures of powerful markets). The first predicts that competition over the best "advantages of location<sup>\*\*7</sup> for investors leads to behavior seeking economic efficiency, spurs a selfselection process, and leads to the similarity of institutions and policies. In this decision, a RO's institutional design matters, as the promise of access to larger markets regulated by unified rules, a commitment to the rule of law, a uniform dispute-settlement mechanism, liberal norms guarding against arbitrary actions, or the promise of a better-educated workforce give ROs a competitive edge over peers.<sup>88</sup> One argument evolves around the role of foreign direct investment (FDI) as an important determinant of economic growth and development.<sup>89</sup>

The mechanism of ratcheting-up predicts that dominant market players set regulations for others who want to participate in that market.<sup>90</sup> The linking structure in the case of cross-regional diffusion is the global production networks set up by multinationals.<sup>91</sup> Ratcheting-up effects have been observed in many areas to which cooperation within ROs is committed, such as labor rights or production standards for multinational and domestic firms.<sup>92</sup> The distinct feature of the "ratcheting-up effect" is that the adopting ROs' preference to have market access in the sending ROs' jurisdiction is what drives the convergence effect.<sup>93</sup>

A third explanation for variation in the similarity of institutional design favors international normative expectations about proper organization, which are conveyed through IOs. This theory expects the cross-regional adoption of similar institutional designs among an extremely varying sets of organizations. Particular institutional designs become associated with and reflect culturally encoded institutions and broader trends in modern societies.

This results in the following hypotheses on similarity between RO<sub>i</sub> and RO<sub>j</sub>:

Hypothesis 4: Similarity is driven by the similar functional demands of RO<sub>i</sub> and RO<sub>j</sub>.

*Hypothesis 5a*: Similarity is driven by economic globalization-induced competition for FDI between RO<sub>i</sub> and RO<sub>j</sub>.

*Hypothesis 5b*: Similarity is driven by RO<sub>j</sub>'s economic globalization-induced ratcheting-up in the face of the market pressures of RO<sub>i</sub>.

*Hypothesis 6*: Similarity is driven by RO<sub>j</sub>'s status-seeking regarding social legitimation in IOs.

In the following, we argue that each of these alternative models misses important explanatory factors. The best explanatory model combines DEMAND, OPPORTUNITIES TO LEARN, and DOMESTIC CONSTRAINTS on adoption.

#### 4. Determinants of Similarity: Methods, Data, and Statistical Analysis

Our dependent variable is ROSI. As outlined in section 2, ROSI is a high-abstraction dyadic measure of the similarity between any two institutional configurations of ROs in our case universe; it is, in effect, a Jaccard measure of identically coded institutional-design features between two given configurations. ROSI can range from 0 (both configurations have no features in common) to 100 (both configurations share all design features), with the average score in the dataset at around 20 with a standard deviation of 5.5.<sup>94</sup>

Each dyad has a built-in directionality, in that one design is newer than the other. Logically, in each dyad only the newer design can be said to be influenced to varying degrees by the older one.<sup>95</sup>

Model 1 tests the relationship between institutional similarity and variables tied to functional demand and independent decision-making. We operationalize this notion through a distance measure between each pair of ROs, which indicates how similar two

<sup>&</sup>lt;sup>94</sup> Note that for the sake of readability of regression coefficients, we rescaled ROSI by a factor of 100 from its original specification, which limited its maximum to 1.

<sup>&</sup>lt;sup>95</sup> For a more elaborate explanation of ROSI's construction, see: Jetschke and Münch, 2020.

ROs' functional demands are. We use the absolute difference of intraregional trade as a percentage of gross domestic product.<sup>96</sup>

Model 2 tests for economic competition with RO<sub>i</sub>. We assume that most ROs strive toward becoming an attractive investment location, that they compete especially with those ROs whose economies have similar export structures, and that they evaluate their relative attractiveness per the absolute difference in FDI inflows as a percentage of GDP.<sup>97</sup> Competition makes the RO<sub>j</sub> with lower FDI inflows follow the lead of those RO<sub>i</sub> with higher ones. This hypothesis expects larger differences in FDI be associated with more similarity.

Model 3 tests for ratcheting-up, through FDI net outflows of RO<sub>i</sub>, the RO that is being emulated, and the FDI net inflows of RO<sub>j</sub>—both expressed as a percentage of GDP.<sup>98</sup> FDI net outflows of RO<sub>i</sub> are however not dyadic, but to the rest of the world. This variable is the best proxy available for the economic influence that a certain RO might have on others through foreign capital. At the same time, the FDI net inflows of RO<sub>j</sub> capture the value of inward direct investment made by nonresident investors in the reporting economy, and are a proxy for the activities of multinational firms as a linking mechanism (investing up). It also approximates for the ability of a region to attract investment.<sup>99</sup> We expect net FDI outflows of RO<sub>i</sub> to have a positive effect on similarity for the sender RO<sub>i</sub>, as it exports its institutional model downstream, and a positive effect of net FDI inflows for RO<sub>j</sub> as it "receives" institutional innovations through FDI ties.

Model 4 tests for the effects of system-wide trends on the similarity of institutional design through membership in IOs. We operationalize this through the monadic variable of political globalization.<sup>100</sup> We use data from the KOF Globalization Index, which measures the economic, social, and political dimensions of globalization.<sup>101</sup> The Political Globalization Index is the average of the "de facto" and the "de jure" politicalglobalization indices. The former has as subcomponents the absolute number of embassies in a country, UN peacekeeping missions, and the number of internationally

<sup>&</sup>lt;sup>96</sup> Palmer et al. 2020.

<sup>&</sup>lt;sup>97</sup> Deephouse and Carter, 2005, 331. Elkins, Guzman, and Simmons, 2006.

<sup>&</sup>lt;sup>98</sup> FDI and GDP were retrieved from the World Development Indicators and also transformed to constant 2010 USD.

<sup>&</sup>lt;sup>99</sup> Perkins and Neumayer 2012. Note that in contrast to models 1 and 2, these variables are absolute rather than relational measures, as our hypotheses are not predicated on RO<sub>i's</sub> and RO<sub>j</sub>'s relative positions.
<sup>100</sup> Lee and Strang, 2006.

<sup>&</sup>lt;sup>101</sup> Gygli et al. 2019.

oriented NGOs operating in that country. The latter comprises the number of IOs in which a country is member, international treaties signed between two or more states and ratified by the highest legislative body of each country since 1946, and the number of distinct treaty partners of a country with bilateral investment ties. We calculate the average political globalization index for each RO. We expect that a sender RO<sub>i</sub> with higher degrees of political globalization will have more chance of having their institutional designs picked up by IOs (increasing their similarity scores), which then disseminate these designs as legitimate models to other RO<sub>i</sub>s.

Model 5 tests for a combination of demand, opportunities to learn, and constraints. We operationalize demand as economic complexity, using the Economic Complexity Index computed by the Observatory of Economic Complexity. The index is based on the composition of a country's productive output, which reflects the quality of networks and transmission of knowledge necessary to produce complex goods. In our sample, the index is aggregated at the RO level according to the average score among member states. It ranges from -2.2 to +1.8, where the higher the index, the greater the RO's economic complexity. We conceptualize opportunities to learn using the KOF Political Globalization Index. To operationalize constraints for either the sending or the target RO of each dyad, the analysis relies on the Polity IV data that measures the level of democracy).<sup>102</sup> The aggregation to the RO level adds the individual country scores and divides them by the number of total members at the time of treaty establishment.

In all models, we included both country-level controls, such as GDP per capita and population growth, and RO-specific variables, such as the ratio of overlapping states. According to the initial regressions, however, they were found to be consistently nonsignificant throughout the specifications. Therefore, we have omitted them from the final regressions. Table 1 gives an overview of the number of observations, the average, standard deviation, and minimum and maximum values for each independent variable.

<sup>&</sup>lt;sup>102</sup> Marshall, Gurr, and Jaggers 2017.

Variable	Obser- vations	Mean	Std. Dev.	Min	Max
ROSI	5,188	14.232	6.305	0	50.895
Absolute difference in intraregional trade as % of GDP	5,188	6.944	7.243	0	39.649
Absolute difference in mean index of economic complexity	4,811	0.890	0.667	0	3.086
Mean FDI net outflows as percentage of GPD (by RO) (i)	5,139	8.692	28.109	-10.685	507.131
Mean FDI net inflows as percentage of GPD (by RO) (j)	5,147	9.264	22.260	-0.430	170.058
Mean index of political globalization (i)	5,188	61.021	15.538	26.299	94.491
Mean index of political globalization (j)	5,188	56.659	15.892	27.228	91.344
Mean index of economic complexity (i)	5,093	0.026	0.842	-2.185	1.782
Mean index of economic complexity (j)	4,903	-0.129	0.770	-1.488	1.615
Mean democracy score (i)	5,188	5.792	3.076	0	10
Mean democracy score (j)	5,188	4.734	3.088	0	10

Table 1: Descriptive Statistics for the Dependent and Independent Variables

To explain the similarity of institutional designs among ROs we perform regression analyses, testing competing theoretical models and our main specification, which combines the three factors: DEMAND, OPPORTUNITY TO LEARN, and DOMESTIC CON-STRAINTS. As described in the previous section, the dataset constructed to assess the similarity index consists of the population of ROs since the beginning of their establishment. However, we restrict the time observations when performing the regressions, due to data-availability limitations for the explanatory variables. Thereby, the panel dataset used for the econometric analyses consists of 78 ROs, ranging from the period 1960 to 2015, which results in a total of 5,188 pair-wise observations. Equation (1) presents a general specification for the regression equations.

$$ROSI_{ijt} = X_{it}\beta + X_{jt}\gamma + \tau_t + \varepsilon_{ijt}$$
(1)

The similarity index of the RO<sub>i</sub>-RO<sub>j</sub> pair at period *t*,  $ROSI_{ijt}$ , is explained by two sets of explanatory variables describing each RO,  $X_i$  and  $X_j$ , which differ according to the analyzed model. In all regressions, we apply a fixed-effects estimation method to avoid potential endogeneity issues from RO-specific unobserved heterogeneity. We further tackle endogeneity concerns with the inclusion of time dummy  $\tau_t$ .

	Functional Form	Competition	Ratcheting-Up	Social Legitimacy	DOC Model
Variables	(1)	(2)	(3)	(4)	(5)
Absolute difference in intraregional trade as % of GDP	0.016				
	(0.025)				
Abs. difference in mean index of economic complexity		0.427			
		(0.417)			
Mean FDI net outflows as percentage of GPD (by RO)			-0.000		
i			(0.002)		
Mean FDI net inflows as percentage of GPD (by RO)			0.008***		
j			(0.003)		
Mean index of political globalization i				0.035**	0.025
				(0.016)	(0.019)
Mean index of political globalization j				0.196***	0.170***
				(0.022)	(0.029)
Mean index of economic complexity i					-0.868
					(0.528)
Mean index of economic complexity j					0.766
					(0.684)
Mean democracy score i					0.272**
					(0.109)
Mean democracy score j					0.107
					(0.191)
Observations	5,188	4,811	5,098	5,188	4,811
Adjusted R-squared	0.231	0.212	0.216	0.264	0.248
Number of pairs	2,607	2,428	2,594	2,607	2,428

Table 2: Determinants of Dyadic RO Similarity

Table 2 provides the results of our econometric analysis. The functional explanation (model 1) is not supported by the empirical results. The absolute differences in total trade do not have a significant impact on the similarity index. Likewise, the competition hypothesis (model 2) is not supported by the evidence. The coefficient is positive, indicating that larger instead of smaller differences in economic complexity are associated with greater similarity, which contradicts the expected association between the variables. Nonetheless, the coefficient is not significant at the usual confidence levels.

We find partial support for the "ratcheting-up" explanation in our data (model 3). While we expected FDI outflows to have a positive effect on similarity for sender RO<sub>i</sub>, this is not borne out by the data. The results undermine the notion that dominant players can disseminate their institutional models. We do find support, however, for net inflows of FDI for RO<sub>j</sub> being a driver of similarity. The result is also statistically significant, but the effect is rather small. For instance, a one standard deviation increase in the mean FDI inflows as a percentage of GDP in RO<sub>j</sub> increases ROSI by 0.178 on average.

The actually best-performing model based on existing explanations is the social-legitimation one (model 4). We find political globalization to be positive and highly significant for both RO<sub>i</sub> and RO<sub>i</sub>. For example, a one standard deviation increase in the mean political-globalization index for RO<sub>j</sub> is expected to increase the similarity index by around 3.115.

The estimation results of model 5 provide only partial support: economic DEMAND has the right sign (positive effect), but it is not statistically significant. We assumed that the more frequently learning OPPORTUNITIES for the target RO<sub>j</sub> arose, the closer it would get to others' designs, but that this logic would not apply to the sender RO<sub>i</sub>. This hypothesis is fully borne out by the data, as the regression coefficient for the political globalization of RO<sub>j</sub> is substantially large and statistically significant, while it is nonsignificant for RO<sub>i</sub>. Moving up one standard deviation from the mean of political globalization, for example, results in more than a three-point increase in similarity just from this one variable. Lastly, we stipulated that domestic CONSTRAINTS would play a major role in determining similarity, with a more democratic target RO<sub>j</sub> being less similar to the sender RO<sub>i</sub> because they are less open to the recommendations of IOs, and have to accommodate a more diverse set of societal preferences through more complex designs. We expect this effect to be positive for sender RO<sub>i</sub> since there are no domestic-level constraints on the "export" of one's own model, and we follow the social-legitimation logic that more legitimate organizations can spread their designs with greater ease. This hypothesis is only partially confirmed by the model. RO<sub>j</sub>'s has the wrong sign (negative), and is not significant. As expected, the effect is positive and significant for the sender RO<sub>i</sub>. Judging from model 5 alone, one would actually assume that sociological institutionalism predicts the similarity of institutional designs best: the most legitimate institutional forms exert high adaptation pressures on younger RO<sub>j</sub>s.

To further investigate why our preferred model only receives partial empirical support, we break down the effects of the variables of interest by including interaction terms among them. In this case, the results change substantially and in ways fully consistent with our expectations. We present the estimation results of the DOC model with interactions in the Appendix 2. However, the magnitude of the coefficients is more readily interpretable when accounting for the marginal effects of the related variables, as presented in Table 3 below.

	All Interactions	RO <sub>i</sub> Interactions	RO <sub>j</sub> Interactions
	(1)	(2)	(3)
Economic complexity (i)	-1.372**	-1.307**	-0.913*
	(0.590)	(0.600)	(0.525)
Economic complexity (j)	1.784**	0.731	1.957**
	(0.764)	(0.664)	(0.783)
Political globalization (i)	0.044**	0.040*	0.029
	(0.022)	(0.022)	(0.020)
Political globalization (j)	0.227***	0.170***	0.222***
	(0.032)	(0.029)	(0.033)
Democracy (i)	0.090	0.112	0.258**
	(0.112)	(0.112)	(0.109)
Democracy (j)	-0.170	0.111	-0.161
	(0.208)	(0.191)	(0.210)
Observations	4,811	4,811	4,811

Table 3: Marginal Effects at Mean Values of the Covariates

**Notes:** All the regressions include time dummies to control for time-varying unobserved heterogeneous effects. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

*First*, including the interaction effects substantially increases the effect size of RO<sub>j</sub>'s economic complexity, which is now statistically significant. In column (3), when only RO<sub>j</sub> interactions are included, a one standard deviation increase in economic complexity increases the similarity index by more than one point. At the same time, the opposite occurs when the economic complexity of the RO<sub>i</sub> increases by the same magnitude, as the similarity index is expected to fall by around one point. Our interpretation is that more economically complex ROs adopt more detailed and complex designs to support this greater complexity, which in turn makes it more difficult for

other regions to copy such designs. Furthermore, the interaction of economic complexity and democracy is statistically significant, as depicted in **Fehler! Verweisquelle konnte nicht gefunden werden.**A2 in Appendix 2 (columns (2) and (4)). Figure 3 indicates the effect of economic complexity in RO<sub>j</sub> for different levels of democracy in RO<sub>j</sub>. There seems to be a positive relationship between the variables: the greater the level of democracy, the higher the impact of economic complexity on the similarity index. In fact, the effect of economic complexity is only positive and significant for democratic RO<sub>j</sub>s.

Figure 3. Marginal Effects of Economic Complexity at Specific Levels of Democracy of the newer RO in the Dyad (with 95% Confidence Intervals)



*Second*, political globalization has a positive and significant effect for RO<sub>j</sub> interactions. For instance, in column (3) of table 3, a one standard deviation increase in political globalization is expected to have the same aforementioned three-point increase in the similarity index, evidencing the result's robustness. The interaction between political complexity and economic complexity for RO<sub>j</sub> is also significant. As shown by Figure 4 below, there is a negative relationship between the variables: political globalization has a positive effect on similarity for lower levels of economic complexity and a negative one for highly complex economies. We suspect that there is a substitution effect between the two variables, where political globalization is a more decisive element for low-complexity economies and its importance gradually decreases as they grow more complex. This aligns the sociological-institutionalist view with our demand-driven explanation, as a special case: that is, at very low levels of demand, meaning when RO<sub>j</sub>'s economic complexity is low, the effects of political globalization are at their highest.

Figure 4. Marginal Effects of Political Globalization at Specific Levels of Economic Complexity of the Copying RO in the Dyad (with 95% Confidence Intervals)



*Lastly*, even though democracy levels do not seem to be relevant predictors of similarity in the overall sample, their effects are significant for ROs with higher levels of political globalization. According to the decomposition of marginal effects, the greater the level of political globalization, the higher the impact of democracy on the similarity index (as depicted in Figure 5). This is consistent with our expectation for RO<sub>j</sub>s with lower levels of political globalization: here, domestic groups do not have access to exogenous information, which in turn provides veto players with more leverage.

Figure 5. Marginal Effects of Democracy at Specific Levels of Political Globalization of the Newer RO in the Dyad (with 95% Confidence Intervals)



#### Robustness Checks

To assess the stability of the results, we run a series of robustness checks with subsample analyses. For historical reasons, we consider the year 1990 to mark a paradigm shift with respect to the global diffusion of institutional designs, having significantly increased thereafter. Hence, we run three additional regressions with the DOC model: for the years before and after 1990, and with the inclusion of a dummy to capture the differences between these periods.<sup>103</sup> The results are presented in Table 4 below.

	Years before 1990	Years 1990 and after	Before 1990 dummy
Variables	(1)	(2)	(3)
Mean index of political globalization i	0.065	0.001	0.025
	(0.051)	(0.026)	(0.019)
Mean index of political globalization j	-0.028	0.284***	0.170***
	(0.036)	(0.039)	(0.029)
Mean index of economic complexity i	-0.051	0.013	-0.868
	(1.846)	(0.615)	(0.528)
Mean index of economic complexity j	-2.758	-0.362	0.766

Table 4: Robustness Checks (Subsample Analysis for Different Time Periods)

<sup>103</sup> The dummy "before 1990" takes the value of 1 for the period before 1990 and 0 otherwise.

	(2.319)	(1.289)	(0.684)
Mean democracy score i	0.293	0.456***	0.272**
	(0.215)	(0.147)	(0.109)
Mean democracy score j	0.566*	-0.892***	0.107
	(0.337)	(0.202)	(0.191)
Before 1990 (dummy)			-0.102
			(1.354)
Observations	692	4,119	4,811
Adjusted R-squared	0.067	0.202	0.248
Number of pairs	579	2,217	2,428

**Notes:** All the regressions include time dummies to control for time-varying unobserved heterogeneous effects. Robust standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

In line with our expectations, there is an express difference between the periods before and after 1990, columns (1) and (2) respectively. While economic complexity remains nonsignificant in both cases, political globalization of RO<sub>j</sub> and democracy of RO<sub>i</sub> are only statistically significant for the period after 1990. At the same time, democracy levels of the copying RO<sub>j</sub> change in sign and magnitude between the periods, even though the positive and negative effects associated with the variable seem to be cancelled out in the overall sample, as depicted in column (3). Together with the stark increase in the number of observations, such results corroborate the idea that the diffusion of institutional designs among ROs dramatically intensified after 1990. Despite such variation, the initial results for the DOC model presented in Table 3, column (5), are robust when controlling for the difference in the time periods, represented by the inclusion of the "before 1990" dummy.

#### 5. Conclusion

In this paper we have offered a first, comprehensive analysis of the similarity of institutional designs among ROs based on a novel dataset evaluating a broad set of institutional-design characteristics over a large period of time. We have provided a novel theoretical model, and a rigorous test of alternative explanations. We draw three key conclusions:

- ROs share a relatively small but important amount of similarity regarding their institutional design, but the level thereof does not increase over time.<sup>104</sup> This is puzzling, especially for sociological-institutionalist explanations in the field, which expect an increase of similarity over time and convergence toward a dominant model like the EU's. More generally, it raises the question of whether diffusion affects institutional designs at all. Institutional designs do diffuse, but it is a process considerably determined by factors related to the adopting RO, rather than IO diffusion alone or the sending RO.
- The effect of political globalization is conditional. Political globalization is one important determinant of diffusion, but it is more of a substitute for ROs that do not have genuine demand in the form of having complex economies, and it is more relevant for democratic ROs.
- 3. Democracy is an important determinant of diffusion, but not one that has uniform effects. At low levels of political globalization, the effect of democracy on the level of similarity is negative. Politically globalized, democratic ROs are, however, more likely to develop similar designs. We also find that democratic ROs do spread their designs; at the same time, economically complex ROs have designs that others struggle to adopt. This makes organizations like the EU ambivalent models.

Future research could corroborate these findings in several ways: *First*, it could test the model using subindices as dependent variables. Logics might be different for the diffusion of international norms, policy areas, and institutions. Given the variation among our ROs concerning the norms that they commit to—such as liberal, Westphalian, and social-justice ones—it would be highly interesting to see whether the commitment to more liberal norms is associated with our key variables. In this case, it would make sense to use scores generated from a factor analysis as dependent variables. Similarly, it might be that policies—with the dimensions of economic-location factors, social progress, and conflict prevention—might covary with our key variables. This would help generalize and differentiate the model on various aspects of institutional design. *Second*, more research is needed on the role of IOs. There is a conditional effect of democracy on political globalization on the one hand, where democracy apparently has different effects if societies are more open; and there is evidence that IOs recommend specific institutions and policies based on scientific evidence on the other. Our model assumes that IOs are spreading scientific evidence on effective institutional designs. Yet, more direct measures hereof would be highly

<sup>&</sup>lt;sup>104</sup> Koremenos, Lipson, and Snidal, 2001.

desirable. These could be generated, for example, through a citation network analysis. This could effectively shed light on the question whether IOs convey legitimate standards which are mimicked, or whether they convey evidence-based standards, which are adopted because they provide workable solutions. In sum, there is still much to do.

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## Appendix 1

#	Name	Abbreviation	Establishment			
Africa	Africa					
4			1000			
1	Arab Magnreb Union	AMU	1989			
2	African Union	AU	2002			
	African Economic Community	AEC	1991-2001			
	Organization of African Unity	OAU	1963-2002			
	Monrovia Group	-	1961-1963			
	Casabianca Group	-	1961-1963			
3	Union of Central African States	CAU	1968-1981			
4	Council of the Entente	CDLE	1959			
5	Central African Economic and Monetary Community	CEMAC	1994			
		UDEAC	1964-1994			
6	Community of Sahel-Saharan States	CEN-SAD (also COMESSA)	1998			
7	Economic Community of Great Lake Countries	CEPGL	1976-2004			
8	Common Market for Eastern and Southern Africa	COMESA	1993			
9	East African Community	EAC	2000			
	East African Co-operation	EAC	1993-2000			
	East African Community	EAC	1967-1977			
	East African Common Services Organization	EACSO	1961-1967			
	East African High Commission	EAHC	1948-1961			
10	Economic Community of Central African States	ECCAS	1983			
11	Economic Community of West African States	ECOWAS	1975			
12	Inter-Governmental Authority on Development	IGAD	1996			
	Intergovernmental Authority on Drought and Development	IGADD	1986-1996			
13	Indian Ocean Commission	IOC	1984			
14	Liptako-Gourma Integrated Authority	LGA	1971			
15	Mano River Union	MRU	1973			
16	African and Mauritanian Common Organization/ Organisation	OCAM	1982-1985			
	commune africaine et mauricienne					
	African and Malagasy Common Organization	OCAM	1965-1982			
	Afro-Malagasy Union for Economic Cooperation	UAMCE	1964-1965			
	African and Malagasy Union	UAM	1961-1964			
	Brazzaville Group	-	1960-1961			
17	Southern African Development Community	SADC	1992			
	Southern African Development Coordination Conference	SADCC	1980-1992			
	Frontline States	Frontline States	1975-1980			
18	West African Economic and Monetary Union	UEMOA	1994			
	Union Douanière des Etats de l'Afrique Occidentale	UDEAO	1959-1974			
	Union Monétaire Quest Africaine	UMOA	1962			
	Communauté Économique de l'Afrique de l'Ouest	CEAO	1974-1994			
Americas						
19	Association of Caribbean States	ACS	1994			
20	Amazon Cooperation Treaty Organization	ACTO	1998			
-	Amazon Cooperation Treaty	ACT (TCA)	1978-1998			
21	Alianza Bolivariana para los pueblos de nuestra America	ALBA	2004			
22	Alianza del Pacifico/ Pacific Alliance	AP	2011			
23	Andean Community	CAN	1996			
	Andean Pact / Acuerdo de Cartagena / Andean Group	-	1969-1996			
24	Caribbean Community	CARICOM	1973			
	Caribbean Free Trade Aareement	CARIFTA	1965-1973			

Table A1: List of Regional Organizations in the sample

25	Community of Latin American and Caribbean States	CELAC	2010
	Rio Group / LAC Summit on Integration and Development	CALC	1986-2010
26	Caribbean Organization	СО	1961-1965
	Caribbean Commission	СС	1946-1961
27	Central American Democratic Community	CDC	1982-1987
28	Latin American Integration Association	LAIA	1980
	Latin American Free Trade Association	LAFTA	1960-1980
29	Southern Common Market	MERCOSUR	1991
30	North American Free Trade Agreement	NAFTA	1992
31	Organization of American States	OAS	1948
32	Organization of Eastern Caribbean States	OECS	1981
	West Indies Associated States Council of Ministers	WISA Council	1966-1981
	East Caribbean Common Market	ECCM	1968-1981
33	Central American Parliament	PARLACEN	1989
34	Latin American and Caribbean Economic System	SELA	1975
35	Central American Integration System	SICA	1991
	Organization of Central American States	ODECA	1951-1991
	Central American Common Market	CACM	1960-1980s
36	Union of South American Nations	UNASUR	2008
	Comunidad Suramericana de Naciones	CSN	2004-2008
Asia-l	2901110		
37	Association of Southeast Asian Nations	ASEAN	1967
	Association of Southeast Asia	ASA	1961-1967
	Southeast Asian Friendship and Economic Treaty	SEAFET	1957-1961
38	Cooperation Council of Turkic Speaking States	CCTS	2009
39	Central Treaty Organization/ Bagdad Pact	CENTO	1955-1979
40	Colombo Plan for Cooperative Economic and Social Develop-	CPS	1977
	ment in Asia and the Pacific		
	Colombo Plan for Cooperative Economic Development in	СР	1950-1977
	South and Southeast Asia		
41	Economic Cooperation Organization	ECO	1985
	Regional Cooperation for Development	RCD	1964-1979
42	Indian Ocean Rim-Association for Regional Cooperation	IORA	1997
	Indian Ocean Rim Initiative	IOR – ARC	1995-1997
43	Melanesian Spearhead Group	MSG	1993
44	Pacific Community	PC	1997
	South Pacific Commission	SPC	1947-1997
45	Pacific Islands Forum (Secretariat)	PIF	1973
46	South Asian Association for Regional Cooperation	SAARC	1983
47	Shanghai Cooperation Organization	SCO	2001
		Shanghai Five	1996-2001
Euras	ia		
40	Over significant of Direct Constraints Constraints		1002
48	Organization of Black Sea Economic Cooperation	BSEC	1992
49	Commonwealth of Independent States		1991
50			1949-1991
51	Eurasian Economic Onion		2015
	Eurosian Economic Community	EAEC/ EURASEC	2000-2014
	Central Asian Economic Cooperation		1008-2000
	Central Asian Economic Union	CAEL	1996-2002
	Central Asian Economic Union Organization of Central Asian Coonstation		1994-1998
E2	Union State/ Community of Polarys and Pussia	Union State	1991-1994
52	omon state, community of belai us and Russia		1990
Europ	e		
53	Arctic Council	AC	1996

		AEPS	1991-1996			
54	Baltic Assembly	BA	1991			
55	Baltic Sea Parliamentary Conference	BSPC	1991			
56	Benelux Union	BU	1944			
	Belgium–Luxembourg Economic Union	BLEU	1921-2002			
57	Council of the Baltic Sea States	CBSS	1992			
58	Council of Europe	CE	1949			
59	Central European Initiative	CEI	1989			
60	European Free Trade Association	EFTA	1960			
61	European Union	EU	1994			
	European Coal and Steel Community	ECSC	1951-1958			
	European Economic Community	EEC	1958-1994			
62	Organization for Democracy and Economic Development	GUAM	2001			
63	North Atlantic Treaty Organization	NATO	1949			
64	Nordic Council	NC	1952			
65	Organization for Security and Cooperation in Europe Confer-	OSCE	1995			
	ence for Security and Cooperation in Europe	CSCE	1975-1994			
66	Regional Cooperation Council	RCC	2008			
	Stability Pact for South Eastern Europe	SPSEE	1999-2008			
67	South East European Cooperation Process	SEECP	1996			
68	Union for the Mediterranean	UFM	2008			
	Euro-Mediterranean Partnership (Barcelona Process)	Euro-Med	1995-2008			
69	Western European Union	WEU	1948-2011			
	Brussels Treaty Organization		1948-1954			
70	West Nordic Council	WNC	1985			
Midd	le East					
71	Arab Cooperation Council	ACC	1989-1991			
72	Gulf Cooperation Council	GCC	1981			
73	League of Arab States	LAS	1945			
	Council of Arab Economic Unity	CAEU	1957			
74	Organization of Islamic Conference	OIC	1969			
Trans	Transcontinental					
75	African, Caribbean and Pacific Group	ACP	1975			
76	International Labour Organization	ILO	1919			
77	Organization for Economic Cooperation and Development	OECD	1961			
	Organization for European Economic Co-operation	OEEC	1948-1961			
78	United Nations	UN	1945			
	League of Nations	LN	1919-1946			
79	United Nations Development Programme	UNDP	1965			
80	World Trade Organization	WTO	1994			
	General Agreement on Tariffs and Trade	GATT	1948-1994			

### Appendix 2

	DOC	DOC model with interaction effects		
Variables	(1)	(2)	(3)	(4)
Mean index of political globalization i	0.025	0.079**	0.075**	0.029
	(0.019)	(0.031)	(0.031)	(0.020)
Mean index of political globalization j	0.170***	-0.028	0.170***	-0.023
	(0.029)	(0.041)	(0.029)	(0.041)
Mean index of economic complexity i	-0.868	1.317	1.244	-0.913*
	(0.528)	(1.178)	(1.198)	(0.525)
Mean index of economic complexity j	0.766	17.607***	0.731	17.607***
	(0.684)	(2.062)	(0.665)	(2.084)
Mean democracy score i	0.272**	0.447	0.471	0.258**
	(0.109)	(0.292)	(0.295)	(0.109)
Mean democracy score j	0.107	-2.543***	0.111	-2.423***
	(0.191)	(0.514)	(0.191)	(0.519)
Economic complexity i * democracy i		-0.104	-0.084	
		(0.118)	(0.117)	
Democracy i * political globalization i		-0.006	-0.006	
		(0.005)	(0.005)	
Political globalization i * economic complexity i		-0.034	-0.034	
		(0.024)	(0.024)	
Economic complexity j * democracy j		1.018***		1.059***
		(0.242)		(0.246)
Democracy j * political globalization j		0.043***		0.042***
		(0.007)		(0.007)
		-0.359***		-0.360***
Political globalization j * economic complexity j		(0.041)		(0.041)
Observations	4,811	4,811	4,811	4,811
R-squared	0.248	0.299	0.256	0.290
Number of pairs	2,428	2,428	2,428	2,428
Time dummies	YES	YES	YES	YES

Table A2: Regression Results with Interactions

**Notes:** *i* indicates an older organization in the dyad, *j* a newer one. All regressions include time dummies to control for time-varying unobserved heterogeneous effects. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.